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WAC 365-196-425

Rural element.

Counties must include a rural element in their comprehensive plan. This element shall include lands that are not designated for urban growth, agriculture, forest, or mineral resources. The rural element shall permit land uses that are compatible with the rural character of such lands and provide for a variety of rural densities.

(1) Developing a written record. When developing the rural element, a county may consider local circumstances in establishing patterns of rural densities and uses, but must develop a written record explaining how the rural element harmonizes the planning goals in the act and meets the requirements of the act. This record should document local circumstances the county considered and the historic patterns of development in the rural areas.

(2) Establishing a definition of rural character.

(a) The rural element shall include measures that apply to rural development and protect rural character. Counties must define rural character to guide the development of the rural element and the implementing development regulations.

(b) The act identifies rural character as patterns of land use and development that:

(i) Allow open space, the natural landscape, and vegetation to predominate over the built environment;

(ii) Foster traditional rural lifestyles, rural-based economies, and opportunities to both live and work in rural areas;

(iii) Provide visual landscapes that are traditionally found in rural areas and communities;

(iv) Are compatible with the use of land by wildlife and for fish and wildlife habitat;

(v) Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development;

(vi) Generally do not require the extension of urban governmental services; and

(vii) Are consistent with protection of natural surface water flows and ground water and surface water recharge and discharge areas.

(c) Counties should adopt a locally appropriate definition of rural character. Rural areas are diverse in visual character and in density, across the state and across a particular county. Rural development may consist of a variety of densities and uses. It may, for example, include clustered residential development at levels consistent with the preservation of rural character. Counties should define rural development both in terms of its visual character and in terms of the density and intensity of uses. Defining rural development in this way allows the county to use its definition of rural development both in its future land use designations and in its development regulations governing rural development.

(3) Rural densities.

(a) The rural element should provide for a variety of densities that are consistent with the pattern of development established in its definition of rural character. The rural comprehensive plan designations should be shown on the future land use map. Rural densities are a range of densities that:

(i) Are compatible with the primary use of land for natural resource production;

(ii) Do not make intensive use of the land;

(iii) Allow open space, the natural landscape, and vegetation to predominate over the built environment;

(iv) Foster traditional rural lifestyles, rural-based economies, and opportunities to both live and work in rural areas;

(v) Provide visual landscapes that are traditionally found in rural areas and communities;

(vi) Are compatible with the use of the land by wildlife and for fish and wildlife habitat;

(vii) Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development;

(viii) Generally do not require the extension of urban governmental services;

(ix) Are consistent with the protection of natural surface water flows and ground water and surface water recharge and discharge areas; and

(x) Do not create urban densities in rural areas or abrogate the county's responsibility to encourage new development in urban areas.

(b) Counties should perform a periodic analysis of development occurring in rural areas, to determine if patterns of rural development are protecting rural character and encouraging development in urban areas. This analysis should occur along with the urban growth area review required in RCW **36.70A.130** (3)(a). The analysis may include the following:

(i) Patterns of development occurring in rural areas.

(ii) The percentage of new growth occurring in rural versus urban areas.

(iii) Patterns of rural comprehensive plan or zoning amendments.

(iv) Numbers of permits issued in rural areas.

(v) Numbers of new approved wells and septic systems.

(vi) Growth in traffic levels on rural roads.

(vii) Growth in public facilities and public services costs in rural areas.

(viii) Changes in rural land values and rural employment.

(ix) Potential build-out at the allowed rural densities.

(x) The degree to which the growth that is occurring in the rural areas is consistent with patterns of rural land use and development established in the rural element.

(4) Rural governmental services.

(a) Rural governmental services are those public facilities and services historically and typically delivered at intensities usually found in rural areas, and may include the following:

(i) Domestic water system;

(ii) Fire and police protection;

(iii) Transportation and public transportation; and

(iv) Public utilities, such as electrical, telecommunications and natural gas lines.

(b) Rural services do not include storm or sanitary sewers. Urban governmental services that pass through rural areas when connecting urban areas do not constitute an extension of urban services into a rural area provided those public services are not provided in the rural area. Sanitary sewer service may be provided only if it:

(i) Is necessary to protect basic public health and safety and the environment;

(ii) Is financially supportable at rural densities; and

(iii) Does not permit urban development.

(c) When establishing levels of service in the capital facilities and transportation element, each county should establish rural levels of service, for those rural services that are necessary for development, to determine if it is providing adequate public facilities. Counties are not required to use a single level of service for the entire rural area and may establish varying levels of service for public services in different rural areas. Where private purveyors or other public entities provide rural services, counties should coordinate with them to establish and document appropriate levels of service.

(d) Rural areas typically rely on natural systems to adequately manage stormwater and typically rely on on-site sewage systems to treat wastewater. Development in rural areas also typically relies on individual wells, exempt wells or small water systems for water. Counties should ensure the densities it establishes in rural areas do not overwhelm the ability of natural systems to provide these services without compromising either public health or the vitality of the surrounding ecosystem.

(e) Rural road systems are not typically designed to handle large traffic volumes. Local conditions may influence varying levels of service for rural road system, and level of service standards for rural arterials should be set accordingly. Generally, level of service standards should reflect the expectation

that high levels of local traffic and the associated road improvements are not usually associated with rural areas.

(f) Levels of public services decrease, and corresponding costs increase when demand is spread over a large area. This is especially true for public safety services and both school and public transportation services. Counties should provide clear expectations to the public about the availability of rural public services. Counties should ensure the densities it establishes in rural areas do not overwhelm the capacity of rural public services.

(5) Innovative zoning techniques.

(a) Innovative zoning techniques allow greater flexibility in rural development regulations to create forms of development that are more consistent with rural character than forms of development generated by conventional large-lot zoning. Innovative zoning techniques may allow forms of rural development that:

(i) Result in rural development that is more visually compatible with the surrounding rural areas;

(ii) Maximize the availability of rural land for either resource use or wildlife habitat;

(iii) Increase the operational compatibility of the rural development with use of the land for resource production;

(iv) Decrease the impact of the rural development on the surrounding ecosystem;

(v) Does not allow urban growth; and

(vi) Does not require the extension of urban governmental services.

(b) Rural clusters. One common form of innovative zoning technique is the rural cluster. A rural cluster can create smaller individual lots than would normally be allowed in exchange for open space that preserves a significant portion of the original parcel.

(i) When calculating the density of development for zoning purposes, counties should calculate density based on the number of dwelling units over the entire development parcel, rather than the size of the individual lots created.

(ii) The open space portion of the original parcel should be held by an easement, parcel or tract for open space or resource use. This should be held in perpetuity, without an expiration date.

(iii) If a county allows bonus densities in a rural cluster, the resulting density after applying the bonus must be a rural density.

(iv) Rural clusters may not create a pattern of development that relies on or requires urban governmental services. Counties should establish a limit on the size of the residential cluster so that a cluster does not constitute urban growth in a rural area. A very large project may create multiple smaller clusters that are separated from each other and use a different access point to avoid creating a pattern of development that would constitute urban growth.

(v) Development regulations governing rural clusters should include design criteria that preserve rural visual character.

(6) Limited areas of more intense rural development. The act allows counties to plan for isolated pockets of more intense development in the rural area. These are referred to in the act as limited areas of more intense rural development or LAMIRDs.

(a) LAMIRDs serve the following purposes:

(i) To recognize existing areas of more intense rural development and to minimize and contain these areas to prevent low density sprawl;

(ii) To allow for small-scale commercial uses that rely on a rural location;

(iii) To allow for small-scale economic development and employment consistent with rural character; and

(iv) To allow for redevelopment of existing industrial areas within rural areas.

(b) An existing area or existing use is one that was in existence on the date the county became subject to all of the provisions of the act:

(i) For a county initially required to fully plan under the act, on July 1, 1990.

(ii) For a county that chooses to fully plan under the act, on the date the county adopted the resolution under RCW **36.70A.040**(2).

(iii) For a county that becomes subject to all of the requirements of the act under RCW **36.70A.040**(5), on the date the office of financial management certifies the county's population.

(c) Counties may allow for more intensive uses in a LAMIRD than would otherwise be allowed in rural areas and may allow public facilities and services that are appropriate and necessary to serve LAMIRDs subject to the following requirements:

(i) Type 1 LAMIRDs - Isolated areas of existing more intense development. Within these areas, rural development consists of infill, development, or redevelopment of existing areas. These areas may include a variety of uses including commercial, industrial, residential, or mixed-use areas. These may be also characterized as shoreline development, villages, hamlets, rural activity centers, or crossroads developments.

(A) Development or redevelopment in LAMIRDs may be both allowed and encouraged provided it is consistent with the character of the existing LAMIRD in terms of building size, scale, use, and intensity. Counties may allow new uses of property within a LAMIRD, including development of vacant land.

(B) When establishing a Type I LAMIRD, counties must establish a logical outer boundary. The purpose of the logical outer boundary is to minimize and contain the areas of more intensive rural development to the existing areas. Uses, densities or intensities not normally allowed in a rural area may be allowed inside the logical outer boundary consistent with the existing character of the LAMIRD. Appropriate and necessary levels of public facilities and services not otherwise provided in rural areas may be provided inside the logical outer boundary.

(C) The logical outer boundary must be delineated primarily by the built environment as it existed on the date the county became subject to the planning requirements of the act.

(I) Some vacant land may be included within the logical outer boundary provided it is limited and does not create a significant amount of new development within the LAMIRD.

(II) Construction that defines the built environment may include above or below ground improvements. The built environment does not include patterns of vesting or preexisting zoning, nor does it include roads, clearing, grading, or the inclusion within a sewer or water service area if no physical improvements are in place. Although vested lots and structures built after the county became subject to the act's requirements should not be considered when identifying the built environment, they may be included within the logical outer boundary as infill.

(III) The logical outer boundary is not required to strictly follow parcel boundaries. If a large parcel contains an existing structure, a county may include part of the parcel in the LAMIRD boundary without including the entire parcel, to avoid a significant increase in the amount of development allowed within the LAMIRD.

(D) The fundamental purpose of the logical outer boundary is to minimize and contain the LAMIRD. Counties should favor the configuration that best minimizes and contains the LAMIRD to the area of existing development as of the date the county became subject to the planning requirements of the act. When evaluating alternative configurations of the logical outer boundary, counties should determine how much new growth will occur at build out and determine if this level of new growth is consistent with rural character and can be accommodated with the appropriate level of public facilities and public services. Counties should use the following criteria to evaluate various configurations when establishing the logical outer boundary:

(I) The need to preserve the character of existing natural neighborhoods and communities;

(II) Physical boundaries such as bodies of water, streets and highways, and land forms and contours;

(III) The prevention of abnormally irregular boundaries; and

(IV) The ability to provide public facilities and public services in a manner that does not permit low-density sprawl.

(E) Once a logical outer boundary has been adopted, counties may consider changes to the boundary in subsequent amendments. When doing so, the county must use the same criteria used when originally designating the boundary. Counties should avoid adding new undeveloped parcels as infill, especially if doing so would add to the capacity of the LAMIRD.

(ii) Type 2 LAMIRDs - Small-scale recreational uses. Counties may allow small-scale tourist or recreational uses in rural areas. Small-scale recreational or tourist uses rely on a rural location and setting and need not be principally designed to serve the existing and projected rural population.

(A) Counties may allow small-scale tourist or recreational uses through redevelopment of an existing site, intensification of an existing site, or new development on a previously undeveloped site, but not new residential development. Counties may allow public services and facilities that are limited to those necessary to serve the recreation or tourist uses and that do not permit low-density sprawl. Small-scale recreational or tourist uses may be added as accessory uses for resource-based industry. For accessory uses on agricultural lands of long-term commercial significance, see WAC **365-196-815**.

(B) Counties are not required to designate Type 2 LAMIRDs on the future land use map and may allow them as a conditional use. If using a conditional use process, counties should include in their development regulations conditions that address all the statutory criteria for the location of a Type 2 LAMIRD. Conditions must assure that Type 2 LAMIRDs:

(I) Are isolated, both from urban areas and from each other. Conditions should include spacing criteria to avoid creating a pattern of strip development;

(II) Are small in scale;

(III) Are consistent with rural character;

(IV) Rely on a rural location or a natural setting;

(V) Do not include new residential development;

(VI) Do not require services and facilities beyond what is available in the rural area; and

(VII) Are operationally compatible with surrounding resource-based industries.

(iii) Type 3 LAMIRDs - Small-scale businesses and cottage industries. Counties may allow isolated small-scale businesses and cottage industries that are not principally designed to serve the existing and projected rural population and nonresidential uses, but do provide job opportunities for rural residents, through the intensification of development on existing lots or on undeveloped sites.

(A) Counties may allow the expansion of small-scale businesses in rural areas as long as those small-scale businesses are consistent with the rural character of the area as defined by the county in the rural element. Counties may also allow new small-scale businesses to use a site previously occupied by an existing business as long as the new small-scale business conforms to the rural character of the area. Any public services and public facilities provided to the cottage industry or small-scale business must be limited to those necessary to serve the isolated nonresidential use and shall be provided in a manner that does not permit low-density sprawl.

(B) Counties are not required to designate Type 3 LAMIRDs on the future land use map and may allow them as a conditional use. If using a conditional use process, counties should include in their development regulations conditions that address all the statutory criteria for the location of a Type 3 LAMIRD. Conditions must assure that Type 3 LAMIRDs:

(I) Are isolated, both from urban areas and from each other. Conditions should include spacing criteria to avoid creating a pattern of strip development;

(II) Are small in scale;

(III) Are consistent with rural character;

(IV) Do not include new residential development;

(V) Do not require public services and facilities beyond what is available in the rural area; and

(VI) Are operationally compatible with surrounding resource-based industries.

(d) Major industrial developments and master planned resorts governed by other requirements. Counties may not use the provisions of RCW **36.70A.070** (5)(d)(iii) to permit a major industrial development or a master planned resort. These types of development must comply with the requirements of RCW **36.70A.360** through **36.70A.368**. For more information about major industrial developments, see WAC **365-196-465**. For more information about master planned resorts, see WAC **365-196-460**.

[Statutory Authority: RCW **36.70A.050** and **36.70A.190**. WSR 15-04-039, § 365-196-425, filed 1/27/15, effective 2/27/15; WSR 10-22-103, § 365-196-425, filed 11/2/10, effective 12/3/10; WSR 10-03-085, § 365-196-425, filed 1/19/10, effective 2/19/10.]

CLARK COUNTY

PLAN MONITORING REPORT

(1995-1999)

July 2000

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Dedicated to Jeanette Johnson who collated much of the information contained herein. Jeanette died of a rare cancer on August 19, 1999.

CLARK COUNTY
WASHINGTON

Executive Summary

In December 1994, Clark County adopted a comprehensive land use plan pursuant to the State of Washington Growth Management Act (GMA) of 1990. The Clark County 20-Year Comprehensive Growth Management Plan identifies key indicators to be compiled and summarized on an annual basis. The Department of Community Development has completed the first analysis of available data, focusing on 1995 through 1999.

This report documents the growth patterns during the first five years of planning under the 1994 State of Washington Growth Management Act (GMA). It focuses on population and employment growth rates, price of housing, land absorption, patterns of development, and other land use related issues.

The purpose of the report is to present the monitoring data called for in the adopted comprehensive plan and to provide summary observations.

Not included in this report is discussion of potential implications of the identified trends or of future policy alternatives. It is expected that this report will generate significant discussion on these topics; Community Development staff hope that it provides a valuable starting point for discussion.

Major findings and observations:

Population Overview

The report begins with a review of actual population growth compared with the 1994 forecast.

- Clark County's April 1, 2000 population is estimated at 345,000 by the state Office of Financial Management.

- From 1995 to 2000, Clark County's population increased by 54,000; adding 10,186 (19% of growth) people to the rural areas and 43,814 (81% of growth) to the urban areas.

- This is an overall increase of 18.6% over five years (April 1995 through April 2000), or around 3.7% annually.

- Between 1995 and 2000 population within the UGAs grew by 18.3% and in the rural area by 19.7%.

- The largest real increase in population occurred within the Vancouver UGA which added 34,467 residents; a 16% increase.

- The current 2000 population is 4.6% higher than the year 2000 forecast.

- The current 2012 population forecast amounts to adding 20.6% to current population over 12 years.

- The 2000 urban/rural population ratio is 82% urban and 18% rural. The comprehensive plan goal is 81% urban and 19% rural. In 1990 the ratio was 86% / 14% and in 1995 it was 82% / 18%.

Residential Development

- From 1995 through 1999, 15,514 single-family residential units were added countywide. 12,966 (83.6%) were inside urban growth areas (UGA) and 2,548 (16.4%) were outside.

- Between 1995 and 1999 total single-family residential dwelling units increased by 20.8% within the urban growth areas and by 14.6% in the rural area.

- From 1995 through 1999 the number of multi-family units developed countywide was 3,794. Of those units 3,786 were inside the UGA and 8 were in the rural areas.

Employment, Wages and Per Capita Income

The 1994 Comprehensive Plan indicates that by the year 2012 Clark County and its cities would grow in population to an estimated 416,071, and in jobs to an estimated 138,500.

- From 1995 to 1999 Clark County has increased employment by 26,400, an average annual increase of 3.9%.

- Employment as a percentage of the population shows a small average annual gain between 1995 and 1999.

- The 1994-1999 trend shows that the largest sector growth has occurred in services, retail trade, and government, adding 5,200, 4,200 and 3,000 jobs respectively.

- The unemployment rate for Clark County has remained well below the state average.

- Despite the growth in non-farm employment, the average wage in Clark County has remained below the state average.

- Clark County per capita personal income exceeded the national average in 1997. Per capita personal income still falls short of the state income level but is bridging the gap from a low of 7.7% below the state average in 1991and 1992 to 3.2% in 1997.

Housing Overview

- Over the last four years, the average selling price of an existing home in Clark County increased by more than 25.7%, or an average of 6.4% each year. The average selling price of a new home tells a similar story with an increase of more than 25.8% or an average of 6.5% each year.

- In 1999, the average sale price of a home in Clark County was $168,080. In 1994, the average price was less than $134,000.

- Existing and new homes in the rural area are consistently more expensive than homes in the urban area, ranging from 40% to 90% more expensive between 1995 and 1998.

- Existing and new homes in the rural area are consistently larger than homes in the urban area, ranging from 17% to 32% larger, on average, from 1995 through 1998.

- In the first five years of the plan, a total of 19,308 dwelling units were added. During that period about 80% of the new housing units in Clark County were single-family homes. Multi-family units account for 20% of new dwelling unit capacity.

Note: The Clark County Comprehensive Plan assumed that 60% of new residential development would be single-family with 40% multi-family.

Land Absorption

This report compares the vacant lands analysis that was done in late 1994 and the beginning of 1995, as part of the adoption of the 1994 Comprehensive Plan, with the 2000 available vacant residential, commercial, and industrial lands.

- In 1995, there were about 16,401 gross acres of vacant and underutilized (see glossary and appendices for definition and description of these categories) residential lands in the UGA compared to 10,248 gross acres in 2000 within the county UGAs. Since 1995, about 6,153 acres or 38%, of available residential acres have been absorbed by development.

- In the Vancouver UGA, approximately 24% of total available vacant and under-utilized residential lands were absorbed between 1995 to 2000; approximately 425 acres per year.

- In the Vancouver UGA, 1,631 acres of vacant commercial lands are identified in 2000, compared with 2,329 in 1995. 30% of available commercial lands were developed.

- The Vancouver UGA also has 5,315 acres of vacant industrial lands identified in 2000 versus 5,562 in 1995, a 4% change.

- Camas, La Center and Yacolt absorbed more than 60% of their available vacant and underutilized residential land since 1995. For the Camas UGA, it is important to note that in 1995 the Camas Meadows area was designated as residential. This area of approximately 600 acres was annexed to the city in 1996 and the designation changed to industrial. This change in underlying land use designation should be considered when viewing land absorption rates by type for Camas.

- Washougal and Battle Ground have absorbed 42% and 40% of vacant and underutilized residential land respectively, since 1995.

Note: Clark County code requires that 75% of available residential land be absorbed within a UGA before expansion of the growth boundary can be considered.

Buildable lots in rural area

The vacant and buildable lands identification model, developed in a geographic information system by Clark County Assessment and GIS staff for plan monitoring, does not include rural areas (outside of UGAs). In order to assess development potential in the rural areas, a separate but parallel model process was developed.

- There are about 10,047 vacant parcels (excluding lots less than an acre, tax exempt and state assessed parcel) in the rural area.

- Given the underlying zoning, total additional development potential in the rural areas is estimated to be 13,577 lots. At 2.6 persons per household, additional rural capacity is approximately 35,300 persons.

Urban versus Rural Development

Where are we today (1999) and where were we in 1994?

- In 1995, the urban versus rural population split was 82% urban and 18% rural.
- In 1999, the urban versus rural population split was 83% urban and 17% rural.

Development in the rural area remains strong. It is driven, in part, by the fact that Clark County has a majority of the vacant rural residential lots in the Portland metropolitan area. In the three-county area in Oregon (Clackamas, Multnomah, and Washington) there are currently 12,731 vacant lots of 5 acres or less. In Clark County there are 13,577 lots of 5 acres or less.

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INTRODUCTION

The Clark County 20-Year Comprehensive Growth Management Plan adopted in December 1994 is now in its fifth year of implementation. The plan was subsequently revised in December 1997 due to more than 60 remands and court orders.

The plan, adopted in 1994 and covering a 20-year period, sets goals and policies as to where and how growth and land use change should be encouraged.

The plan also requires the monitoring of more than twenty indicators, some of which are directly tied to comprehensive plan goals, such as population growth. The key indicators were chosen to track underlying assumptions used in the vacant lands analysis and net land carrying capacity which was completed for each UGA within Clark County in 1994.

This is the first plan monitoring report produced by Clark County. It will be updated in 2000 and published again in 2001 after census data is available. Information for the indicators comes from a variety of sources including the U.S Census, state Office of Financial Management, state Employment Security Department, county departments, and other agencies.

In 1994, an analysis was completed of the lands designated for residential, commercial and industrial uses as part of the supporting documentation to the comprehensive plan. This vacant lands analysis was used to determine the supply of vacant and underutilized acreage for residential, commercial and industrial designated lands within the urban growth area boundaries of Clark County. In estimating the supply of land available for development, the first step involved taking available *gross* vacant and underutilized land and applying all the land utilization assumptions to arrive at net acreage. (Specific assumptions are detailed in Appendix A).

The emphasis of this report is on gross land absorption. This was done by looking at the gross acreage absorbed based on land use designations within the urban growth area and the 2000 vacant lands analysis. While preliminary net available lands are presented in Appendix A, it is gross land absorption that reveals how and where development has occurred.

PURPOSE OF REPORT

This monitoring report marks a milestone for growth management planning in Clark County. It provides both a baseline for key indicators selected to measure change over time and a tool to measure the movement toward or away from the goals and assumptions of the Comprehensive Plan.

This report is prepared by Clark County, and reflects an emphasis on countywide data and the policies contained in its Comprehensive Plan. The county also recognizes that this report will be used by its cities and other interested groups, and where possible,

incorporates information for each urban growth area or other geographic areas as appropriate.

The report does not contain policy recommendations or specific benchmarks. Instead, the report is intended to be part of the information used by decision-makers as they consider updates and revisions to their Comprehensive Plans or any future course of action taken by the community.

This edition of the Plan Monitoring Report is not intended to fulfill the specific Review and Evaluation requirements of RCW 36.70A.215. Due to the relatively recent enactment of this state legislation, its specific timetables, and requirements for the adoption of countywide planning policies, Clark County, in cooperation with its cities, will address those issues outside of this edition of the Plan Monitoring Report. Future editions will incorporate a detailed monitoring of density indicators as required by RCW 36.70A.215.

COMPREHENSIVE PLAN OBJECTIVES

The adopted Comprehensive Plan assumptions for urban and rural population splits are as follows:

- *"The 2012 populations projections... are actual goals, not merely future estimates or guidelines, which must be reflected in the respective plans of the jurisdictions."*[1]

- *"Approximately **90 percent** of the population growth over the next 20 years is expected to occur in designated urban growth areas, with the remainder to occur in unincorporated rural and natural resource areas."*[2]

- *Table 2.2 shows the Projected 2012 Population for the entire county as 416,071. The unincorporated rural area is shown as 79,689 which is 19.1% of the county total. The remaining city population totals come to 80.7%.*[3]

- *"The population projection for the area outside of the urban growth areas is based in part on an allocation received from the Washington State Office of Financial Management. This additional population, approximately 134,000 people over the next 20 years, has been sub-allocated to the urban areas and the rural areas. The allocation for the rural area is approximately 15,000 people over the next 20 years, which would account for approximately **12 percent** of the total county population."*[4]

[1] *Clark County 20-Year Comprehensive Growth Management Plan*, Revised December 1997, p. 2-3.
[2] *Clark County 20-Year Comprehensive Growth Management Plan*, Revised December 1997, p. 2-4.
[3] *Clark County 20-Year Comprehensive Growth Management Plan*, Rev. December 1997, Table 2.2, p. 2-4
[4] *Clark County 20-Year Comprehensive Growth Management Plan*, Revised December 1997, p. 4-10

KEY INDICATORS

The Comprehensive Plan directs the county to review urban growth area assumptions and the related goals of the plan that affect the quality of life in the community. This is done by monitoring actual development trends with the key indicators. Where possible, the data are presented from 1995 through 1999, although additional information is given in some tables.

The primary sources of data are: Census, State Office of Financial Management forecast of population as of April of each year, the Clark County Assessor database and Clark County Community Development building permits issued.

The following table is a list of the key indicators identified in the Comprehensive Plan. A detailed discussion of indicators such as density, infill development and critical lands will be included in future reports as part of the Review and Evaluation Requirements of RCW 36.70A.215.

Key Indicators	**Measures to be Monitored**	**Additional Measures**
1.1 Population	Trends in population growth including age-cohort, in-migration/out-migration and other demographic indicators.	
1.2 Employment	Average annual wage rate by general sector, and percentage of Clark County receiving employment assistance.	
1.3 Price of Raw Land	Price of undeveloped land per acre, existing parcels and newly created parcels (if possible), land inside versus land outside of the urban growth area, land use categories, and for new housing – percentage of cost in land.	
1.4 Price of Housing	Price of new homes and resale homes, apartment rents and vacancy rates. Shift in demographics, interest rates and other variables.	
1.5 Land Absorption/Residential and Commercial	Number of new units by category: single-family vs. multi-family, square footage of new commercial, vacancy rates, employees per acre, and tenant activity.	
1.6 Residential Development	Number of new units by category: single-family vs. multi-family	
1.7 Industrial Development	Transition or development of marginal or tertiary industrial	

	land to prime industrial land and employees per acre.	
1.8 Density	Net average residential density by category: single-family vs. multi-family, difference between maximum density allowed in zoning versus actual density as approved and built.	
1.9 Geographic Distribution of Growth	Ratio of development inside the Urban Growth Area versus development occurring in the rural area, percent of new growth in the transit corridor, activity centers (urban and rural), urban reserve areas, open space and other sub-areas as defined.	
1.10 Quality of Life (Air and Water Quality and Wildlife Habitat Areas)	Airshed consumed by mobile and static sources, surface and groundwater quality indicators, and loss of wildlife habitat areas.	
Review of Growth Area Assumptions		
2.1 Conversion of Vacant Land	Development occurring on parcels defined as vacant.	
2.2 Conversion of Underutilized Land	Development occurring on underutilized parcels, defined as parcels that are 3 times allowable lot size based on the existing zoning and greater than 2.5 acres.	
2.3 Redevelopment Activity	New development in already built out areas (downtown Vancouver, transit corridors, etc.) Once a redevelopment factor is established, it will be used in redefining the amount of land needed in the urban growth area.	
2.4 Mixed-Use Activity	Development in the new mixed use zones, percentage of commercial versus residential in development and the location of the mixed use activity. Once a mixed use ratio is developed , it will be used to redefine the amount of land needed in the urban growth area.	
2.5 Infill	Development characterized by infill , its density and acreage.	
2.6 Development on Critical Lands	Development by critical category (1 or 2), density and size of parcels being developed.	
2.7 Vacancy Rates	Residential, commercial and industrial vacancy rates over time.	
2.8 Land Absorption	See 1.5	
2.9 Density	See 1.7	

2.10 Infrastructure	Required area of infrastructure as percentage of new development, by land use type, r.o.w., drainage, and other easements, and parks.	
2.11 Land Absorption (Industrial/Commercial)	See 1.5 and 1.6	
2.12 Change in Designation (Rezone)	Tracking conversion from one land use type to another (industrial to residential, residential to commercial, etc.)	
Other Indicators		
3.1 Transit Mode Split	Transit ridership, frequency, other transportation and transit performance standards.	
3.2 Additional Indicators		As periodic review takes place and the model is refined, additional indicators can be added to the performance measures.*

*The county included School District Enrollment and Capacity, Timber Harvest by Ownership, and Forest Land Conversion.

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The following is a list of some of the major events that have occurred in Clark County from 1995 to 1999.

1995 HIGHLIGHTS

Economy – Shin-Etsu Chemical (SEH) began a $710-million expansion of its silicon wafer plant in Vancouver. Expansion efforts would employ 300 more workers. Construction began on an 8-million-square-foot laboratory for Sharp Laboratories of America, Inc. These are two major construction projects related to high-tech industries.

Historic Preservation - Historic preservation duties were assumed by Clark County from the Heritage Trust of Clark County. The Board of Commissioners appointed a 5-member Historic Preservation Commission.

Light Rail - Local voters overwhelmingly defeated a proposal to provide funding for light rail. The $237.5-million cost would link Clark County to Portland's expanding light rail system. A multi jurisdictional transit overlay district, targeted for 80% of all new growth in the Vancouver UGA , was later repealed. In addition, commercial zoning districts were rewritten in 1996.

1996 HIGHLIGHTS

'96 Flood- January's snowfall and February's rainfall brought about the worst flooding in the last 30 years.

Washington State University - The WSU campus in Vancouver opened with a fall semester enrollment of 1,089 students. WSU is the cornerstone of the third major urban node within the Vancouver UGA.

Economy - Clark County's timber-related industries continued to decline. Both Fort Vancouver Plywood Mill and Boise Cascade's paper mill closed down, leaving a total of 675 workers unemployed. Taiwan Semiconductor manufacturing Co. began construction on its new WaferTech plant with projections of 800 high-tech jobs.

1997 HIGHLIGHTS

Growth – Clark County retained its status as the fastest growing county in Washington.

Interstate 5 Bridge Repair - Projections of a region-wide traffic jam along the I-5 corridor as the Interstate Bridge underwent major repair never materialized.

New City - Voters in the Hazel Dell, Salmon Creek, Lake Shore, Felida and Mount Vista areas voted an overwhelming **'NO'** to the proposal for a new city north of Vancouver.

Annexations - In 1997, Vancouver annexed several large areas. On the east side, the Cascade Park Annexation added 11,258 acres and 58,171 residents. On the west side,

Vancouver Lake Park and Frenchman's Bar Park together added 320 acres with no increase in population.

Battle Ground Places Moratorium on Residential Development - In July, Battle Ground adopted a moratorium on residential development as the city searched for ways to provide water, sewer and other services.

Interim Zoning Imposed and Lifted - In February, county commissioners adopted an interim Urban Holding Zone for development impacting the 179th Street/ I-5 interchange and the 134th Street/Salmon Creek Area. Throughout the remaining year, staff, along with interested citizens and businesses, crafted the Salmon Creek/Fairgrounds Regional Road Plan. which covered an 8-square-mile area. Its adoption in September lifted the temporary holding zone. It also brought to a close many transportation issues such as arterial circulation and access management that dated back to the 1980s.

Critical Aquifer Recharge Areas Ordinance – In May, the Board of County Commissioners adopted the Critical Aquifer Recharge Areas Ordinance designed to regulate development within critical aquifer recharge areas in Clark County. BOCC adoption implies "as a result of county initiative".

Geologic Hazard Ordinance – In May, the Board of County Commissioners adopted the Geologic Hazard Ordinance to regulate development in areas identified as having a geologic hazard including erosion, steep slopes, potential for landslides and relative earthquake hazard. BOCC adoption implies "as a result of county initiative".

Habitat Conservation Ordinance – In May, the Board of County Commissioners adopted the New Conservation Ordinance and made minor amendments to the County Wetlands Protection Ordinance and Provisions for Special Uses. Adoption and amendments brought the county ordinance in compliance with GMA regarding fish and wildlife. BOCC adoption implies "as a result of county initiative".

Rural Centers - In response to a remand from Clark County Superior Court and the Western Washington Growth Management Hearings Board, the Board of County Commissioners appointed an 11-member citizen task force to develop recommendations regarding land use changes for rural centers.

Agri/Forest Zones - In response to a Superior Count decision, the Board of County Commissioners appointed a 13-member citizen task force to revisit the 37,000 acres zoned agri/forest to determine more appropriate land use designations for these properties; these properties were subsequently rezoned to R5, R10 and R20.

Family Wage and Transportation Concurrency Management - Clark County adopted an ordinance relating to threshold family wages using transportation currency as an incentive to attract larger employers in certain employment sectors who meet the threshold.

1998 HIGHLIGHTS

Legal Lots - Recognizing that growth and changes in zoning and platting requirements over time had resulted in a large number of parcels smaller than the current minimum lot size, the Board of County Commissioners adopted a Legal Lot Determination Ordinance. Parcels would be considered a lot of record if they were in compliance with applicable laws regarding zoning and platting at the time of their creation.

Historic Preservation - Clark County was awarded a grant from the state to conduct a historic resource survey and inventory to update and add to the county's existing 20-year-old inventory.

Steelhead listed as threatened - In March, the Lower Columbia River Evolutionarily Significant Unit (ESU) was listed as threatened by the federal government. In Washington, this ESU includes all naturally spawned populations of steelhead in stream and tributaries to the Columbia River between the Cowlitz and Wind rivers, and includes all of Clark County. An anticipated "4d Rule", developed by the National Marine Fisheries Service (NMFS), may significantly impact development activities due to new environmental regulations.

Rural Centers - In May, the Board of Commissioners adopted amendments to the 20-Year Comprehensive Growth Management Plan Map and zoning map for the rural centers of Amboy, Chelatchie Prairie, Dollars Corner, Meadow Glade, Hockinson, and Brush Prairie. Changes provide for a variety of rural densities (RC1, RC2.5, R5, R10 and R20) in the rural area, along with commercial and industrial opportunities.

Waiver to the Forest Practices mandatory moratorium – State legislation passed in 1998 imposed an automatic 6-year development moratorium on certain lands for which forest practice permits were issued, but gave local jurisdictions authority to adopt guidelines for lifting that moratorium. In December, the Board of County Commissioners passed an emergency ordinance exempting construction of single-family owner occupied residences from the moratorium.

1999 HIGHLIGHTS

NPDES Permit - Clark County received a National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge Permit in July 1999. This permit requires the county to substantially reduce pollutants from storm water run-off before it enters the county's watersheds.

Endangered Species Act (ESA) – Over the last year and a half, five species of salmonids that are native to the waters of Clark County were listed as "threatened" under the ESA. The National Marine Fisheries Service and the United States Fish and Wildlife Service share responsibility for administering the ESA. It is intended that these federal regulations will be replaced by local initiatives when these jurisdictions are capable of providing adequate protection. The Clark County ESA Program and the ESA Citizen

Task Force were created to provide definition and help develop realistic solutions to these complicated issues.

Cluster Ordinance – In the fall of 1999, the Board of County Commissioners considered a proposal to allow cluster development in Clark County. The cluster land division proposal was initially developed by the Agri-Forest Task Force, a citizen group appointed by the Board of County Commissioners. The purpose of the ordinance is to provide for small-lot residential development in the rural residential 5-acre, 10-acre and 20-acre zoning districts while maintaining the rural character and conserving larger remainder parcels.

Industrial lands – In July 1999, a local engineering firm, OTAK, released the Regional Industrial Land Study. The study indicated that Clark County has one of three prime parcels of 100 acres or more and 58% of the prime buildable industrial acres in the Portland–Vancouver metropolitan region. The methodology utilized by OTAK is different from that used during the planning process.

Five-year Comprehensive Plan Review - In August 1999, The Board of County Commissioners initiated the first major review of the county's 20-year Comprehensive Plan since it was adopted in December 1994. The plan review considers facts outlined in this monitoring report that reflects how the plan has worked since adoption so that adjustments can be made where necessary to reflect current community needs.

INDICATOR: Population Growth

Background and Relevance

The Growth Management Act (GMA) requires participating counties to adopt a 20-year population projection from among a range of choices provided by the state Office of Financial Management (OFM) for planning purposes. This population projection is the basis upon which the Comprehensive Plan is built. In the planning process, Urban Growth Area (UGA) boundaries are required for municipal jurisdictions within counties required to plan under GMA. These boundaries are set by designating sufficient quantities of land to accommodate the adopted population forecast. Monitoring the actual location, rate and size of population growth will provide the information necessary to evaluate the initial planning assumptions.

Table 1.1.1 Historical and Projected Population in Clark County by UGA

UGA	1990	1994	1995	1998	1999	2000	1990 - 1994 Growth	1995 - 2000 Growth	1990 - 2000 Growth	1990-2000 Average Annual Growth Rate
Battle Ground	4,791	5,892	6,379	9,324	9,699	10,046	23.0%	57.5%	109.7%	11.0%
Camas	7,286	8,250	8,951	11,447	11,823	12,260	13.2%	37.0%	68.3%	6.8%
LaCenter	555	794	916	1,662	1,775	1,900	43.1%	107.5%	242.6%	24.3%
Ridgefield	1,878	2,092	2,187	2,459	2,492	2,602	11.4%	18.9%	38.5%	3.9%
Vancouver	173,908	203,864	210,445	235,298	242,031	244,912	17.2%	16.4%	40.8%	4.1%
Washougal	8,479	9,310	9,547	10,156	10,266	10,344	9.8%	8.3%	22.0%	2.2%
Yacolt	632	891	943	1,042	1,093	1,118	41.0%	18.6%	76.9%	7.7%
Total UGA	197,528	231,093	239,368	271,388	279,179	283,182	17.0%	18.3%	43.4%	4.3%
Rural Area	40,525	49,707	51,632	56,612	57,821	61,818	22.7%	19.7%	52.5%	5.3%
County Total	238,053	280,800	291,000	328,000	337,000	345,000	18.0%	18.6%	44.9%	4.5%

Notes: Information for UGA level data is based on residential housing units derived from the Assessor's database and average persons per household numbers based on census block data from the 1990 U.S. Census of Population and Housing. The UGA numbers are adjusted to match the total county estimate. County-wide information is based on Washington State Office of Financial Management (OFM) annual county estimates. OFM estimates are based on April 1 of each year.

Table 1.1.2 Historical and Projected Population in Clark County

	2000 Population	OFM Year 2000 Forecast (High)	Difference (2000 actual – 2000 forecast)	Percent Difference, 2000 actual & 2000 forecast	Comp Plan Year 2012 Forecast	Difference (2012 forecast - 2000 actual)	Percent Difference, 2012 forecast & 2000 actual
Clark County	345,000	329,783	15,217	4.6%	416,071	71,071	20.6%

Table 1.1.3 Historical Population, Clark County Cities

City	1990	1994	1995	1998	1999	2000	1990 - 1994 Growth	1995 - 2000 Growth	1990 - 2000 Growth	1990-2000 Average Annual Growth Rate
Battle Ground	3,758	4,720	5,015	8,460	9,075	9,605	25.60%	91.50%	155.60%	15.60%
Camas	6,798	7,430	8,015	10,300	10,870	11,350	9.30%	41.60%	67%	6.70%
LaCenter	483	759	865	1,355	1,545	1,655	57.10%	91.30%	242.70%	24.40%
Ridgefield	1,332	1,605	1,625	1,795	2,115	2,170	20.50%	33.50%	62.90%	6.30%
Vancouver*	46,380	59,225	65,360	132,000	135,100	137,500	27.70%	110.40%	196.50%	19.60%
Washougal	4,764	5,290	5,594	7,685	7,975	8,125	11.00%	45.20%	70.50%	7.10%
Yacolt	600	813	860	935	1,020	1,020	35.50%	18.60%	70.00%	7.00%

*Vancouver population increase between 1995 and 2000 is partially due to several large annexations.

Data Collection

The data above show actual and estimated population for both incorporated and Unincorporated Clark County. City totals reflect annexations that took place in the year in which they occurred. All OFM population figures are for April 1 of the estimate year.

Observations

- From 1995 to 2000, Clark County's population increased by 54,000, adding 10,186 people to the rural areas and 43,814 to the urban areas.
- This is an overall population increase of almost 18.6% over five years (April 1995 through April 2000), or around 3.7% annually.
- The largest real increase in population occurred within the Vancouver UGA which added 34,467 residents, a 16% increase.
- In percentage terms, the fastest growing areas between 1995 and 2000 were the north county UGAs of Battle Ground and La Center.
- 2000 population exceeds the 2000 forecast population by over 4.6%.
- The current 2012 population forecast amounts to adding 20.6% to current population over 12 years or around 1.72% per year; somewhat lower than the 3.7% average annual increase observed between 1995 and 2000.

INDICATOR: Components of Population Change

Background and Relevance

The two major components of population change are natural increase/decrease and in/out-migration. To manage growth and set appropriate policy, it is essential to know where changes in population originate.

Table 1.1.4 Components of Population Change

Population Increases	1994	1995	1996	1997	1998	1999
Births	4,183	4,165	4,922	4,567	4,898	5,207
Deaths	2,012	1,940	1,976	2,011	2,261	2,182
Natural Increase	2,171	2,225	2,946	2,556	2,637	3,025
Net Migration	9,129	7,975	9,554	10,744	8,563	5,975

Source: Washington State Office of Financial Management

Observations

- Since 1994, the percentage of in-migration has accounted for 77% of the county's population growth. Two-thirds of the growth in 1999 is attributed to in-migration.

- The natural increase of population has been fairly consistent.

Urban and Rural Population: Growth Rates and Urban/Rural Split

The adopted Comprehensive Plan assumptions for urban and rural population split are 19.1% for unincorporated rural area and 80.9% for the Urban Growth Area. The tables below show the UGA and rural population estimates for 1990, 1995, and 1999.

Table 1.1.5 UGA & Rural Population Estimates 1990, 1995, and 1999

	Population			% Change	%Change
UGA	1990	1995	1999	1995 to 1999	1990 to 1999
Battle Ground	4,719	6,379	9,898	55.2%	109.7%
Camas	7,286	8951	11,912	33.1%	63.5%
La Center	555	916	1,856	102.6%	234.4%
Ridgefield	1,878	2,187	2,510	14.8%	33.7%
Vancouver	173,908	210,445	239,169	13.6%	37.5%
Washougal	8,479	9,547	10,400	8.9%	22.7%
Yacolt	632	943	1,095	16.1%	73.3%
Rural County	40,525	51,632	60,160	16.5%	48.5%
Total County	237,982	291,000	337,000	15.8%	41.6%

Source: Washington State Office of Financial Mangagement

Table 1.1.6 Population by Rural and Urban Growth Area

Year	Urban Growth	% Urban	Rural Growth	% Rural	Total Growth	Average Growth
1990-95	41,911	79.10%	11,107	20.90%	53,018	10,604
1995-99	37,472	81.50%	8,528	18.50%	46,000	11,500
1990-99	79,383	80.20%	19,635	19.80%	99,018	11,002

Source: Washington State Office of Financial Management

Table 1.1.7 Share of Total Population, Urban and Rural

Year	Urban	% Urban	Rural	% Rural	Total
1990	197,457	83%	40,525	17%	237,982
1995	239,368	82%	51,632	18%	291,000
1998	271,388	83%	56,612	17%	328,000
1999	276,840	82%	60,160	18%	337,000
% chng 90-99	40%		48%		42%
Avg. Annual Growth	4.44%		5.33%		4.66%

Source: Washington State Office of Financial Management

Observation

- Based on state OFM population estimates, the 1995 split is 82% urban and 18% rural. The 1999 split remained unchanged from 1995.

- From 1995 to 2000 the rural area population has grown 1.4% faster than the urban area population.

INDICATOR: Population Distribution by Age and Gender

Background and Relevance

Population distribution by age and gender provides data necessary for planning a range of social services, from elderly care to the need for additional schools.

Table 1.1.8 1995

GROUP	TOTAL	MALE	FEMALE
85+	3,138	906	2,232
80-84	3,897	1,471	2,426
75-79	6,007	2,523	3,484
70-74	8,189	3,575	4,615
65-69	8,905	4,102	4,803
60-64	9,570	4,710	4,860
55-59	11,369	5,836	5,533
50-54	16,098	8,227	7,870
45-49	22,221	11,039	11,181
40-44	25,358	12,656	12,702
35-39	26,465	13,074	13,390
30-34	24,008	11,798	12,210
25-29	19,017	9,428	9,589
20-24	15,813	7,808	8,005
15-19	19,017	9,428	9,589
10-14	24,180	12,395	11,785
5-9	24,589	12,747	11,842
0-4	22,257	11,394	10,863
TOTAL	**291,000**	**143,890**	**147,110**

Source: Washington State Office of Financial Management

Table 1.1.9 1996

GROUP	TOTAL	MALE	FEMALE
85+	3,234	965	2,270
80-84	4,073	1,573	2,499
75-79	6,248	2,555	3,693
70-74	8,113	3,570	4,544
65-69	9,118	4,242	4,876
60-64	9,618	4,766	4,852
55-59	12,458	6,257	6,201
50-54	16,958	8,595	8,363
45-49	23,022	11,234	11,788
40-44	25,334	12,584	12,751
35-39	26,310	12,903	13,407
30-34	23,818	11,622	12,196
25-29	22,124	11,018	11,106
20-24	17,702	8,569	9,133
15-19	21,768	11,118	10,650
10-14	24,029	12,358	11,671
5-9	25,284	13,004	12,280
0-4	24,288	12,433	11,855
TOTAL	**303,500**	**149,366**	**154,134**

Source: Washington State Office of Financial Management

Table 1.1.10 1997

GROUP	TOTAL	MALE	FEMALE
85+	3,468	1,041	2,427
80-84	4,261	1,653	2,608
75-79	6,651	2,723	3,928
70-74	8,250	3,623	4,627
65-69	9,258	4,331	4,927
60-64	10,092	5,021	5,071
55-59	13,320	6,707	6,613
50-54	19,142	9,663	9,479
45-49	23,834	11,645	12,189
40-44	26,914	13,357	13,557
35-39	27,042	13,277	13,765
30-34	23,951	11,695	12,256
25-29	22,626	11,270	11,356
20-24	18,384	8,915	9,469
15-19	23,065	11,769	11,296
10-14	25,202	12,966	12,236
5-9	26,648	13,701	12,947
0-4	24,691	12,639	12,052
TOTAL	**316,801**	**155,996**	**160,805**

Source: Washington State Office of Financial Management

Table 1.1.11 1998

GROUP	TOTAL	MALE	FEMALE
85+	3,866	1,146	2,719
80-84	4,485	1,735	2,750
75-79	7,121	2,967	4,154
70-74	8,646	3,790	4,856
65-69	9,423	4,413	5,010
60-64	10,808	5,357	5,450
55-59	14,390	7,435	6,955
50-54	20,890	10,558	10,331
45-49	26,436	13,188	13,249
40-44	29,487	14,724	14,763
35-39	28,864	14,232	14,632
30-34	23,541	11,610	11,931
25-29	20,219	10,000	10,219
20-24	17,042	8,457	8,586
15-19	23,917	12,235	11,682
10-14	27,335	14,028	13,306
5-9	28,084	14,557	13,528
0-4	23,447	12,030	11,416
TOTAL	**328,000**	**162,462**	**165,538**

Source: Washington State of Financial Management

Table 1.1.12 **1999**

GROUP	TOTAL	MALE	FEMALE
85+	3,920	1,198	2,721
80-84	4,668	1,826	2,842
75-79	7,176	2,928	4,248
70-74	8,427	3,736	4,690
65-69	9,521	4,481	5,040
60-64	11,078	5,547	5,531
55-59	15,835	7,973	7,862
50-54	21,978	11,018	10,959
45-49	26,231	12,879	13,352
40-44	28,720	14,236	14,484
35-39	27,867	13,675	14,192
30-34	23,402	11,517	11,884
25-29	22,590	11,250	11,341
20-24	19,997	9,674	10,323
15-19	25,375	12,944	12,431
10-14	26,971	13,886	13,085
5-9	27,857	14,311	13,546
0-4	25,388	12,994	12,394
TOTAL	**337,000**	**166,075**	**170,925**

Source: Washington State Office of Financial Management

Data Collection

The Washington State Office of Financial Management provided the data.

Observations

- The 30-34 age group was the only one that showed a decline from 1994 to 1999.
- About 62% of the growth from 1995 to 1999 occurred in the 0-19 and 35-54 age groups, which indicates that most of the new residents of Clark County are families with school-age children.

INDICATOR: New businesses created

Background and Relevance

This measure captures the business climate since 1990.

Table 1.2.1 New Businesses created in Clark County

	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Total number of businesses	3623	4289	5700	5929	6366	7145	7856	7768	8444	9208
Number of net new businesses	NA	666	1411	229	437	779	711	-88	676	764
Annual growth rate	NA	3.7%	6.6%	4.0%	7.4%	12.2%	10.0%	-1.1%	8.7%	9.0%

Source: Washington State Employment Security Department

Data Collection

The Washington State Employment Security Department provided the county data. Included are all firms regardless of size. Excluded from this analysis is the growth of private households as employer units. The table shows the net number of businesses created annually, taking into account business closures. The annual growth rate is a compounded figure based as a percentage of the previous year's total businesses.

Observation

- From 1994 to 1997, the average annual growth rate for new businesses was 5.7%.
- During the 1980s the average annual growth rate for new businesses was 5.7%.
- Since 1990, new business formation has grown at a rate of 8.8% annually.
- Since 1990, a total of 3,500 new businesses have been created, with 1,352 added since 1994.

INDICATOR: Clark County Employment Characteristics

Background and Relevance

The indicators of local economic conditions are the numbers of employees and unemployment. The resident labor force will change in response to population and to conditions in the local economy including job opportunities and wages.

Table 1.2.2 Characteristics of the Clark County Work Force

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Population	238,053	250,300	257,500	269,500	280,800	291,000	303,500	316,800	328,000	337,000
Total Labor Force	127,500	126,800	132,200	136,000	141,000	151,000	161,200	170,300	176,300	178,300
Employment	121,700	119,000	123,000	128,700	135,000	144,900	154,100	164,200	169,200	171,300
Unemployment	5,800	7,800	9,200	7,900	6,000	6,100	7,100	6,100	7,100	7,000
Employed labor force as a % of population.	51.1%	47.5%	47.8%	47.8%	48.1%	49.8%	50.8%	51.8%	51.6%	50.8%

Source: Washington State Employment Security Department

Table 1.2.3 Change in Clark County Work Force

	1995 – 1999 Number Increase	1995 – 1999 Percent Increase	Average Annual Increase
Population	46,000	15.8%	4.0%
Total Labor Force	27,300	18.1%	4.5%
Employment	26,400	18.2%	4.6%
Unemployment	900	14.8%	3.7%

Source: Clark County Long Range Planning

Table 1.2.4 Unemployment Rate

	1990*	1991	1992	1993	1994	1995	1996	1997	1998
Clark County	**4.5%**	6.2%	7.0%	5.8%	4.3%	4.0%	4.4%	3.6%	4.0%
Washington	**4.9%**	6.4%	7.6%	7.6%	6.4%	6.4%	6.5%	4.8%	4.8%

Source: Washington State Employment Security Department
***Bold text denotes 1990 Census Data**

Data Collection

Data for the total employed and unemployed labor force are from the Washington Department of Employment Security, July 1999, and provide the best data on employment in the local work force. Clark County and Washington state unemployment rates are obtained from the Washington State Employment Security Department. Major sector employment is addressed in the section on economic development.

Observations

- From 1995 to 1999 Clark County added 27,300 to its total labor force, an average annual increase of 4.5%, for the same time period population growth was 3.95%

- The employed labor force, as a percentage of population, took a significant drop between 1990 and 1991. This drop in employment coincides with the national recession, which began in 1990 and was felt by Clark County in 1991. By 1999 this percentage was almost back to the 1990 level.

INDICATOR: Sector Employment Growth

Background and Relevance

Employment levels by sector show the composition of the local workforce. Sector level analysis provides data that allow decision-makers to link employment needs with local land use policies that designate land available for commercial and industrial use.

Table 1.2.5 Non-Agricultural Wage and Salary Employees in Clark County

EMPLOYMENT SECTOR	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Manufacturing	17,100	16,000	16,700	18,300	19,000	20,100	20,200	20,500	20,000	18,800
Construction & Mining	6,500	6,500	6,400	6,600	7,700	7,900	8,900	10,000	10,200	10,300
Transportation & Utilities	3,800	3,600	3,800	4,000	4,300	4,800	5,300	5,600	6,300	6,700
Wholesale Trade	3,000	2,900	3,100	3,500	4,000	4,300	4,500	5,000	5,100	5,100
Retail Trade	15,300	15,400	16,000	16,400	17,800	18,600	19,700	20,300	20,800	22,000
FIRES *	3,900	4,100	4,100	4,500	4,700	4,600	4,700	4,900	5,300	4,700
Services	17,200	17,600	18,700	20,300	21,800	23,100	24,400	25,200	26,600	27,000
Government	14,100	14,500	15,000	15,600	16,200	16,800	9,300	17,900	18,500	19,200
Total Nonfarm Employment	80,900	80,600	83,800	89,200	95,500	100,200	97,000	109,400	112,800	113,800

Source: Washington State Employment Security Department
**FIRES represents the finance, insurance and real estate sector*

Table 1.2.6 Sector Employment Change

EMPLOYMENT SECTOR	1990-94		1995-99		1990-99 Change	1990-99 Change	1990-99 Average Annual Growth	1990-99 Average Annual Growth
	#	%	#	%	#	%	#	%
Manufacturing	1,900	11.1%	-200	-1.1%	1,700	9.9%	189	1.1%
Construction & Mining	1,200	18.5%	2,600	33.8%	3,800	58.5%	422	6.5%
Transportation & Utilities	500	13.2%	2,400	55.8%	2,900	76.3%	322	8.5%
Wholesale Trade	1,000	33.3%	1,100	27.5%	2,100	70.0%	233	7.8%
Retail Trade	2,500	16.3%	4,200	23.6%	6,700	43.8%	744	4.9%
FIRES	800	20.5%	0	0.0%	800	20.5%	89	2.3%
Services	4,600	26.7%	5,200	23.9%	9,800	57.0%	1089	6.3%
Government	2,100	14.9%	3,000	18.5%	5,100	36.2%	567	4.0%
Total Nonfarm Employment	14,600	18.0%	18,300	19.2%	32,900	40.7%	3656	4.5%

Source: Washington State Employment Security Department

Data Collection

Job totals represent non-agricultural wage and salary workers. The data are divided into 1990-1994 and 1995-1999 employment growth with 1990 providing the base for employment growth during the four years prior to the adoption of the Comprehensive Plan. The 1994 figures become the base for measuring growth since the implementation of the plan covering 1995 through 1999.

Observations

- Since 1990, 32,900 new jobs have been added to the Clark County work force, with 18,300 jobs added since the adoption of the Comprehensive Plan in late 1994.

- The 1994-1999 trend shows the largest sector growth has occurred in services, retail trade, and government, adding 5,200, 4,200 and 3,000 jobs respectively.

- With the exception of the FIRES and Manufacturing, which experienced a loss or no growth in Post-GMA employment, the remaining sectors showed higher Post-GMA employment gains.

INDICATOR: Manufacturing Sector Employment Growth

Background and Relevance

Manufacturing employment provides some of the higher wage jobs within Clark County. From a land use perspective, manufacturing employment is closely associated with more intensive uses requiring large facilities and larger parcels of land to attract new employers.

Table 1.2.7 Manufacturing Sector Employment in Clark County

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Manufacturing	17,100	16,000	16,700	18,300	19,000	20,100	20,200	20,500	20,000	18,800
Lumber & Wood Products	1,600	1,500	1,500	1,600	1,600	1,300	1,200	1,300	1,100	1,100
Metals & Metal Products	1,900	1,600	1,600	1,700	1,800	2,100	2,100	1,900	1,700	1,600
Machinery & Computers	2,200	2,400	2,800	3,700	3,800	4,100	4,500	4,700	4,300	3,500
Electronics & Instruments	3,500	2,900	3,100	3,200	3,400	3,900	4,200	4,600	5,000	4,900
Other Durable Goods	900	900	800	900	1,000	1,200	1,000	1,000	1,100	1,200
Durable Goods	10,100	9,300	9,800	11,100	11,600	12,600	13,000	13,500	13,200	12,300
Food Processing	1,200	1,200	1,300	1,300	1,300	1,200	1,200	1,100	1,100	1,100
Textiles & Apparel	1,000	1,000	1,000	1,100	1,100	1,100	1,000	1,100	1,000	800
Paper Products	3,300	3,100	3,100	3,200	3,200	3,100	2,800	2,700	2,700	2,600
Plastics	800	600	700	800	900	1,000	1,100	1,100	1,000	1,000
Other Nondurable Goods	800	900	900	900	1,000	1,000	1,100	1,100	1,100	1,100
Nondurable Goods	7,100	6,800	7,000	7,300	7,500	7,400	7,200	7,100	6,900	6,600

Source: Washington State Employment Security Department. Totals and subtotals may not add due to rounding.

Table 1.2.8 Manufacturing Sector Employment Change

	Number Change (1990-94)	Percent Change (1990-94)	Number Change (1994-99)	Percent Change (1994-99)	Number Change (1990-99)	Percent Change (1990-99)	Average Annual Growth	Average Annual Growth
Manufacturing	1,900	11.1%	-200	-1.1%	1,700	9.9%	189	1.1%
Lumber & Wood Products	0	0.0%	-500	-31.3%	-500	-31.3%	-56	-3.5%
Metals & Metal Products	-100	-5.3%	-200	-11.1%	-300	-15.8%	-33	-1.8%
Machinery & Computers	1,600	72.7%	-300	-7.9%	1,300	59.1%	144	6.6%
Electronics & Instruments	-100	-2.9%	1,500	44.1%	1,400	40.0%	156	4.4%
Other Durable Goods	100	11.1%	200	20.0%	300	33.3%	33	3.7%
Durable Goods	1,500	14.9%	700	6.0%	2,200	21.8%	244	2.4%
Food Processing	100	8.3%	-200	-15.4%	-100	-8.3%	-11	-0.9%
Textiles & Apparel	100	10.0%	-300	-27.3%	-200	-20.0%	-22	-2.2%
Paper Products	-100	-3.0%	-600	-18.8%	-700	-21.2%	-78	-2.4%
Plastics	100	12.5%	100	11.1%	200	25.0%	22	2.8%
Other Nondurable Goods	200	25.0%	100	10.0%	300	37.5%	33	4.2%
Nondurable Goods	400	5.6%	-900	-12.0%	-500	-7.0%	-56	-0.8%

Source: Washington State Employment Security Department

Observations

- At the subsector level, manufacturing employment has been cyclical, with a net gain of 1,700 jobs and a 10% growth rate over the last 9 years.

- There has been major growth in the machinery and computers, and electronics and instruments subsector, adding 2,700 new jobs. Several new high tech and manufacturing industries began operation after 1995, including Sharp Industries of America, Transition Technology International, Chen Instrument Design, Siemens Solar Industries, Bodycote IMT, Norwesco Inc., Landa Inc., Electric Lightwave, Nutrition Now, PureTec Manufacturing, WaferTech, Wacom Technology, and Furuno USA. Major expansions adding new jobs include SEH America and PureTec Manufacturing. The growth in these sub-sectors offset the loss of jobs at Hewlett Packard.

- There has been significant job loss in the lumber and wood products, metals and metal products, food processing, and paper product sub-sectors, losing a total of 1,600 jobs. While these job losses follow the national trend away from resource employment, at the local level two significant events occurred in 1996 affecting employment: the Boise Cascade layoff left 313 people unemployed and Fort Vancouver Plywood closed its doors, leaving 179 people out of work.

INDICATOR: Average Annual Wage Per Worker

Background and Relevance

This section compares the county's average wage per covered worker with that of the state. It also shows how the average annual wage has changed over time. It is important to note that this section does not include Clark County residents who are employed outside of the county.

The county's Comprehensive Plan contains an Economic Development Element that establishes several goals related to the recruitment and retention of high wage employers. The plan also gives particular emphasis to designating sufficient industrial land to encourage the generation of these jobs.

Table 1.2.9 Average Annual Wages Per Covered Worker in Clark County

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Clark County	**$21,011**	$22,179	$23,257	$23,853	$24,559	$25,535	$27,004	$28,141	$29,322
Washington	**$22,635**	$23,936	$25,540	$25,747	$26,338	$27,422	$28,884	$30,480	N.Y.A
CC Annual Wage as a % of Washington Wage	**93%**	93%	91%	93%	93%	93%	93%	92%	N.Y.A

Source: Washington State Employment Security Department
***Bold denotes 1990 Census Data**

Data Collection

Average annual wage estimates were obtained from the Washington Department of Employment Security and include all non-agricultural wage and salary employees in Clark County. The average annual wage per worker is reported in current dollars per covered employee for each year. Covered workers are those covered under the Washington State Employment Security Act.

Observations

- Average annual wage in Clark County has grown nearly 15% since 1995.
- Despite the growth in non-farm employment, the average wage in Clark County has remained below the state average throughout the period.

INDICATOR: Wages by Sector Using 1997 Constant Dollars

Background and Relevance

Constant dollars are corrected for inflation to reflect the purchasing power of dollars earned in 1997. This information allows comparisons of how well average wages in the major employment sectors have fared since 1990.

Table 1.2.10 Non-Agricultural Wages in Clark County using 1997 Constant Dollars

Sector	1990 Wage	1994 Wage	1990 to 94 Growth	1995 Wage	1996 Wage	1997 Wage	1995 to 97 Growth	% Change 90 to 97
Construction & Mining	**$27,500**	$26,360	-4.2%	$26,777	$28,969	$31,518	19.6%	14.6%
FIRES	**$25,830**	$25,576	-1.0%	$26,360	$28,983	$29,124	13.9%	12.8%
Government	**$29,285**	$31,042	6.0%	$30,350	$31,951	$32,129	3.5%	9.7%
Manufacturing	**$33,028**	$33,341	1.0%	$34,420	$36,867	$38,465	15.4%	16.5%
Services	**$18,211**	$19,477	7.0%	$20,181	$22,676	$22,672	16.4%	24.5%
Transportation & Public Utility	**$27,597**	$32,063	16.2%	$33,321	$35,858	$37,202	16.0%	34.8%
Wholesale & Retail Trade	**$16,476**	$17,606	6.9%	$17,860	$18,880	$19,407	10.2%	17.8%

Source: Washington State Employment Security Department and Clark County Department of Long Range Planning
** FIRES represents the finance, insurance and real estate sector*
***Bold text denotes 1990 Census Data**

Data Collection

The Washington State Employment Security Department provided data on Clark County wages by sector and adjusted for inflation to reflect the value of 1997 dollars. The 1994 wage is used as the base to measure the 1995-1997 growth.

Observations

- All employment sectors show increases.
- The smallest growth in wages is seen in the government sector. The transportation and public utilities sector shows the largest growth in wages.
- Post 1994, wage growth reflects larger wage increases in all employment sectors except government, and transportation and utilities.

INDICATOR: Per Capita Personal Income

Background and Relevance

Per capita income is a measure of the total county income including wages, some benefits, investments, interest and transfer payments divided by the total county population. (Median Household Income is reported in the Price of Housing section, page 34)

Table 1.2.11 Clark County Per Capita Personal Income

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Per Capita Income	**$18,631**	$18,829	$19,788	$20,663	$21,450	$22,579	$23,819	25,599	N.Y.A
Inflation-adjusted	**$22,599**	$21,917	$22,301	$22,684	$22,990	$23,586	$24,459	25,803	N.Y.A
as a percent of US	**97.3%**	96.0%	96.3%	97.4%	97.3%	97.9%	98.6%	101.2%	N.Y.A
as a percent of State	**95.0%**	92.3%	92.3%	93.8%	94.5%	95.4%	95.4%	96.8%	N.Y.A

Source: Washington State Employment Security Department
***Bold text denotes 1990 Census Data**

Data Collection

The Washington State Employment Security Department provided the per capita personal income data table used above.

Observations

- Per capita personal income increased by 13% between 1995 and 1997.
- The Clark County per capita personal income exceeded the national average for the first time in 1997. Per capita personal income falls short of the state income level, but is bridging the gap from a low of 7.7% in 1991 and 1992 to 3.2% in 1997.

INDICATOR: Price of Raw Land

Background and Relevance

The price of raw land is an important component in the development of residential, commercial and industrial property. The following table is based on sales information compiled over a four-year period.

Table 1.3.1 Price of Raw Land 1994 & 1998

Property Type	1994	1998	Annual Increase
Single Family Lots	$37,000/lot	$48,000/lot	6.5%
Single Family Land	$45,000/acre	$75,000/acre	13.5%
Multi-Family Land	$75,000/acre	$115,000/acre	11.5%
Commercial			
Small Prime Sites	$14/sf	$20/sf	9.5%
Large Tracts	$4.50/sf	$6.50/sf	9.5%
Industrial			
Small Parcels (1-3 acres)	$1.75/sf	$3.50/sf	19%
Large Parcels (7-20 acres)	$1.00/sf	$2.00/sf	19%

Source: From an analysis of Clark County land price completed for Clark County 1998 TIF update project by Palmer, Groth, & Pietka through Century West Engineering.

Table 1.3.2 Summary Table: Price of Raw Urban Land in Clark County 2000

	Avg Sale Price	Avg Parcel Size Acres	Avg Price per Acre	Avg Price per Square Foot
Single Family Residential	**$598,958**	**10.6**	**$56,445**	**$1.30**
Avg 0-4.99 acres	$181,742	2.3	$77,377	$1.78
Avg 5-9.99 acres	$456,135	6.5	$69,680	$1.60
Avg 10 + acres	$1,359,381	27.1	$50,244	$1.15
Multi Family Residential	**$298,866**	**2.2**	**$134,820**	**$3.10**
Avg 0-4.99 acres	$197,561	1.1	$172,151	$3.95
Avg 5-9.99 acres	$666,804	5.6	$119,242	$2.74
Avg 10 + acres	$1,050,545	11.4	$91,992	$2.11
Commercial	**$588,076**	**1.6**	**$344,354**	**$7.91**
Industrial	**$299,041**	**4.5**	**$65,803**	**$1.51**

Source: Sample of 57 recent single family land transactions, 40 multi-family land transactions, 33 commercial transactions and 19 industrial transactions compiled by Riley and Marks, Inc.

Data Collection

The Table 1.3.1 and 1.3.2 both present information on the price of raw land in Clark County, each one using a slightly different methodology. The data analysis presented in table 1.3.1 reflects a four-year change from the middle of 1994 to the middle of 1998. For single-family lot sales, the focus was in the Orchards area, east of I-205. The Ashley Heights subdivision was also studied to determine the consistency of property value increases for single-family lots. The basic lot was defined as having 6,000 square feet, with no special amenities. Residential land was not as straight-forward because of the many factors influencing value, including location, zoning, "offsites," and approvals.

1.3 PRICE OF RAW LAND

Multiple-family residential land has many of the complexities of single-family land but is also influenced by impact fees that were implemented and changed during the study period. Commercial land was divided into two categories. The first included small, prime commercial pads. The second category included large acreage tracts suitable for shopping-center- type developments.

Table 1.3.2 presents cost of raw land information from a sample of recent sales in urbanized Clark County. The information presented in this table is consistent with that provided in Table 1.3.1 for residential uses. Raw commercial and industrial land prices as reflected in the recent sales table are somewhat different than that reported in Table 1.3.1.

Observations

- Single-family lots and commercial land values increased in range on the low end from 6.5% to 9.5%.

- Commercial land was divided into small prime sites and large tracts; both property types showed an annual increase of 9.5%.

- Industrial land, which was also divided into two categories, increased by 19% in both the small-and large-parcel categories.

The following table is a summary of raw land prices by square footage and lot size, for single-family, multi-family, commercial and industrial based on sales information for 1998.

Table 1.3.3 Price or Urban and Rural Land

SFR (lots)	3,000-6,000 sq. ft.	$45,000
	7,000-10,000 sq. ft.	$60,000
	10,000-20,000 sq. ft.	$75,000
SFR (land)	1 to 5 acres	$80,000/acre
	5 to 20 acres	$70,000/acre
	More than 20 acres	$60,000/acre
Multifamily Land	Less than 5 acres	$120,000
	5 or more acres	$120,000
	More than 10 acres	$120,000
Apartment-Office Land	Less than 5 acres	$5.00/sq. ft.
	More than 5 acres	$3.00/sq. ft.
Commercial Land	Less than 2 acres	$8.00/sq.ft.
	2 to 5 acres	$5.00/sq. ft.
	More than 5 acres	$3.00/sq. ft.
Commercial Land (CH)	Less than 2 acres	$15.00/sq. ft.
	2 to 5 acres	$8.00/sq.ft
	2 to 5 acres	$5.00/sq. ft.
Industrial Land	Less than 3 acres	$3.50/sq. ft.
	3 to10 acres	$2.50/sq. ft.
	More than 10 acres	$2.00/sq. ft.

Residential Homesites	Urban Reserve	$30,000/acre
	5 – acre home-sites	$20,000/acre
	10 –acre home-sites	$13,000/acre
	Larger ag homesites	$7,000/acre
Commercial Land	Low- Intensity	$3.00/ sq. ft.
	High – Intensity	$6.00/ sq. ft.
	High – Intensity (Pads)	$12.00/sq. ft.
Industrial Land	Less than 4 acres	$2.00/sq. ft.
	4 to 10 acres	$1.50/sq. ft.
	More than 10 acres	$1.00/sq. ft.
Agricultural	All	$2,000/acre
Forest	All	$3,000/acre
	All	$2,000/acre
Urban Holding	All	$15,000/acre

Source: From an analysis of Clark County land price completed for Clark County 1998 TIF update project by Palmer, Groth, & Pietka through Century West Engineering.

INDICATOR: Component Costs of New Housing

Background and Relevance

Examining the individual factors of housing costs can provide an indication of how they may influence housing affordability. Housing costs are usually determined by a basic set of components, although the precise allocation of these costs will vary according to design, quality of construction, location, and other considerations.

Table 1.4.1 Estimated Component Cost for a Prototype 1,500 S.F. Home in Clark County

Component	1995/96 Cost	1997/98 Cost	$ Cost Change
Construction-labor and materials	$68,000	$70,000	$2,000
Developer overhead/profit	$18,000	$17,600	($400)
Land	$13,000	$22,700	$9,700
Infrastructure	$11,000	$12,200	$1,200
Planning permits and fees	$8,700	$6,500	($2,200)
Financing	$6,700	$6,000	($700)
Consultant fees	$6,600	$8,200	$1,600
Totals	$132,000	$143,200	$11,200

Source: Clark County Department of Community Services, Housing Data Report 1996, 1997.

Table 1.4.2 Estimated Component Percentage for a Prototype 1,500 S.F. Home in Clark County

Component	1995/96 % of Cost	1997/98 % of cost	% Change
Construction-labor and materials	52%	49%	-3%
Developer overhead/profit	13%	12%	-1%
Land	10%	16%	6%
Infrastructure	8%	9%	1%
Planning permits and fees	7%	5%	-2%
Financing	5%	4%	-1%
Consultant fees	5%	6%	1%
Totals	100%	100% *	N/A

Source: Clark County Department of Community Services
** Percent total does not add to 100% due to rounding.*

Table 1.4.3 Fee Comparison (Clark County Development Fees)

	1995	1997	1998	1999
Plan check Fee	$238.35	$238.35	$240.69	$289.82
Permit Fee	*$581.51*	$581.51	$585.11	$649.70
Tif –Ever	$1291.00	$1291.00	$1291.00	$(same as 98)
Pif - #5	$574.00	$894.00	$894.00/567.00	
Sif – Ever	$931.00	$931.00	$931.00/2150.00	
Total	$3615.86	$3935.86	$5727.80*	$5841.52*

*Impact fees depend on if plat has re-calced. Plats vested for 5 yrs from preliminary date.
Note: Fees vary by district, size of home and sq. footage. The table represented above is based on 2000 sq. ft. house w/400' garage in Hampton Court with an average lot size of 5400 sq. ft.

Data Collection

The previous data is taken from the 1996 and 1997 Update on Housing Affordability published by the Clark County Department of Community Services. The tables show an estimate of the dollar and percentage component costs experienced in the Vancouver area using a prototype of a 1,500-square-foot home on a 6,000-square-foot lot. The percent and dollar amount allocated to the land costs reflect the value of raw land without the normal site improvements such as paved streets, curbs and sidewalks. Permit and development fees vary based on location and type of home under construction. They may include building and planning permits, water quality permits, transportation review and impact fees incurred by the developer.

For additional information on building permit and associated impact fees, see table 1.4.3. The table as presented is based on 2000-square-foot house with 400-foot garage in Hampton Court with an average lot size of 5400-square-foot.

Observations

- Labor and materials represent the largest single component of housing costs. In 1997/98 this component was 49% of the total cost, down 3% from the 1995/96 period. Local and regional markets, particularly lumber prices, primarily influence labor and material costs.

- The cost component with the largest percentage increase between 95/96 and 97/98 is land at 6%.

- Financing costs represent the interest paid by developers; by 1997/98 it represented 4% of the total cost, down 1% from the previous period.

- In 1995/96 the cost of raw land and infrastructure (the two largest cost components) accounted for 25% of the total cost. For the following two years, the percentage had increased to 29%.

1.4 PRICE OF HOUSING

INDICATOR: Price and Size Characteristics of New and Existing Home Sales

Background and Relevance

The Comprehensive Plan promotes housing choice and affordability, and designates residential land in sufficient amounts to meet projected population growth. Monitoring the price and characteristics of housing provides a means of evaluating how they may affect policy objectives.

Looking at factors that influence the price of housing answers the basic questions residents have concerning housing affordability in Clark County. The size of a structure is the single element most closely associated with the cost of housing. The second largest cost is the building site, which reflects its size and location, recognizing there are external factors influencing prices. Tracking the price of housing, square footage and lot size in both rural and urban settings are an important consideration in a wide range of economic, land use, public service, and social policy issues. The following tables look at these factors for both new and existing single-family structures in both an urban and rural setting from 1995 to 1999.

Table 1.4.3 Price and Size Characteristics for Urban and Rural Residences

	Median Price of Existing Homes				Median Price of New Homes		
	UGA	Rural	% Difference		UGA	Rural	% Difference
1995	$119,000	$183,625	54.3%		$129,500	$187,950	45.1%
1996	$125,000	$185,975	48.8%		$129,930	$220,500	69.7%
1997	$130,000	$210,650	62.0%		$132,899	$257,725	93.9%
1998	$135,500	$209,600	54.7%		$138,899	$168,259	21.1%
1999	$138,732	$225,000	62.2%		$155,457	$169,776	9.2%
% Price Change 95 to 99	16.6%	22.5%			20.0%	-9.7%	

Source: Clark County Department of Assessment and GIS

	Median Size of Existing Homes				Median Size of New Homes		
	UGA	Rural	% Difference		UGA	Rural	% Difference
1995	1,521	1,951	28.3%		1,728	2,089	20.9%
1996	1,525	1,945	27.5%		1,729	2,239	29.5%
1997	1,529	1,963	28.4%		1,710	2,311	35.1%
1998	1,554	1,905	22.6%		1,716	2,214	29.0%
1999	1,544	2,038	32.0%		1,886	2,426	28.6%
% Price Change 95 to 99	1.5%	4.5%			9.1%	16.1%	

Source: Clark County Department of Assessment and GIS

Median Lot Size of Existing Homes			Median Lot Size of New Homes		
	UGA	Rural		UGA	Rural
1995	8,678	2.52		7,097	3.39
1996	8,517	2.45		7,443	2.51
1997	8,511	2.5		6,411	2.29
1998	8,347	2.51		6,121	1.84
1999	8,277	2.5		6,183	0.4*
% Lot size Change 95 to 99	-4.6%	-0.8%		-12.9%	-88.2%

Source: Clark County Department of Assessment and GIS

* This low figure for 1999 is based on several rural Planned Unit Development's with preliminary approval prior to 1994.

Data Collection

Sales of homes for the years 1995 through 1999 were taken from the assessor's records and are used in conjunction with the year built and sales history. Existing sales are compared with sales of new homes for each of these years, recognizing that the new sales in one year may become part of the existing home sales in the following years. Sales prices are based on improved lots with a single-family residence and do not include sales of unimproved lots.

Observations

- The median housing prices for new homes in the urban areas and existing homes in both urban and rural areas have increased from 1995 through 1999, with the rural area consistently more expensive than the median priced home in the urban area.

- The median size of both existing and new homes in the rural area is consistently larger than its urban counterpart. The size difference of existing homes in the urban and rural settings range from 22% to 32%. The size difference of new homes ranged from a low of 21% in 1995 to a high of 35% in 1997.

- The decline in median lot size to less than half an acre for new homes in the rural areas can be attributed to several Planned Unit Developments that were approved prior to adoption of the comprehensive plan. (This impacts the calculated percentage change)

- The median lot size for new and existing homes in both urban and rural areas has decreased since 1995.

- The median lot size for existing homes in the urban area remains above 8,000-square-feet for all five years, though it has declined by 4.6% from 1995. The median lot size for new homes has fluctuated but is down from the 1995 figure.

1.4 PRICE OF HOUSING

INDICATOR: Cost Per Square Foot of Housing

Background

The cost per square foot is a standard measure for housing costs and provides a consistent method of comparison. This cost includes the value of the land.

Table 1.4.4 Median Cost Per Sq. Ft. of Existing Homes

	1995	1996	1997	1998	1999	% Price Change 95 to 99
UGA	$81.22	$84.72	$88.96	$91.37	$93.70	15.4%
Rural	$96.14	$99.07	$105.55	$110.54	$109.84	14.3%
% Difference	18.3%	16.9%	18.6%	20.9%	17.2%	

Source: Clark County Department of Assessment and GIS

Table 1.4.5 Median Cost Per Sq. Ft. of New Homes

	1995	1996	1997	1998	1999	% Price Change 95 to 99
UGA	$78.99	$81.29	$84.94	$87.57	$89.38	13.2%
Rural	$94.26	$97.49	$105.15	$78.46	$75.70	12.7%
% Difference	19.3%	19.9%	23.7%	-10.4%	-15.3%	

Source: Clark County Department of Assessment and GIS

Data Collection

The data used to calculate the median cost based on the per square foot of housing in urban and rural areas were taken from the tables in the previous section using assessor's records. The price per square foot of housing is calculated by dividing the square feet of housing including land by the recorded sales price.

Observations

- The cost per square foot of existing homes has grown at a slightly faster rate in the urban area than in the rural area.

- The price per square foot of new homes in the rural settings has decreased significantly since 1995. This may be attributable to the Planned Unit Developments that were approved prior to adoption of the comprehensive plan in 1995.

INDICATOR: Clark County Household Income in Current Dollars

Background and Relevance

Income determines the ability of a household to meet its basic needs. In the context of this report, tracking median income is important to determine housing affordability.

Table 1.4.6 Median Household Income from 1990-1999

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Median HH Income for Clark County	$32,498	$34,324	$34,909	$36,846	$38,694	$39,794	$42,365	$44,326	$45,448	$47,768
Median HH Income for Washington State	$31,798	$33,686	$34,980	$36,344	$37,166	$38,089	$39,899	$41,999	$44,134	$47,897
Clark County as a % of Washington Median HH Income	102%	102%	100%	101%	104%	105%	106%	106%	103%	99.7%

Source: Office of Financial Management

Data Collection

The median household income is the mid point of all household incomes, where half are above the mid point and the other half are below. Current dollars are unadjusted for inflation. The estimates are derived from several data sources including federal census money income, county level per capita income data, payroll data and state total personal income data compiled by the federal census, Bureau of Economic Analysis, and the state Employment Security Department.

Observations

- The increase in median household income between 1995 and 1999 for both Clark County and Washington State are 20% and 26%, respectively.

- Clark County median household income has exceeded the state average eight out of the last ten years.

INDICATOR: Housing Prices for Clark County

Background and Relevance

Affordable housing prices are of particular interest because they indicate the opportunity that individuals and families have for home ownership. Increases in housing prices, along with any changes in lending practices, affect the ability of the median income household to purchase a home.

Table 1.4.7 Housing Prices for Clark County

Year	Average List Price	Average Selling Price	Percent of Listing Price Received	Average Market Time Houses Sold (Days)*	Average Listing Price Houses Not Sold
1994	135,888	133,567	98	81	171,421
1995	143,950	140,944	98	87	176,609
1996	150,338	147,499	98	77	143,474
1997	160,656	157,970	98	73	178,242
1998	165,015	162,315	98	73	207,848
1999	171,110	168,180	98	79	206,041

Source: Clark County Department of Assessment and GIS, 2000 Population and Economic Handbook

After 180 days on the market

Data Collection

Data was collected through the Multiple Listing Service of Clark County.

Observations

- Since 1994, the average selling price has increased by 26%, which is equivalent to a $34,613 increase.
- The percent of listing price received has remained constant at 98%.

INDICATOR: Housing Affordability

The Washington Center for Real Estate Research at Washington State University in Pullman publishes quarterly information on housing affordability for the median income family and for first-time home buyers. This section presents the 1994 to 1999 index.

Data Collection Methods & Assumptions

Housing Affordability Index (HAI):
Assumptions: Median Price Home
20% down payment
30-year mortgage at prevailing interest rates
25% of annual income to mortgage payments
Calculation: (.25*(annual income/12)) / estimated monthly payment

First-Time Buyer's Affordability Index:
Assumptions: 85% of Median Price Home
10% down payment
30-year mortgage at prevailing interest rates + mortgage insurance
25% of annual income to mortgage payments
Calculation: Same as above

Interpretation

100 is the baseline score. When the HAI is equal to 100, then the median-income household can exactly afford monthly payments based on the assumptions presented above. At 120 the index indicates the same household has 20% more income than is needed, while at 80 it indicates a 20% shortfall.

Table 1.4.8 Clark County Results

Quarter	HAI	First time HAI
1994:Q2	136.7	85.8
1994:Q3	132.7	83.8
1994:Q4	131	82.8
1995:Q1	125.3	78.6
1995:Q2	127.6	79.4
1995:Q3	129.2	79.7
1995:Q4	134.2	82.2
1996:Q1	137.8	84.4
1996:Q2	127.3	78.7
1996:Q3	121.3	75.3
1996:Q4	124.1	77.4
1997:Q1	123.6	77.1
1997:Q2	121.5	75.8
1997:Q3	126.7	78.1
1997:Q4	132.4	81.4
1998:Q1	137.2	84.3
1998:Q2	135.9	83.1
1998:Q3	139.4	85.1
1998:Q4	145.8	88.7
1999:Q1	149.8	91.2
1999:Q2	143.7	87.7
1999:Q3	137.5	84.1
1999:Q4	137.8	84.4
2000:Q1	133.4	81.9

Source: WCRER, WSU Pullman

1.4 PRICE OF HOUSING

Observation

- In general housing affordability has increased, although first time home buyers are still below the "affordability threshold" defined by this measure.

INDICATOR: Sales of Existing and New Single-Family Residences by Zip Code

Background and Relevance

Comparing the average price change in single-family sales provides insight into housing trends and the affordability of Clark County neighborhoods by Zip code. Looking at the geographic distribution of average home sales can help the community understand issues of affordability and can be a useful tool in public policy discussions as it relates to land use. Potential homebuyers can use this information as a gauge of areas that may be affordable to them. Companies looking for new locations to expand take into consideration housing costs and look at areas where their potential employees can afford to live.

Table 1.4.8 1994-1998 Existing Single Family Sales by Zip Code

Zip Code	General Area	1994 Average Sale Price	1995 Average Sale Price	1996 Average Sale Price	1997 Average Sale Price	1998 Average Sale Price	94-98 $Change in Average Sale Price	94-98 %Change in Average Sale Price
98601	Amboy	$135,639	$113,763	$151,777	$171,115	$132,417	($3,222)	-2.38%
98602	Battle Ground	$160,503	$162,221	$170,027	$188,621	$180,999	$20,496	12.77%
98606	Brush Prairie	$193,039	$192,902	$213,676	$215,079	$234,161	$41,122	21.30%
97607	Camas	$155,516	$161,599	$172,355	$179,562	$195,674	$40,158	25.82%
98629	La Center	$179,622	$153,831	$155,045	$173,484	$196,680	$17,058	9.50%
98642	Ridgefield	$176,355	$168,681	$179,601	$229,404	$229,177	$52,822	29.95%
98660	DT Lincoln	$83,218	$90,796	$100,221	$108,786	$108,654	$25,436	30.57%
98661	Vancouver	$104,063	$111,271	$118,641	$124,323	$130,657	$26,594	25.56%
98662	Orchards	$112,095	$125,071	$129,122	$138,069	$141,047	$28,952	25.83%
98663	West Vancouver	$89,753	$103,076	$106,763	$110,836	$113,050	$23,297	25.96%
98664	Heights	$113,362	$124,714	$134,023	$141,435	$144,230	$30,868	27.23%
98665	Hazel Dell	$129,371	$140,466	$139,835	$149,944	$160,751	$31,380	24.26%
98671	Washougal	$128,694	$129,082	$146,668	$148,551	$148,084	$19,390	15.07%
98674	Woodland	$125,500	$187,644	$163,568	$178,616	$220,253	$94,753	75.50%
98675	Yacolt	$110,250	$135,870	$130,696	$160,633	$177,338	$67,088	60.85%
98682	Evergreen	$108,153	$120,685	$124,222	$130,370	$140,231	$32,078	29.66%
98683	Cascade Park 2	N/A	N/A	$155,820	$185,999	$176,008	$20,188	12.96%
98684	Cascade Park 1	$139,950	$138,396	$134,289	$141,361	$148,424	$8,474	6.06%
98685	Salmon Creek/ Felida	$148,546	$154,239	$169,180	$174,841	$179,440	$30,894	20.80%
98686	99th St.-199th St. East I-5	$156,242	$173,682	$170,811	$189,958	$185,399	$29,157	18.66%

Source: Real Estats, December Reports for 1994-1998

Table 1.4.9 1994-1998 New Single-Family Sales by Zip Code

Zip	General Area	1994 Average Sale	1995 Average Sale	1996 Average Sale	1997 Average Sale	1998 Average Sale	94-98 $ Change in Average Sale	94-98 % Change in Average Sale
98601	Amboy	$168,450	$157,000	$160,000	$203,631	$209,768	$41,318	24.5%
98602	Battle Ground	$124,875	$132,338	$126,768	$141,492	$151,235	$26,360	21.1%
98606	Brush Prairie	$216,503	$228,994	$247,289	$330,186	$418,264	$201,761	93.2%
97607	Camas	$146,615	$157,948	$196,044	$212,611	$210,923	$64,308	43.9%
98629	La Center	$155,422	$149,180	$123,585	$162,789	$180,781	$25,359	16.3%
98642	Ridgefield	$183,353	$218,947	$225,960	$284,007	$263,215	$79,862	43.6%
98660	DT Lincoln	$96,206	$94,960	$112,250	$104,129	$120,681	$24,475	25.4%
98661	Vancouver	$125,111	$136,318	$140,127	$133,112	$158,029	$32,918	26.3%
98662	Orchards	$128,909	$129,999	$122,305	$142,951	$148,704	$19,795	15.4%
98663	West Vancouver	$125,583	$115,129	$112,210	$129,518	$126,824	$1,241	1.0%
98664	Heights	$160,521	$168,718	$174,437	$146,721	$170,390	$9,869	6.1%
98665	Hazel Dell	$149,951	$166,949	$133,311	$167,173	$167,526	$17,575	11.7%
98671	Washougal	$123,689	$155,788	$150,868	$145,287	$162,742	$39,053	31.6%
98674	Woodland	N/A	$155,000	$214,000	N/A	$331,000	$176,000	113.5%
98675	Yacolt	$126,697	$116,480	$171,725	$139,191	$135,032	$8,335	6.6%
98682	Evergreen	$106,416	$113,680	$124,552	$129,396	$135,526	$29,110	27.4%
98683	Cascade Park 2	N/A	N/A	$153,944	$147,954	$165,881	$11,937	7.8%
98684	Cascade Park 1	$154,007	$167,492	$157,443	$133,160	$118,721	($35,286)	-22.9%
98685	Salmon Creek/ Felida	$166,825	$199,506	$201,608	$214,753	$227,236	$60,411	36.2%
98686	99th St.-199th St. East of I-5	$202,701	$229,047	$185,141	$168,903	$173,328	($29,373)	-14.5%

Source: Real Estats, December Reports for 1994-1998

Data Collection

Data on the average sale by zip code comes from the December report of Real Estats for the years 1994 through 1998. New single-family sales include homes built during the current and previous year as identified by the year built in the Clark County assessor's records. Existing single-family sales include homes that are three years old and older.

Observations

- Over the last four years, the average selling price of an existing home in Clark County increased by more than 25.7%, averaging 6.4% each year. The average selling price of a new home increased more than 25.8%, or an average of 6.5% each year.

- The percentage change of the average-priced new and existing home tells a similar story, with existing homes ranging from a decrease of 2.4% to an increase of 75.5% and new homes ranging from a decrease of 22.9% to an increase of 113.5%.

- Older neighborhoods in Vancouver, such as Lincoln and other West Vancouver neighborhoods, consistently provide some of the more affordable existing housing in urban Clark County.

- Using a standard of 3:1 times the average annual household income of $45,448, by 1998 only the Lincoln neighborhood area and Evergreen areas were affordable for the average priced existing home within the urban setting. For the average priced new home, only Lincoln, West Vancouver, Evergreen, and some areas of Cascade Park were affordable.

- There was very little opportunity for home ownership in a more rural setting for households achieving the median income. By 1998, only Amboy offered existing housing and Yacolt offered new housing in the rural setting with an average sales price that could be purchased by the median income household. Rural housing opportunities are generally well beyond the median income household's ability to purchase.

INDICATOR: Average Mortgage Interest Rates

Background and Relevance

The mortgage interest rate is one of the principal factors that influence housing cost. The current mortgage interest rate available at any given time may vary based on the percentage of down payment, credit history of the purchaser and other considerations. The impact of mortgage interest rates on housing affordability is illustrated by comparing the fixed monthly payment at the varying interest rates using a fixed mortgage amount.

Table 1.4.10 Annual Average Interest Rates

Calendar Year	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Mortgage Interest Rate	13.76	10.13	9.25	8.4	7.33	8.36	7.96	7.81	7.6	6.95	7.43
Mortgage Payment *	$1,166	$887	$823	$762	$688	$759	$731	$721	$706	$662	$694

Source: State of Washington 1997 Data Book and Office of the Forecast Council

**Based on a $100,000 loan*

Data Collection

The 1980 through 1996 mortgage interest rates are from the State of Washington 1997 Data Book published by the Office of Financial Management. This data book is published every two years. The mortgage interest rates for 1997 and 1998 were provided by the Office of the Forecast Council and provides OFM with the interest rates. The Federal Home Loan Mortgage Corporation (FHLMC) collects the annual mortgage interest rate. Rates represent a national average from a survey of mortgage lenders for 30-year mortgage rates based on an 80% loan. The mortgage payment calculation is based on a $100,000 loan using the average annual interest rate for any given year.

Observations

- Since 1995, the interest rate has fluctuated between approximately 7 and 8 percent.

- The mortgage payment on a $100,000 loan has dropped $193 from 1990 to 1999. In comparing a single percentage point change in the interest rate using the difference between 7.5% and 8.5%, the monthly payment is $699.21 and $768.91 respectively. Each percentage point increase in the interest rate adds $69.70 to the monthly payment on a $100,000 loan.

INDICATOR: Average Rental Rates

Background and Relevance

The general guideline for the maximum expenditure a household of four should pay per month for rental housing is 30% or less of household income, including $80 per month for utilities. Rental housing is an essential component of the local housing market. It provides housing opportunities for households who choose not to own homes, as well as opportunities for households that cannot afford to own homes.

Table 1.4.11 Recommended Maximum Expenditures per household for 1999

Household with Four Members	% of County Median Income	Maximum Household Annual Income *	Maximum Affordable Monthly Rent **
Extremely Low Income	0% to 30%	$14,306	$278
Very Low Income	31% to 50%	$23,884	$517
Low Income	51% to 80%	$38,214	$875
Moderate Income	81% to 100%	$47,768	$1,114
Middle Income	101% to 120%	$57,322	$1,353

Source: Department of Community Services and Long Range Planning
** 1998 Median Household Income for 1999 is $47,768.*
*** Monthly rent minus $80 for utilities.*

Table 1.4.12 Average Rents based on Bedroom and Bath Count from 1995 and 1996

Style	1995			1996		
	Blt before 1980	Built 1980-90	Blt after 1990	Blt before 1980	Built 1980-90	Blt after 1991
1BR/1BA	$425	$485	$541	$435	$522	$564
2BR/1BA	$495	$523	$533	$524	$542	$550
2BR/2BA	$640	$613	$644	$746	$633	$678
3BR/2BA	$629	$740	$744	$630	$762	$733

Source: "The McGregor Millette Report," Fall/Winter, 1995 and 1996.

Table 1.4.13 Average Rents based on Bedroom and Bath Count, 1997 and 1998

Style	1997			1998		
	Blt Before 1980	Built 1980-90	Built after 1991	Blt Before 1980	Built 1980-90	Built after 1991
1BR/1BA	$460	$537	$585	$473	$533	$592
2BR/1BA	$542	$565	$574	$551	$573	$572
2BR/2BA	$768	$656	$701	$775	$659	$718
3BR/2BA	$675	$817	$847	$605	$813	$850

Source: "The McGregor Millette Report," Fall/Winter, 1997 and 1998.

Table 1.4.14 Average Rents based on Bedroom and Bath Count, 1999

Style	1999		
	Blt Before 1980	Built 1980-90	Built after 1991
1BR/1BA	$471	$540	$610
2BR/1BA	$558	$587	$586
2BR/2BA	$734	$654	$721
3BR/2BA	$715	$786	$878

Source: "The McGregor Millette Report," Fall/Winter,1999.

Data Collection

Countywide monthly rental information is not readily available. Rental data within the Hazel Dell area in Vancouver has been compiled in a report published semi-annually by McGregor Millette in Portland, Oregon. There are several variations of bedroom and bath count within the rental market. The room count selected represents the more typical rental units within the Vancouver area. The household categories and percentage of county median income are measures of affordability used by the Department of Housing and Urban Development and tend to be the standard used for many housing policies. The OFM median household income figure of $47,768 is used since it is data collected from Clark County. The HUD income figure was not used because it is an average for the entire Portland/Vancouver area, and overstates actual Clark County median income.

Observations

- The rental market price tends to have more fluctuation than the home ownership housing market. Between 1995 and 1999, there were some rent decreases for units built between 1980 and 1990.

- Between 1995 and 1999, rents have fluctuated from a decrease of almost 4% to an increase of slightly more than 18%.

- Using HUD measures for affordable rental housing, households falling in extremely low and very low-income brackets must look for assistance to meet their housing needs in the rental market. In 1999, households at 80% of median household income were able to meet their housing needs with most rental units available.

INDICATOR: Change in Gross Vacant and Underutilized Residential Land Supply

Background and Relevance

This section provides information on the change in land supply for the land use types of residential, commercial and industrial. The emphasis is to determine how much land has been absorbed. This was done by looking at the *gross* acreage absorbed based on land use designations within the urban growth area and the 2000 vacant lands analysis. The data are presented in gross numbers because the indicator is not intended to measure whether the supply of available land is sufficient to accommodate anticipated growth. Therefore, no net supply of available land is presented in this section. See Appendix A for net available lands by urban growth area using the assumptions and deductions that were applied to the vacant and buildable lands in 1995 (for more information, see the 20 Year Comprehensive Growth Management Plan, *Vacant Land Analysis*, December 1994).

Other information includes the rate of land and housing units being absorbed and the examination of the 60/40 target for single-family/multi-family share of total housing. The 60/40 target is the ratio identified as optimum for urban area in the Comprehensive Plan.

This analysis is important because the County Plan Amendment Ordinance requires that at least 75% of the available residential and commercial and 50% of the industrial land supply within the UGAs must be developed before a proposal to expand a boundary can be considered.

The information for residential land development is presented in three tables below. One for lands designated as vacant, one for lands designated as underutilized and one showing the total change. The change in available lands can not necessarily all be attributed to development. There are several potential sources of change in land supply:

- Development
- Change in vacant and buildable lands model criteria and definitions
- Changes to critical lands, including both updated information on critical areas, and redefinition of what is critical

Table 1.5.1 Gross Residential Vacant

Gross Residential Vacant	1995	2000	change	percent change
Battle Ground	1274	547.4	-726.6	-57%
Camas	1871	444.1	-1426.9	-76%
La Center	209	106.2	-102.8	-49%
Ridgefield	716	294.5	-421.5	-59%
Vancouver	6208	2826.7	-3381.3	-54%
Washougal	935	447.3	-487.7	-52%
Yacolt	96	0.1	-95.9	-100%
Totals	11309	4666.3	-6642.7	-59%

Source: Clark County Department of Assessment and GIS

Table 1.5.2 Gross Residential Underutilized

Gross Residential Underutilized	1995	2000	change	percent change
Battle Ground	548	540.1	-7.9	-1%
Camas	442	346.7	-95.3	-22%
La Center	280	43.5	-236.5	-84%
Ridgefield	414	378.2	-35.8	-9%
Vancouver	2642	3896.2	1254.2	47%
Washougal	478	377.3	-100.7	-21%
Yacolt	8	0.1	-7.9	-99%
Totals	4812	5582.1	770.1	16%

Source: Clark County Department of Assessment and GIS

Table 1.5.3 Gross Residential Lands Summary Table

	Vacant & Underutilized 1995 (acres)	Vacant & Underutilized 2000 (acres)	Change (acres)	1995-2000 Percent Change	Avg. Annual Change
Battle Ground	1822	1087.5	-734.5	-40.3%	-8.1%
Camas*	2313	790.8	-1522.2	-65.8%	-13.2%
La Center	757	149.7	-607.3	-80.2%	-16.0%
Ridgefield	1130	672.7	-457.3	-40.5%	-8.1%
Vancouver	8850	6722.9	-2127.1	-24.0%	-4.8%
Washougal	1425	824.6	-600.4	-42.1%	-8.4%
Yacolt	104	0.2	-103.8	-99.8%	-20.0%
Totals	**16401**	**10248.4**	**-6152.6**	**-37.5%**	**-7.5%**

Source: Clark County Department of Assessment and GIS

** Note: This includes about 600 acres (an area known as the Camas Meadows) which was zoned single family residential in 1995. In 1996, the area was annexed within the city limits of Camas and designated as industrial.*

Note: These numbers reflect updated definitions of vacant and buildable lands reported in Appendix

Data Collection

The acreage totals in the previous tables were developed using the county Geographic Information System (GIS) vacant and buildable lands model. Data from the comprehensive plan maps adopted by each urban growth area during the GMA process in 1995 were compared with their 2000 comprehensive plan maps. The evaluation uses modeling assumptions established for the process and allows for a meaningful data comparison.

Observations

- In 1995, there were about 16,401 gross vacant and underutilized residential acres in the urban areas compared with 10,248 acres in 2000. Since 1995, about 6,153 acres have been absorbed, or about 1,230 gross acres per year.

- Between 1995 and 2000, 24% of total identified vacant residential lands within the Vancouver urban growth area were absorbed. This is an average annual absorption of about 425 acres.

- Camas, La Center and Yacolt show more than 60% absorption of developed vacant and underutilized residential land since 1995. For the Camas UGA, it is important to

note that in 1994 the Camas Meadows area was designated as residential. This area of approximately 600 acres was annexed to the city in 1996 and the designation changed to industrial.

INDICATOR: Change in Commercial and Industrial Vacant and Buildable Land Supply

Background and Relevance

The county's Comprehensive Plan designates areas of buildable commercial and industrial lands in amounts needed to meet 20-year employment targets. Measuring how quickly these land supplies are developed is an important indicator of economic conditions at the local level. The County Procedures Ordinance requires that at least 75% of the available commercial land and 50% of the industrial land supply within the UGAs be developed before proposals to expand UGA boundaries can be considered.

Four tables follow. The first three present information on change in commercial land supply and on commercial development that has occurred. The comparison of results from 1995 and the present shows the total change in lands, but does not explain the components of change. There are several potential sources of change to the commercial land inventory:

- Development on vacant or underutilized lands
- Change in land use designation of lands (either addition or subtraction from inventory)
- Change in definition of vacant or underutilized status
- Change in definition of critical lands

Finally the fourth table presented below gives information on the change in industrial land inventory from 1995 to 2000.

Appendix A gives a more detailed breakdown of the information presented here.

Table 1.5.4 Gross Commercial Vacant Land

Gross Commercial Vacant	1995	2000	change	percent change
Battle Ground	76	93.7	17.7	23%
Camas	32	31	-1	-3%
La Center	8	21	13	163%
Ridgefield	76	164.8	88.8	117%
Vancouver	2069	1326.7	-742.3	-36%
Washougal	84	38.8	-45.2	-54%
Yacolt	23	0	-23	-100%
Totals	**2368**	**1676**	**-692**	**-29%**

Source: Clark County Department of Assessment and GIS

Table 1.5.5 Gross Commercial Underutilized Land

Gross Commercial Underutilized	1995	2000	change	percent change
Battle Ground	2	54.8	52.8	2640%
Camas	3	20.2	17.2	573%
La Center	0	10	10	na
Ridgefield	1	138.6	137.6	181%
Vancouver	260	303.8	43.8	17%
Washougal	5	12.5	7.5	150%
Yacolt	0	0	0	na
Totals	271	539.9	268.9	99%

Source: Clark County Department of Assessment and GIS

Table 1.5.6 Gross Vacant and Underutilized Commercial Land 1995-2000

Total Commercial Vacant and Underutilized	1995	2000	change	percent change	Avg. Annual Change
Battle Ground	78	148.5	70.5	90%	18%
Camas	35	51.2	16.2	46%	9%
La Center	8	31	23	288%	58%
Ridgefield	77	303.4	226.4	294%	59%
Vancouver	2329	1630.5	-698.5	-30%	-6%
Washougal	89	51.3	-37.7	-42%	-8%
Yacolt	23	0	-23.00001	-100%	-20%
Total	**2639**	**2215.9**	**-423.1**	**-16%**	**-3%**

Source: Clark County Department of Assessment and GIS

Table 1.5.7 Gross Vacant and Underutilized Industrial Land 1995-2000

	1995 Vacant & Underutilized	2000 Vacant & Underutilized	Change (acres)	Percent Change	Avg. Annual Change
Battle Ground	329	233.6	-95.4	-29.0%	-5.8%
Camas*	1,058	1,123.1	65.1	6.2%	1.2%
La Center**	352	0.0	-352	-100.0%	-20.0%
Ridgefield	781	428.0	-353	-45.2%	-9.0%
Vancouver	5,562	5,315.4	-246.6	-4.4%	-0.9%
Washougal	349	362.7	13.7	3.9%	0.8%
Yacolt	10	9.5	-0.5	-5.0%	-1.0%
Totals	8,441	7,472.3	-968.7	-11.5%	-2.3%

Source: Clark County Department of Assessment and GIS

*This includes addition of 600 acres for Camas Meadows.

** The data for La Center are from the 1994 planning area, which includes urban reserve area.

Data Collection

Data on vacant and underutilized land was collected using GIS. A more detailed explanation of the methods used in collecting the data is available in Appendix A.

Observations

- As indicated above, comparison for commercial development is difficult for a variety of reasons. Due to changes that have been made to the Comprehensive Plan in the form of plan amendments and related changes, comparing the original adopted plan map with the most current comprehensive plan in the 2000 vacant lands analysis presented some challenges. This is most evident in Battle Ground, Camas, La Center and Ridgefield urban growth areas.

- In the Vancouver UGA the results show that there are 1,631 acres of vacant commercial lands in 2000 compared with 2,329 in 1995 (30% change).

- In the Vancouver UGA 5,315 of industrial lands are Vacant or Underutilized in 2000 versus 5,562 in 1995 (4.4 % change).

- Overall change is about 1000 acres or 11.5% of total identified in 1995.

Gross Land: Residential, Commercial and Industrial

The following two tables are provided as a summary of the gross vacant residential, commercial, and industrial lands.

Table 1.5.8 Gross Land Availability Summary Table by UGA, 2000

	Residential Acres	Commercial Acres	Industrial Acres
Battle Ground	1,088	149	234
Camas	791	51	1123
La Center	150	31	0
Ridgefield	673	303	428
Vancouver	6,723	1,631	5315
Washougal	825	51	363
Yacolt	0	0	10
Sum*	10,250	2,216	7,473

Table 1.5.9 Gross Land Availability Summary Table by UGA, 1994

	Residential Acres	Commercial Acres	Industrial Acres
Battle Ground	1,822	81	329
Camas	2,313	35	1,058
La Center	757	8	352
Ridgefield	1,130	77	781
Vancouver	8,850	2,329	5,562
Washougal	1,425	89	349
Yacolt	104	23	10
Sum	16,401	2,642	8,441

Source: 1994 Clark County 20 year Comprehensive Growth Management Plan Vacant Lands Analysis

*Totals may be off due to rounding.

Table 1.5.10 Capacity of Estimated Buildable Lots in Rural Areas

Comprehensive Plan	Description	Resclass	Acres	Existing Lots	Potential Lots	Total Vacant Buildable Lots
16	Urban Reserve - Vacant	3	1,661.30	399	12	411
16	Urban Reserve - Underutilized	4	131.09	1,235	8	8
18	Rural 5 - Vacant	3	23,972.75	4,539	827	5,366
18	Rural 5 - Underutilized	4	9,095.82	10,594	1,088	1,088
19	Forest Tier 1 - Vacant	3	19,587.38	587	39	626
19	Forest Tier 1 - Underutilized	4	686.56	180	4	4
20	Forest Tier 2 - Vacant	3	17,492.94	1,285	27	1,312
20	Forest Tier 2 - Underutilized	4	793.72	1,038	11	11
21	Agriculture - Vacant	3	16,526.47	1,312	121	1,433
21	Agriculture - Underutilized	4	7,099.46	1,503	208	208
23	Agri-Wildlife - Vacant	3	1,679.21	56	1	57
49	Rural-10 - Vacant	3	9,479.72	1,064	202	1,266
49	Rural-10 -Underutilized	4	3,411.41	1,326	195	195
50	Rural-20 - Vacant	3	3,647.69	315	23	338
50	Rural 20 - Underutilized	4	825.92	364	25	25
			Total	25,797	2,791	12,348
			Built Lots	16,240		
			Vacant	9,557		
91	Rural Centers- Vacant	3		253	463	716
91	Rural Centers- Underutilized	4		498	513	513
			Total Rural Lots	26,548	3,767	13,577

Source: Clark County Department of Assessment and GIS

Data Collection

The vacant and buildable lands identification model, developed in a geographic information system by Clark County Assessment and GIS staff for plan monitoring, does not include rural areas (outside of UGAs). In order to assess development potential in the rural areas, a separate but parallel model process was developed.

Information on the number of available vacant and underutilized acres, existing, and potential lots by comprehensive plan designations is provided. Information for the rural centers is also included. It is important to note that the above data exclude lots of less than 1 acre as well as exempt parcels such as school sites, parks and public lands.

Observations

- There are 26,548 total rural lots of which 9,557 are vacant. There are 2,791 potential new lots based on zoning.

- Rural centers have 253 vacant lots with rural center potential at 463 lots.

- Given the underlying zoning, the total vacant and development potential in the rural areas is approximately 13,577 lots. Assuming 2.6 persons per household, overall additional rural capacity is approximately 35,300 persons at built out.

INDICATOR: Single-Family and Multi-Family Housing Split

Background and Relevance

The Clark County Comprehensive Plan has a countywide goal of achieving a 60/40 split for new single-family and multi-family residential development in the UGAs. To increase the range and affordability of housing, the 20-year plan has a countywide general goal for new single-family residential construction in the urban growth area of 60% of the total housing units; new multi-family units would account for the remaining 40%.

Table 1.6.1 Single-Family and Multi-Family Units Built by UGA: 1995-1999

		1995	% 1995	1996	% 1996	1997	% 1997	1998	% 1998	1999	% 1999	95 to 99	% 95 to 99
Battle Ground	SF	168	85%	337	99%	345	80%	221	98%	91	97%	1162	88%
	MF	28	15%	58	1%	2	20%	64	2%	3	3%	155	12%
	Total	196	100%	395	100%	433	100%	285	100%	94	100%	1,317	100%
Camas	SF	272	100%	306	100%	344	94%	249	100%	105	96%	1,276	91%
	MF	67	20%	9	3%	22	6%	31	12%	4	4%	133	9%
	Total	339	100%	315	100%	366	100%	249	112%	109	100%	1,409	100%
La Center	SF	68	96%	60	95%	86	78%	50	63%	25	100%	289	95%
	MF	6	8%	8	13%	0	0%	2	4%	0	0%	16	5%
	Total	74	100%	63	100%	86	100%	52	100%	25	100%	305	100%
Ridgefield	SF	31	100%	25	100%	30	100%	17	100%	10	71%	113	97%
	MF	0	0%	0	0%	0	0%	0	0%	4	29%	4	3%
	Total	31	100%	25	100%	30	100%	17	100%	14	100%	117	100%
Vancouver	SF	1,917	73%	2,119	70%	2,160	94%	2,249	65%	1300	76%	9,745	74%
	MF	722	27%	889	30%	148	6%	1,204	35%	405	24%	3,368	26%
	Total	2,639	100%	3,008	100%	2,308	100%	3,453	100%	1705	100%	13,113	100%
Washougal	SF	43	36%	98	90%	67	83%	83	98%	40	87%	331	75%
	MF	75	64%	11	10%	14	17%	2	2%	6	13%	108	25%
	Total	118	100%	109	100%	81	100%	85	100%	46	100%	439	100%
Yacolt	SF	9	100%	11	85%	10	100%	17	100%	3	100%	50	96%
	MF	0	0%	2	15%	0	0%	0	0%	0		2	4%
	Total	9	100%	13	100%	10	100%	17	100%	3	100%	52	100%
Rural	SF	536	100%	546	100%	528	98%	623	100%	315	100%	2,548	99.7%
	MF	0	0%	0	0%	8	2%	0	0%	0		8	0%
	Total	536	100%	546	100%	536	100%	623	100%	315	100%	2,556	100%
Sum	SF	3,044	77%	3,502	78%	3,570	95%	3,509	73%	1889	82%	15,514	80%
	MF	898	23%	977	22%	194	5%	1,303	27%	422	18%	3,794	20%
	Total	3,942	100%	4,479	100%	3,764	100%	4,812	100%	2311	100%	19,308	100%

Source: Clark County Department of GIS

Data Collection

Data provided by the county assessor's office were used to determine year built information and the number of units per multi-family parcel. Property tax codes were used to identify single-family and multi-family parcels. Year built information was used from the assessor's database as well as the number of units per multi-family. The

following Property Type Identification (PT1) codes were used to identify single family and multi-family parcels:

Single Family PT1 Codes

10 HOUSING UNITS, SINGLE FAMILY
11 Single family unit not sharing structure with other uses.
12 Single family unit sharing a common wall, individual lot ownership
13 Single family unit sharing structure or premises with other major use.
14 Single family unit subsidiary to a "more important" use.
15 Non-residential structure used as a single family dwelling.
16 Mobile home converted to permanent structure.
18 Single family cooperative housing unit.
19 Single family housing not elsewhere classified.

MultiFamily PT1 Codes

17 Single family condominium unit.
20 HOUSING UNITS, TWO FAMILY
21 Two family units side by side (one level).
22 Two family units partly or entirely over and under(townhouse).
23 Two family units sharing structure or premises with other major use
24 Two family units subsidiary to some "more important" use in same structure
25 None-residential structure used as two family housing unit
27 Two family units converted from single family housing unit.
29 Two family units not elsewhere classified.

30 HOUSING UNITS, MULTI-FAMILY
31 Multi-family units side by side.
32 Multi-family units above one another.(most apartment houses).
33 Multi-family units sharing premises with other major use.
34 Multi-family units subsidiary to some "more important" use
35 Non-residential structure used as a multi-family dwelling.
37 Multi-family units converted from single family housing unit.
38 Apartment – furnished (Personal property only)
39 Multi-family units not elsewhere classified.
71 One or more mobile homes not affixed to the land.
72 Mobil home residential court
76 Mobil home parks
77 Mobil home condominium park

It is important to note that the assessor's cycle runs from December 16 to December 15 of the following year.

Observations

- Clark County added 19,308 housing units from 1995 to 1999.
- During the same period, 80% of the new housing units constructed in Clark County were single-family and 20% were multi-family units.
- In the Vancouver UGA, the single-family/multi-family split from 1995 through 1999 was 74% / 26%. The split in 1999 was 76% single-family and 24% multi-family compared to 73% / 27% in 1995.

Table 1.6.2 Urban and Rural – Single Family/Multi-Family Split 1995-99

	January 1, 1995	Percent of Total	Growth 1995 to 1999	Percent of Growth	Growth Rate	December 31, 1999	Percent of Total
Single Family*	79,813		15,514		19.4%	95,327	
Urban	62,346	78.1%	12,966	83.6%	20.8%	75,312	79.6%
Rural	17,467	21.9%	2,548	16.4%	14.6%	20,015	20.4%
Multi-Family*	26,889		3,794		14.1%	30,683	
Urban	26,831	99.8%	3,786	99.8%	14.1%	30,617	99.8%
Rural	58	0.2%	8	0.2%	13.8%	66	0.2%
Total Housing*	106,702		19,308		18.1%	126,010	
Urban	89,177	83.6%	16,752	86.8%	18.8%	105,929	84.5%
Rural	17,525	16.4%	2,556	13.2%	14.6%	20,081	15.5%
Population^	284,442		52,638		18.5%	337,080	
Urban	232,888	81.9%	44,752	85.0%	19.2%	277,640	82.9%
Rural	51,554	18.1%	7,886	15.0%	15.3%	59,440	17.1%

Source: Clark County Department of Assessment and GIS
Notes: Single family and multi-family units are derived from Clark County Assessor records based on residential property types. Population estimates are based on housing unit counts and an average persons per household by sub area from the 1990 U.S. Census of Population and Housing.

* Housing Units; ^ Persons

Observations

- From 1995 through 1999, 15,514 single-family residential units were developed countywide, both inside UGAs and in the rural areas. 12,966 were inside the UGA and 2,548 were outside.
- From 1995 through 1999, 83.6% of single-family units developed were inside the UGAs and 16.4% were in the rural area.
- Between 1995 and 1999 total single family residential dwelling units increased by 20.8% within the urban growth areas and by 14.6% in the rural area.

- From 1995 through 1999, the number of multi-family units developed countywide was 3,794. Of those units 3,786 were inside the UGAs and 8 were in the rural area.

- From 1995 through 1999, the county population grew by 52,638 residents. Of that number 44,752 were inside the UGAs; 7,886 were in the rural area.

- The population split between those inside UGAs and those in the rural area in 1995 was 82 % and 18 % respectively. In 1999, the split was 83% urban and 17% rural.

- The rate of population growth from 1995 to 1999 inside UGAs was 19.2%. The rate of population growth in the rural area was 15.3%.

Table 1.6.3 New Building Construction Permits Activity : 1995- 1999

Incorporated	1995	%1995	1996	%1996	1997	%1997	1998	%1998	1999	%1999	95 to 99	%95 to 99
Battle Ground												
SF	169	98%	325	98%	349	95%	204	99%	126	100%	1173	98%
MF	4	2%	6	2%	18	5%	2	1%	0	0%	30	2%
Total	173	100%	331	100%	367	100%	206	100%	126	100%	1203	100%
Camas												
SF	275	91%	306	92%	343	91%	236	96%	205	78%	1365	90%
MF	27	9%	27	8%	34	9%	10	4%	58	22%	156	10%
Total	302	100%	333	100%	377	100%	246	100%	263	100%	1521	100%
La Center												
SF	29	83%	76	100%	93	98%	47	92%	23	100%	268	96%
MF	6	17%	0	0%	2	2%	4	8%	0	0%	12	4%
Total	35	100%	76	100%	95	100%	51	100%	23	100%	280	100%
Ridgefield												
SF	23	66%	15	100%	20	91%	21	88%	9	100%	88	84%
MF	12	34%	0	0%	2	9%	3	13%	0	0%	17	16%
Total	35	100%	15	100%	22	100%	24	100%	9	100%	105	100%
Vancouver												
SF	139	25%	556	59%	746	56%	230	30%	182	29%	1853	44%
MF	424	75%	392	41%	584	44%	537	70%	441	71%	2378	56%
Total	563	100%	948	100%	1330	100%	767	100%	623	100%	4231	100%
Washougal												
SF	17	52%	59	84%	66	78%	92	96%	135	94%	369	86%
MF	16	48%	11	16%	19	22%	4	4%	9	6%	59	14%
Total	33	100%	70	100%	85	100%	96	100%	144	100%	428	100%
Yacolt												
SF	8	100%	12	86%	9	100%	14	100%	7	100%	50	96%
MF	0	0%	2	14%	0	0%	0	0%	0	0%	2	4%
Total	8	100%	14	100%	9	100%	14	100%	7	100%	52	100%
Incorporated Total												
SF	660	57%	1349	75%	1626	71%	844	60%	687	57%	5166	66%
MF	489	43%	438	25%	659	29%	560	40%	508	43%	2654	34%
Total	1149	100%	1787	100%	2285	100%	1404	100%	1195	100%	7820	100%
Unincorporated												
SF	2206	89%	2911	79%	2056	91%	2216	88%	1837	95%	11226	87%
MF	266	11%	756	21%	207	9%	289	12%	101	5%	1619	13%
Total	2472	100%	3667	100%	2263	100%	2505	100%	1938	100%	12845	100%
Clark County												
SF	2866	79%	4260	78%	3682	81%	3060	78%	2524	81%	16392	79%
MF	755	21%	1194	22%	866	19%	849	22%	609	19%	4273	21%
Total	3621	100%	5454	100%	4548	100%	3909	100%	3133	100%	20665	100%

Source: Building Departments of Clark County and Municipalities.
Single Family Includes mobile homes; Multi-family includes duplexes.

Data Collection

Table 1.6.3 shows the building permit activity on an annual basis by city and unincorporated areas of the County. Data was compiled by the Department of

Assessment and GIS as provided by Building Departments of Clark County and the local municipalities. Building permits provide insight into the level of new construction activity. Due to construction lag time, this data does not reflect actual units constructed in a given year.

Observations

- From 1995 to 1999 a total of 2,654 multi-family and 5,166 single family permits were scheduled for construction within the city limits. The unincorporated areas account for 1,619 multi-family and 11,226 single family permits. This represents 79% single family and 21% multi family countywide.

- Vancouver, Ridgefield and Washougal were the only cities to have a ratio of less than 90% of single family permits issued. In 1996 and 1997 Vancouver led the area in both single family and multi-family permits issued. By comparison multi-family building permit activity in Vancouver is greater than elsewhere in the county.

1.7 INDUSTRIAL DEVELOPMENT

INDICATOR: Industrial Development Prepared by CREDC

Background and Relevance

Growth Management Act planning for Clark County industrial lands was conducted in cooperation with the Columbia River Economic Development Council (CREDC). Based on analysis and recommendations from the CREDC Industrial Land Needs Committee, the adopted comprehensive plan reflected a need for an estimated 100 acres per year or 150 acres including an adopted 50% market factor. Applied to a 20-year cycle, the need for 150 acres per year translates into a 3,000-acre target during the planning period for the conversion of land to prime and "industrial not vacant," meaning lands to create industry and jobs. The CREDC Industrial Land Task Force recently completed a study on industrial land absorption. The committee updated the industrial land inventory and provided information on absorption.

Data Collection

Industrial land absorption is defined as the transition or development of marginal or tertiary industrial land to prime industrial land by sale or lease to an end user, or sale to developers for development as an industrial or business park.

The following tables show the result of acreage absorbed from the categories of prime, secondary and tertiary lands between December 1994 and December 1997.

Table 1.7.1 Prime, Secondary and Tertiary Lands Absorbed 1994 - 1997

	Prime	Secondary	Tertiary	Total Acreage	Acreage per Year
Battle Ground	0	0	0	0	0
Camas	60	27	253	340	113.6
Ridgefield	0	0	28	28	9.3
Vancouver	146	108	30	284	94.6
Washougal	4	4	0	8	2.6
Total	210	139	311	660	220
% of Total	31.8%	21.1%	47.1%	100%	

Source: Columbia River Economic Development Council, Industrial Land Task Force Report, June 1998

Observations

- Over the three-year period, it is estimated that 660 acres have been absorbed, for an average of 220 acres per year, as compared with the projected rate of 150 per year.
- This level of absorption, which includes Wafer Tech in Camas, is more than 50% above the initial comprehensive plan projection.
- At the current rate of growth the 3,000-acre target will be reached within 14 years.

- Camas had the largest total absorption of land, which was primarily tertiary. Tertiary type land was also absorbed at the highest percentage of 47.1%.

- The analysis also concludes that actual density is about 4.4 employees per gross acre absorbed, or 5.8 jobs per acre without Wafer Tech. This is below the 9 employees per gross acres assumed in the plan.

Table 1.7.2 Major Industrial Investments in Clark County (1995-1998)

Name of Project	Description	Year Completed	Amount Invested ($ million)	# of Jobs Added
AKEI	Expansion of Electronic Parts	1995	$1.0	30
AVX	Expansion of Electronic Parts	1995	$10.0	800
Bonar Plastics	Plastic Molding	1998	$3.0	600
Columbia Machine	Expansion of concrete block machinery firm	1995	$10.0	350
Eastridge Business Park	Business park expansion	1995	$15.0	NA
Electric Lightwave	Telecommunications	1998	$13.0	500
Frito Lay	Expansion of Food Processing Plant	1995	$14.0	NA
Furuno	Marine Electronics Plant	1997	$4.0	40
Heraeus Shin-Etsu America	Expansion of quartz glass crucible plant	1998	NA	NA
Hewlett-Packard	Expansion of factory and office space	1995	$50.0	NA
Hewlett-Packard	Expansion of electronic printer plant	1996	NA	200
Industrials Materials Technology	Metal treatment facility	1996	$20.0	NA
Insta-Fab Co.	Metals Plant	1999	$1.5	25
James River	Cogeneration plant	1995	$62.0	50
Landa Inc.	Pressure Washer Manufacturer	1998	$11.0	130
La Salle Bristol	Plastics Manufacturing Plant	1999	$2.5	75
Linear Technology	Semiconductor fabrication plant	1995	$110.0	50
Micropump	Manufacture & market high-tech pumps	1995	NA	33
New Edge Networks	Telecommunications	1999	$2.0	50
Norwesco	Plastic tank manufacturing	1998	$10.0	300
Nutrition Now	Health Supplement Manufacturer	1997	$1.5	30
Piller Plastics	Plastics Manufacturing Plant	1997	$1.8	50
S.E.H America	Expansion of Semiconductor Phase 1& 2	1999	$710.0	40
Sharp Microelectronics	Expansion	1996	$8.0	150
Siemens Solar Industries	Expansion crystal growing facility	1996	$3.0	NA
Silicon 2000	Silicon Wafer reclaim & manufacturing services	1997	$10.0	40
Silicon Forest Electronics	Electronics Plant	1999	$2.0	45
Tole Americana	Craft Supply wholesalers	1995	$2.0	300
Tualatin Valley Building Supply	Manufacture of Wall Panels	1999	$1.0	50
U.S Food Service	Warehouse/Distribution Facility	1999	$7.0	25
Wafer Tech	Semiconductor fabrication plant	1998	$1,200.0	210
Totals			$2,285.3	4173

Source: Columbia River Economic Development Council, updated as of September 1998.

Observation

- Over the three-year period, available data show that more than $2 billion of industrial investment, including $1.2 billion by Wafer Tech, has been made in the county.

INDICATOR: Density

Background and Relevance

The county's Comprehensive Plan assumed an average of 6 units per acre for new single-family development and 16 units for multi-family. The targeted single-family and multi-family residential assumption of 6 and 16 units per acre is for the 2012 planning period. These densities are calculated at the parcel level and so represent ***net*** residential densities.

Data Collection

Single-Family Density

Current information was collected from the Clark County Assessment database. The total number of single family and multi-family units may not add up exactly as elsewhere in this report because only those developments in lands zoned single family or multi-family were counted. Information was collected for new single-family developments based on property type codes and building permit year. The total number of single-family lots were counted along with the acreage for all development. The number of new units was divided by the total acres to derive an average residential density for single-family development. The information was limited to development inside Urban Growth Areas.

Table 1.8.1 Single Family Density by UGA 1995-1999

Urban Growth Boundary	Units	Acres	Units per Acre
LaCenter	290	79.11	3.7
Yacolt	50	14.71	3.4
Ridgefield	114	105.80	1.1
Battle Ground	1,163	243.16	4.8
Vancouver	9,796	1,838.45	5.3
Camas	1,290	306.64	4.2
Washougal	332	120.40	2.8
Total	**13,035**	**2708.27**	**4.8**

Source: Clark County Assessment Database, June 2000.

The following formula was used to determine average density:

Units / Acres = Density
13,035 / 2,708.27 = 4.8

Multi-Family Density

Current information was collected from the Clark County Assessment database. Property type codes and building permit information was used to determine new multi-family development from 1995 to present. Development outside urban growth areas was excluded. Mobile home parks, mobile home condominiums, and single-family type

condominium developments were included in the analysis. The number of new units was divided by the total acres to derive an average residential density for multi-family development.

Table 1.8.2 Multi-Family Density by UGA 1995-1999

Urban Growth Boundary	Units	Acres	Units per Acre
LaCenter	16	2.00	8.0
Ridgefield	4	0.61	6.5
Battle Ground	155	9.42	16.5
Vancouver	3,368	205.93	16.4
Camas	133	9.05	14.7
Washougal	108	6.32	17.1
Total	**3,784**	**233.33**	**16.2**

Source: Clark County Assessment Database, June 2000.

The following formula was used to determine average density:

Units / Acres = Density
3,784 / 233.33 = 16.2

Observations

- Over the past the average single-family residential density of development was 4.8 units per acre.
- Over the past five years the average multi-family residential density of development was 16.2 units per acre.

INDICATOR: Residential Development Near Urban Centers and Along Major Corridors in Vancouver UGA

Background and Relevance

The Growth Management Act encourages growth and development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner. The county's Community Framework Plan and Comprehensive Plan further this objective by identifying the Washington State University campus, downtown Vancouver, and Vancouver Mall as major activity centers. Corridors connecting WSU, downtown and Vancouver Mall along with Mill Plain, east of I-205 and 164th Avenue from Mill Plain south to SR 14 are also areas where growth and development are encouraged. These centers and the corridors linking them were designated high-density zones to encourage development. The intent is to build upon existing transportation services and the individual character that make these areas community focal points.

Table 1.9.1 UGA/Center and Corridor Single-Family Permit Activity

	SF building permits issued in 1995	SF building permits issued in 1996	SF building permits issued in 1997
Urban Growth Area	1914	1294	906
Area near major urban centers and corridors (Downtown, WSU, Hwy 99, Van. Mall, Mill Plain/164th Ave)	693	430	327
Center and corridor permits as a percentage of total UGA permits	36.2%	33.2%	36.1%

Source: Clark County Department of GIS

Table 1.9.2 Single-Family Permit Activity by Corridor and Center

SF Permit Activity	1995	1996	1997
Downtown Center	2.7%	0.0%	7.4%
Vancouver Mall Center	9.1%	1.0%	11.4%
WSU Center	12.3%	13.2%	19.2%
Corridor 1 – WSU to Downtown	6.8%	12.0%	23.5%
Corridor 2 – Downtown to Vancouver Mall	6.3%	6.4%	4.0%
Corridor 3 – From I205 along Mill Plain and 164th Avenue	62.8%	67.4%	34.5%

Source: Clark County Department of GIS

Data Collection

The previous table was compiled by using county assessor data and Geographic Information System (GIS) calculations. The areas studied are lands within one mile of

major urban centers and corridors identified in the county's Community Framework Plan and Comprehensive Plan.

Observations

- Single-family permit activity in the major centers and along major corridors has remained fairly constant as a percent of the total permits.

- At a more detailed level, the pattern of permit activity for the last three years suggests that new single-family and multi-family permit activity has been greatest along the Mill Plain/164th corridor and smallest in the downtown center.

INDICATOR: Distance from Residential Development to Frequently Used Services and Amenities

Background and Relevance

The distance from residential development to frequently used services and amenities provides an indication of how well land uses are integrated. Parks, schools and shopping are three types of services and amenities used frequently by most local residents, and their proximity can be an important consideration in selecting a residential location. Areas where services and amenities are within walking distance tend to create more cohesive, livable neighborhoods and reduce the need for automobile use. The Land Use Element of the county's Comprehensive Plan encourages land use integration at both the regional and local level.

Table 1.9.3 Distance to Parks in the Vancouver UGA

	% of homes in UGA within ¼ mile of a public park			
	1995	1996	1997	1998
Existing Homes	39.9%	60.0%	58.8%	62.2%
New Homes	40.4%	63.6%	44.5%	60.0%

Table 1.9.4 Distance to Schools in the Vancouver UGA

	% of homes within ¼ mile of a public school			
	1995	1996	1997	1998
Existing Homes	27.2%	41.2%	40.7%	41.5%
New Homes	19.7%	18.2%	15.6%	45.1%

Table 1.9.5 Distance to Shopping in the Vancouver UGA

	% of homes within ¼ mile of an existing or potential shopping area			
	1995	1996	1997	1998
Existing Homes	33.4%	46.2%	45.3%	46.8%
New Homes	25.7%	34.5%	41.6%	38.9%

Source: Clark County Department of Assessment and GIS

Data Collection

The previous table was compiled using county assessor data and GIS calculations. The ¼-mile distance establishes a threshold, commonly accepted as an urban planning standard, for the maximum distance individuals will typically choose to walk to services. The perimeter boundary from residential properties was used as the starting point from which a ¼-mile distance was measured to each of the three uses. The nearest commercially zoned property was used for the distance to shopping and represents both existing built and vacant land uses.

Observations

- The data suggest that established neighborhoods tend to be in closer proximity to parks, schools and shopping.

- Data on new construction suggest that the share of new homes within the ¼-mile distance has increased for parks, schools, and shopping.

- For new homes, relative accessibility is highest for parks, then shopping, followed by schools, although for 1998 schools are more accessible than shopping.

INDICATOR: Interstate Travel Patterns

Background and Relevance

The amount of automobile traffic crossing the Columbia River on the I-5 and I-205 bridges provides a general indicator of the interdependency between Clark County and the larger Portland region. Bridge traffic occurs in both directions at all hours of the day, and for a variety of purposes, including work, shopping, entertainment, freight and other traffic passing through the region. Tracking bridge traffic volumes and how they change over time can reveal the general level of regional integration and how it changes as Clark County and the Portland region grows.

The county comprehensive plan contains policies to encourage the development of local opportunities to further economic development and independence within Clark County. Tracking southbound traffic during the morning peak period can shed light on the extent to which Clark County residents are commuting to Oregon work destinations. Providing employment opportunities locally can help reduce peak hour freeway congestion by limiting the need for interstate commuting.

Table 1.9.6 Columbia River Vehicular Bridge Crossing Per Capita and Workforce

Year	County Population	I-5 and I -205 average daily bridge crossings		
		All hours, both directions		
		Crossings	Crossings per Capita	Annual Growth Rate in Crossings
1983	202,165	128,480	0.64	NA
1984	203,757	135,999	0.67	5.9%
1985	206,744	144,869	0.70	6.5%
1986	210,423	156,766	0.75	8.2%
1987	213,961	165,665	0.77	5.7%
1988	219,050	172,379	0.79	4.1%
1989	226,188	175,875	0.78	2.0%
1990	238,053	182,483	0.77	3.8%
1991	250,300	190,627	0.76	4.5%
1992	257,500	200,558	0.78	5.2%
1993	269,500	204,036	0.76	1.7%
1994	280,800	214,550	0.76	5.2%
1995	291,000	222,692	0.77	3.8%
1996	303,500	231,851	0.76	4.1%
1997	316,800	243,809	0.77	5.2%
1998	328,000	252,084	0.77	3.4%
1999	337,000	256,300	0.76	1.7%

Source: The Regional Transportation Council

Table 1.9.7 Employment Commuters Between Clark County and Oregon: 1960, 1970, 1980, AND 1990

	1960	1970	1980	1990
All Workers	32,309	48,836	78,890	110,967
From Clark County to Oregon	5,822	12,183	21,960	36,676
Percent	18.0%	24.9%	27.8%	33.1%
From Oregon to Clark County	1,646	4,246	2,557	NA

Source: Clark County Department of Assessment and GIS 1998 Population and Economic Handbook

Table 1.9.8 Resident and Non-Resident Commuting Patterns for Clark County: 1990

	Clark	Multnomah	Washington	Clackamas	Cowlitz	Skamania	Other
Commuting to Clark County	69,855	5,410	1,889	1,764	960	547	1,014
Commuting from Clark County	69,855	29,958	2,540	2,801	1,527	175	1,652

Source: Clark County Department of Assessment and GIS 1998 Population and Economic Handbook

Data Collection

The Oregon Department of Transportation collects the bridge crossing traffic count. The Regional Transportation Council (RTC) performs further calculations and summarizes that data in a report on Historical Columbia River Bridge Crossing Data.

Observations

- While annual changes in bridge crossings tend to fluctuate, there has been steady growth since 1983. Since 1994, the average daily bridge crossings have increased 19%.

INDICATOR: Regional Park Acquisition

Background and Relevance

Parks and open space are an important measure of the quality of life experienced by residents who live in Clark County. This measure is reflected in the number of acres provided at both an urban and a regional level. A regional park is a geographic area with natural or manmade qualities that provide both passive and active opportunities for outdoor recreation, including picnicking, boating, fishing, swimming, camping and trail uses. They are intended to serve communities within an hour's driving time. Efforts are made to site regional parks close to population centers.

The following table identifies the goals and standards for regional park acquisition from the 1994 Clark County Parks, Recreation and Open Space Plan.

Table 1.9.9 Clark County Parks, Recreation and Open Space Plan

Regional Park Acquisition Goal	20 acres/1,000 population
Regional Park Acquisition Standard	10 acres/1,000 population
Regional Park Development Standard	18% of park site developed
Desired Minimum Regional Park size	200 acres

Source: 1994 Clark County Parks, Recreation and Open Space Plan

The following table details regional park acquisition since 1993 and compares it with the adopted standard.

Table 1.9.10 Clark County Regional Parks

	1993	1994	1995	1996	1997	1998	1999
Regional Park Acres	1,823	1,845	1,937	1,937	2,047	2,128	2,192
Regional Developed Acres	293	293	293	293	328	348	372
% Regional Developed Acres	16.10%	15.90%	15.10%	15.10%	16.00%	16.40%	16.97%
Population	269,500	280,800	291,000	303,500	316,800	328,000	337,000
Regional Park Acres Per 1,000 Population	6.76 ac	6.57 ac	6.66 ac	6.38 ac	6.46 ac	6.49 ac	6.50 ac

Source: Vancouver-Clark Parks and Recreation, OFM.

Data Collection

The 1994 Clark County Parks, Recreation and Open Space Plan provides the goals and standards for acquiring regional parks. Data on regional park acreage were provided by Vancouver/Clark Parks and Recreation Services, which is responsible for the acquisition, development and maintenance of urban park facilities within the Vancouver UGA and regional parks and recreational facilities in the unincorporated county.

Observations

- Clark County has added 369 acres of regional parks and 79 acres of developed park area since 1993. During this same time, the county population grew by 67,500 residents.

- With the rapid population growth, Clark County is not meeting its acquisition standard of 10 acres of regional parks per 1,000 residents, reaching its highest acquisition rate of 6.76 acres per 1,000 residents in 1993.

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INDICATOR: Air Quality

Background and Relevance

The Federal Clean Air Act Amendment of 1990 was passed in response to the many areas across the country in noncompliance with the National Ambient Air Quality Standards for ozone and/or carbon monoxide. The amendment requires an air pollution control agency to compile information on the sources of these pollutants. Recognizing a variety of sources present in an area, they are lumped into three broad categories: point, area and mobile sources. Point sources include activities whose contribution to pollution can be monitored separately. Area sources represent a broad range of smaller activities whose cumulative impact can be identified by activity. Mobile sources represent vehicles.

The Clean Air Washington Act signed into law in 1991 declared air pollution as the state's most important environmental problem. The act established two objectives: 1) to prevent any deterioration of air quality in areas that have clean air and, 2) to return the quality of air in other areas to levels that protect human health and the environment. Both the federal and state clean air acts require monitoring of certain pollutants to achieve these goals.

Table 1.10.1 Annual Emission of Major Air Pollutants in Clark County (tons per year), 1994-98

	Carbon Monoxide (CO)					Volatile Organic Compounds (VOC)				
	1994*	1995	1996	1997	1998	1994	1995	1996	1997	1998
On-road vehicles	52,096	53,000	66,380	63,930	48,076	5,210	5,000	4,464	4,290	4,314
Non-road vehicles	18,488	15,971	17,788	18,359	18,958	2,825	2,375	2,511	2,452	2,443
Industry	24,849	20,355	20,315	20,558	19,643	917	1,097	893	1,246	1,260
Area Sources	17,328	17,032	16,234	15,693	18,780	7,222	7,421	7,319	7,220	7,860
Total	112,761	106,358	120,717	118,541	105,457	16,174	15,893	15,187	15,208	15,877

	Nitrogen Oxides (NOx)					Fine Particulate Matter (PM-10)				
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
On-road vehicles	8,335	8,600	7,484	7,362	6,795	6,301	7,260	6,559	6,773	7,013
Non-road vehicles	2,795	2,118	2,297	2,182	2,246	315	233	225	212	251
Industry	2,335	2,382	2,010	1,920	1,730	868	1,038	1,104	1,029	1,022
Area Sources	1,013	1,010	471	463	514	2,557	2,539	2,348	2,281	2,669
Total	14,478	14,110	12,262	11,927	11,285	10,041	11,070	10,236	10,295	10,955

	Sulfur Dioxide (SO2)				
	1994	1995	1996	1997	1998
On-road vehicles	521	330	295	305	315
Non-road vehicles	235	178	217	207	196
Industry	2,797	2,739	2,353	2,436	2,518
Area Sources	35	35	37	38	43
Total	3,588	3,282	2,902	2,986	3,073

Source: Southwest Washington Air Pollution Control Authority (SWAPCA)

* The methodology to calculate carbon monoxide pollution was revised in 1995.

Data Collection

Standards for ambient concentrations of various pollutants that have been shown to be harmful are established at the federal and state level. They include fine particulate matter (PM-10), carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO2), and volatile organic compounds (VOC), ozone and lead. Locally, the Southwest Washington Air Pollution Control Authority (SWAPCA), a regional agency encompassing Clark, Cowlitz, Lewis, Skamania and Wahkiakum counties, monitors and enforces these standards. SWAPCA publishes an annual report that includes detailed information about the sources, components, impacts, and ongoing abatement efforts for local and regional air pollution.

Observations

- Air pollutants are emitted from a number of sources and are grouped into four major source categories — on-road vehicles, non-road vehicles, industry and area sources. Of these categories, emissions from on-road vehicles are the largest contributor of carbon monoxide, nitrogen oxides and fine particulate matter. The leading cause of air pollutants within the three remaining categories fluctuates between non-road vehicles, industry and area sources from year to year.

- Volatile organic compounds, nitrogen oxides and sulfur dioxide have decreased with some year-to-year fluctuations. Sources for these pollutants tend to remain in the same order of magnitude for each of these years. Fine particulate matter shows considerable variation in particulate emissions, with a slight overall total increase and vehicles emissions remaining the major source of pollution.

- Monitoring both air pollutants and their causes helps tailor policies and programs to the specific source and helps reduce its contributions to the specific air pollutant being monitored. Since the largest contribution to air pollutants is the result of human activities, any increase in population will undoubtedly play a significant role in the results obtained from future monitoring activities.

INDICATOR: Vehicle Registration

Background and Relevance

Motor vehicles are identified as the largest producer of air pollution in southwest Washington. The increase in vehicle registration is closely associated with population growth.

Table 1.10.2 Vehicle Registration in Clark County

	1990	1994	1995	1996	1997	1998	1999
Vehicles	163,628	269,280	272,125	284,268	294,817	302,754	286,111
Population	238,053	280,800	291,000	303,500	316,800	328,000	337,000
Vehicles per capita	0.69	0.96	0.94	0.94	0.93	0.92	0.85

Source: Washington State Department of Licensing

Data Collection

The Department of Licensing provided Vehicle registration.

Observations

- From 1990 to 1994, the number of vehicles registered increased by an average of 3,432 vehicles per year.
- From 1994 to 1998, vehicle registration increased by12 % while population increased by 17 %.

INDICATOR: Surface Water Quality

Background and Relevance

Clark County is fortunate to have an attractive natural environment complete with abundant rivers, streams, creeks, lakes and wetlands. These surface waters play an important role in the growing economy and quality of life enjoyed by county residents by providing irrigation, drinking water, and other beneficial uses including recreational opportunities and habitat for fish and wildlife. Water quality standards established by the state are based on the assumption that each body of surface water must support certain beneficial uses. These uses may include providing a domestic and industrial water supply, fish rearing, spawning and harvesting, wildlife habitat, and recreational uses.

The needs of a growing population, increased use of pesticides, increased industrial waste and the accompanying demand for water use has led to environmental stresses. This situation tests the ability of the county and other water purveyors to sustain high quality water supplies.

Water quality is affected by both point and nonpoint sources of pollution. Point sources are specific activities or other land uses whose water quality impacts are sufficiently large or unique to be individually identified and measured at the source, such as a factory outfall pipe. State and federal agencies typically regulate impacts from individual point sources as part of the discharge permit associated with development approval of the source activity.

Nonpoint sources are the cumulative impacts originating from a wide range of smaller, nonspecific locations and activities. Nonpoint source pollutants are often the result of adjacent land uses including farming, private sewage treatment, lawn care, and impervious surface runoff. Nonpoint source regulation is typically administered locally through land use, storm water, and other related controls. For Clark County and most other areas throughout the state, impacts of nonpoint source pollution present a greater threat to water quality than point source pollution.

Data Collection

In 1993, The Washington State Department of Ecology (DOE), in cooperation with local jurisdictions and other government and private agencies, began monitoring point and nonpoint pollutants to ground and surface waters on a watershed basis. Every two years, under Section 303(d) of the 1972 Federal Clean Water Act, the state is required to identify bodies of water that do not meet state surface water quality standards and need additional work beyond existing controls to achieve state standards. These waters are reported on the 303(d) list.

Water bodies not appearing on the list are either in compliance with state standards at the time of monitoring, were not monitored for the time period indicated, or exceed standards but have a state recognized monitoring or restoration program in place.

The methodology used in monitoring surface water bodies has inherent limitations. Data are provided from a number of sources that do not necessarily represent any uniformity in monitoring methods. Surface water monitoring is also subject to available funding, which may result in sporadic, non-uniform data collection. Under these circumstances it is often impossible to successfully correlate water quality data from one testing period to the next. The time of year and atmospheric conditions occurring during the testing period can also influence test results.

Presently there is no uniform or comprehensive monitoring system for all water bodies originating in or flowing through the county. To improve monitoring efforts, Clark County is aggressively pursuing a program that will enhance its ability to study surface water quality in the future using a uniform data collection process.

Table 1.10.3 Clark County Surface Waters on the Department of Ecology Section 303(d) List in Nonconformance with State Standards

Watershed	Water Body	1992	1994	1996	1998
N Fork Lewis River	N Fork Lewis River				
	Cedar Creek				
	Pup Creek				
	Canyon Creek	pH			
	Siouxon Creek	pH			
E Fork Lewis River	E Fork below Moulton			F.C., pH, Temp.	F.C., Temp
	E Fork above Moulton			F.C.	F.C.
	E. Fork		F.C., Temp.		
	Jenny Creek				
	McCormick Creek		F.C., Temp.	F.C., Temp.	F.C., Temp
	Lockwood Creek		F.C.	F.C.	F.C., Temp
	Riley Creek				
	Mason Creek			F.C.	
	Rock Creek (north)			F.C.	F.C.
	Rock Creek (south)			F.C.	
	Rock Creek		F.C.		
	Yacolt Creek			F.C.	F.C.
	Allen Canyon Creek				
	Gee Creek				
Lake River	Lake River below Salmon Creek				F.C., Temp.
	Lake River above Salmon Creek				
	Lake River		F.C., Temp.		
	Flume Creek				
	Whipple Creek				
	Packard Creek				
	Salmon Creek	F.C., D.O., pH, Temp., Turbidity, Ammonia-N, Siltation	F.C., Temp.	F.C., Temp., Turb.	F.C., Temp., Turb.
	Cougar (Canyon) Creek		F.C., D.O.	F.C., D.O.	D.O.
	Mill Creek		F.C.	F.C.	F.C.
	Curtin Creek			F.C.	F.C.

Clark County Surface Waters on the Department of Ecology Section 303(d) List in Nonconformance with State standards (Continued)

Watershed	Water Body	1992	1994	1996	1998
	Weaver (Woodin) Creek	F.C., D.O., Temp, Chlorine	F.C.	F.C., Chlorine	F.C.
	Morgan Creek				
	Mud Creek				
Lake River	Muddy River	Temp.	Temp.	Temp.	
	Burnt Bridge Creek		F.C., D.O., pH, Temp.	F.C., D.O., pH, Temp.	F.C., D.O., pH, Temp.
	Cold Creek				
	Vancouver Lake				
Vancouver (Columbia) Slope	Biddle Lake				
	Fisher Creek				
Lacamas Creek	Lacamas Lake				
	Lacamas Creek		F.C., D.O., pH, Temp.	F.C., D.O., pH, Temp.	F.C., D.O., pH, Temp.
	Clearwater Creek	Temp.	Temp.	Temp.	
Lacamas Creek	Fifth Plain Creek		D.O., pH	F.C., D.O., pH, Temp.	F.C., D.O., pH, Temp
	Shanghai Creek		D.O., pH	F.C., D.O., pH, Temp.	PH, Temp.
	Matney Creek		D.O., pH	F.C., D.O., pH, Temp.	F.C., D.O., pH, Temp.
	China Ditch		D.O.	F.C., D.O., pH, Temp.	F.C., D.O., pH, Temp.
Washougal River	Washougal River				
	Little Washougal River				
	Cougar Creek				
	Winkler Creek				
	Boulder Creek				
	Jones Creek				
Gibbons Creek	Gibbons Creek		F.C.	F.C.	F.C.
	Campen Creek				

Source: Washington State Department of Ecology

Observations

- Care should be taken in drawing conclusions from the table. The data represented in the 303(d) lists illustrate a snapshot in time for any given testing site and may not be representative of a continuous condition. The data indicate that at the time of monitoring, many Clark County bodies of water do not meet state water quality standards for certain parameters.

- According to the data, fecal coliform is the most consistent violator of state water quality standards, with temperature running a close second. The data also suggest an increase in the number of exceedence problems with dissolved oxygen. More sporadic indications of exceedence can be identified for ammonia-N, pH, turbidity and chlorine.

- The 303 (d) report does not take into account a variety of parameters such as chemicals used in herbicides, pesticides and fertilizers, various nutrients, and total suspended solids which can impact the beneficial uses of surface water.

- Not listed are bodies of water for which a restoration plan is in place and the effectiveness of such a plan is unspecified. Those bodies of water tend to have the worst water quality, and their absence skews the information that can be inferred from the listings.

Farming practices and private sewage systems are the greatest contributors to surface water quality degradation. As Clark County develops and farming plays a smaller role in rural activities, we are likely to see a change in the causes of degradation, but not in the type.

- Other factors that contribute to the degradation of water quality include de-vegetation of the upland forests and grasslands, construction projects, reduction in natural wetlands, and stream and riparian zone alternation.

- Improving water quality is a countywide concern, with non-point sources being the greatest contributor to water pollution. There are control measures that can assist individual land management activities in helping minimize non-point source pollution. These include land use regulations, developer incentives, public education, minimizing impervious surfaces, storm water management and using best management practices for all activities.

- The above chart suggests that surface water quality problems are worsening.

Section 2.1 Conversion of Vacant Land

Please refer to section 1.5

Section 2.2 Conversion of Underutilized Land

Please refer to section 1.5

INDICATOR: Redevelopment Activity

Background and Relevance

Beyond the demolition statistics that are available, we have been unable to distinguish between redevelopment and new development. The future measure of redevelopment activity may be better served by documenting the change in available underutilized lands.

Table 2.3.1 Demolition Activity

Jurisdiction	1995	1996	1997	1998	1999
Unincorporated Clark County	23	24	22	26	44
Cities and Towns	41	30	51	193	58
Clark County Totals	64	54	73	219	102

Source: Clark County Department of Assessment and GIS, 2000 Population and Economic Handbook
Single Family includes mobile homes; Multi-family includes duplexes.

Data Collection

Data was gathered through the Building Department of Clark County and municipalities and is published in the 2000 Population and Economic Handbook.

Observation

- Demolitions are occurring at a faster rate in the cities and towns than in the unincorporated areas.

INDICATOR: Mixed-Use Activity

Background and Relevance

Mixed-use activity is used to determine the ratio of commercial and residential development that has occurred in areas designated as mixed-use by the Comprehensive Plan.

Table 2.4.1 Mixed-Use Activity

Year	Type	Number of Parcels	Percent by Parcels	Number of Acres	Percent by Acres
1995	Residential	3	60%	.48	17%
	Commercial	2	40%	2.51	83%
1996	Residential	12	85%	1.89	67%
	Commercial	2	15%	.9	33%
1997	Residential	18	85%	3.03	33%
	Commercial	3	15%	6.08	67%
1998	Residential	235	99%	30.45	74%
	Commercial	3	1%	10.68	26%
1999	Residential	8	62%	1.18	7%
	Commercial	5	38%	14.56	92%
Total	Residential	276	95%	37.03	51%
	Commercial	15	5%	34.73	49%

Source: Clark County Department of Assessment and GIS

Data Collection

The Clark County Department of Assessment and GIS provided data based on areas designated as mixed-use on the Comprehensive Plan Map.

Observations

- Since 1995, the total number of residential parcels developed in areas designated as mixed use has outpaced the number of commercial parcels.
- Data seem to indicate that larger parcels are being used primarily for commercial development.

INDICATOR: Infill

Background and Relevance

The Clark County 20-Year Growth Management Plan defines infill as "development on vacant parcels in urban or urbanizing areas that were passed over by previous developments." This definition characterizes most development within the UGAs. So while infill development is one of the key indicators to be tracked, it must first be more clearly defined.

This section presents some examples of subdivisions that might be characterized as infill development, although no data on their density or acreage is given. The second section quantifies the potential for infill development under a specific set of assumptions and criteria. The assumptions and criteria have been developed by Clark County Community Services as part of their mission to identify opportunities for low income housing in the urban areas.

It is expected that this definition will be refined and tested jointly by Community Services, in their effort to put together better development-potential information, and by Community Development, which must track this trend in order to meet the mandate laid out in the Review and Evaluation requirements of RCW 36.70A.215. Aiding in both efforts is the new permit tracking system being implemented in Community Development, which will allow for more detailed tracking of development trends application by application.

Section One: Examples of infill developments

Infill developments such as Lamar Court, Kupfer Subdivision, Columbia Place, and Green Gables have been approved and constructed. There are other infill subdivisions pending, such as Pheasant Woods, Cherry Hollow, Rossi Meadows, Cinnamon Crest, Esther's Place, Lindsay's Place, Covington Crosssing and Orchards Terrace.

Section Two: Infill development potential

The data on residential infill potential in the Vancouver Urban Growth Area come from a study completed by Clark County Department of Community Services. For more information refer to the Clark County Infill Report published in November 1999 by the Clark County Department of Community Services and Corrections.

The identified infill potential is calculated on lands that were previously *excluded* from the vacant and buildable lands model, prior to the change in definition of underutilized from greater than 2.5 acres to greater than 1 acre. The data as presented currently exclude subdivisions so that further examination can be made to account for covenants and other potential subdivision or other development restrictions. It is important to note that the current vacant lands model defines underutilized (residential) land as land greater than 1 acre.

- Results of Clark County Department of Community Services and Corrections Infill Report indicate a significant potential for residential infill development within the Vancouver UGA, from a low of 6,913 potential units to a high of 10,658 potential units.

2.6 DEVELOPMENT ON CRITICAL LANDS

INDICATOR: Development on Critical Lands

Background and Relevance

This section examines development occurring on critical lands. The assumption in the GMA plan is to exclude parcels with type 1 critical lands (floodways, high quality wetlands with 75-foot buffer, slopes over 40%); that is no development will occur in critical type 1 areas. Critical type 2 lands (defined as more than 50% covered with any combination of flood fringe, hydric soils with a 75-foot buffer, USGS stream coverage with 75-foot buffer or slopes 25 to 40%) are assumed to develop at a reduced density--four units per acre rather than the six (single family) or sixteen (multifamily) assumed for unconstrained lands.

Table 2.6.1 Development on critical type I and II

	1994			1995			1996		
	Critical Type			Critical Type			Critical Type		
UGA	1	2	Total	1	2	Total	1	2	Total
Battle Ground	0.39	5.95	6.34	0.7	3.21	3.91		13.27	13.27
Camas	0.9	4.53	5.43		7.44	7.44	2.85	6.28	9.13
La Center		0.77	0.77		1.64	1.64		4.24	4.24
Ridgefield		0.8	0.8		0.74	0.74		0.59	0.59
Vancouver	1.03	7.74	8.77	2.3	36.26	38.56	1.23	17.79	19.02
Washougal		3.6	3.6		1.95	1.95		3.77	3.77
Yacolt								0.42	0.42
Total	2.32	23.39	25.71	3	51.24	54.24	4.08	46.36	50.44

Source: Clark County Department of Assessment and GIS

	1997			1998			1999		
	Critical Type			Critical Type			Critical Type		
UGA	1	2	Total	1	2	Total	1	2	Total
Battle Ground		16.6	16.6	0.4	11.23	11.63		7.33	7.33
Camas	0.25	7.43	7.68		6.71	6.71		8.97	8.97
La Center		1.23	1.23		0.51	0.51		0.24	0.24
Ridgefield		0.28	0.28		0.13	0.13		5.13	5.13
Vancouver	10.24	7.64	17.88	1.54	8.43	9.97		0.77	0.77
Washougal		1.87	1.87		1.53	1.53			
Yacolt			0						
Total	10.49	35.05	45.54	1.94	28.54	30.48		22.44	22.44
Grand Total 1994-1999							**21.83**	**207.02**	**228.85**

Source: Clark County Department of Assessment and GIS

Data Collection

All vacant lands with Critical 1 or 2 parcels for the 1995 Vacant Lands Model were identified. The above selection process was used to identify parcels in the 1999 Vacant Lands Model. A query for parcels whose vacant lands model status changed from "vacant with critical" to "residential built" and summarized the above selection by Year Built, Critical Type and Acres.

Observations

- The results show that residential development is occurring on vacant critical lands, particularly on type 2 parcels, which account for nearly 90% of all development on critically constrained parcels.

- Development has occurred on approximately 675 parcels classified as critical, from 1995 to 1999.

INDICATOR: Vacancy Rates

Background and Relevance

Rental housing is a key component of the regional housing market. Vacancy rates provide some information on how this market is functioning--whether it is constrained or in over-supply.

Table 2.7.1 Rental Vacancy Rates: Portland-Vancouver OR-WA PMSA 1990-99

Year	1st Quarter as of April 1	2nd Quarter as of July 1	3rd Quarter as of October 1	4th Quarter as of January 1
1990	4.50%	5.00%	4.50%	4.50%
1991	5.00%	5.50%	5.00%	4.80%
1992	5.00%	5.30%	5.00%	4.00%
1993	4.50%	4.80%	3.80%	3.50%
1994	4.10%	4.50%	4.30%	4.00%
1995	4.30%	4.50%	5.00%	3.80%
1996	3.80%	3.50%	3.80%	5.00%
1997	5.00%	5.30%	5.30%	5.50%
1998	6.00%	5.30%	5.50%	6.50%
1999	6.00%	7.00%	6.00%	NA

Source: U.S Department of Housing and Urban Development, Region X Quarterly Reports. Http://www.hud.gov/local/sea/seaem.html

Data Collection

The Clark County Department of Assessment and GIS gathered the data.

Observations

- The vacancy rate ranges between 3.5% and 7.0%
- There is a fair amount of fluctuation between years, a 1.7% increase between the 2nd quarter of 1998 and 1999.
- There is also fluctuation between quarters. In 1995 there was a 1.2% decrease in vacancies between the 3rd and 4th quarters followed by a 1.2% increase in vacancies between the 3rd and 4th quarters of 1996.

Section 2.8 LAND ABSORPTION

Please refer to section 1.5

Section 2.9 DENSITY

Please refer to section 1.7

INDICATOR: Infrastructure

Background and Relevance

The purpose of this indicator as specified in the plan is to verify the initial assumptions used in calculating the supply and demand for vacant buildable land. The 1994 net carrying capacity analysis assumed that parcels from 20,000 square foot to 1 acre would have 25% devoted to infrastructure, 1 to 2.5 acres 30% for infrastructure, and 2.5 to 5 acres 40% for infrastructure. For underutilized land, no allocation was made for parcels less than 2.5 acres. For underutilized parcels over 2.5 acres, a 40% allocation was made for infrastructure.

Data Collection

The sample was drawn from recently developed subdivisions.

Infrastructure was calculated by subtracting the final developed parcels from the total subdivision area. Identification of infrastructure was done by deleting parks and gardens, streets, highways and bridges, and utilities from the assessor's parcel coverage.

Observation

- The data indicate that the average percentage dedicated to infrastructure is 27.5%, well within the assumptions outlined in the adopted comprehensive plan, which allocated 40% for infrastructure.

Table 2.10.1

Subdivision Name	Zoning	Subdivision Acres	Percent Infrastructure
Bradleys Place	R1-7.5	3.1	12.2%
Oak Run	R-22	3.5	26.7%
Cascade Meadows 2	R-22	4.1	16.2%
Gregory Place	R1-7.5	4.3	22.9%
Pleasant Valley	R1-10	4.5	23.4%
Mariahs Place	R1-6	4.9	22.2%
Cougar Crest-3 Phase II	R1-7.5	5.1	21.6%
Sunset view Estates	R1-10	5.4	16.3%
Ashly Heights – 6	R1-10	6.0	22.2%
Miller Crest Phase 2	R-12	6.0	23.9%
Adrianna's Place	R1-6	6.9	18.9%
Rivercrest Estates Phase 5	R1-10	7.6	26.4%
Ashly Heights Phase 4	R1-10	9.0	24.5%
Heritage Hills	R1-6	9.0	24.1%
Beverly Park	ML	9.0	43.8%
Wanke Meadows	R1-10	9.0	23.2%
Drasler Place	R1-6	9.1	31.2%
Buckman Garden North	R1-10	9.2	22.2%
Cedar View	R1-6	9.3	28.2%
Ridgeway Park	R1-7.5	9.6	24.0%
Vista Manor	R1-10	9.9	25.5%
Summers Walk at Fishers Landing Ph A-1	R1-6	10.0	52.0%
Felida Highlands	R1-10	11.4	26.2%
Stag Leap Canyon	R1-6	11.7	31.7%
Pebble Creek Farms IV - 3	R1-6	11.9	22.1%
Mt. View Estates Phase II	R1-6	12.6	49.8%
Clearmeadodws at Fishers Landing PH B-	R1-6	12.9	29.2%
Flaherty Woods 2	R1-7.5	13.6	25.1%
Cedarbrook	R1-5	15.1	19.8%
Hawks View PUD	R1-10	15.2	31.6%
Forest Crest 4, Phase II	R1-6	15.3	38.2%
Quail Park Phase 3	R1-7.5	15.6	21.0%
Summerfield Phase I	R1-6	15.8	29.2%
Pebble Creek Farms III - Phase I	R1-6	15.8	23.5%
East Lake Villiage Phase I	R1-6	16.0	30.2%
Stein Estates Phase 2	ML	16.1	33.7%
Hoffman Heights Phase I	R1-6	16.8	37.1%
Felida Knolls	R1-10	17.0	16.6%
The Village at Cedar Ridge Phase I	R1-5	17.2	40.3%
Westmoor Phase3	R1-7.5	17.3	23.3%
Kristine Pointe	R1-6	17.9	25.2%
Sterling Meadows	R1-5	19.2	55.0%
University Park	R-30	20.0	16.0%
Country Lane I	R1-6	20.4	28.5%
Northfield at Fishers Landing	R-12	20.6	33.6%
Fairway Village Unit 11	R1-6	20.8	52.1%
Pheasant Run 2 Phase I	R1-6	21.9	24.7%
Knollridge North – 2	R1-6	29.2	25.9%
Winchester Hills I	UR-20	30.9	17.1%
Ridge Creek	R1-6	31.4	15.7%
		Mean	**27.5%**
		Minimum	**12.2%**
		Maximum	**55.0%**
Source: Clark County Community Development		**Median**	**24.9%**

Section 2.11 LAND ABSORPTION

Please refer to sections 1.5 and 1.6

INDICATOR: Change in Land Use Designation

Background and Relevance

Changes in land use designation provide some sense of conversion from one land use to another. Since the adoption of the 20-Year Comprehensive Growth Management Plan some land use changes have been adopted. These revisions have resulted from a) correction of obvious mapping errors, b) requests by individual property owners and c) changes driven by the Western Washington Growth Management Hearings Board and by court order. The table below provides a detailed summary of the changes.

Table 2.12.1 Changes in Land Use Designation

Ordinance	UGA	Reason	CP	Zone	CP	Zone	Acres
1995-04-16 (A01)	Vancouver	To correct errors. (Truman N. A.)	UMR	R-18	ULR	R1-6	15
1995-04-16 (A02)	Vancouver	To correct errors.	ML	ML	CC	C-3	5
1995-04-16 (B01)	Rural	To correct errors. The final maps incorrectly identified this area as Rural Estate when the map used during deliberations indicated the area as Agriculture. (Para B1 & C4)	RE	RE-5	AG	AG-20	640
1995-04-16 (B02)	Rural	To correct errors. This area was designated Rural Estate on the adopted map. The published map incorrectly indicated this area as Forest Tier 1. (Para B2 & C5)	F-1	F-80	RE	RE-5	22
1995-04-16 (B03)	Rural	To correct errors. Inadvertently left undesignated. (Para B3 & C6)	n/a	n/a	AW	AG-WL	20
1995-04-16 (B04)	Rural	To correct errors. Inadvertently left undesignated. Along northern Ridgefield UGB (Para B4 & C7)	n/a	n/a	RE	RE-5	80
1995-04-16 (B05)	Rural	To correct errors. Inadvertently left undesignated. (Para B5 & C8)	n/a	n/a	RE	RE-5	40
1995-04-16 (B06)	Rural	To correct errors. Inadvertently left undesignated. (Para B6 & C9)	n/a	n/a	RE	RE-5	5
1995-04-16 (C01)	Rural	To correct errors. Property was zoned Airport (A) before and is currently utilized as an airport.	AG, AF	AG-20, AF-20	A	A	30
1995-04-16 (C02)	Rural	To correct errors. Property was zoned Airport (A) before and is currently utilized as an airport.	RE	RE-5	A	A	20
1995-04-16 (C03)	Rural	To correct errors. (Pits near Fisher Swale)	Mineral	(S)	UR	UR-20 (S)	190
1995-04-16 (D01)	Vancouver	To correct errors. The zoning map incorrectly showed this area as being inside the City of Vancouver (Vanalco).	n/a	n/a	MH	MH	100
1995-04-16 (D02)	Vancouver	To correct errors. The zoning designation of Office Campus was inconsistent with the plan designation of Community Commercial. The zoning was changed to Limited Commercial (CL).	CC	OC	CC	CL	1
1995-04-16 (D03)	Vancouver	To correct errors. (NE corner of Andresen & 63rd Street)	PF		NC	C-2	6
1995-04-16 (D04)	Vancouver	To correct errors. (School site on NE 129th Street, west of I-5)	PF		ULR	R1-6	8
1995-04-16 (D05)	Vancouver	To correct errors. The zoning adopted for this parcel was C-3. In order to recognize the current uses a zoning district of CL was adopted (This is consistent with prior zoning).	CC	C-3	GC	CL	5
1995-04-16 (D06)	Vancouver	To correct errors. Previous zoning was R-18. Change was not intended and the zoning was changed to OR-22.	UMR	R-18	UMR	OR-22	4

2.12 CHANGE IN DESIGNATION

Ordinance	UGA	Reason	CP	Zone	CP	Zone	Acres
1995-04-16 (D07)	Vancouver	To correct errors. During deliberations the Board adopted larger lot sizes for some areas along Fisher Swale. Staff misinterpreted the request. This amendment reflects the Board's intent.	ULR	R1-20	ULR	R1-10	80
1995-04-16 (D08)	Vancouver	To correct errors. The zoning map adopted a non-existent zoning district for this area (T2R3E WM Sections 30 & 31).	Mineral	(S)	UR	UR-20 (S)	800
1995-04-16 (D09)	Vancouver	To correct errors, and in response to an appeal of the plan, and to recognize the commercial use of a portion of the site.	Mineral	(S)	NC	C-2	1
1995-04-16 (D10)	Vancouver	To correct errors. (Fairgrounds)	PF		GC	CH	215
1995-05-49 (A1)	Rural	To correct errors and clarify maps. (Para A1 & B1)	AG, UR	AG-20	UR, CR	UR-20, CR-1	1
1995-05-49 (A2)	Rural	To correct errors and clarify maps. (Para A2 & B2)	UR	UR-10	CR	CR-1	2
1995-05-49 (A3)	Rural	To correct errors and clarify maps. (Para A3 & B3)	P/OS	P/OS	AF	AF-20	40
1995-05-49 (A4)	Rural	To correct errors. This area was designated on the Comprehensive Plan as Rural Estate. This recognizes non-conforming uses and the prior zoning. Southeast corner of NE 152nd Ave and 119th street. (Para A4 & B4)	RE	RE-5	AG	AG-20	60
1995-05-49 (C1)	Vancouver	To correct errors. (Para C1 & D1)	ML	ML	MX	CL, R-30	10
1995-05-49 (C2)	Vancouver	To correct errors. The site was developed under the previous ML zoning. To recognize the current use and allow expansion a plan designation was changed to Light Industrial with ML zoning. (Para C2 & D2)	ULR	R1-6	ML	ML	5
1995-05-49 (C3)	Vancouver	To correct errors. (SE 192nd Ave at SE 34th St) (Para C3 & D4)	ULR	R1-6	ULR	R1-6	8
1995-05-49 (C3)	Vancouver	To correct errors. (SE 192nd Ave at SE 34th St) (Para C3 & D4)	UMR	R-18	UMR	R-18	5
1995-05-49 (C3)	Vancouver	To correct errors. (SE 192nd Ave at SE 34th St) (Para C3 & D4)	UMR	R-22	UMR	R-22	3
1995-05-49 (C3)	Vancouver	To correct errors. (SE 192nd Ave at SE 34th St) (Para C3 & D4)	CC	C-3	CC	C-3	3
1995-05-49 (C3)	Vancouver	To correct errors. (SE 192nd Ave at SE 34th St) (Para C3 & D4)	ML	ML	ML	ML	10
1995-05-49 (D3)	Vancouver	To correct errors. (Para D3)	ULR	R1-6	NC	C-2	1
1995-08-16 (A1)	Rural	To correct errors and recognize existing mining operations.	Mineral	(S)	RE	R-5 (S)	8
1995-08-16 (B1)	Vancouver	To correct errors.	ULR	R1-6	UMR	R-18	12
1995-08-16 (B2)	Vancouver	To correct errors and recognize existing uses and to retain zoning adopted by rezone.	CC	CL	GC	CH	5
1995-08-16 (B3)	Vancouver	To correct errors.	PF		ULR	R1-10	5
1995-08-16 (B4)	Vancouver	To correct errors.	UMR	R-18, R-22	ULR	R1-6	50
1995-08-16 (B5)	Vancouver	To correct errors.	UMR	R-18, R-22	ULR	R1-6	1
1995-08-41	Vancouver	Required by WWGMHB (South Vista)	UHR	R-30	UMR	R-22	20
1995-08-41	Vancouver	Required by WWGMHB (South Vista)	UHR	R-30	ULR	R1-5, R1-7.5	30

Ordinance	UGA	Reason	CP	Zone	CP	Zone	Acres
1995-08-41	Vancouver	Required by WWGMHB (South Vista)	UMR	R-18	ULR	R1-5, R1-10	15
1995-08-41	Vancouver	Required by WWGMHB (South Vista)	ULR	R1-6	UMR	R-22	30
1995-08-41	Vancouver	Required by WWGMHB (South Vista)	MX	R1-6	GC	CH	5
1995-08-41	Vancouver	Required by WWGMHB (South Vista)	UHR	R-30	CC	C-3	1
1995-10-01 (1A)	Vancouver	To correct errors.	PF	R1-20	ULR	R1-10	5
1995-10-01 (1B)	Vancouver	To correct errors.	UMR	R-18	ML	ML	4
1995-10-01 (1C)	Vancouver	To correct errors.	UMR	R-22	UMR	OR-22	5
1995-10-01 (1D)	Vancouver	To correct errors.	UHR	R-43	UHR	OR-43	1
1995-10-01 (1E)	Rural	To correct errors and clarify maps	P/OS	P/OS	F-2	F-40	15
1995-10-01 (1F)	Battle Ground	To correct errors and clarify maps	ULR	R1-15	A	A	55
1995-10-01 (2)	Woodland	Adopting an urban boundary, designations, & zoning for Woodland	ULR	R1-10	UH	UH-10	90
1995-12-04 (A)	Rural	To correct errors and clarify maps	RE	RE	CR	CR-1	1
1995-12-04 (B)	Washougal	To correct errors.	ULR	R1-10, R1-15	ULR	R1-10	7
1995-12-04 (C)	Washougal	To correct errors.	UH	R1-10	UH	R1-15	26
1995-12-04 (D)	Washougal	To correct errors.	UH	R-16	UH	R1-10	1
1995-12-04 (E)	Washougal	To correct errors.	ULR, UMR	R1-10, R-16	UMR	R-16	10
1996-05-01 (1a)	Ridgefield	Required by WWGMHB. Adopted min. residential densities. Excluded resource lands from UGA.			AG	AG-20	517
1996-05-01 (1b)	Camas	Required by WWGMHB. (Camas Meadows)	ULR, CT		*Incorp.*	*Incorp.*	612
1996-05-01 (1b)	Camas	Required by WWGMHB. (20th)	ULR, CT		UR	UR-10	246
1996-05-01 (1b)	Camas	Required by WWGMHB. (20th)	ULR, CT		UR	UR-20	80
1996-05-01 (1b)	Camas	Required by WWGMHB. (Winchester Hills, Sun Country Homes)	CT		UR	UR-20	51
1996-05-01 (1b)	Camas	Required by WWGMHB. (Fisher Quarry, Brady Road)	ULR		UR	UR-10	96
1996-05-01 (1c1)	Rural	Required by WWGMHB.	UR	UR-10	AF	AF-20	240
1996-05-01 (1c2)	Vancouver	Required by WWGMHB (Bushlach)	UH	C-2, UH-10 (S)	NC	C-2 (S)	8
1996-05-01 (1c3)	Vancouver	Required by WWGMHB (117th at 72nd) (49 total ac)	ML, ULR	ML, R1-7.5	ML	ML	49
1996-05-01 (1c3)	Vancouver	Required by WWGMHB (117th at 72nd) (49 total ac)	ULR	R1-7.5	ML	ML	
1996-05-01 (1c4)	Vancouver	Required by WWGMHB (28th at 138th)	ULR, NC	R1-5, C-2	NC, CC	C-2, C-3	10
1996-05-01 (1c5)	Vancouver	Required by WWGMHB (Minnehaha)	ML, ULR	ML, R1-5	ML	ML	3

2.12 CHANGE IN DESIGNATION

Ordinance	UGA	Reason	CP	Zone	CP	Zone	Acres
1996-05-01 (1d)	Rural	Required by WWGMHB.	RE	R-5	AG	AG-20	40
1996-05-01 (1e)	Rural	Required by WWGMHB.(Tukes Mt./State Land)	F-2	F-40	AF	AF-20	120
1996-05-01 (1f)	Rural	Required by WWGMHB.	UR	UR-10	AF	AF-20	80
1996-05-37	Ridgefield	To remove Urban Holding (Ridgefield Junction).	UH	UH-20	ML	ML	105
1996-12-64 (1)	Vancouver	Annual Review 1996 (Strong)	ULR	R1-6	ML	ML	1
1996-12-64 (2)	Vancouver	Annual Review 1996 (Callaham)	UMR	R-22	GC	CH	10
1996-12-64 (3)	Vancouver	Annual Review 1996 (Sonney)	CC	C-3	GC	CH	2
1996-12-64 (3a)	Rural	Annual Review 1996	F-1	F-80	MH	MH	6
1996-12-64 (3b)	Rural	Annual Review 1996	P/OS	P/OS	RE	RE	8
1996-12-64 (3c)	Vancouver	Annual Review 1996	UR	UR-10	ML	ML	10
1996-12-64 (3d)	Vancouver	Annual Review 1996	PF	A	MX	ML	2
1996-12-64 (3e)	Rural	Annual Review 1996	MH	MH	UR	UR-10	12
1996-12-64 (3f)	Rural	Annual Review 1996	RE	RE-5	CR	CR2	2
1996-12-64 (3g)	Vancouver	Annual Review 1996	ULR	R1-5	NC	C-2	2
1996-12-64 (5.1)	Rural	Annual Review 1996 (Turecki)	AF	AF-20	RE	RE-5	25
1997-05-31 (3.4)	Rural	Required by WWGMHB.	UR	UR-20	AG, UR	AG-20	765
1997-05-31 (3.5)	Rural	Required by WWGMHB.	UR	UR-10	AG, UR	AG-20	1,404
1997-09-18	Ridgefield	Required by WWGMHB. (Ridgefield De-annexation).	*Incorp.*	*Incorp*	RE	R-5	240
1997-09-26	Rural	Required by WWGMHB.	UR	UR-10	AG, UR	AG-20	176
1997-11-09 (2)	Vancouver	Annual Review 1997	MX	ML, C-3	GC	CH	7
1997-11-09 (3.1)	Rural	Annual Review 1997	RE	RE-5	CR	CR2	4
1997-11-09 (3.2)	Vancouver	Annual Review 1997	OC	OC	ML	ML	60
1997-11-09 (3.3)	Rural	Annual Review 1997	P/OS	P/OS	RE	R-5	20
1997-11-09 (3.4)	Yacolt	Annual Review 1997	AF	AF-20	*Incorp.*	*Incorp*	3
1997-11-09 (3.5)	Rural	Annual Review 1997	F-2	FR-40	RE	R-5	29
1998-01-03	Vancouver	To remove Contingency designations. (1075 total ac)	X	CH	GC	CH	1,075
1998-01-03	Vancouver	To remove Contingency designations. (1075 total ac)	X	CL	CC	CL	
1998-01-03	Vancouver	To remove Contingency designations. (1075 total ac)	X	ML	ML	ML	
1998-01-03	Vancouver	To remove Contingency designations. (1075 total ac)	X	P/OS	P/OS	P/OS	
1998-01-03	Vancouver	To remove Contingency designations. (1075 total ac)	X	R1-10	ULR	R1-10	
1998-01-03	Vancouver	To remove Contingency designations. (1075 total ac)	X	OC	OP	OC	
1998-01-03	Vancouver	To remove Urban Holding designations.	UH	UH-10	ULR	R1-10	269
1998-01-03	Vancouver	To remove Urban Holding designations.	UH	UH-10	ULR	R1-7.5	40
1998-06-20	Rural	Required by WWGMHB. Creating Meadowglade rural center	RE	RE-5	MH	MH	4

Ordinance	UGA	Reason	CP	Zone	CP	Zone	Acres
1998-06-20	Rural	Required by WWGMHB. Creating Meadowglade rural center	RE	RE-5	R-5	R-5	193
1998-06-20	Rural	Required by WWGMHB. Creating Meadowglade rural center	RE	RE-5	RC-1	RC-1	747
1998-06-20	Rural	Required by WWGMHB. Creating Meadowglade rural center	RE	RE-5	RC-2.5	RC-2.5	230
1998-06-20	Rural	Required by WWGMHB. Creating Meadowglade rural center	RE	RE-5	CR-2	CR-2	13
1998-06-20	Rural	Required by WWGMHB. Creating Hockinson rural center	RE	RE-5	R-5	R-5	18
1998-06-20	Rural	Required by WWGMHB. Creating Hockinson rural center	RE	RE-5	RC-1	RC-1	101
1998-06-20	Rural	Required by WWGMHB. Creating Hockinson rural center	RE	RE-5	RC-2.5	RC-2.5	132
1998-06-20	Rural	Required by WWGMHB. Creating Hockinson rural center	RE	RE-5	CR-2	CR-2	27
1998-06-20	Rural	Required by WWGMHB. Creating Dollars Corner rural center	RE	RE-5	RC-1	RC-1	217
1998-06-20	Rural	Required by WWGMHB. Creating Dollars Corner rural center	RE	RE-5	CR-2	CR-2	85
1998-06-20	Rural	Required by WWGMHB. Creating Chelatchie Prairie rural center	RE	RE-5	MH	MH	163
1998-06-20	Rural	Required by WWGMHB. Creating Chelatchie Prairie rural center	RE	RE-5	RC-2.5	RC-2.5	204
1998-06-20	Rural	Required by WWGMHB. Creating Chelatchie Prairie rural center	RE	RE-5	CR-2	CR-2	9
1998-06-20	Rural	Required by WWGMHB. Creating Brush Prairie rural center	RE	RE-5	MH	MH	33
1998-06-20	Rural	Required by WWGMHB. Creating Brush Prairie rural center	RE	RE-5	R-5	R-5	5
1998-06-20	Rural	Required by WWGMHB. Creating Brush Prairie rural center	RE	RE-5	RC-1	RC-1	160
1998-06-20	Rural	Required by WWGMHB. Creating Brush Prairie rural center	RE	RE-5	RC-2.5	RC-2.5	59
1998-06-20	Rural	Required by WWGMHB. Creating Brush Prairie rural center	RE	RE-5	CR-2	CR-2	46
1998-06-20	Rural	Required by WWGMHB. Creating Amboy rural center	RE	RE-5	P/OS	P/OS	13
1998-06-20	Rural	Required by WWGMHB. Creating Amboy rural center	RE	RE-5	R-5	R-5	185
1998-06-20	Rural	Required by WWGMHB. Creating Amboy rural center	RE	RE-5	RC-1	RC-1	18
1998-06-20	Rural	Required by WWGMHB. Creating Amboy rural center	RE	RE-5	RC-2.5	RC-2.5	150
1998-06-20	Rural	Required by WWGMHB. Creating Amboy rural center	RE	RE-5	CR-2	CR-2	22
1998-07-19	Rural	Required by WWGMHB & Superior Court. Repealing Agri-Forest.	AF	AF-20	RE	R-5	6,425
1998-07-19	Rural	Required by WWGMHB & Superior Court. Repealing Agri-Forest.	AF	AF-20	RE	R-10	21,144
1998-07-19	Rural	Required by WWGMHB & Superior Court. Repealing Agri-Forest.	AF	AF-20	RE	R-20	7,508
1998-07-19	Rural	Required by WWGMHB & Superior Court. Repealing Agri-Forest.	AF	AF-20	AG	AG-20	15
1998-07-19	Rural	Required by WWGMHB & Superior Court. Repealing Agri-Forest.	AF	AF-20	F-2	FR-40	174
1998-07-19	Rural	Required by WWGMHB & Superior Court. Incorrectly changed	A	A	RE	R-5	60
1998-07-19	Rural	Required by WWGMHB & Superior Court. Incorrectly changed	A	A	RE	R-5	45
1998-09-02	Rural	To correct errors and clarify maps	RC	RC-1	CR	CR2	2
1998-09-12	Rural	To correct errors and clarify maps	RE	R-5	A	A	45
1998-09-12	Rural	To correct errors and clarify maps	RE	R-5	A	A	60
1998-12-28 (2.1)	Vancouver	Annual Review 1998 (Erickson)	UMR	R-18	GC	CL	6
1998-12-28 (2.3)	Rural	Annual Review 1998 (Tiger Lily)	AG	AG-20	RE	RE-5	95
1998-12-28 (2.4)	Vancouver	Annual Review 1998 (Washington Mutual)	ULR	R1-7.5	GC	CL	1
1998-12-28 (2.5)	Vancouver	Annual Review 1998 (Campbell)	UHR	R-43	GC	CH	6

2.12 CHANGE IN DESIGNATION

Ordinance	UGA	Reason	CP	Zone	CP	Zone	Acres
1998-12-28 (3.1)	Vancouver	Annual Review 1998 (WSU)	ULR	R1-10	PF	U	3
1998-12-28 (3.2)	Vancouver	Annual Review 1998 (Pacific Rock)	ML	ML	MH	MH	7
1998-12-28 (6.1)	Vancouver	Annual Review 1998 (Germann)	ULR	R1-6	CC	C-3	10
1999-12-21 (2.4)	UGA	Annual Review 1999 (Waldow)	RC	RC2.5	MH	MH	28
1999-12-21 (2.1)	Vancouver	Annual Review 1999 (Ross, Vanderhoef, Terry)	ULR	R1-6	ML	C-3	4
1999-12-21 (2.2)	Vancouver	Annual Review 1999 (MJB&G)	ML	ML	CC	C-3	1
1999-12-21 (2.3)	Vancouver	Annual Review 1999 (Defrees)	AG	AG-20	UR	UR-10	29
1999-12-21 (2.5)	Vancouver	Annual Review 1999 (Barney)	RE	R-5	RC	CR-1	2
1999-12-21 (2.6)	Vancouver	Annual Review 1999 (Craft)	ULR	R 1-7.5	CC	C-3	1
1999-12-21 (2.7)	Vancouver	Annual Review 1999 (Grems)	ULR	R 1-6	M	C-2	4
1999-12-21 (2.8)	Vancouver	Annual Review 1999 (Rock Lake)	ULR	R 1-6	CC	C-3	5
1999-12-21 (3.1)	Battle Ground	To correct errors and clarify maps	AG	AG-20	UR	UR-10	40
1999-12-21 (3.2)	Vancouver	To correct errors and clarify maps	RE	RE-5			9
1999-12-21 (3.3)	Vancouver	To correct errors and clarify maps	RC	CR-2	RC	CR-1	2
1999-12-21 (3.4)	Vancouver	To correct errors and clarify maps	ULR	R1-6	ML	ML	4
1999-12-21 (3.5)	Vancouver	To correct errors and clarify maps	ULR	R-12, R-18	ML	ML	2
1999-12-21 (3.6)	Vancouver	To correct errors and clarify maps	ML	ML	CC	C3	2

Source: Clark County Department of Community Development, Long Range Planning Division

Affected Acreage Totals	47,839
Acreage Within Clark County	420,288
Percentage of Total	11.38%

Observations

- Since plan adoption, approximately 47,839 acres have been changed. This represents about 11% of the total acreage within Clark County (420,288).
- Approximately 33 cases were a result of correcting mapping errors, which are a normal post-plan function, while 23 cases were individual applications and 9 changes were driven by the Western Washington Growth Management Hearings Board.
- More than 36,000 acres were affected as a result of the Agri-Forest rezoning and as a result of changes made in the rural centers.
- It is important to note that changes that involve lifting of urban holding zones and the removal of contingency designation did not affect the base zone. Approximately 1,524 acres of the 47,839 total did not change from one zone to another.

INDICATOR: Transit Ridership

Background and Relevance

Bus transit ridership is an alternative to automobile use and offers several potential benefits for both bus riders and automobile users. Even at modest levels of ridership, transit use eases road congestion, reduces gasoline consumption and air pollution, and provides mobility for those without access to cars. Transit also provides an alternative means of travel during periods when automobile usage is less desirable, such as during the September 1997 repairs of the I-5 bridge, or simply for individuals who may not be able or do not wish to use their vehicles on a given day. For these reasons, the county Comprehensive Plan encourages the development of alternative transportation modes. Tracking transit ridership over time provides an indication of how extensively this particular alternative is being used.

Table 3.1.1 C-TRAN Bus Ridership

Year	Countywide Population	C-TRAN Total Passenger Trips	Total Hours of Service	Total Annual Passenger Trips Per Capita
1990	238,053	2,840,724	177,634	11.9
1991	250,300	3,203,888	195,941	12.8
1992	257,600	3,216,304	201,448	12.5
1993	269,500	3,420,373	209,574	12.7
1994	280,800	3,737,922	223,629	13.3
1995	291,000	4,325,296	250,605	14.9
1996	303,500	5,097,066	316,161	16.8
1997	316,800	5,871,276	346,841	18.5
1998	328,000	6,257,390	385,390	19.1
1999	337,000	6,416,928	391,927	19.0

Source: C-Tran

Data Collection

Transit ridership figures were provided by C-Tran. They include paratransit and vanpool trips as well as the more common fixed route service. The total hours of service include non-passenger-related hours. Approximately 90-95% of the total hours of service is used for providing transit service to the public.

Observations

- Total passenger trips have increased by more than 125% since 1990.
- C-TRAN attributes per capita ridership gains in large part to the addition of new routes and increased service. From 1990 to 1999, C-TRAN service as measured in total service hours of operation increased by 121%.

INDICATOR: School District Enrollment and Capacity

Background and Relevance

The quality of schools is closely associated with the quality of life in Clark County. Public education in the county is provided by nine school districts. Monitoring how enrollment and capacity changes over time provides an indication of how school facilities are keeping up with the pace of growth. The use of portable facilities provides an indicator of how school districts are meeting classroom needs that cannot be accommodated in permanent structures.

Washington law provides state funding to local schools for non-capital expenses in accordance with school enrollment. This ensures that funding is available to hire new teachers as local enrollment increases so that the student/teacher ratio can remain relatively consistent. Funding for building facilities and capital expenses is provided by the state of Washington through its construction fund and through the passage of local bond levies. Any shortfall in the funding of capital facilities must be provided by individual local school districts, typically through the use of portable classrooms.

The SPI number is an official Washington State Superintendent of Public Instruction calculation that represents the number of students that should be accommodated in the existing permanent school structures within each district. The SPI number is a main driver for the allocation of state funding, which also looks at headcount, the wealth of a school district and matching funds approved through local school bonds and levies. Portable classroom space is not included in the SPI capacity estimates.

Table 3.2.1 School Capacities, Enrollment and Use of Portable Classrooms

School District	SPI Capacity					October 1st Headcount Enrollment					Number of Portable Classrooms				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
Vancouver	18,785	20,149	21,519	21,519	27,983	19,644	20,400	21,016	21,197	21,346	79	85	89	86	78
Evergreen	18,273	18,273	18,273	18,273	19,579	17,884	18,852	19,733	20,252	21,171	274	294	322	342	324
Battle Ground	8,327	10,516	10,516	10,516	10,570	10,343	10,812	10,904	11,462	11,525	57	65	64	69	83
Camas	3,792	4,694	4,694	4,694	5,215	2,974	3,105	3,251	3,488	3,616	6	6	10	14	14
Washougal	2,429	2,429	2,429	2,429	2,667	2,563	2,667	2,609	2,569	2,551	36	38	40	42	41
Ridgefield	2,037	2,037	2,037	2,037	2,115	1,612	1,706	1,794	1,810	1,789	7	7	9	13	12
Hockinson	1,480	1,480	1,456	1,456	1,440	1,252	1,269	1,290	1,250	1,320	4	6	5	5	8
LaCenter	1,275	1,275	1,275	1,275	1,234	1,223	1,316	1,321	1,401	1,425	12	12	14	16	18
Green Mountain	154	154	154	154	125	97	102	122	122	126	2	2	2	2	2

Source: Clark County School Districts

Data Collection

Each school district was asked to report its October 1 headcount enrollment, SPI capacity, and number of portable classrooms used during each school year.

Observations

- Between 1995 and 1999, the Evergreen School District ranked first in student headcount growth at 3,287 and third in percentage increase at 18%. Vancouver ranked second in student headcount growth at 1,702 and ranked seventh in percentage increase at 8.7%. Some of the largest percentage increases in student headcount were experienced by two of the more rural school districts, with Green Mountain ranking first and La Center ranking fourth.

- Four of the nine school districts have more students enrolled than their permanent buildings were designed for, but all school districts use portable classrooms to meet their classroom needs. With the exception of Green Mountain and Vancouver, all other school districts increased the use of portable classrooms from 1995 to 1999. Evergreen and Vancouver are also the largest users of portable classrooms at 324 and 78 respectively.

- Monitoring SPI capacities, headcount enrollment, and the use of portable classrooms provides an indication of how overall school facility needs are being met. When funding from state and local sources for capital improvements is not provided, local school districts meet their classroom needs through the use of portable structures. While the use of these structures can provide an adequate classroom setting, their use in addressing increasing enrollments may present long-term difficulties, particularly when it is not feasible to expand non-classroom facilities such as auditoriums, cafeterias, gyms, or libraries that also represent a portion of student needs.

Indicator: Timber harvest by ownership

Background

The following data look at timber harvest under two main categories of ownership – public and private. This division allows for a comparison of their contribution to harvest activity and highlights the importance of forest land within the county. The Washington Department of Natural Resources defines forest ownership as follows:

Forest Industry - Companies and individuals operating wood-using plants with no acreage limitations.
Private Large - Non-industrial companies and individuals not operating wood-using plants but with holdings of 1,000 or more acres.
Private Small - Non-industrial companies and individuals not operating wood-using plants and having holdings of less than 1,000 acres.
State - Designation used to report harvest from DNR managed trust lands and is reported by the Forest Resources Division.
Other Non-federal - Includes public land owned by cities, counties, public utility districts, and state agencies other than the DNR.
BIA (Bureau of Indian Affairs) or Native American - Designation used to report timber harvests from several Indian tribes located in Washington State.
Forest Service - Represents the federal harvest from National Forest Lands managed by the U.S. Department of Agriculture Forest Service.
Other Federal - Represents various other federal agencies (military and U.S. Wildlife Service) selling timber for industrial wood use.

Table 3.2.2 Clark County Timber Harvest by Ownership from 1990-1998, in Thousand Board Feet, Scribner Log Scale

	Forest Industry	Private Large	Private Small	Total Private	State	Other Non-Federal	Forest Service	Other Federal	Total Govern	Total All Ownership
1990	75,717	7,752	32,956	116,425	10,838				10,838	127,263
1991	44,689	5,208	31,844	81,741	6,872				6,872	88,613
1992	77,858	1,866	36,309	116,033	4,845				4,845	120,878
1993	56,420	6,427	30,531	93,378	3,018			165	3,183	96,561
1994	42,584	3,600	36,320	82,504	12,762				12,762	95,266
1995	30,713	3,448	43,846	78,007	12,690				12,690	90,697
1996	35,058	5,919	34,094	75,071	9,897	70			9,967	85,038
1997	34,151	3,494	20,066	57,711	21,917				21,917	79,628
1998	35,588	2,589	14,902	53,079	23,213				23,213	76,292
Ownership Totals	432,778	40,303	280,868	753,949	106,052	70		165	106,287	860,236

Source: Washington State Department of Natural Resources

Table 3.2.3 Forest Excise Tax Distributed to Clark County

Year	Forest Excise Revenue to Clark County	Total Revenue to Clark County	Forest Excise % of Total Revenue
1991	$1,274,058	$92,627,599	1.4%
1992	$1,120,246	$107,538,353	1.0%
1993	$1,613,111	$118,836,785	1.4%
1994	$1,980,702	$138,229,720	1.4%
1995	$1,859,481	$133,637,663	1.4%
1996	$1,513,381	$169,972,500	0.9%
1997	$1,600,654	$158,053,283	1.0%
1998	$1,326,579	$181,973,143	0.7%

Sources: Forest Excise Tax Revenue to Clark County: State of Washington Data Book.
Total Revenue to Clark County: Washington State Auditor's WWW page

Data Collection

Timber harvest data is collected by the Washington State Department of Natural Resources and reported in thousand board feet using the Scribner Log Scale. Data covering privately owned lands is supplied by the Department of Revenue, using forest excise tax returns. Currently, there is no Native American ownership reporting timber harvests within the county.

Observations

- Of the total harvest reported for 1990-1998, forest industry ownership accounts for 50%, large private ownership accounts for 5%, and small private ownership accounts for 33%. State ownership makes up the remaining 12%.

INDICATOR: Forest Land Conversion

Background and Relevance

Clark County has two forest resource land use designations: Forest I and Forest II. These have been applied to lands which have physical characteristics associated with long-term production of commercially significant forest products or other natural resources.

Conversion is defined as land that is clear of timber and converted to a use other than forestry. Forest conversion applications are applied only to privately owned land. A cursory study of the forest conversion applications reveals that lands are converting to a variety of uses including residential development, remodeling activities on existing dwellings, site preparation for new structures, and conversion to pasture land.

All forest applications are good for two years; applications do not necessarily mean timber harvesting or use conversion has actually taken place.

Table 3.2.4 Annual Forest Conversion Applications in Clark County

YEAR	Total Applications for Conversion	Total Acreage
1993	166	1,798
1994	81	833
1995	41	337
1996	35	414
1997	38	490
1998	19	147

Source: Washington State Department of Natural Resources

Data Collection

Data on forest applications were provided by the Washington State Department of Natural Resources (DNR) and reflect active applications and acreage involved in the forest practices applications from 1993 through 1998. Data for 1990 through 1992 was entered into a different data system and for a variety of reasons, including the reliability of the information, data for these years was not available. An application for a forest conversion does not necessarily mean that the conversion took place. Currently, there is no monitoring process in place to track activities on these parcels.

Observations

- Between 1993 and 1994, applications for forest conversions dropped by more than half.
- Since the adoption of the Comprehensive Plan, applications have fluctuated but remain significantly below Pre-GMA totals, reaching its lowest total of 19 in 1998.

Affordable Housing – Housing is considered affordable to a household if it costs no more than 30 percent (30%) of the total household gross monthly income for rent or mortgage payments, or up to 3.1 times annual income for purchasing a home. This is the standard used by the federal and state governments and the majority of lending institutions.

Buildable Land – All vacant, partially used, and underutilized parcels that are (a) designated for commercial, industrial, or residential use; (b) not intended for public use; (c) not constrained by critical areas in a way that limits development potential and makes new construction on a parcel unfeasible.

Build Out – Having no remaining land; fully developed to the maximum permitted by adopted plans and zoning.

Critical Areas – Include wetlands, sensitive fish and wildlife habitat areas, critical recharge areas for groundwater aquifers, flood prone areas, and geological hazardous areas (such as landslide areas, earthquake fault zones, and steep slopes).

Density, Net – Density calculations based on the actual area of land used, exclusive of streets, roads, rights-of-way, easements, parks, and open space.

Developable Land – Land that is suitable as a location for structures because it is free of hazards (floods, fire, geological, wetlands, etc.), has access to services (water, sewer, storm drainage, and transportation), and will not disrupt or adversely affect natural resource areas.

Gross Acreage – Calculations based on the overall acreage of an area including streets, roads, easements, rights-of-way, parks and open space.

Infill Development – Development on vacant parcels in urban or urbanizing areas that were passed over by previous developments.

Prime Industrial –Vacant and within 500 ft. of sewer buffer, at least 10 acres and less than 10% critical lands.

Secondary Industrial – Vacant, at least 5 acres and between 10% and 50% critical lands.

Tertiary Industrial –Vacant, at least 5 acres and up to 100% critical lands.

Underutilized Land – All parcels of land zoned for more intensive use than that which currently occupies the property. For instance, a single-family home on multi-family zoned land will generally be considered underutilized. This classification also includes re-developable land, i.e., land on which development has already occurred but on which, due to present or expected market forces, there exists the strong likelihood that existing development will be converted to more intensive uses during the planning period.

Undertutilized (Commercial) – A parcel is considered underutilized if the land to structure value is greater than a 4:1 ratio and less than 10% critical lands.

Underutilized (Residential) – Parcels designated as residential that are:
a) between 1 and 2.5 acres with assessed value less than $325,000.
b) between 2.5 and 7 acres with assessed value less than $520,000 or
c) greater than 7 acres with assessed value less than $975,000.

Urban Growth Area – An area established as part of the growth management process to allow for the efficient provision of urban levels of governmental services and where urban growth will be encouraged. Urban growth areas should contain enough vacant land to accommodate the 20-year growth projections by the state Office of Financial Management. Counties and cities must cooperatively establish the urban growth areas and cities must be located inside urban growth areas. Once established, cities cannot annex land outside the urban growth area. Growth outside urban growth areas must be rural in character.

Vacant Buildable (Commercial) – Any commercial designated parcels having no structure with an assessed value less than $67,500 and less than 10% critical lands.

Vacant Buildable (Residential) – Parcels zoned residential having no structure with an assessed value of less than $13,000.

Vacant Industrial – Parcels having no structure with an assessed value less than $67,500.

The Vacant and Buildable Lands Model

This appendix describes the process that classifies parcels as either vacant or underutilized under various categories, and gives the gross and net results for each UGA by residential, commercial and industrial land use types. In addition it presents information on the assumptions that are applied as part of the planning process, but that are not analyzed here as part of the monitoring document.

Introduction

In 1992, Clark County began the Vacant Lands analysis to determine the potential capacity of urban growth areas to accommodate projected growth for the next 20 years. County staff met with interested parties from the development and environmental community to collectively examine criteria to be used to compute the supply of land available for development within each urban growth boundary. From the process, a methodology was developed using the Clark County Assessors database and Geographic Information Systems (GIS) as the primary data sources. This process was revisited in the spring of 2000 by a Board-of-Clark-County-Commissioners-appointed technical advisory committee which reviewed the definitions of for each classification of land and the assumptions that would be applied to them.

The definitions, criteria and assumptions used for the current land inventory information presented in this report are presented below. Attached to this appendix is a text matrix that describes and compares the definitions, criteria and assumptions applied in 1994/5 and those used for the current analysis.

The Vacant Buildable Lands Model consists of three parts--residential, commercial, and industrial.

Residential Model

The residential model classifies residentially designated parcels as follows:

- Residential Vacant
  - Building value less than 13,000
  - Less than 50% critical lands (critical lands described below)
  - Not tax exempt
  - Not an easement or right of way
  - Not a state assessed or institutional parcel
- Underutilized
  - Between 1 & 2.5 acres with assessed value less than $325,000
  - Between 2.5 & 7 acres with assessed value less than $520,000
  - Greater than 7 acres with assessed value less than $975,000

- Easements
- Mansions and Condos
  - Between 1 & 2.5 acres with assessed value equal to/greater than $325,000
  - Between 2.5 & 7 acres with assessed value equal to/greater than $520,000
  - Greater than 7 acres with assessed value equal to or greater than $975,000
- Residential Exempt
- Critical Lands Exclusions (not included in inventory)
  - 100 year floodplain or flood fringe
  - high quality wetlands with 300 foot buffer
  - slopes greater than 25 percent
  - active or historically unstable slopes
  - 200 foot shoreline buffers
  - hydric soils with 50 foot buffer
  - Habitat areas with 100 foot buffer
  - species area with 300 foot buffer
  - stream buffers by DNR class:
    - Class 1 & 2: 250 feet
    - Class 3: 200 feet
    - Class 4 & 5: 150 feet

Commercial Model

The commercial model classifies commercially designated parcels as follows:

- Commercial Vacant land
  - Building value less than $67,500
  - Less than 10% critical lands (see critical definition above)
- Commercial Vacant with Critical Lands
  - Building value less than $67,500
  - Between 10% and 50% critical lands (see critical definition above)
- Commercial Underutilized Lands
  - Land value four time greater than building value
  - Less than 10% critical lands (see critical definition above)
- Commercial Underutilized Lands with critical lands

- Land value four time greater than building value
- Between 10% and 50% critical lands (see critical definition above)

- Commercial with Critical Lands Exclusion (not included in inventory)
  - Greater than 50% Critical Lands

Industrial Model

The Industrial model classifies industrially designated parcels as follows:

- Prime Industrial Land
  - Building value less than $67,500
  - Within 500' of existing sewer line
  - At least 10 acre parcel size
  - less than 10% critical lands (see critical definition above)

- Secondary Industrial Lands
  - Building value less than $67,500
  - At least 5 acres
  - Between 10% and 50% critical lands (see critical definition above)

- Tertiary Industrial Lands
  - Building value less than $67,500
  - At least 5 acres
  - up to 100% critical land (see critical definition above)

Planning Assumptions

In addition to the model definitions, criteria and assumptions presented above certain planning assumptions to account for infrastructure and market factors are applied to the calculated gross inventory in order to arrive at a net available land supply. Some factors are applied to the land supply while others are applied to the demand side in the planning process. Those factors applied to the supply side are included in the results tables that follow. The demand side factors—market factors and commercial and industrial infrastructure-- will be applied in the planning process. These assumptions are outlined below:

Residential Model Planning Assumptions:

- 38% deduction from gross inventory (**supply**) to account for both on and off-site infrastructure needs.
- 10% deduction applied to gross vacant land **supply**, a never-to-convert factor.
- 30% deduction applied to gross underutilized land **supply**, a never-to-convert factor.
- *25% market factor applied to calculated need (demand)*, based on population estimate, single-family/multi-family housing type split, and anticipated density.

Commercial and Industrial Land Planning Assumptions

- *25% infrastructure factor applied to calculated need (**demand**) for both commercial and industrial lands.*
- *25% market factor applied to calculated need (**demand**) for commercial land.*
- *50% market factor applied to calculated need (**demand**) for industrial land.*

On the following page is the Clark County Assessor database update cycle. Following that are the gross and net results for residential, commercial and industrial lands for each UGA. Finally is the text matrix comparing the 1994 definitions, assumptions and criteria with that applied in the current analysis.

For more information on the model inputs, structure and outputs, please contact Clark County Community Development Long Range Planning or The Clark County Department of Assessment and GIS.

Assessor's Permit Cycle

Permit Type

Subdivision or Long Plat

New Structure or Short Plat

Important Dates

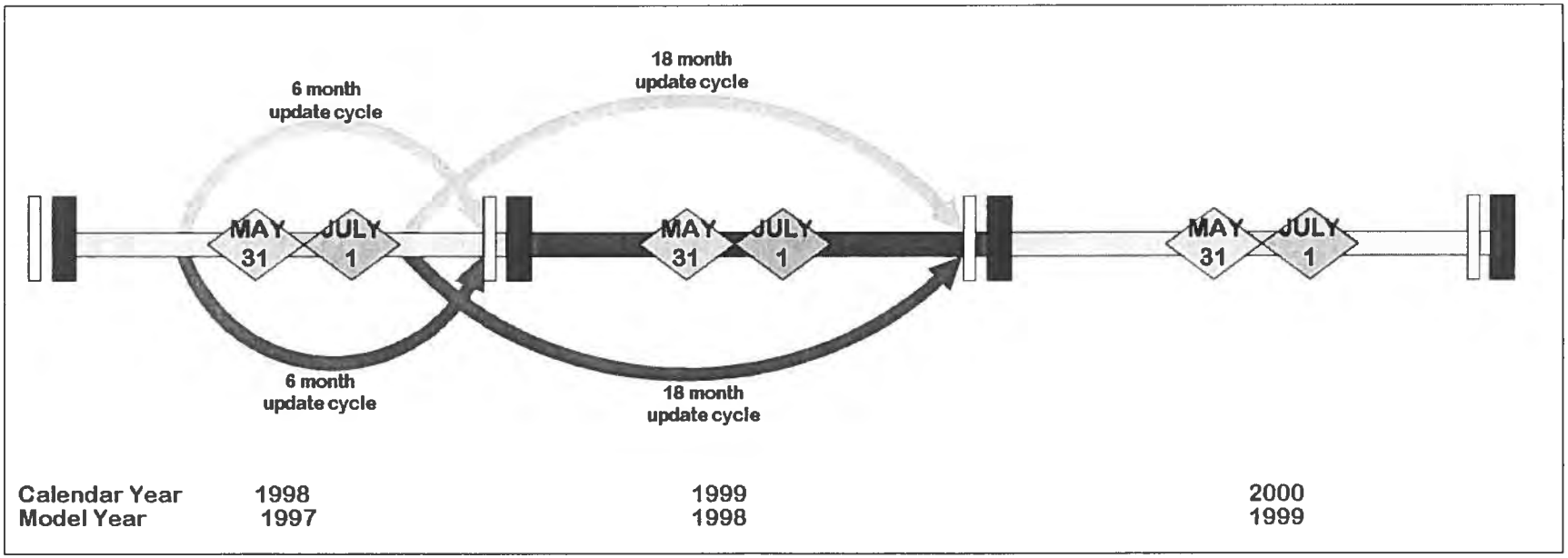
November, Assessor's Rollover

December 15th, Vacant Lands Model Run

January 1st, new calendar year

May 31st, Permit cutoff date for Subdivisions and Long plats

July 1st, Permit cutoff date for New Structures and Short plats



Battleground UGA 2000: Residential Lands

Base Vacant Lands	parcel size	acres city	acres county	acres sum	parcels city	parcels county
vacant	5,000 sqft to 20,000	46.6	0.5	47.1	280	3
	20,000 sqft to 1 acre	5	3.5	8.5		
	1 acre to 2.5 acres	17.5	4.5	22.0		
	2.5 acres to 5 acres	43.7	29.3	73.0		
	5 or more acres	192	204.8	396.8		
	subtotal	**304.8**	**242.6**	**547.4**		
Vacant Lands with infrastructure deductions	20,000 sqft to 1 acre	3.1	2.2	5.3		
	1 acre to 2.5 acres	10.9	2.8	13.6		
	2.5 acres to 5 acres	27.1	18.2	45.3		
	5 or more acres	119.0	127.0	246.0		
	subtotal	**160.1**	**150.1**	**310.2**		
Vacant res. lands with infr. deductions and "other"deductions	20,000 sqft to 1 acre	2.8	2.0	4.7		
	1 acre to 2.5 acres	9.8	2.5	12.3		
	2.5 acres to 5 acres	24.4	16.3	40.7		
	5 or more acres	107.1	114.3	221.4		
	subtotal	**144.1**	**135.1**	**279.2**		
Underutilized Lands						
Underutilized Residential Land	1 to 2.5 acres	47.5	117.7	165.2		
	2.5 to 5 acres	51.5	121.4	172.9		
	5 or more acres	116.4	85.6	202.0		
	subtotal	**215.4**	**324.7**	**540.1**		
Underutilized Residential Lands with infrastructure deductions	1 to 2.5 acres	29.5	73.0	102.4		
	2.5 to 5 acres	31.9	75.3	107.2		
	5 or more acres	72.2	53.1	125.2		
	subtotal	**133.5**	**201.3**	**334.9**		
Underutilized res. lands with infr. and "other" deduction	1 to 2.5 acres	20.6	51.1	71.7		
	2.5 to 5 acres	22.4	52.7	75.0		
	5 or more acres	50.5	37.2	87.7		
	subtotal	**93.5**	**140.9**	**234.4**		

Residential Totals

	city acres	county acres	sum acres
Gross Vacant	304.8	242.6	**547.4**
Gross Underutilized	215.4	324.7	**540.1**
Gross Total	520.2	567.3	**1087.5**

	city acres	county acres	sum acres
Net Vacant	190.7	135.6	**326.3**
Net Underutilized	93.5	140.9	**234.4**
Net Total	284.2	276.5	**560.7**

Camas UGA 2000: Residential Lands

Base Vacant Lands	parcel size	acres city	acres county	acres sum	parcels city	parcels county
vacant	5,000 sqft to 20,000	151.9	7.1	159.0	688	31
	20,000 sqft to 1 acre	29.9	1.7	31.6		
	1 acre to 2.5 acres	37.6	3.6	41.2		
	2.5 acres to 5 acres	76.7	0	76.7		
	5 or more acres	102.3	33.3	135.6		
	subtotal	**398.4**	**45.7**	**444.1**		
Vacant Lands with infrastructure deductions	20,000 sqft to 1 acre	18.5	1.1	19.6		
	1 acre to 2.5 acres	23.3	2.2	25.5		
	2.5 acres to 5 acres	47.6	0.0	47.6		
	5 or more acres	63.4	20.6	84.1		
	subtotal	**152.8**	**23.9**	**176.8**		
Vacant res. lands with infr. deductions and "other"deductions	20,000 sqft to 1 acre	16.7	0.9	17.6		
	1 acre to 2.5 acres	21.0	2.0	23.0		
	2.5 acres to 5 acres	42.8	0.0	42.8		
	5 or more acres	57.1	18.6	75.7		
	subtotal	**137.5**	**21.5**	**159.1**		
Underutilized Lands						
Underutilized Residential Land	1 to 2.5 acres	95.6	8.2	103.8		
	2.5 to 5 acres	45.7	2.6	48.3		
	5 or more acres	184.1	10.5	194.6		
	subtotal	**325.4**	**21.3**	**346.7**		
Underutilized Residential Lands with infrastructure deductions	1 to 2.5 acres	59.3	5.1	64.4		
	2.5 to 5 acres	28.3	1.6	29.9		
	5 or more acres	114.1	6.5	120.7		
	subtotal	**201.7**	**13.2**	**215.0**		
Underutilized res. lands with infr. and "other" deduction	1 to 2.5 acres	41.5	3.6	45.0		
	2.5 to 5 acres	19.8	1.1	21.0		
	5 or more acres	79.9	4.6	84.5		
	subtotal	**141.2**	**9.2**	**150.5**		

Residential Totals

	city acres	county acres	sum acres
Gross Vacant	398.4	45.7	**444.1**
Gross Underutilized	325.4	21.3	**346.7**
Gross Total	723.8	67.0	**790.8**

	city acres	county acres	sum acres
Net Vacant	289.4	28.6	**318.1**
Net Underutilized	141.2	9.2	**150.5**
Net Total	430.7	37.9	**468.6**

Note: Camas converted approximately 600 acres from residential to industrial in 1995, after the vacant lands analysis was completed.

La Center UGA 2000: Residential Lands

Base Vacant Lands	parcel size	acres city	acres county	acres sum	parcels city	parcels county
vacant	5,000 sqft to 20,000	29.1	0	29.1	134	0
	20,000 sqft to 1 acre	2.2	0	2.2		
	1 acre to 2.5 acres	1.1	3.3	4.4		
	2.5 acres to 5 acres	11.2	6.4	17.6		
	5 or more acres	46.9	6	52.9		
	subtotal	**90.5**	**15.7**	**106.2**		
Vacant Lands with infrastructure deductions	20,000 sqft to 1 acre	1.4	0.0	1.4		
	1 acre to 2.5 acres	0.7	2.0	2.7		
	2.5 acres to 5 acres	6.9	4.0	10.9		
	5 or more acres	29.1	3.7	32.8		
	subtotal	**38.1**	**9.7**	**47.8**		
Vacant res. lands with infr. deductions and "other"deductions	20,000 sqft to 1 acre	1.2	0.0	1.2		
	1 acre to 2.5 acres	0.6	1.8	2.5		
	2.5 acres to 5 acres	6.2	3.6	9.8		
	5 or more acres	26.2	3.3	29.5		
	subtotal	**34.3**	**8.8**	**43.0**		
Underutilized Lands						
Underutilized Residential Land	1 to 2.5 acres	7.8	16	23.8		
	2.5 to 5 acres	0	7	7.0		
	5 or more acres	5.7	7	12.7		
	subtotal	**13.5**	**30.0**	**43.5**		
Underutilized Residential Lands with infrastructure deductions	1 to 2.5 acres	4.8	9.9	14.8		
	2.5 to 5 acres	0.0	4.3	4.3		
	5 or more acres	3.5	4.3	7.9		
	subtotal	**8.4**	**18.6**	**27.0**		
Underutilized res. lands with infr. and "other" deduction	1 to 2.5 acres	3.4	6.9	10.3		
	2.5 to 5 acres	0.0	3.0	3.0		
	5 or more acres	2.5	3.0	5.5		
	subtotal	**5.9**	**13.0**	**18.9**		

Residential Totals

	city acres	county acres	sum acres
Gross Vacant	90.5	15.7	**106.2**
Gross Underutilized	13.5	30.0	**43.5**
Gross Total	104.0	45.7	**149.7**

	city acres	county acres	sum acres
Net Vacant	63.4	8.8	**72.1**
Net Underutilized	5.9	13.0	**18.9**
Net Total	69.2	21.8	**91.0**

Ridgefield UGA 2000: Residential Lands

Base Vacant Lands	parcel size	acres city	acres county	acres sum	parcels city	parcels county
vacant	5,000 sqft to 20,000	12	0.6	12.6	56	2
	20,000 sqft to 1 acre	10.3	0	10.3		
	1 acre to 2.5 acres	19.3	0	19.3		
	2.5 acres to 5 acres	95	4.6	99.6		
	5 or more acres	146.3	6.4	152.7		
	subtotal	**282.9**	**11.6**	**294.5**		
Vacant Lands with infrastructure deductions	20,000 sqft to 1 acre	6.4	0.0	6.4		
	1 acre to 2.5 acres	12.0	0.0	12.0		
	2.5 acres to 5 acres	58.9	2.9	61.8		
	5 or more acres	90.7	4.0	94.7		
	subtotal	**168.0**	**6.8**	**174.8**		
Vacant res. lands with infr. deductions and "other"deductions	20,000 sqft to 1 acre	5.7	0.0	5.7		
	1 acre to 2.5 acres	10.8	0.0	10.8		
	2.5 acres to 5 acres	53.0	2.6	55.6		
	5 or more acres	81.6	3.6	85.2		
	subtotal	**151.2**	**6.1**	**157.3**		
Underutilized Lands						
Underutilized Residential Land	1 to 2.5 acres	79.2	4.5	83.7		
	2.5 to 5 acres	115.8	15.2	131.0		
	5 or more acres	115.6	47.9	163.5		
	subtotal	**310.6**	**67.6**	**378.2**		
Underutilized Residential Lands with infrastructure deductions	1 to 2.5 acres	49.1	2.8	51.9		
	2.5 to 5 acres	71.8	9.4	81.2		
	5 or more acres	71.7	29.7	101.4		
	subtotal	**192.6**	**41.9**	**234.5**		
Underutilized res. lands with infr. and "other" deduction	1 to 2.5 acres	34.4	2.0	36.3		
	2.5 to 5 acres	50.3	6.6	56.9		
	5 or more acres	50.2	20.8	71.0		
	subtotal	**134.8**	**29.3**	**164.1**		

Residential Totals

	city acres	county acres	sum acres
Gross Vacant	282.9	11.6	**294.5**
Gross Underutilized	310.6	67.6	**378.2**
Gross Total	593.5	79.2	**672.7**

	city acres	county acres	sum acres
Net Vacant	163.2	6.7	**169.9**
Net Underutilized	134.8	29.3	**164.1**
Net Total	298.0	36.1	**334.0**

Vancouver UGA 2000: Residential Lands

Base Vacant Lands	parcel size	acres city	acres county	acres sum	parcels city	parcels county
vacant	5,000 sqft to 20,000	276.6	441.4	718.0	1450	2368
	20,000 sqft to 1 acre	118.6	141.2	259.8		
	1 acre to 2.5 acres	165	300.4	465.4		
	2.5 acres to 5 acres	201	393.7	594.7		
	5 or more acres	235.5	553.3	788.8		
	subtotal	**996.7**	**1830.0**	**2826.7**		
Vacant Lands with infrastructure deductions	20,000 sqft to 1 acre	73.5	87.5	161.1		
	1 acre to 2.5 acres	102.3	186.2	288.5		
	2.5 acres to 5 acres	124.6	244.1	368.7		
	5 or more acres	146.0	343.0	489.1		
	subtotal	**446.5**	**860.9**	**1307.4**		
Vacant res. lands with infr. deductions and "other"deductions	20,000 sqft to 1 acre	66.2	78.8	145.0		
	1 acre to 2.5 acres	92.1	167.6	259.7		
	2.5 acres to 5 acres	112.2	219.7	331.8		
	5 or more acres	131.4	308.7	440.2		
	subtotal	**401.8**	**774.8**	**1176.7**		
Underutilized Lands						
Underutilized Residential Land	1 to 2.5 acres	488.7	1638.5	2127.2		
	2.5 to 5 acres	174	749	923.0		
	5 or more acres	169.5	676.5	846.0		
	subtotal	**832.2**	**3064.0**	**3896.2**		
Underutilized Residential Lands with infrastructure deductions	1 to 2.5 acres	303.0	1015.9	808.3		
	2.5 to 5 acres	107.9	464.4	350.7		
	5 or more acres	105.1	419.4	321.5		
	subtotal	**516.0**	**1899.7**	**2415.6**		
Underutilized res. lands with infr. and "other" deduction	1 to 2.5 acres	212.1	711.1	923.2		
	2.5 to 5 acres	75.5	325.1	400.6		
	5 or more acres	73.6	293.6	367.2		
	subtotal	**361.2**	**1329.8**	**1691.0**		

Residential Totals

	city acres	county acres	sum acres
Gross Vacant	996.7	1830.0	**2826.7**
Gross Underutilized	832.2	3064.0	**3896.2**
Gross Total	1828.9	4894.0	**6722.9**

	city acres	county acres	sum acres
Net Vacant	678.4	1216.2	**1894.7**
Net Underutilized	361.2	1329.8	**1691.0**
Net Total	1039.6	2546.0	**3585.6**

Washougal UGA 2000: Residential Lands

Base Vacant Lands	parcel size	acres city	acres county	acres sum	parcels city	parcels county
vacant	5,000 sqft to 20,000	60.1	2.8	62.9	283	10
	20,000 sqft to 1 acre	16.7	1.2	17.9		
	1 acre to 2.5 acres	31.3	4.9	36.2		
	2.5 acres to 5 acres	46.8	5.8	52.6		
	5 or more acres	261.4	16.3	277.7		
	subtotal	**416.3**	**31.0**	**447.3**		
Vacant Lands with infrastructure deductions	20,000 sqft to 1 acre	10.4	0.7	11.1		
	1 acre to 2.5 acres	19.4	3.0	22.4		
	2.5 acres to 5 acres	29.0	3.6	32.6		
	5 or more acres	162.1	10.1	172.2		
	subtotal	**220.8**	**17.5**	**238.3**		
Vacant res. lands with infr. deductions and "other"deductions	20,000 sqft to 1 acre	9.3	0.7	10.0		
	1 acre to 2.5 acres	17.5	2.7	20.2		
	2.5 acres to 5 acres	26.1	3.2	29.4		
	5 or more acres	145.9	9.1	155.0		
	subtotal	**198.8**	**15.7**	**214.5**		
Underutilized Lands						
Underutilized Residential Land	1 to 2.5 acres	62.6	58.4	121.0		
	2.5 to 5 acres	43.1	62.3	105.4		
	5 or more acres	109.2	41.7	150.9		
	subtotal	**214.9**	**162.4**	**377.3**		
Underutilized Residential Lands with infrastructure deductions	1 to 2.5 acres	38.8	36.2	46.0		
	2.5 to 5 acres	26.7	38.6	40.1		
	5 or more acres	67.7	25.9	57.3		
	subtotal	**133.2**	**100.7**	**233.9**		
Underutilized res. lands with infr. and "other" deduction	1 to 2.5 acres	27.2	25.3	52.5		
	2.5 to 5 acres	18.7	27.0	45.7		
	5 or more acres	47.4	18.1	65.5		
	subtotal	**93.3**	**70.5**	**163.7**		

Residential Totals

	city acres	county acres	sum acres
Gross Vacant	416.3	31.0	**447.3**
Gross Underutilized	214.9	162.4	**377.3**
Gross Total	631.2	193.4	**824.6**

	city acres	county acres	sum acres
Net Vacant	258.9	18.5	**277.4**
Net Underutilized	93.3	70.5	**163.7**
Net Total	352.1	89.0	**441.1**

Yacolt UGA 2000: Residential Lands

Base Vacant Lands	parcel size	acres city	acres county	acres sum	parcels city	parcels county
vacant	5,000 sqft to 20,000	0.1	0	0.1	1	0
	20,000 sqft to 1 acre	0	0	0.0		
	1 acre to 2.5 acres	0	0	0.0		
	2.5 acres to 5 acres	0	0	0.0		
	5 or more acres	0	0	0.0		
	subtotal	**0.1**	**0.0**	**0.1**		
Vacant Lands with infrastructure deductions	20,000 sqft to 1 acre	0.0	0.0	0.0		
	1 acre to 2.5 acres	0.0	0.0	0.0		
	2.5 acres to 5 acres	0.0	0.0	0.0		
	5 or more acres	0.0	0.0	0.0		
	subtotal	**0.0**	**0.0**	**0.0**		
Vacant res. lands with infr. deductions and "other"deductions	20,000 sqft to 1 acre	0.0	0.0	0.0		
	1 acre to 2.5 acres	0.0	0.0	0.0		
	2.5 acres to 5 acres	0.0	0.0	0.0		
	5 or more acres	0.0	0.0	0.0		
	subtotal	**0.0**	**0.0**	**0.0**		
Underutilized Lands						
Underutilized Residential Land	1 to 2.5 acres	0.1	0	0.1		
	2.5 to 5 acres	0	0	0.0		
	5 or more acres	0	0	0.0		
	subtotal	**0.1**	**0.0**	**0.1**		
Underutilized Residential Lands with infrastructure deductions	1 to 2.5 acres	0.1	0.0	0.1		
	2.5 to 5 acres	0.0	0.0	0.0		
	5 or more acres	0.0	0.0	0.0		
	subtotal	**0.1**	**0.0**	**0.1**		
Underutilized res. lands with infr. and "other" deduction	1 to 2.5 acres	0.0	0.0	0.0		
	2.5 to 5 acres	0.0	0.0	0.0		
	5 or more acres	0.0	0.0	0.0		
	subtotal	**0.0**	**0.0**	**0.0**		

Residential Totals

	city acres	county acres	sum acres
Gross Vacant	0.1	0.0	**0.1**
Gross Underutilized	0.1	0.0	**0.1**
Gross Total	0.2	0.0	**0.2**

	city acres	county acres	sum acres
Net Vacant	0.1	0.0	**0.1**
Net Underutilized	0.0	0.0	**0.0**
Net Total	0.1	0.0	**0.1**

Battle Ground 2000 UGA Industrial Vacant Land

City

size-acres	Total	Prime	Secondary	Tertiary
0-5	25.1	0	0	25.1
5-10	14.7	0	0	14.7
10+	134.5	134.5	0	0
Total	174.3	134.5	0	39.8

UGA

size-acres	Total	Prime	Secondary	Tertiary
0-5	4.8	0	0	4.8
5-10	5.1	0	0	5.1
10+	49.4	0	0	49.3
Total	59.3	0	0	59.2

Total

size-acres	Total	Prime	Secondary	Tertiary
0-5	29.9	0	0	29.9
5-10	19.8	0	0	19.8
10+	183.9	134.5	0	49.3
Total	233.6	134.5	0	99

Vacant Industrial Land:
a) industrial comp plan designation
b) building value less than $67,500

Prime Industrial Land: Vacant and
a) Within 500' of sewer buffer
b) at least 10 acres
c) less than 10% critical lands

Secondary Industrial Lands: Vacant and
a) between 10% and 50% critical
b) at least 5 acres

Tertiary Industrial Lands: Vacant and
a) up to 100% critical land
b) at least 5 acres

Camas 2000 UGA Industrial Vacant Land

City

size-acres	Total	Prime	Secondary	Tertiary
0-5	97.5	0	0	95.7
5-10	109.8	0	0	109.8
10+	915.8	413.5	129.4	372.8
Total	1123.1	413.5	129.4	578.3

UGA

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	0	0	0	0
Total	0	0	0	0

Total

size-acres	Total	Prime	Secondary	Tertiary
0-5	97.5	0	0	95.7
5-10	109.8	0	0	109.8
10+	915.8	413.5	129.4	372.8
Total	1123.1	413.5	129.4	578.3

Vacant Industrial Land:
a) industrial comp plan designation
b) building value less than $67,500

Prime Industrial Land: Vacant and
a) Within 500' of sewer buffer
b) at least 10 acres
c) less than 10% critical lands

Secondary Industrial Lands: Vacant and
a) between 10% and 50% critical
b) at least 5 acres

Tertiary Industrial Lands: Vacant and
a) up to 100% critical land
b) at least 5 acres

La Center 2000 UGA Industrial Vacant Land

City

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	0	0	0	0
Total	0	0	0	0

UGA

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	0	0	0	0
Total	0	0	0	0

Total

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	0	0	0	0
Total	0	0	0	0

Vacant Industrial Land:
a) industrial comp plan designation
b) building value less than $67,500

Prime Industrial Land: Vacant and
a) Within 500' of sewer buffer
b) at least 10 acres
c) less than 10% critical lands

Secondary Industrial Lands: Vacant and
a) between 10% and 50% critical
b) at least 5 acres

Tertiary Industrial Lands: Vacant and
a) up to 100% critical land
b) at least 5 acres

Ridgefield 2000 UGA Industrial Vacant Land

City

size-acres	Total	Prime	Secondary	Tertiary
0-5	26.3	0	0	26.3
5-10	38.2	0	0	38.2
10+	363.5	114.5	50.4	198.6
Total	428	114.5	50.4	263.1

UGA

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	0	0	0	0
Total	0	0	0	0

Total

size-acres	Total	Prime	Secondary	Tertiary
0-5	26.3	0	0	26.3
5-10	38.2	0	0	38.2
10+	363.5	114.5	50.4	198.6
Total	428	114.5	50.4	263.1

Vacant Industrial Land:
a) industrial comp plan designation
b) building value less than $67,500

Prime Industrial Land: Vacant and
a) Within 500' of sewer buffer
b) at least 10 acres
c) less than 10% critical lands

Secondary Industrial Lands: Vacant and
a) between 10% and 50% critical
b) at least 5 acres

Tertiary Industrial Lands: Vacant and
a) up to 100% critical land
b) at least 5 acres

Vancouver 2000 UGA Industrial Vacant Land

City

size-acres	Total	Prime	Secondary	Tertiary
0-5	419.6	0	0.9	418.7
5-10	280.5	0	8.2	272.3
10+	2025.1	637.9	601.3	785.9
Total	2725.2	637.9	610.4	1476.9

UGA

size-acres	Total	Prime	Secondary	Tertiary
0-5	587.4	0	0	587.4
5-10	488.4	16.8	8	463.5
10+	1514.4	454.4	69.9	990.1
Total	2590.2	471.2	77.9	2041

Total

size-acres	Total	Prime	Secondary	Tertiary
0-5	1007	0	0.9	1006.1
5-10	768.9	16.8	16.2	735.8
10+	3539.5	1092.3	671.2	1776
Total	5315.4	1109.1	688.3	3517.9

Vacant Industrial Land:
a) industrial comp plan designation
b) building value less than $67,500

Prime Industrial Land: Vacant and
a) Within 500' of sewer buffer
b) at least 10 acres
c) less than 10% critical lands

Secondary Industrial Lands: Vacant and
a) between 10% and 50% critical
b) at least 5 acres

Tertiary Industrial Lands: Vacant and
a) up to 100% critical land
b) at least 5 acres

Washougal 2000 UGA Industrial Vacant Land

City

size-acres	Total	Prime	Secondary	Tertiary
0-5	68.5	0	25.6	42.9
5-10	39.9	0	20	19.8
10+	153.3	117	13.2	23.1
Total	261.7	117	58.8	85.8

UGA

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	101	98.2	0	2.9
Total	101	98.2	0	2.9

Total

size-acres	Total	Prime	Secondary	Tertiary
0-5	68.5	0	25.6	42.9
5-10	39.9	0	20	19.8
10+	254.3	215.2	13.2	26
Total	362.7	215.2	58.8	88.7

Vacant Industrial Land:
a) industrial comp plan designation
b) building value less than $67,500

Prime Industrial Land: Vacant and
a) Within 500' of sewer buffer
b) at least 10 acres
c) less than 10% critical lands

Secondary Industrial Lands: Vacant and
a) between 10% and 50% critical
b) at least 5 acres

Tertiary Industrial Lands: Vacant and
a) up to 100% critical land
b) at least 5 acres

Yacolt 2000 UGA Industrial Vacant Land

City

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	0	0	0	0
Total	0	0	0	0

UGA

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	9.5	0	0	9.5
Total	9.5	0	0	9.5

Total

size-acres	Total	Prime	Secondary	Tertiary
0-5	0	0	0	0
5-10	0	0	0	0
10+	9.5	0	0	9.5
Total	9.5	0	0	9.5

Vacant Industrial Land:
a) industrial comp plan designation
b) building value less than $67,500

Prime Industrial Land: Vacant and
a) Within 500' of sewer buffer
b) at least 10 acres
c) less than 10% critical lands

Secondary Industrial Lands: Vacant and
a) between 10% and 50% critical
b) at least 5 acres

Tertiary Industrial Lands: Vacant and
a) up to 100% critical land
b) at least 5 acres

Battle Ground Commercial Vacant and Underutilized Lands 2000

City	Commercial					Mixed Use					Office/Business Park					Total				
	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	10.4	0.1	5	0	15.5	0	0	0	0	0	4.1	0	0.3	0	4.4	14.5	0.1	5.3	0	19.9
Vacant w/crit	9.9	9.1	1.9	10.9	31.8	0	0	0	0	0	0.1	10.5	0	17.3	27.9	10	19.6	1.9	28.2	59.7
Underutilized	5	0	0	0	5	0	0	0	0	0	5.4	0	0	0	5.4	10.4	0	0	0	10.4
Underutilized w/ crit.	0.3	2.9	0	0	3.2	0	0	0	0	0	0.4	0	0	10.9	11.3	0.7	2.9	0	10.9	14.5
Sum	25.6	12.1	6.9	10.9	55.5	0	0	0	0	0	10	10.5	0.3	28.2	49	35.6	22.6	7.2	39.1	104.5
UGA	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	0	0	0	0	0	0	0	0	0	0	3.1	2.8	0	0	5.9	3.1	2.8	0	0	5.9
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	2.1	6.1	0	0	8.2	2.1	6.1	0	0	8.2
Underutilized	0	0	0	0	0	0	0	0	0	0	0	0	0	29.9	29.9	0	0	0	29.9	29.9
Underutilized w/ crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	5.2	8.9	0	29.9	44	5.2	8.9	0	29.9	44
Total	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	10.4	0.1	5	0	15.5	0	0	0	0	0	7.2	2.8	0.3	0	10.3	17.6	2.9	5.3	0	25.8
Vacant w/crit	9.9	9.1	1.9	10.9	31.8	0	0	0	0	0	2.2	16.6	0	17.3	36.1	12.1	25.7	1.9	28.2	67.9
Underutilized	5	0	0	0	5	0	0	0	0	0	5.4	0	0	29.9	35.3	10.4	0	0	29.9	40.3
Underutilized w/ crit.	0.3	2.9	0	0	3.2	0	0	0	0	0	0.4	0	0	10.9	11.3	0.7	2.9	0	10.9	14.5
Sum	**25.6**	**12.1**	**6.9**	**10.9**	**55.5**	**0**	**0**	**0**	**0**	**0**	**15.2**	**19.4**	**0.3**	**58.1**	**93**	**40.8**	**31.5**	**7.2**	**69**	**148.5**

Assumptions:

1) Vacant lands: Commercial comp plan designation and building value less than $67,500 & less than 10% critical lands

2) Vacant with Critical: Commercial comp plan designation and building value less than $67,500 and Critical lands between 10% and 50% coverage

3) Underutilized Lands: Commercial comp plan designation and land value is 4X greater than building value and less than 10% critical lands.

4) Underutilized with Critical: Commercial comp plan designation and land value is 4X greater than building value and Critical lands btwn 10% and 50% coverage

Camas Commercial Vacant and Underutilized Lands 2000

	Commercial					Mixed Use					Office/Business Park					Total				
City	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	23.4	3.2	0	0	26.6	0	0	0	0	0	0	0	0	0	0	23.4	3.2	0	0	26.6
Vacant w/crit.	1.5	2.9	0	0	4.4	0	0	0	0	0	0	0	0	0	0	1.5	2.9	0	0	4.4
Underutilized	7.3	4.1	8.6	0	20	0	0	0	0	0	0	0	0	0	0	7.3	4.1	8.6	0	20
Underutilized w/ crit.	0.2	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0.2
Sum	32.4	10.2	8.6	0	51.2	0	0	0	0	0	0	0	0	0	0	32.4	10.2	8.6	0	51.2
UGA	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacant w/crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized w/ crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	23.4	3.2	0	0	26.6	0	0	0	0	0	0	0	0	0	0	23.4	3.2	0	0	26.6
Vacant w/crit.	1.5	2.9	0	0	4.4	0	0	0	0	0	0	0	0	0	0	1.5	2.9	0	0	4.4
Underutilized	7.3	4.1	8.6	0	20	0	0	0	0	0	0	0	0	0	0	7.3	4.1	8.6	0	20
Underutilized w/ crit.	0.2	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0.2
Sum	32.4	10.2	8.6	0	51.2	0	0	0	0	0	0	0	0	0	0	32.4	10.2	8.6	0	51.2

Assumptions:

1) Vacant lands: Commercial comp plan designation and building value less than $67,500 & less than 10% critical lands

2) Vacant with Critical: Commercial comp plan designation and building value less than $67,500 and Critical lands between 10% and 50% coverage

3) Underutilized Lands: Commercial comp plan designation and land value is 4X greater than building value and less than 10% critical.

4) Underutilized with Critical: Commercial comp plan designation and land value is 4X greater than building value and Critical lands btwn 10% and 50% coverage

La Center Commercial Vacant and Underutilized Lands 2000

	Commercial					Mixed Use					Office/Business Park					Total				
City	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	7.7	0	0	0	7.7	11.8	0	0	0	11.8	0	0	0	0	0	19.5	0	0	0	19.5
Vacant w/crit	0	0	0	0	0	1.5	0	0	0	1.5	0	0	0	0	0	1.5	0	0	0	1.5
Underutilized	1	0	0	0	1	5.6	2.9	0	0	8.5	0	0	0	0	0	6.6	2.9	0	0	9.5
Underutilized w/ crit.	0.1	0	0	0	0.1	0.4	0	0	0	0.4	0	0	0	0	0	0.5	0	0	0	0.5
Sum	8.8	0	0	0	8 8	19.3	2 9	0	0	22.2	0	0	0	0	0	28.1	2.9	0	0	31
UGA	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized w/ crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	7.7	0	0	0	7.7	11.8	0	0	0	11.8	0	0	0	0	0	19.5	0	0	0	19.5
Vacant w/crit	0	0	0	0	0	1.5	0	0	0	1.5	0	0	0	0	0	1.5	0	0	0	1.5
Underutilized	1	0	0	0	1	5.6	2.9	0	0	8.5	0	0	0	0	0	6.6	2.9	0	0	9.5
Underutilized w/ crit.	0 1	0	0	0	0.1	0.4	0	0	0	0.4	0	0	0	0	0	0.5	0	0	0	0.5
Sum	**8.8**	**0**	**0**	**0**	**8.8**	**19.3**	**2.9**	**0**	**0**	**22.2**	**0**	**0**	**0**	**0**	**0**	**28.1**	**2.9**	**0**	**0**	**31**

Assumptions:

1) Vacant lands: Commercial comp plan designation and building value less than $67,500 & less than 10% critical lands

2) Vacant with Critical: Commercial comp plan designation and building value less than $67,500 and Critical lands between 10% and 50% coverage

3) Underutilized Lands: Commercial comp plan designation and land value is 4X greater than building value and less than 10% critical lands.

4) Underutilized with Critical: Commercial comp plan designation and land value is 4X greater than building value and Critical lands btwn 10% and 50% coverage

Ridgefield Commercial Vacant and Underutilized Lands 2000

City	Commercial					Mixed Use					Office/Business Park					Total				
	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	6	0	2.9	0	8.9	0	0	0	0	0	4.9	0	0	0	4.9	10.9	0	2.9	0	13.8
Vacant w/crit	7.1	0	0	0	7.1	0	0	0	0	0	0.9	3.8	6	133.2	143.9	8	3.8	6	133.2	151
Underutilized	3.5	0	4.8	2	10.3	0	0	0	0	0	2.1	0	6.6	92.6	101.3	5.6	0	11.4	94.6	111.6
Underutilized w/ crit.	0	0	0	9.9	9.9	0	0	0	0	0	1.4	3.1	0	12.6	17.1	1.4	3.1	0	22.5	27
Sum	16.6	0	7.7	11.9	36.2	0	0	0	0	0	9.3	6.9	12.6	238.4	267.2	25.9	6.9	20.3	250.3	303.4
UGA	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized w/ crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	6	0	2.9	0	8.9	0	0	0	0	0	4.9	0	0	0	4.9	10.9	0	2.9	0	13.8
Vacant w/crit	7.1	0	0	0	7.1	0	0	0	0	0	0.9	3.8	6	133.2	143.9	8	3.8	6	133.2	151
Underutilized	3.5	0	4.8	2	10.3	0	0	0	0	0	2.1	0	6.6	92.6	101.3	5.6	0	11.4	94.6	111.6
Underutilized w/ crit.	0	0	0	9.9	9.9	0	0	0	0	0	1.4	3.1	0	12.6	17.1	1.4	3.1	0	22.5	27
Sum	**16.6**	**0**	**7.7**	**11.9**	**36.2**	**0**	**0**	**0**	**0**	**0**	**9.3**	**6.9**	**12.6**	**238.4**	**267.2**	**25.9**	**6.9**	**20.3**	**250.3**	**303.4**

Assumptions:

1) Vacant lands: Commercial comp plan designation and building value less than $67,500 & less than 10% critical lands

2) Vacant with Critical: Commercial comp plan designation and building value less than $67,500 and Critical lands between 10% and 50% coverage

3) Underutilized Lands: Commercial comp plan designation and land value is 4X greater than building value and less than 10% critical lands.

4) Underutilized with Critical: Commercial comp plan designation and land value is 4X greater than building value and Critical lands btwn 10% and 50% coverage

Vancouver Commercial Vacant and Underutilized Lands 2000

	Commercial					Mixed Use					Office/Business Park					Total				
City	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	226.9	60.2	62.2	29.8	379.1	19.6	0	0	0	19.6	22.1	9.8	7.8	0	39.7	268.6	70	70	29.8	438.4
Vacant w/crit	16.5	13.1	12.5	4.8	46.9	3	0	0	0	3	0	0	0	0	0	19.5	13.1	12.5	4.8	49.9
Underutilized	19.7	1.6	0	0	21.3	0	0	0	0	0	0	0	0	0	0	19.7	1.6	0	0	21.3
Underutilized w/ crit.	1.9	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	1.9
Sum	265	74.9	74.7	34.6	449.2	22.6	0	0	0	22.6	22.1	9.8	7.8	0	39.7	309.7	84.7	82.5	34.6	511.5
UGA	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	193.1	80.7	61.1	13.2	348.1	77.5	62.6	46.4	18.5	205	7.5	6	0	0	13.5	278.1	149.3	107.5	31.7	566.6
Vacant w/crit	52.8	42.5	27.9	29.3	152.5	13.4	17.3	9.7	11.9	52.3	2.9	3.4	0	60.7	67	69.1	63.2	37.6	101.9	271.8
Underutilized	42.2	24.5	2.3	8	77	43.5	13.7	14.9	0	72.1	6.8	9.1	5.1	37.9	58.9	92.5	47.3	22.3	45.9	208
Underutilized w/ crit.	9.5	4.9	0	0.1	14.5	4.3	7.9	0	0	12.2	0	0	16.4	29.5	45.9	13.8	12.8	16.4	29.6	72.6
Sum	297.6	152.6	91.3	50.6	592.1	138.7	101.5	71	30.4	341.6	17.2	18.5	21.5	128.1	185.3	453.5	272.6	183.8	209.1	1119
Total	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	420	140.9	123.3	43	727.2	97.1	62.6	46.4	18.5	224.6	29.6	15.8	7.8	0	53.2	546.7	219.3	177.5	61.5	1005
Vacant w/crit	69.3	55.6	40.4	34.1	199.4	16.4	17.3	9.7	11.9	55.3	2.9	3.4	0	60.7	67	88.6	76.3	50.1	106.7	321.7
Underutilized	61.9	26.1	2.3	8	98.3	43.5	13.7	14.9	0	72.1	6.8	9.1	5.1	37.9	58.9	112.2	48.9	22.3	45.9	229.3
Underutilized w/ crit.	11.4	4.9	0	0.1	16.4	4.3	7.9	0	0	12.2	0	0	16.4	29.5	45.9	15.7	12.8	16.4	29.6	74.5
Sum	**562.6**	**227.5**	**166**	**85.2**	**1041**	**161.3**	**101.5**	**71**	**30.4**	**364.2**	**39.3**	**28.3**	**29.3**	**128.1**	**225**	**763.2**	**357.3**	**266.3**	**243.7**	**1630.5**

Assumptions:

1) Vacant lands: Commercial comp plan designation and building value less than $67,500 & less than 10% critical lands

2) Vacant with Critical: Commercial comp plan designation and building value less than $67,500 and Critical lands between 10% and 50% coverage

3) Underutilized Lands: Commercial comp plan designation and land value is 4X greater than building value and less than 10% critical lands.

4) Underutilized with Critical: Commercial comp plan designation and land value is 4X greater than building value and Critical lands btwn 10% and 50% coverage

Washougal Commercial Vacant and Underutilized Lands 2000

	Commercial					Mixed Use					Office/Business Park					Total				
City	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	38.4	0	0.4	0	38.8	0	0	0	0	0	0	0	0	0	0	38.4	0	0.4	0	38.8
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	8.3	4.1	0	0	12.4	0	0	0	0	0	0	0	0	0	0	8.3	4.1	0	0	12.4
Underutilized w/ crit.	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0.1
Sum	46.8	4.1	0.4	0	51.3	0	0	0	0	0	0	0	0	0	0	46.8	4.1	0.4	0	51.3
UGA	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized w/ crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum
Vacant	38.4	0	0.4	0	38.8	0	0	0	0	0	0	0	0	0	0	38.4	0	0.4	0	38.8
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	8.3	4.1	0	0	12.4	0	0	0	0	0	0	0	0	0	0	8.3	4.1	0	0	12.4
Underutilized w/ crit.	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0.1
Sum	**46.8**	**4.1**	**0.4**	**0**	**51.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**46.8**	**4.1**	**0.4**	**0**	**51.3**

Assumptions:

1) Vacant lands: Commercial comp plan designation and building value less than $67,500 & less than 10% critical lands

2) Vacant with Critical: Commercial comp plan designation and building value less than $67,500 and Critical lands between 10% and 50% coverage

3) Underutilized Lands: Commercial comp plan designation and land value is 4X greater than building value and less than 10% critical lands.

4) Underutilized with Critical: Commercial comp plan designation and land value is 4X greater than building value and Critical lands btwn 10% and 50% coverage

Yacolt Commercial Vacant and Underutilized Lands 2000

	Commercial					Mixed Use					Office/Business Park			
City	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres
Vacant	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized w/ crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UGA	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres
Vacant	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized w/ crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres	Sum	5K sqft to 2.5 acre	2.5 to 5 acres	5 to 10 acres	10 + acres
Vacant	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacant w/crit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underutilized w/ crit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Assumptions:

1) Vacant lands: Commercial comp plan designation and building value less than $67,500 & less than 10% critical lands

2) Vacant with Critical: Commercial comp plan designation and building value less than $67,500 and Critical lands between 10% a

3) Underutilized Lands: Commercial comp plan designation and land value is 4X greater than building value and less than 10% cr

TAC CONSENSUS MATRIX

ISSUE	consensus	DISCUSSION
INFLATION METHODOLOGY - 30% residential/ 35% industrial & commercial	yes	Used by the assessor. All 1994 dollar amounts to be adjusted for inflation at the rates indicated.
VACANT LAND >$10,000 + inflation	yes	There was nothing in the discussion which revealed the need to change these assumptions, except to adjust them for inflation.
Includes Tax Exempt	yes	
Includes easement or ROW	yes	
Includes states assessed institutional parcels	yes	
CRITICAL (I & II combined) for both vacant and underutilized	yes	The change recommended is to treat both kinds of critical lands as one, using the same assumption: if more than 50% critical, lot is not in the buildable inventory considered if less than 50% critical lot is vacant or underutilized. The critical definitions, below, absorb the new code changes since 1994, because the intent is to demonstrate the impact on land availability due to regulations relating to critical lands.
100 year flood plan	yes	
high quality wetlands (75 buffer or 300) foot buffer	yes	
Slopes greater than 40%	yes	
flood fringe	yes	
hydric soils with 50% buffer	yes	
slopes 25% to 40%	yes	
USGC with 50 foot buffer	yes	
NWI wetlands	yes	
active or historic unstable slopes	yes	
critical aquifer recharge areas	yes	
Priority habitat area with 100' buffer	yes	
Priority Species area with 300' buffer	yes	

DNR Streams with variable buffer	yes	
(a) 1 & 2 = 250' buffer	yes	
(b) 3 = 200' buffer	yes	
(c) 4 & 5 = 150' buffer	yes	
VACANT LAND INFRASTRUCTURE DEDUCTIONS - 20,000SF to 1A: 25%	NO	Disagreement as discussed in the introduction. On site infrastructure : staff: *27.5% (uniform for all size lots)* RGF: *30%* Friends: *20%+*
- 1A TO 2.5A: 30%	NO	
- < 2.5A: 40%	NO	
~~ERROR FACTOR DEDUCTION = 5%~~	Yes	take it out from the calculations, because errors have been minimized and they could go both ways.
NON-CONVERSION DEDUCTION = 10%	yes	keep it, in absence of data to disprove it.
UNDERUTILIZED DEFINITIONS		
a) ~~3 times allowable lot size OR area greater than~~ *1 to* 2.5 acres with assessed value less than $250,000 adjusted for inflation (afi)	yes	Change to: 1 to 2.5 acres with assessed value less than $250,000 (adjusted for inflation). The reason for removing 3 times, was that in practical terms that was almost an acre, and lots smaller than an acre were unlikely to convert (covered by non-conversion deductions)
b) 2.5 + acres with value > $400,000 or building value greater than $400,000 and <7 Acres (afi)	yes	same, no basis provided for changing this definition
c) 7 or <Acres with assessed value > $750,000 or building value >$750,000 (afi)	yes	same
Underutilized infrastructure deduction + 40%	NO	no agreement, as discussed above
+ 30% deduction for non-conversion	yes	same, in absence of data to disprove it.
~~+ 5% error factor~~	yes	take out, same as above
+ CRITICAL ~~TYPE II~~ greater than 50% parcel coverage with assessed value >$10,000 (afi)	yes	All critical to be treated the same

+ ~~Type II~~ infrastructure deductions - 20,000 SF to 1A = deduct 25%	NO	No agreement on infrastructure deductions - same as vacant
+ ~~Type II~~ 1A to 2.5A deduct 30%	NO	
~~+ Type II~~ < 2.5 A deduct 40%	NO	
~~PENDING PLATS DEDUCTION yes or no~~	Yes	Take out.

What remains unclear is whether or not TAC needs to say something about

INDUSTRIAL assumptions	yes	adjust the vacant and underutilized values for inflation + consider using valuation definitions if there are residential buildings[1]
COMMERCIAL assumptions	yes	adjust the vacant and underutilized values for inflation +consider using valuation definitions if there are residential buildings
Multi-family/ Residential Split assumptions	YES	Report to the commissioners about disparity between policy and results because 60/40 split not achieved
DEMAND assumptions / numbers per household	YES	Alert commissioners - in addition to the problem of 6/16 units per acre there are evolving per household trends. Small increase in numbers per household has large acre impacts.
OTHER	yes	Provide end of 2001 projection based on trending for the analysis so there is a reasonable estimate of what may be left by that date. Indicate whether 1999 is a partial or full year.

[1] Currently residential building present on commercial or industrial lots define the property as underutilized, regardless of value of the building. Recommendation is to consider the value of the residential building in making the determination.

From:	Carol Levanen
To:	Eileen Quiring; Shawn Henessee; Gary Medvigy; John Blom; Julie Olson; Temple Lentz; Mitch Nickolds; Jose Alvarez; Jim Malinowski; Jerry Olson
Subject:	For the Public Record of the Vacant Buildable Lands Study
Date:	Saturday, February 22, 2020 10:38:54 AM

February 21, 2020 FOR THE PUBLIC RECORD

Clark County Council

P.O. Box 5000

Vancouver, Washington 98666

Re: Vacant Buildable Lands Study 2020

Dear Councilors,

Clark County Citizens United, Inc. attended the recent Vacant Buildable Lands Committee Meeting on behalf of CCCU's membership. Testimony documents regarding the 1995-1999 Clark County land survey, and the WAC state law document, regarding Rural Lands, was given to Jose' Alverez to give to the VBL Committee. In the discussion with Jose', he indicated when the 1995-1999 survey was performed, the rural areas had five acre zoning because that was what was adopted. The assumption is he was indicating the entire rural lands had five acre zoning at that time, after the adoption of the 1994 Plan in 1994.

Five acre rural zoning was indeed adopted in 1994, driven by Commissioner, Dave Sturdevant's belief that commercial development can most certainly happen on a five acre parcel. That zoning was quickly removed by the county, via the Western Washington Growth Management Board, of whom Camas resident, Nan Hendrickson was a member. It was replaced by 5, 10, 20 acre rural zones, with 20, 40, and 80 acre resource zones. Zoning has been static, ever since. Prior to that, people had 2.5, 5, 10 and 20 acre zones in those same locations. When the large lot zoning was forced on the people, they lost billions of dollars in equity.

Many small and large farms were lost during that time, because the loan to value was so reduced, they were unable to secure farm operation financing from the federal government. Approximately ten abusive Clark County ordinances were also placed on top of that devaluation. Farming could not survive the onslaught. Dairy and cattle farms took the biggest hit, and even large farms, 110 acres or more, were forced to default. The government then divided the land in the new zones and sold them, to satisfy the outstanding debts.

Jose' indicated surveys, similar to the submitted CCCU testimony, are performed regularly. But he missed the point of the 1999 survey. It was the first survey of its kind and set the stage for all the rest. In that survey, it clearly shows land data, employment data, population data and available buildable land in rural areas. The survey counted existing lots that could be built on, and potential lots that were possible after being divided. The total of all of them, in the rural areas, was approximately 13,000. That

is the baseline that must be used for all future studies. There has been no ability for landowners to create more lots, because of the large lot zoning.

Using the county parameters for determining buildable land, for the 20 years, from 2000 to 2020, used up lots from year to year. The result is that there is only approximately 3,000 left. CCCU saw in the 1999 study, and all other similar county studies, that certain parameters were fairly consistent In their surveys, the ratio of urban to rural, was running approximately 85/15 In 1994 that number was placed as a hard line for future development in the rural areas. But around 2004, it was changed to 90/10, in an attempt to force more rural people into the urban areas. Clearly, the decision to change that ratio number, to reduce rural capacity, showed a "top down" approach to land use planning, which is illegal according to the Growth Manage Act. The counties are to use a "bottoms up" approach, which means the people decide what they want, and the government creates documents to enable those goals.

In the current study and evaluation for the buildable lands model, ECONorthwest indicates they will be using building permits for a parameter to determine current housing trends in the rural area. But, since it has not been possible to create more lots, because of the 1994 down zoning, the historical trend of approximately 85/15 will be skewed to show an artificial trend that reduces rural development. The only time one would get a residential building permit is for bare buildable land, which is not being created. The result is, there will be less building permits in the rural area, because the lots have been used up and no new lots are being created.

According to a finite survey, using Assessor records and maps, only 8% of the parcels in the 40 acre zone, are 40 acres or larger. Similar percentages are true for all of the other rural zones. If one had an 80 acre parcel, in a 40 acre zone, they could potentially make one more lot. But the cost, because of the onerous regulations, would be so prohibitive that it would prevent a landowner from doing a two lot short plat. As Councilor Boldt indicated, "The county will just make it too expensive for people to divide their land." Given that prohibition, there are even less buildable lots in the rural areas, and they cannot be counted. These actions have a direct impact on the urban areas, and forces high density housing in the cities, to accommodate and rectify that impact.

In 1999, the Court of Appeals, Division II ruled that the county cannot put a "cap" on rural growth and the GMA mandates the county must have a Rural Element in the Comprehensive Plan that allows for a variety of parcels and employment opportunities. The numbers clearly show, there is a cap on rural growth which in turn puts a cap on rural employment. The Superior Court said the county disregarded the existing development that occurred prior to the adoption of the 1994 Plan, and in doing so, was "in direct contradiction of the terms of the GMA". It is easy to see, the county put a cap on rural growth with its' illegal formula, presumably to force people out of the rural lands. It was obvious that the county didn't care what was on the ground at the time, and had a pre-set agenda they wanted to accomplish, and that was to take and lock up private land for whatever use they decided in the future. In doing so, the county also disregarded federal mandates regarding "takings" of private land.

Another discussion regarding submission of testimony occurred at the committee meeting that needs clarification. CCCU hesitates to submit testimony to staff, because, during the 2016 Comprehensive Plan update, 150 of CCCU testimony documents were missing from the record. In our appeal to the Hearing Board, we had to request a "supplement the record". Those missing documents were pertinent to our appeal. At first, the county refused to cooperate, but later agreed to allow approximately 90 of those documents. CCCU filed a complaint to the State Auditors office, which resulted in the legislature changing the law to require all documents submitted in the record be retained. Councilor Stewart thanked CCCU for doing that. But the concern is that without particular persons being accountable for

the testimony, such as the Councilors, the potential for missing testimony is there. CCCU cannot be expected to be constantly re-submitting testimony to the record, after the fact.

Clark County Citizens United, Inc. will continue to monitor the buildable lands activity and will send testimony to both Jose' Alverez, as requested, and to the Council as a whole. The rural and resource lands must have relief and a change in zoning to allow them opportunity, and to allow the county to be compliant to the GMA.

Sincerely,

Carol Levanen, Exec. Secretary

Clark County Citizens United, Inc.

P.O. Box 2188

Battle Ground, Washington 98604

From: Holly Hansen
To: Jose Alvarez
Subject: Buildable lands advisory
Date: Friday, February 21, 2020 2:19:36 PM

Jose,

I've been attending these meetings as a concerned citizen. Why are there SO many representatives from the builder and real estate industries and SO few from groups of citizens concerned about the explosive growth in our county? It seems very, very skewed in representation.

Holly Hansen
District #4 resident, rural land owner

Sent from my iPhone