

REGIONAL BENCHMARKS AND INDICATORS

Tracking Growth Management Policy Implementation
in Thurston County

1996

Prepared By: Thurston Regional Planning Council



THURSTON REGIONAL PLANNING COUNCIL (TRPC) is a 16-member intergovernmental board made up of local governmental jurisdictions within Thurston County, plus the Washington State Capitol Committee, Intercity Transit and the Nisqually Indian Tribe. The Council was established in 1967 under RCW 36.70.060 which authorized creation of regional planning councils.

TRPC's mission is to **"Provide Visionary Leadership on Regional Plans, Policies and Issues."** The primary functions of TRPC are to develop regional plans and policies for **transportation** (as the federally recognized Metropolitan Planning Organization and state recognized Regional Transportation Planning Organization), **growth management, environmental quality** and other topics determined by the Council; provide **data and analysis to support local and regional decision making**; build **community consensus** on regional issues, through information and citizen involvement; build **intergovernmental consensus** on regional plans, policies and issues, and advocate local implementation; and provide **planning and technical services** on a contractual basis. Each member jurisdiction funds the Council's operations based on a per capita formula. The Council is governed by representatives from the member jurisdictions. They determine the budget and work program annually for Council projects and operations.

As a separate function, TRPC support to jurisdictions also provides long-range planning and historic preservation staff by intergovernmental contract. In this function, the contracting governments are the sole determinants of the work program and funding levels for the planning work.

This report was prepared as part of the Thurston Regional Planning Council's 1996 regional work program.

**1996 MEMBERSHIP
OF
THURSTON REGIONAL PLANNING COUNCIL**

<u>Governmental Jurisdiction</u>	<u>Name of 1996 Representative</u>
City of Lacey	Bill Bush, Councilmember
City of Olympia	Mark Foutch, Councilmember
City of Tenino	Jean Pettit, Councilmember
City of Tumwater	Chris Parsons, Councilmember
City of Yelm	Kathryn Wolf, Mayor
Town of Bucoda	pending
Town of Rainier	Dennis McVey, Councilmember
Thurston County	Judy Wilson, County Commissioner
Intercity Transit	Ken Back, Transit Authority Board Member
Port of Olympia	Robert Van Schoorl, Port Commissioner
Griffin School District	Keith Clark, School Board Member
Olympia School District	Mary Farrington, School Board Member
Tumwater School District	Jim Brown, School Board Member
Yelm Community Schools	Mark Carpenter, School Board Member
Nisqually Indian Tribe	Reggie Wells, Vice-Chair, Tribal Council
State Capitol Committee	John Franklin, Director, Department of General Administration

Charter Member Emeritus

The Evergreen State College	Carolyn Dobbs, Director, Public Administration Program
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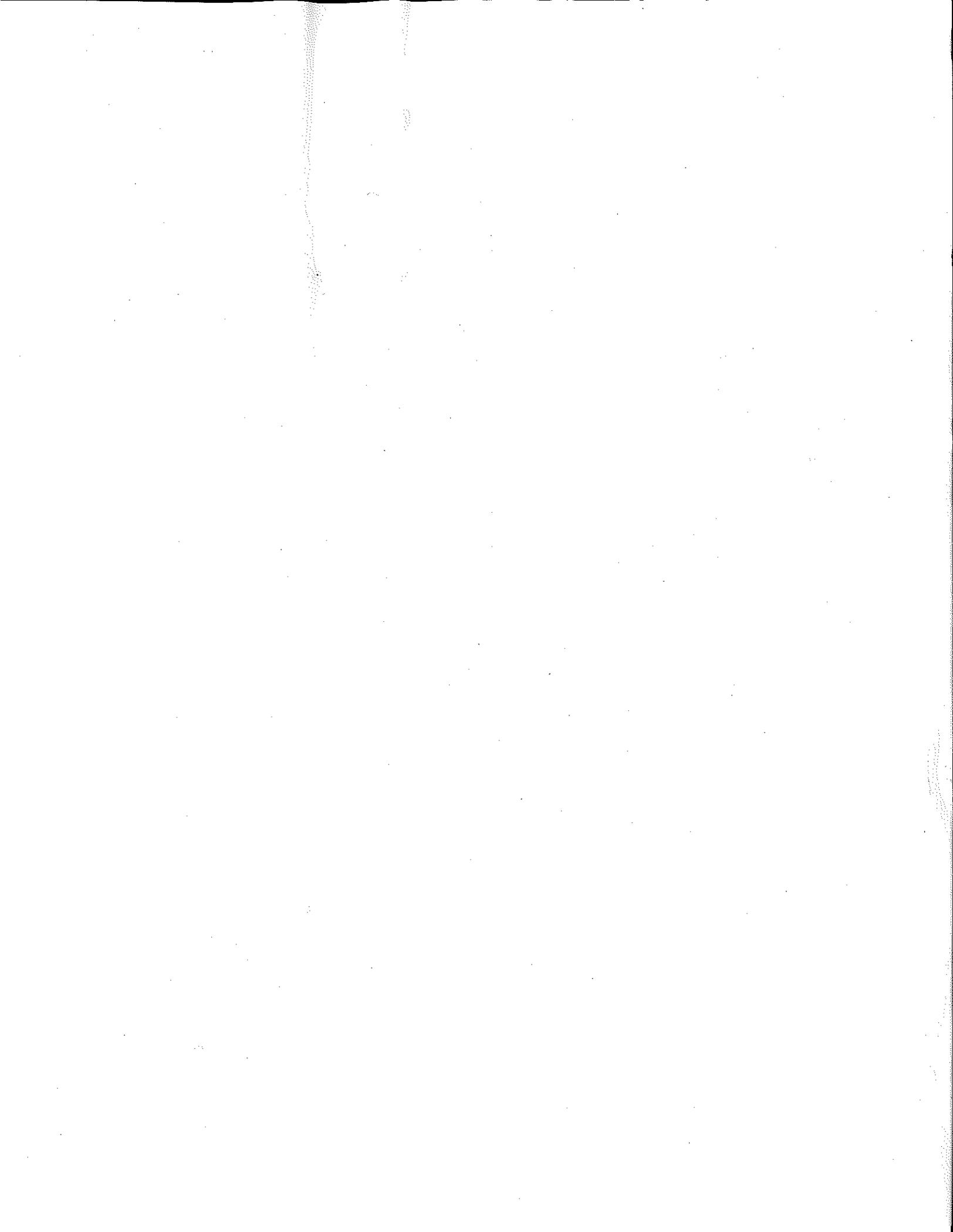
<u>Chair</u> Judy Wilson	<u>Vice Chair</u> Kathryn Wolf Harold Robertson, AICP, Executive Director	<u>Secretary-Treasurer</u> Chris Parsons
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ACKNOWLEDGEMENTS

The staff at Thurston Regional Planning Council wish to thank the public and private agencies that have provided source data and information used in Regional Benchmarks and Indicators. In addition, we wish to thank the citizens, organizations and agencies which generously contributed their time to provide input on this first edition.



DEAR READER:

We hope that you will find this report useful in helping you to see how our region is doing in implementing the goals and policies of our Comprehensive Plans. If you choose to complete the questionnaire on this and the following page, we would be most grateful. Your comments will be very helpful to us in preparing future reports and updates on Regional Benchmarks and Indicators.

Please mail to or drop off at the following address:

Thurston Regional Planning Council
2404 Heritage Court SW #B
Olympia, WA 98502-6031
ATTN: Holly Gilbert

1. BENCHMARKS

a. Which benchmarks were most important to you? Why?

b. What kind of benchmarks would you like to see added? Why?

c. What other changes regarding the benchmarks would you recommend?

2. INDICATORS

a. Which indicators were most important to you? Why?

b. What kind of indicators would you like to see added? Why?

c. What other changes regarding the indicators would you recommend?

3. APPENDIX DATA TABLES

a. Which data tables, in the Appendix, were most important to you?

b. Given your above recommendations on indicators and benchmarks, what kind of new data tables would you like to see added?

c. What other changes regarding the tables in the Appendix, would you recommend?

4. FORMAT

a. What did you like about the format of the report?

b. What changes would you recommend regarding the format of the report?

5. GENERAL COMMENTS

a. What did you like about the report overall?

b. What did you dislike about the report and how would you recommend improving it?

INTRODUCTION

This is the first report resulting from Thurston Regional Planning Council's (TRPC) Benchmark Indicators program. The intent of the TRPC Benchmarks program is to help jurisdictions measure results of their efforts in achieving the goals and policies in their comprehensive plans. In Thurston County, Benchmarks have the potential to play an important role in determining whether implementation of the comprehensive plans' goals and policies is occurring and is achieving the desired results. This is done by monitoring selected indicators over time.

BACKGROUND

Benchmarks are used in both the private and public sector. They can apply to any set of measures which track data over time in order to determine whether there is movement toward a specific goal or not. In other words, they are indicators of progress that tell us how well we are achieving our goals.

The idea of monitoring performance has generated a lot of attention recently at all levels of government nationwide. A number of interrelated factors are probably responsible for this interest. Monitoring progress toward stated policies and goals has the potential to be a strong accountability tool. Benchmark programs can indicate which policies are working and which are not. This in turn can indicate the effectiveness of public spending and programs. Another factor is the realization that in many parts of the country, growth and land use changes are occurring at ever more rapid rates; performance monitoring can indicate that actions may need to be taken to protect a community's quality of life. Tracking indicators over time also provides local governments with a regional perspective of what's happening which can improve implementation of regional policies.

MONITORING AND THE GROWTH MANAGEMENT ACT

The 1990 State Growth management Act (GMA), under which all Thurston County jurisdictions have recently updated their comprehensive plans, requires that the cities and county report to the state on progress made in implementing the Act. It also requires that the jurisdictions subject their comprehensive plans to "continuing evaluation and review" and that they determine the cumulative effect of any amendments. It also requires that counties review their urban growth areas and the densities permitted within them at least every ten years. Likewise any city also must "review the densities permitted within its boundaries, and the extent to which urban growth occurring within the county has located within...the urban growth areas."

The GMA has 13 goals which guided the cities and counties comprehensive plans. Since they were held in common by all the jurisdictions' comprehensive plans, they guided the selection of these initial indicators. The 13 goals are summarized below:

1. Focus growth within urban areas;
2. Reduce urban sprawl;
3. Encourage efficient multimodal transportation systems;
4. Encourage the availability of affordable housing;
5. Encourage economic development throughout the state;
6. Protect property rights;
7. Process permits in a timely and fair manner;
8. Maintain and enhance natural resource-based industries;
9. Encourage retention of open space, habitat, and development of recreational opportunities;
10. Protect the environment;
11. Encourage citizen participation and coordination;
12. Ensure the availability of adequate public facilities and services; and
13. Encourage the identification and preservation of historical resources.

HOW TO USE THIS REPORT

The data in the report has been grouped into the following five areas, each with a separate section:

1. Growth
2. Transportation
3. Economy
4. Environment
5. Housing

Included within each section are the State Growth Management Act (GMA) goals and County-Wide Planning Policies that will affect future activity within each area. Each area has associated indicators, data tables, and benchmarks as well. The benchmarks are directional in nature and focus on only one piece of data in the tables. For each benchmark the direction of the goal for a specific measure has been established.

This is a first report in what will be a process of updating the indicators and benchmarks on an annual basis. Over time additional indicators and benchmarks may be added. In the future the region may want to consider putting in place some specific numeric targets to achieve for each benchmark. In other words, this is a first step in what will likely be an evolving process of monitoring policy implementation in Thurston County.

GROWTH

GMA GOALS:

- Focus growth within urban areas.
- Reduce urban sprawl.
- Ensure the availability of adequate public facilities and services.

INDICATORS:

- Residential Density
- Buildable/Unbuildable Land Area
- Building Permit Activity

COUNTY-WIDE PLANNING POLICIES:

- Urban growth within Thurston County will occur only in designated Urban Growth Areas

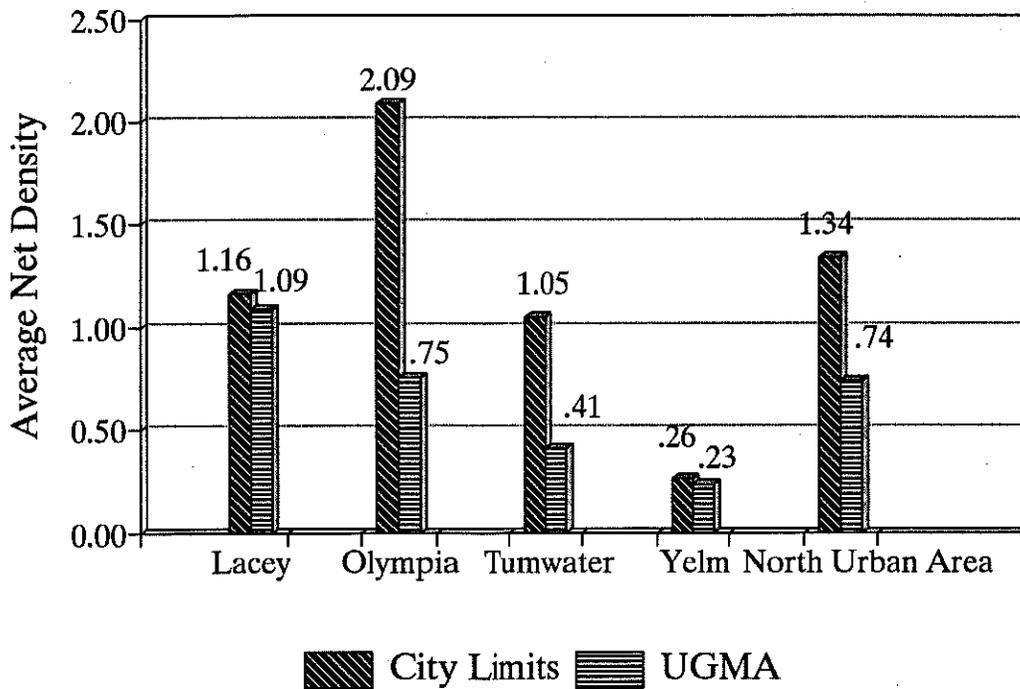


BENCHMARK 1

**AVERAGE RESIDENTIAL NET DENSITY FOR THE NORTH URBAN AREA*
INCREASES OVER TIME.**

FIGURE 1

**RESIDENTIAL NET DENSITY* - 1995
NORTH URBAN AREA****



Density reflects housing units per acre. For example, Lacey has a net density of 1.16 housing units per acre.

*Net Density is calculated as Gross Acreage minus Public Lands & Critical Areas

** North Urban Area: Lacey, Olympia, Tumwater, Yelm & their UGMAs

Source: TRPC

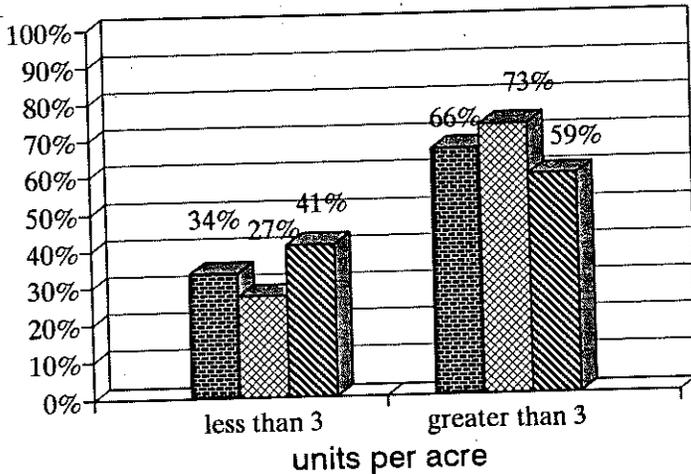
BENCHMARK 2

PERCENT OF SUBDIVISIONS CREATED AT A DENSITY OF GREATER THAN 3 UNITS PER ACRE INCREASES OVER TIME.

FIGURE 2

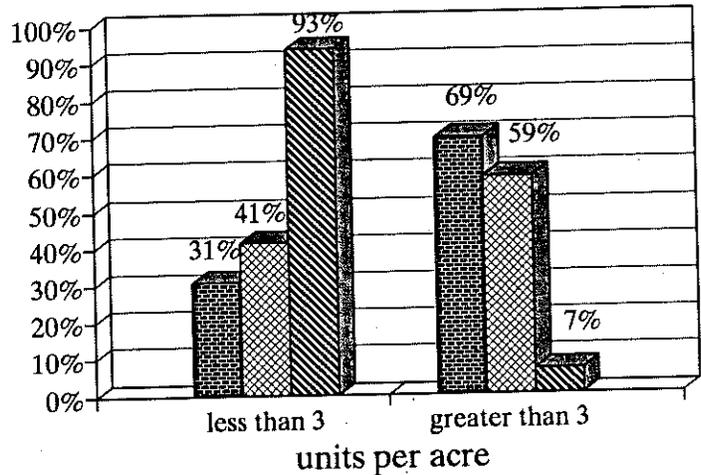
**DENSITY OF SUBDIVISION ACTIVITY
NORTH URBAN AREA* CITIES**

CITIES



**DENSITY OF SUBDIVISION ACTIVITY
SUBDIV. DEVELOPMENT-NORTH URBAN AREA**

UGMA



1970-1979
 1980-1989
 1990-1994

*North Urban Area: Lacey, Olympia, Tumwater, Yelm and their UGMAs

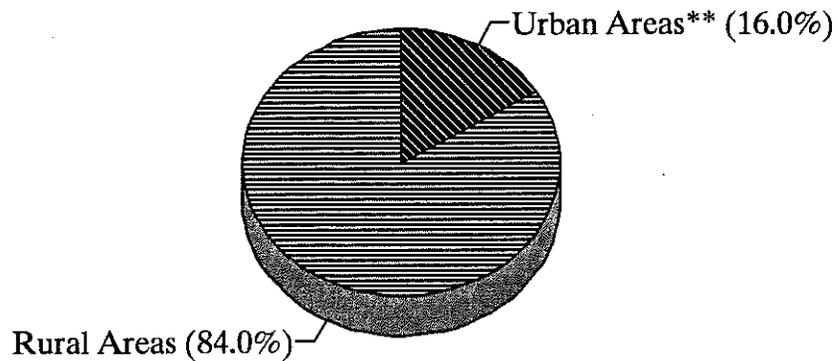
Source: TRPC, Thurston County Auditor's Office

BENCHMARK 3

**PERCENT OF UNBUILDABLE LAND INCREASES FASTER IN THE URBAN
AREA THAN IN THE RURAL AREA.**

FIGURE 3

**LOCATION OF UNBUILDABLE* LAND - 1995
Thurston County**



* Unbuildable Land consists of land already developed, government owned land and environmentally sensitive areas.

** Urban Area consists of all Cities and their UGMAs

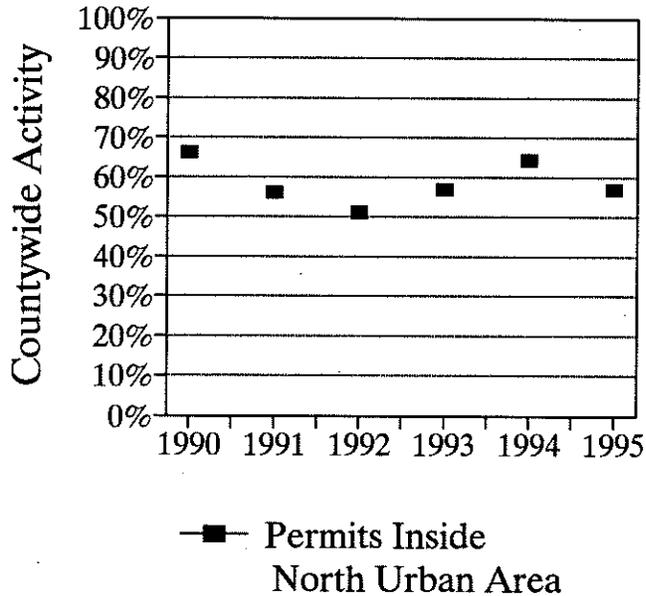
Source: TRPC

BENCHMARK 4

PERCENTAGE OF NEW RESIDENTIAL DWELLING UNITS LOCATED IN THE
NORTH URBAN AREA* INCREASES OVER TIME.

FIGURE 4

**RESIDENTIAL BUILDING PERMIT ACTIVITY
Percent Located in North Urban Area***



*North Urban Area: Lacey, Olympia, Tumwater, Yelm and their UGMAs

Source: TRPC, Building Depts. of the Cities of Lacey, Tumwater, Yelm, Bucoda, Rainier, Tenino and Thurston County

TRANSPORTATION

GMA GOAL:

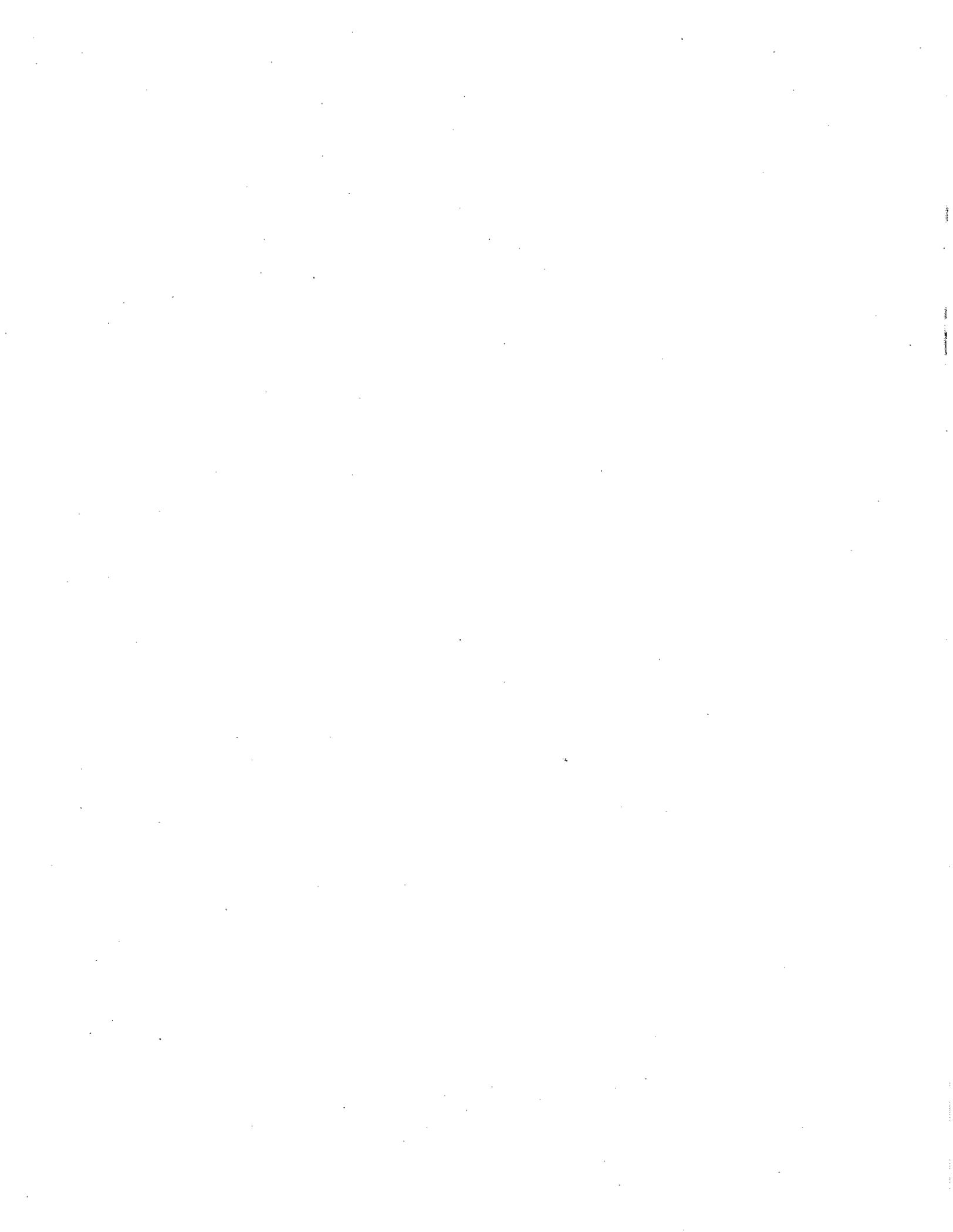
- Encourage efficient multimodal transportation systems.

INDICATOR:

- Vehicle Miles Traveled (VMT) data from Commute Trip Reduction (CTR) Program

COUNTY-WIDE PLANNING POLICIES:

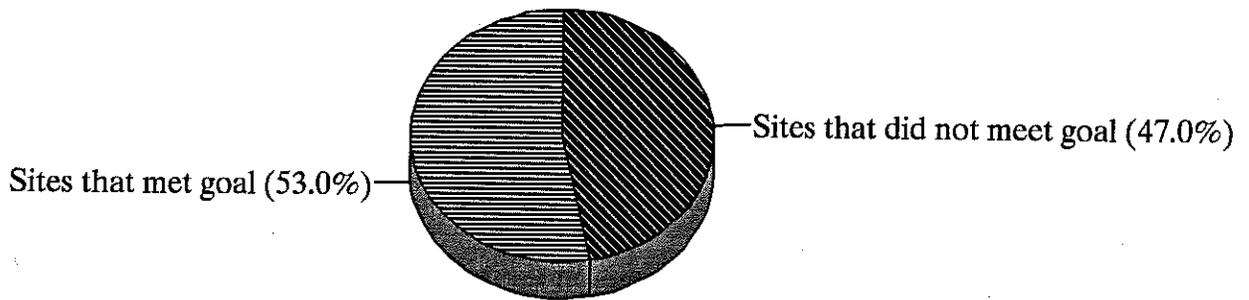
- Transportation Demand management plans and programs will be a key part of the region's transportation program



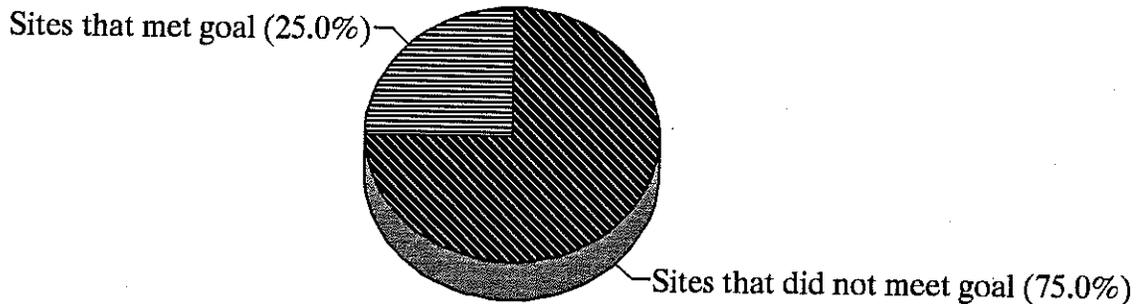
BENCHMARK 5

**PERCENTAGE OF EMPLOYER SITES THAT MEET THEIR CTR* GOAL
INCREASES.**

**FIGURE 5
PERCENT OF SITES THAT MET CTR* GOAL
THURSTON COUNTY RESULTS - 1992**



**FIGURE 6
PERCENT OF SITES THAT MET CTR* GOAL
THURSTON COUNTY RESULTS - 1995**



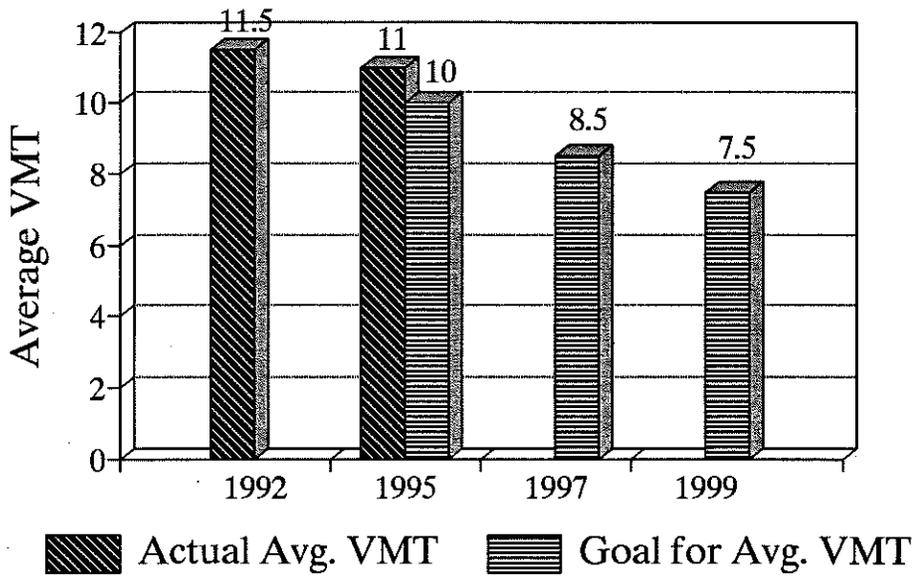
*CTR: State's Commute Trip Reduction program which requires that employers with more than 100 employees reduce the Vehicle Miles Traveled (VMT) by their employees commuting to work.

BENCHMARK 6

ACTUAL AVERAGE VMT EQUALS THE GOAL FOR AVERAGE VMT.

FIGURE 7

ACTUAL VMT* COMPARED TO GOALS FOR VMT
THURSTON COUNTY**



* VMT: Vehicle Miles Traveled

** The State has set goals for average VMT as a part of its Commute Trip Reduction program.

Source: Intercity Transit

ECONOMY

GMA GOALS:

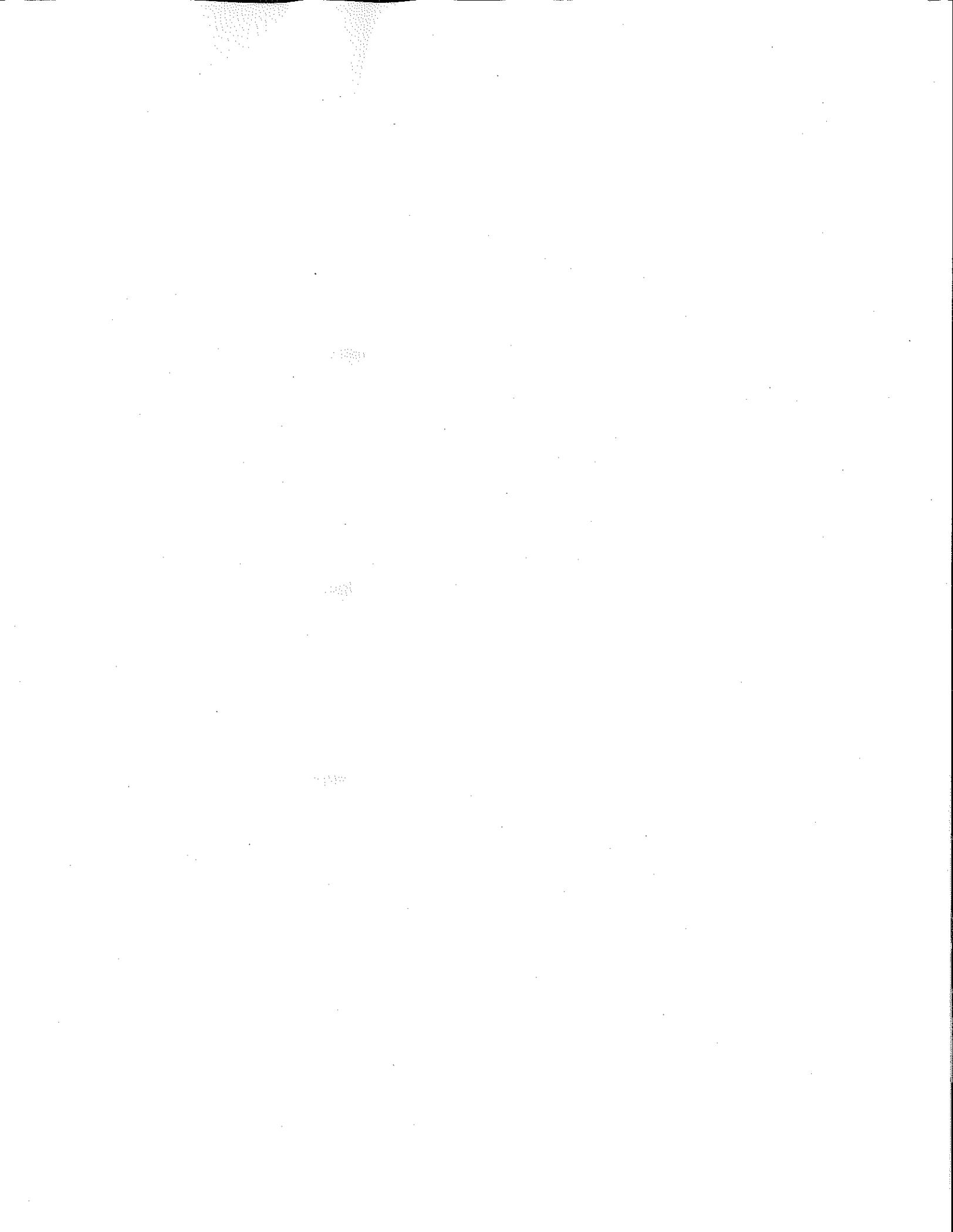
- Encourage economic development.
- Maintain and enhance natural resource-based industries.

INDICATORS:

- Employment and wages by sector
- Acreage of timberlands and agricultural lands in Open Space tax program.

COUNTY-WIDE PLANNING POLICIES:

- Encourage sustainable economic development and support job opportunities and economic diversification.

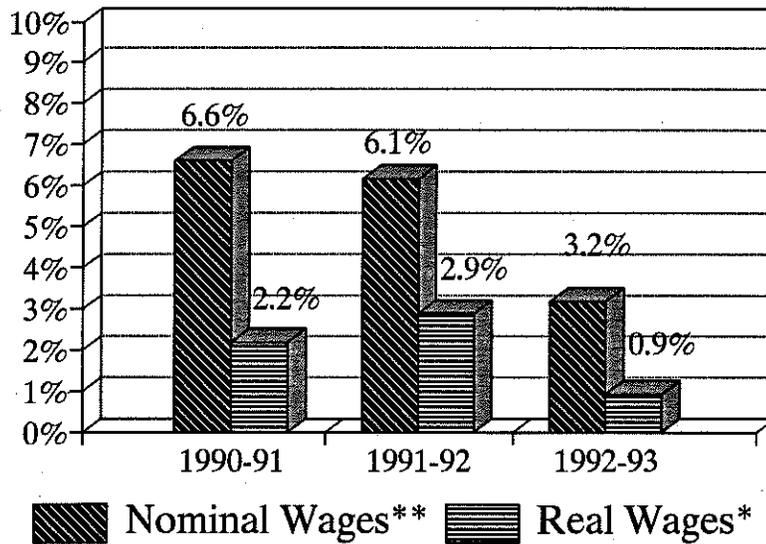


BENCHMARK 7

REAL WAGES*, AS COMPARED TO NOMINAL WAGES, INCREASE OVER TIME.**

FIGURE 8

**Change in Nominal & Real Wages
1990 - 1993**



* "Real Wages" reflects average monthly wages adjusted for inflation, in constant dollars.

** "Nominal Wages" reflects average monthly wages without compensation for the effects of inflation.

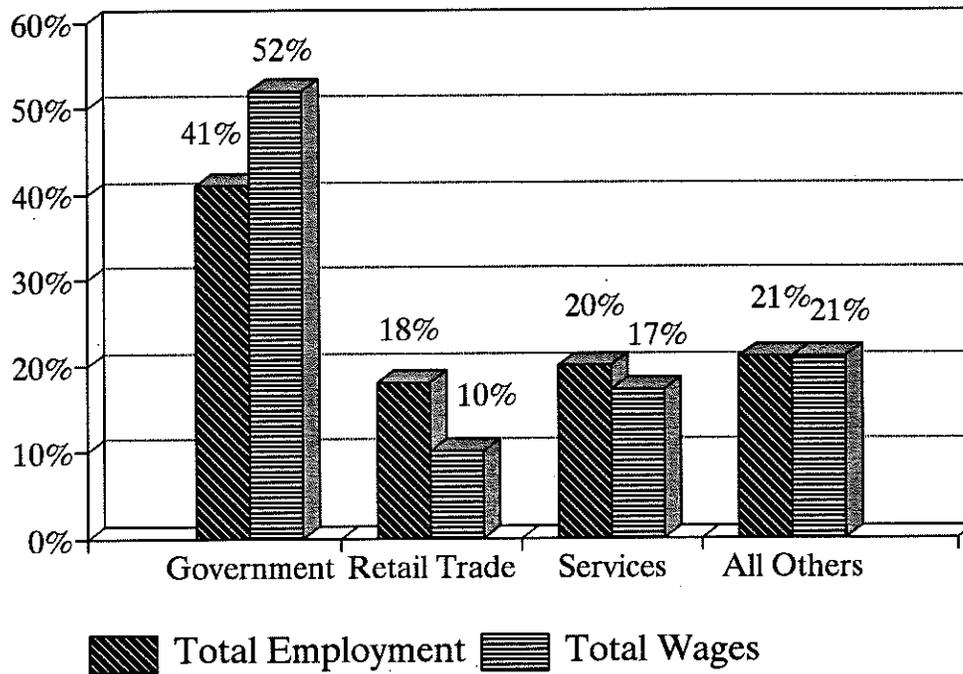
Source: Washington State Dept., of Employment Security, Labor Market and Economic Analysis Branch

BENCHMARK 8

PERCENT OF EMPLOYMENT AND WAGES PAID DECREASES FOR RETAIL
TRADE AND SERVICES AS ECONOMY DIVERSIFIES.

FIGURE 9

EMPLOYMENT AND WAGES FOR 1993



Source: Washington State Dept. of Employment Security, Labor Market and Economic Analysis Branch

BENCHMARK 9

**MAINTAIN 1995 LEVELS OF TIMBERLANDS AND AGRICULTURAL LANDS
ACREAGE IN THE OPEN SPACE TAX PROGRAM.**

**TIMBERLANDS
AND
AGRICULTURAL LANDS ACREAGE
IN
OPEN SPACE TAX PROGRAM**

**1995 - 136,787 acres - Timberlands
390,010 acres - Agricultural**

ENVIRONMENT

GMA GOALS:

- Encourage retention of Open Space, habitat, and development of recreational opportunities.
- Protect the environment.

INDICATORS:

- Water Quality
- Air Quality

COUNTY-WIDE PLANNING POLICIES:

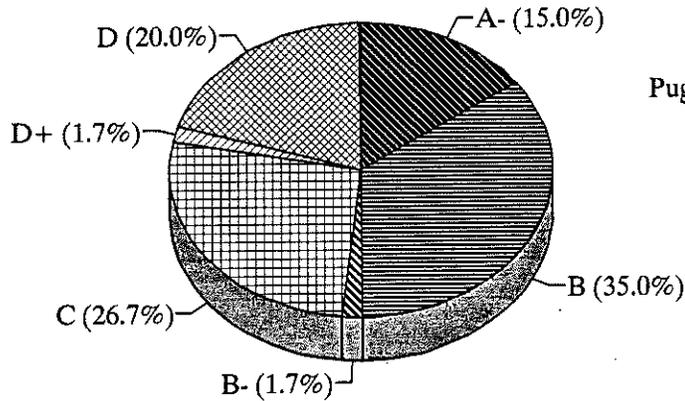
- Assure a safe, healthful, and productive environment for local residents.

BENCHMARK 10

MAINTAIN THE PERCENT OF WATERSHEDS RECEIVING AN "A" OR "B" WATER QUALITY GRADE*.

FIGURE 10

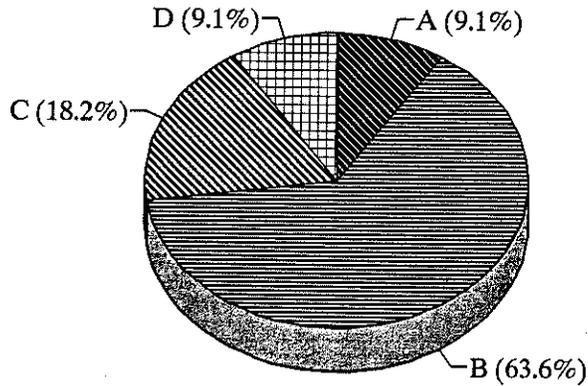
**PUGET SOUND BASINS
WATER QUALITY GRADES - 1995**



Puget Sound Basin Watersheds:

- Budd-Deschutes
- Eld
- Henderson
- Nisqually
- Totten

**PACIFIC OCEAN BASINS
WATER QUALITY GRADES - 1995**



Pacific Ocean Basin Watersheds

- Black
- Chehalis
- Skookumchuck
- Black Hills

Notes:

Grades are based on a numeric scoring formula with point values between one and four with 4 points being the best and 1 point being the worst.

Source of grades: Thurston County Water Resources Profile 1985 - 1995 prepared by Thurston County Advance Planning and Historic Preservation and Thurston County Water and Waste Management Dept., Storm and Surface Water Program. Data was collected on water resource projects or programs which Thurston County has paid for within the last ten years or was the recipient of a grant.

BENCHMARK 11

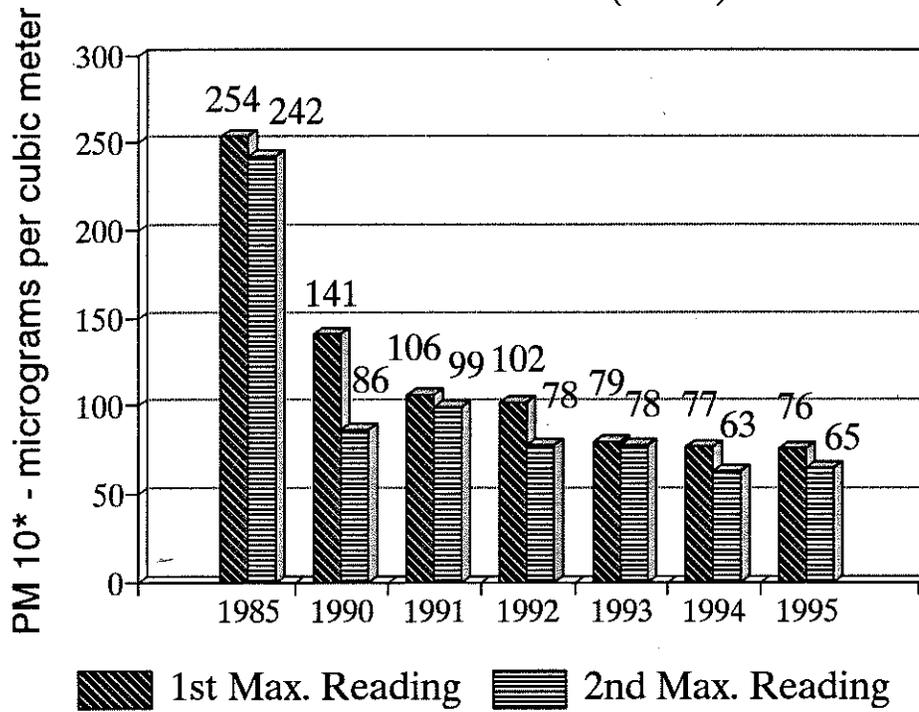
HIGHEST ANNUAL READINGS FOR PARTICULATE MATTER (PM10)

REMAIN AT OR BELOW THE NATIONAL STANDARD OF

150 MICROGRAMS PER CUBIC METER

FIGURE 11

AIR QUALITY 1985 - 1994
Particulate Matter (PM10)*



National Standards: 150 micrograms per cubic meter

* Particulate Matter 10 micrometers or smaller in diameter

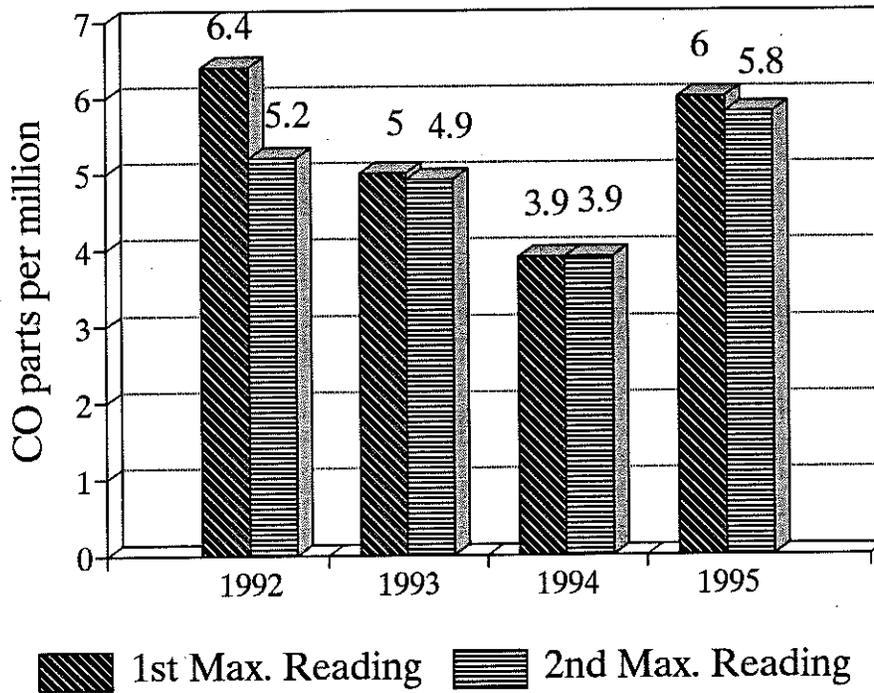
Source: Olympia Air Pollution Control Authority

BENCHMARK 12

HIGHEST ANNUAL READINGS FOR CARBON MONOXIDE (CO) REMAIN AT OR BELOW THE NATIONAL STANDARD OF 9 PARTS PER MILLION.

FIGURE 12

AIR QUALITY 1992 - 1994
Carbon Monoxide (CO)



National Standards: 9 parts per million

Source: Olympia Air Pollution Control Authority

HOUSING

GMA GOAL:

- Encourage the availability of affordable housing.

INDICATOR:

- Cost of Housing

COUNTY-WIDE PLANNING POLICIES:

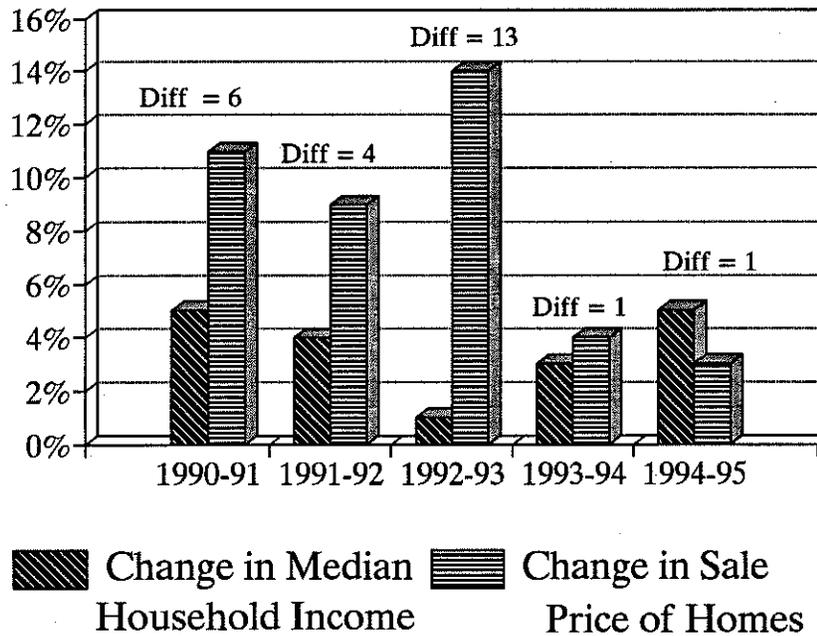
- Encourage the availability of affordable housing

BENCHMARK 13

THE DIFFERENCE BETWEEN THE RATE OF CHANGE IN THE AVERAGE SALE PRICE OF HOMES, COMPARED TO THE RATE OF CHANGE IN MEDIAN HOUSEHOLD INCOME REMAINS NO HIGHER THAN 1.

FIGURE 13

MEDIAN HOUSEHOLD INCOME COMPARED TO AVERAGE SALE PRICE OF HOMES THURSTON COUNTY



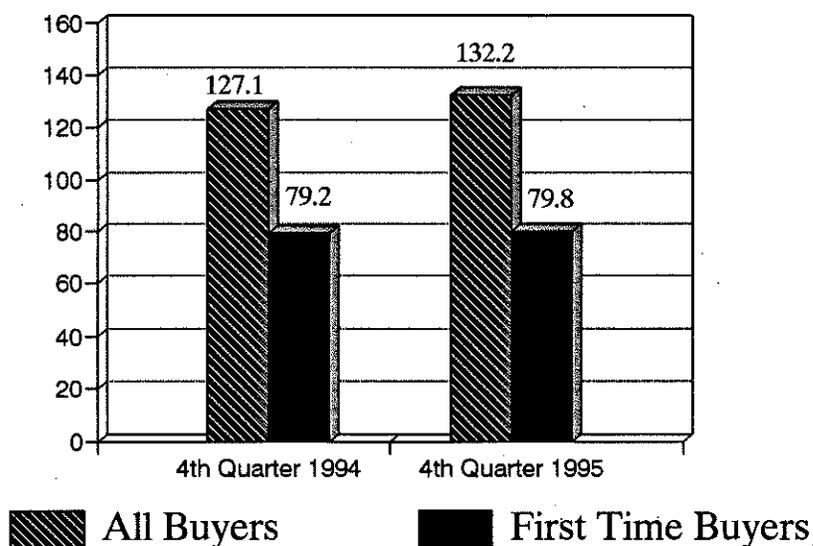
Source: Multiple Listing Service
Washington State Office of Financial Management

BENCHMARK 14

**THE HOUSING AFFORDABILITY INDEX FOR FIRST TIME BUYERS
INCREASES AND THE HOUSING AFFORDABILITY INDEX FOR ALL BUYERS
REMAIN ABOVE 100.**

FIGURE 14

HOUSING AFFORDABILITY INDEX ALL BUYERS & FIRST TIME BUYERS



Notes: The Housing Affordability Index measures the ability of a middle income family to carry the mortgage payments on a median price home. When the index is 100 there is a balance between the family's ability to pay and the cost. Higher indexes indicate housing is more affordable. The first time buyer index assumes the purchaser has an income of 70% of the median household income.

Home purchased by first time buyers is 85% of area's median price.

All loans are assumed to be 30 year loans.

The All buyer index assumes 20% downpayment. The First-time buyer index assumes 10% down. It is assumed 25% of income can be used for principal and interest payments.

Source: Washington Center for Real Estate Research

APPENDIX: DATA TABLES & ADDITIONAL GRAPHS

GROWTH

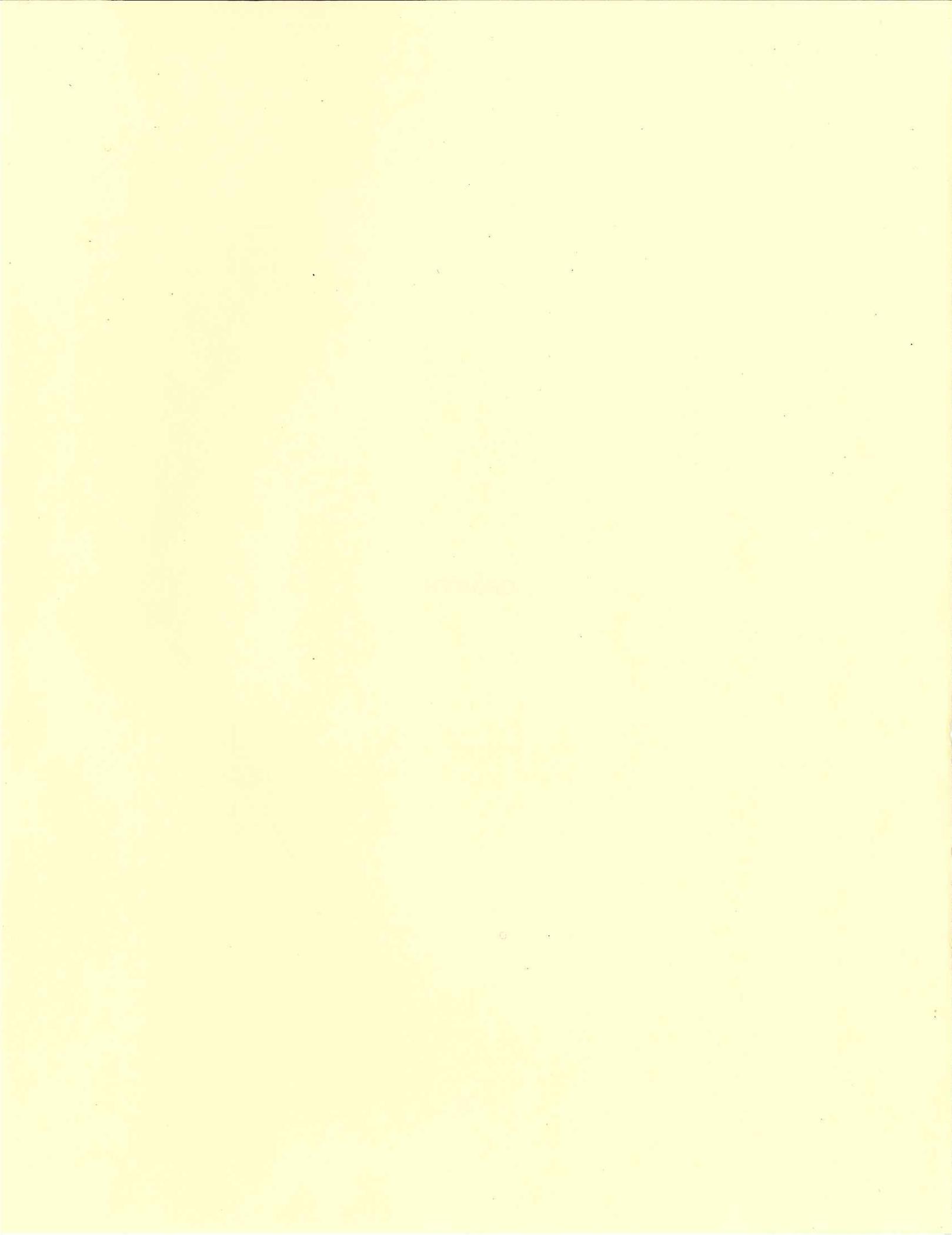


TABLE 1
 AVERAGE NET DENSITY* - 1995
 NORTH URBAN AREA

Jurisdictional and UGMAs	Acreage			1995 Total Housing Units	1995 Average Net Density (units/acre)
	Gross	Public Lands & Critical Areas**	Net		
Lacey City	10,051	1,080	8,971	10,383	1.16
UGMA	11,143	1,420	9,723	10,615	1.09
Total	21,194	2,500	18,694	20,998	1.12
Olympia City	11,526	2,964	8,562	17,855	2.09
UGMA	5,294	882	4,412	3,301	0.75
Total	16,820	3,846	12,974	21,156	1.63
Tumwater City	6,367	1,291	5,076	5,335	1.05
UGMA	8,836	1,671	7,165	2,935	0.41
Total	15,203	2,962	12,241	8,270	0.68
Yelm City	3,457	426	3,031	792	0.26
UGMA	2,558	275	2,282	515	0.23
Total	6,015	701	5,313	1,307	0.25
North Urban Cities	31,401	5,761	25,640	34,365	1.34
UGMAs	27,831	4,248	23,582	17,366	0.74
Total	59,232	10,009	49,222	51,731	1.05

* Density is calculated as Housing Units divided by Acreage. For example, the density of 1 unit per five acres is .20, i.e. for each acre there is 20 percent of a housing unit.
 ** See table on next page for details regarding what constitutes critical areas.

Source: TRPC

TABLE 2

CRITICAL AREAS - 1995 DEFINITIONS

The different jurisdictions in the county do not all define critical areas the same. The following table details what is included in the category of critical areas for each jurisdiction.

Jurisdiction	Wetlands	Steep Slopes	100-Year Floodplain	Floodways	Lakes and Ponds
Lacey	Yes	No	Yes	Yes	Yes
Olympia	Yes	Yes	Yes	Yes	Yes
Tumwater	Yes	Yes	Yes	Yes	Yes
Yelm*	No	No	No	No	No
Bucoda	Yes	Yes	Yes	Yes	Yes
Rainier	Yes	Yes	Yes	Yes	Yes
Tenino	Yes	Yes	Yes	Yes	Yes
Unincorporated County	No	No	No	No	Yes

*Yelm used Gross acreage minus 10% instead of removing specific critical areas.

Source: TRPC

**TABLE 3
SUBDIVISION ACTIVITY BY DENSITY (UNITS PER ACRE)**

Table: This table does not contain data for the small towns of Bucoda, Rainier and Tenino because the source database does not track subdivisions for those towns. This is an example of a data gap which hopefully can be filled in the future.

Jurisdictions and their UGMA's	Number of Residential Lots Created in Subdivisions																	
	Less than 1 unit/acre			1-2.9 units/acre			3-4.9 units/acre			5-6.9 units/acre			G/T 7 units/acre			Totals		
	1970-1979	1980-1989	1990-1994	1970-1979	1980-1989	1990-1994	1970-1979	1980-1989	1990-1994	1970-1979	1980-1989	1990-1994	1970-1979	1980-1989	1990-1994	1970-1979	1980-1989	1990-1994
Lacey City UGMA	21	64	52	675	238	942	244	425	770	41	121	125	436	199	193	1417	1047	2082
Olympia City UGMA	0	9	43	245	305	221	553	288	337	204	205	164	190	1223	16	1192	2030	781
Tumwater City UGMA	10	195	24	27	200	8	133	161	28	105	9	51	22	92	18	297	657	129
Yelm City UGMA	n/a	0	0	n/a	11	0	n/a	12	45	n/a	0	104	n/a	0	0	n/a	23	149
North Urban Area Cities UGMAs	31	268	119	947	754	1171	930	886	1180	350	335	444	648	1514	227	2906	3757	3141
Total	63	870	366	2146	1997	1954	2822	2126	1254	1023	418	444	886	1647	243	6940	7058	4261
Remainder of Unincor. County	327	478	373	571	310	107	272	29	0	0	0	0	0	0	37	1170	817	517
Countywide Total	390	1348	739	2717	2307	2061	3094	2155	1254	1023	418	444	886	1647	280	8110	7875	4778

Source: TRPC, Thurston County Auditor's Office

**TABLE 4
SUBDIVISION ACTIVITY BY DENSITY (UNITS PER ACRE) PERCENTAGES**

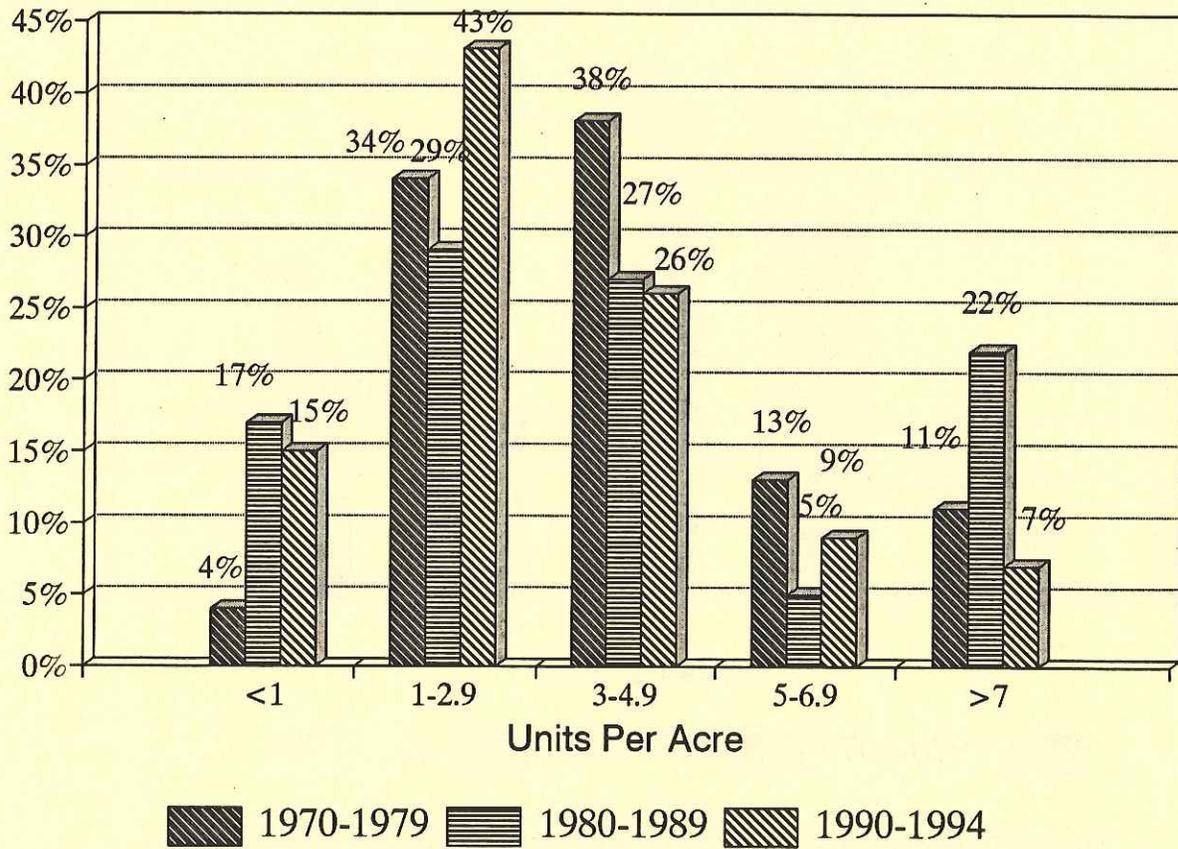
Table: This table does not contain data for the small towns of Bucoda, Rainier and Tenino because the source database does not track subdivisions for those towns. This is an example of a data gap which hopefully can be filled in the future.

Jurisdictions and their UGMA's	Number of Residential Lots Created in Subdivisions																	
	Less than 1 unit/acre			1-2.9 units/acre			3-4.9 units/acre			5-6.9 units/acre			7-17 units/acre			Totals		
	1970	1980	1990	1970	1980	1990	1970	1980	1990	1970	1980	1990	1970	1980	1990	1970	1980	1990
Lacey																		
City	1%	6%	2%	48%	23%	46%	17%	41%	37%	3%	12%	6%	30%	19%	9%	100%	100%	100%
UGMA	0%	21%	17%	28%	31%	74%	47%	41%	10%	23%	1%	0%	2%	6%	0%	100%	100%	100%
Olympia																		
City	0%	0%	6%	21%	15%	29%	46%	14%	43%	17%	10%	21%	16%	60%	2%	100%	100%	100%
UGMA	3%	0%	30%	37%	51%	65%	38%	36%	0%	0%	12%	0%	21%	0%	6%	100%	100%	100%
Tumwater																		
City	3%	28%	19%	9%	35%	6%	45%	22%	22%	35%	1%	40%	7%	13%	14%	100%	100%	100%
UGMA	0%	16%	24%	14%	61%	70%	72%	24%	7%	14%	0%	0%	0%	0%	0%	100%	100%	100%
Yelm																		
City	n/a	0%	0%	n/a	48%	0%	n/a	52%	30%	n/a	0%	69%	n/a	0%	0%	n/a	100%	100%
UGMA	n/a	43%	0%	n/a	47%	100%	n/a	10%	0%	n/a	0%	0%	n/a	0%	0%	n/a	100%	100%
North Urban Area																		
Cities	1%	7%	4%	32%	20%	37%	32%	24%	38%	12%	9%	14%	23%	40%	7%	100%	100%	100%
UGMAs	1%	18%	22%	30%	38%	70%	47%	38%	6%	17%	2%	0%	5%	4%	1%	100%	100%	100%
Total	1%	12%	9%	31%	28%	46%	40%	30%	29%	15%	6%	10%	13%	24%	6%	100%	100%	100%
Remainder of																		
Unincor. County	28%	59%	72%	49%	38%	21%	23%	3%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%
Countywide																		
Total	4%	17%	15%	34%	29%	43%	38%	27%	26%	13%	5%	9%	11%	22%	7%	100%	100%	100%

Source: TRPC, Thurston County Auditor's Office

FIGURE 15

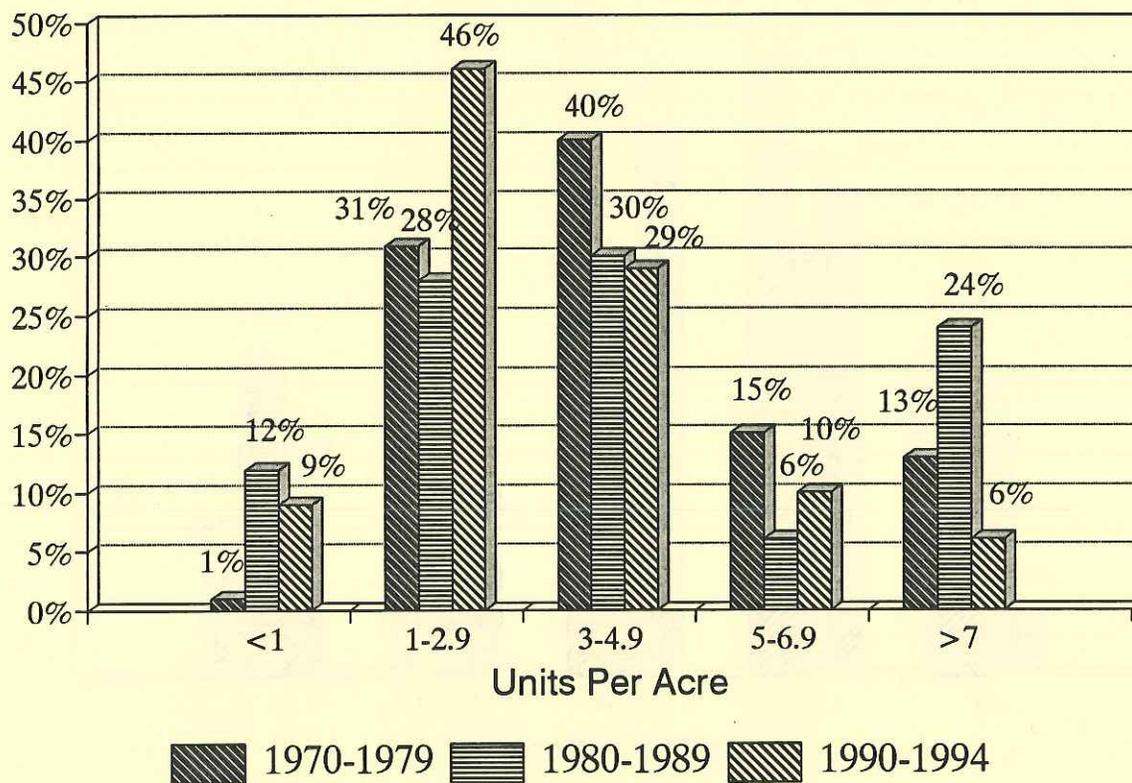
DENSITY - Units Per Acre
Subdivision Development - Countywide



Source: TRPC, Thurston County Auditor's Office

FIGURE 16

**DENSITY - Units Per Acre
Subdiv. Development - North Urban Area**

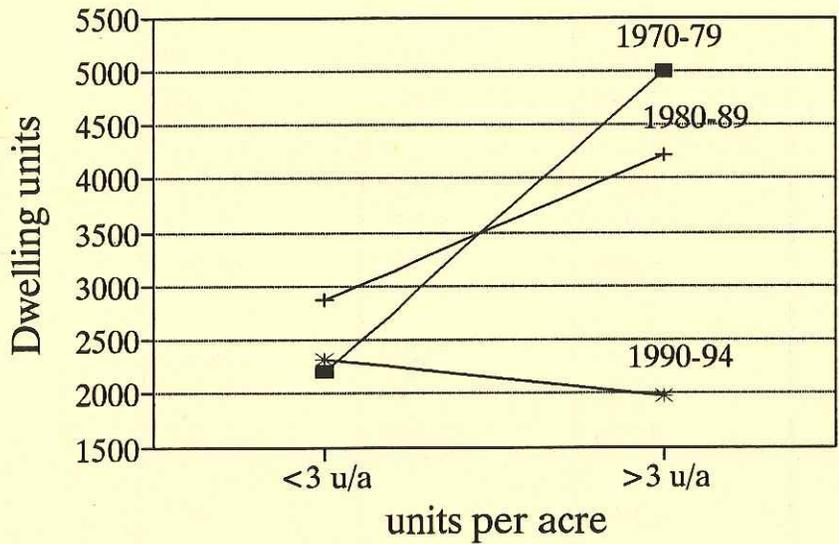


North Urban Area: Lacey, Olympia, Tumwater, Yelm and their UGMAs

Source: TRPC, Thurston County Auditor's Office

FIGURE 17

**DENSITY - UNITS PER ACRE
SUBDIV. DEVELOPMENT - NORTH URBAN AREA***



■ 1970-1979 + 1980-1989 * 1990-1994

*North urban Area: Lacey, Olympia, Tumwater, Yelm and their UGMAs

Source: TRPC, Thurston County Auditor's Office

TABLE 5
BUILDABLE/UNBUILDABLE LAND AREA - 1995

Buildable land, that is developable land, consists of lands not already built upon, not government owned and not an environmentally sensitive area. Correspondingly, Unbuildable land consists of land already developed, government owned land and environmentally sensitive areas.

Jurisdictions and their UGMAs	Acreage		
	Buildable	Unbuildable	Total
Lacey			
City	2,465	6,389	8,854
UGMA	4,884	7,455	12,339
Total	7,349	13,844	21,193
Olympia			
City	2,427	8,331	10,758
UGMA	2,978	2,275	5,253
Total	5,405	10,606	16,011
Tumwater			
City	1,133	5,230	6,363
UGMA	3,402	5,439	8,841
Total	4,535	10,669	15,204
Yelm			
City	1,969	1,486	3,455
UGMA	1,683	875	2,558
Total	3,652	2,361	6,013
Bucoda	17	256	273
Rainier			
City	510	431	941
UGMA	363	126	489
Total	873	557	1,430
Tenino			
City	79	414	493
UGMA	511	189	700
Total	590	603	1,193
Remainder of County Total	207,031	204,552	411,583
Countywide Total	229,452	243,448	472,900

Source: TRPC

TABLE 6
BUILDABLE/UNBUILDABLE LAND AREA - 1995 PERCENTAGES

Buildable land, that is developable land, consists of lands not already built upon, not government owned and not an environmentally sensitive area. Correspondingly, Unbuildable land consists of land already developed, government owned land and environmentally sensitive areas.

Jurisdictions and their UGMAs	Acreage		
	Buildable	Unbuildable	Total
North Urban Area* Total	20941	37480	58421
% of Countywide	9%	15%	12%
% of North Urban	36%	64%	100%
Small Towns**			
Total	1480	1416	2896
% of Countywide	1%	1%	1%
% of Small Towns	51%	49%	100%
Remainder of County Total	207031	204552	411583
% of Countywide	90%	84%	87%
% of Remainder	50%	50%	100%
Countywide Total	229452	243448	472900
Countywide	100%	100%	100%
% of Countywide	49%	51%	100%

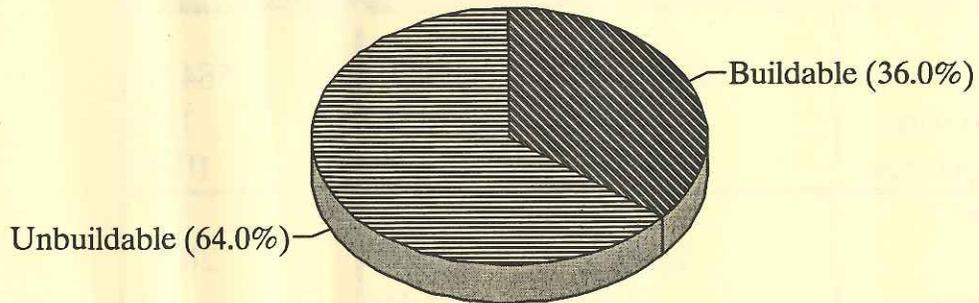
* North Urban Area: Lacey, Olympia, Tumwater, Yelm and their UGMAs

** Small Towns: Bucoda, Rainier, Tenino and their UGMAs

Source: TRPC

FIGURE 18

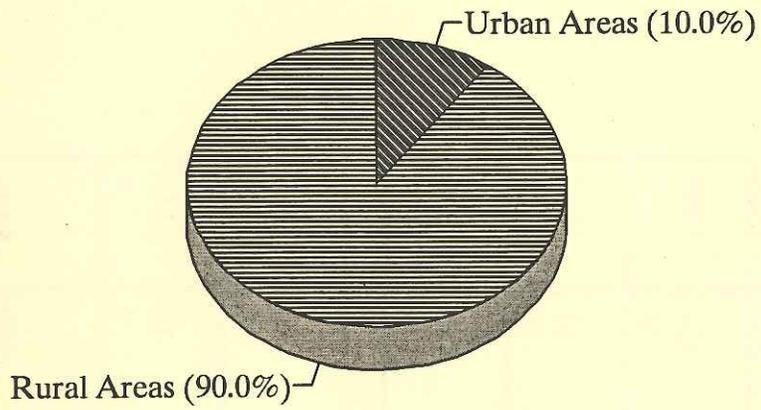
**NORTH URBAN AREA - 1995
Buildable/Unbuildable Land**



Source: TRPC

FIGURE 19

LOCATION OF BUILDABLE LAND - 1995



Source: TRPC

TABLE 7
1990-1995 RESIDENTIAL BUILDING PERMIT ACTIVITY

1995 City Limits and their UGMAs	New Residential Dwelling Units							Total
	1990	1991	1992	1993	1994	1995	1995	
Lacey City	218	338	361	657	455	632	2661	
UGMA	402	182	194	194	133	140	1245	
Olympia City	619	395	191	231	426	137	1999	
UGMA	88	95	96	49	33	56	417	
Tumwater City	282	61	90	89	417	61	1000	
UGMA	87	75	113	123	71	59	528	
Yelm City	10	18	16	3	53	88	188	
UGMA	21	22	15	20	22	8	108	
Bucoda	1	0	0	2	0	0	3	
Rainier City	34	33	54	28	7	14	170	
UGMA	0	2	3	5	5	1	16	
Tenino City	5	49	42	22	17	10	145	
UGMA	0	1	0	0	3	2	6	
Subtotal - Cities Towns & their UGMAs	1767	1271	1175	1423	1642	1208	8486	
Remainder of County	840	859	943	993	890	880	5405	
Countywide Total	2607	2130	2118	2416	2532	2088	13891	

Source: TRPC, Building Depts. of the Cities of Lacey, Tumwater, Yelm, Bucoda, Rainier, Tenino and Thurston County

TABLE 8
1990 - 1995 RESIDENTIAL BUILDING PERMIT ACTIVITY - PERCENTAGES

1995 City Limits and their UGMAs	New Residential Dwelling Units							Total
	1990	1991	1992	1993	1994	1995		
Lacey	8%	16%	17%	27%	18%	30%	19%	
City	15%	9%	9%	8%	5%	7%	9%	
UGMA								
Olympia	24%	19%	9%	10%	17%	7%	14%	
City	3%	4%	5%	2%	1%	3%	3%	
UGMA								
Tumwater	11%	3%	4%	4%	16%	3%	7%	
City	3%	4%	5%	5%	3%	3%	4%	
UGMA								
Yelm	0%	1%	1%	0%	2%	4%	1%	
City	1%	1%	1%	1%	1%	0%	1%	
UGMA								
Bucoda	0%	0%	0%	0%	0%	0%	0%	
Rainier	1%	2%	3%	1%	0%	1%	1%	
City	0%	0%	0%	0%	0%	0%	0%	
UGMA								
Tenino	0%	2%	2%	1%	1%	0%	1%	
City	0%	0%	0%	0%	0%	0%	0%	
UGMA								
Subtotal - Cities Towns & their UGMAs	68%	60%	55%	59%	65%	58%	61%	
Remainder of County	32%	40%	45%	41%	35%	42%	39%	
Countywide Total	100%	100%	100%	100%	100%	100%	100%	

Source: TRPC, Building Depts. of the Cities of Lacey, Tumwater, Yelm, Bucoda, Rainier, Tenino, and Thurston County

TABLE 9
 RESIDENTIAL BUILDING PERMIT ACTIVITY
 North Urban Area 1990 - 1995

Year	North Urban Area	Remainder of County	Countywide Total
1990			
# of Dwelling Units	1727	880	2607
Percentage	66%	34%	100%
1991			
# of Dwelling Units	1186	944	2130
Percentage	56%	44%	100%
1992			
# of Dwelling Units	1076	1042	2118
Percentage	51%	49%	100%
1993			
# of Dwelling Units	1366	1050	2416
Percentage	57%	43%	100%
1994			
# of Dwelling Units	1610	922	2532
Percentage	64%	36%	100%
1995			
# of Dwelling Units	1181	907	2088
Percentage	57%	43%	100%

Source: TRPC, Building Depts. of the Cities of Lacey, Tumwater
 Yelm, Bucoda, Tenino, and Thurston County

TABLE 10
INCREMENTAL TARGETS FOR RESIDENTIAL BUILDING PERMIT ACTIVITY
1990-2020

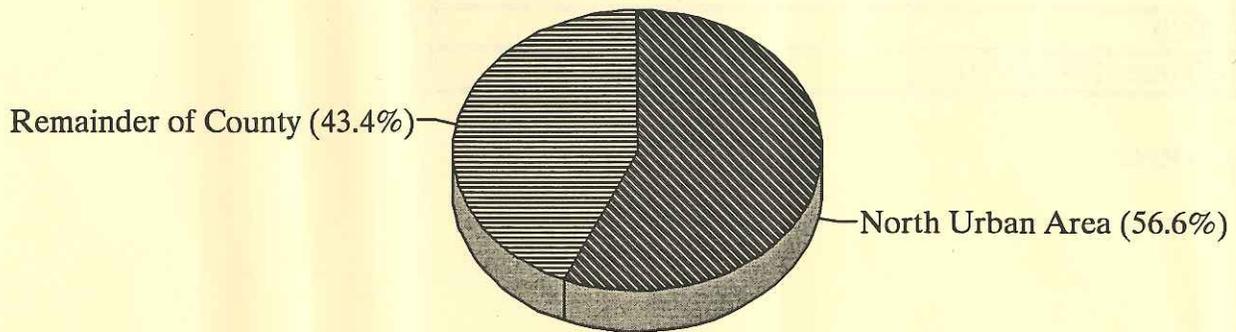
The following targets for residential building permit activity located in the North Urban Area must be met if the overall goal of 70% of new growth being located in the North Urban Area is to be met .

Time Period	Target for Percent of New Growth in North Urban Area
1995-2000	65.0%
2000-2005	68.6%
2005-2010	73.4%
2015-2020	76.0%
Entire Time: 1995-2020	70.0%

Source: TRPC

FIGURE 20

**RESIDENTIAL BUILDING PERMIT ACTIVITY
1995**



Source: TRPC, Building Depts. of the Cities of Lacey, Tumwater, Yelm, Bucoda, Tenino , and Thurston County

TRANSPORTATION

TABLE 11
 STATE COMMUTE TRIP REDUCTION 1995 SURVEY RESULTS
 FOR VEHICLE MILES TRAVELED (VMT)

EMPLOYER VMT AVERAGES AND GOALS*

Zone**	1992 Baseline	Actual VMT Averages		Goals for VMT Averages			Sites that Met Goal	
		1992	1995	1995	1997	1999	1992	1995
Zone 1	11.5	11.6	11.1	10	8.5	7.5	53%	22%
Zone 2	11.5	11.5	11	10	8.5	7.5	52%	27%
County Total	11.5	11.5	11	10	8.5	7.5	53%	25%

EMPLOYER DISTANCE AWAY FROM GOAL

Zone**	less than 1 mile		1-2 miles		2.1-3 miles		3.1 miles +	
	1992	1995	1992	1995	1992	1995	1992	1995
Zone 1	7%	27%	32%	22%	4%	22%	4%	7%
Zone 2	13%	21%	25%	21%	7%	17%	3%	14%
Total	10%	23%	29%	21%	5%	20%	3%	11%

* The goals in this table were established by the State as a part of its Commute Trip Reduction program. Thurston County has sixty-one employment sites affected by the state's Commute Trip Reduction Law.

** See next page for delineation of Zones 1 and 2.

Source: Intercity Transit

Delineations of Zones 1 & 2 as used in the State Commute Trip Reduction Program.

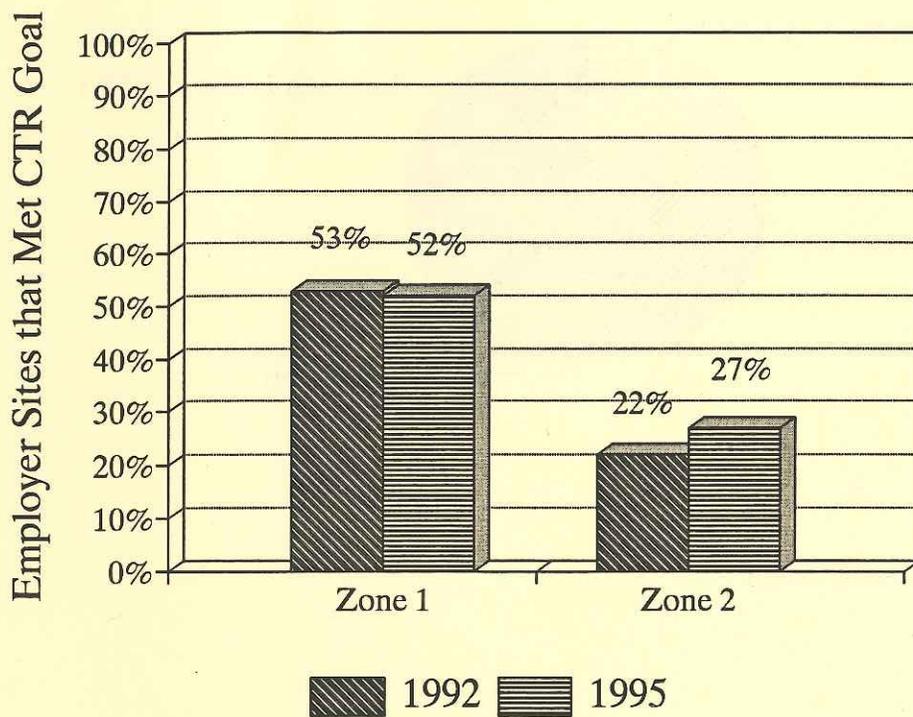
* Zone 1 (Thurston County): entirely within the city of Olympia. The Northern boundary is the north end of the Port of Olympia Peninsula as delineated by The Western boundary includes the west side of the Port of Olympia Peninsula as delineated by Budd Inlet and the east shore of Capitol Lake. The 4th and 5th Avenue bridges also mark the Western boundary. The Southern Boundary is Interstate Highway 5. The Eastern Boundary includes (1) all addresses on Eastside Street from north of Interstate Highway 5 to Olympia Avenue; (2) all addresses on Olympia Avenue from its intersection with Eastside Street to East Bay Drive; (3) all addresses on East Bay Drive south of the southernmost extension of Budd Inlet; (4) a direct line due west from East Bay Drive to Budd Inlet and (5) the east side of the Port of Olympia Peninsula as delineated by Budd Inlet.

** Zone 2 (Thurston County): Includes all areas inside Thurston County but outside the boundaries of Zone 1.

Source: Intercity Transit

FIGURE 21

**PERCENT OF SITES THAT MET CTR GOAL
THURSTON COUNTY RESULTS - 1992 & 1995**

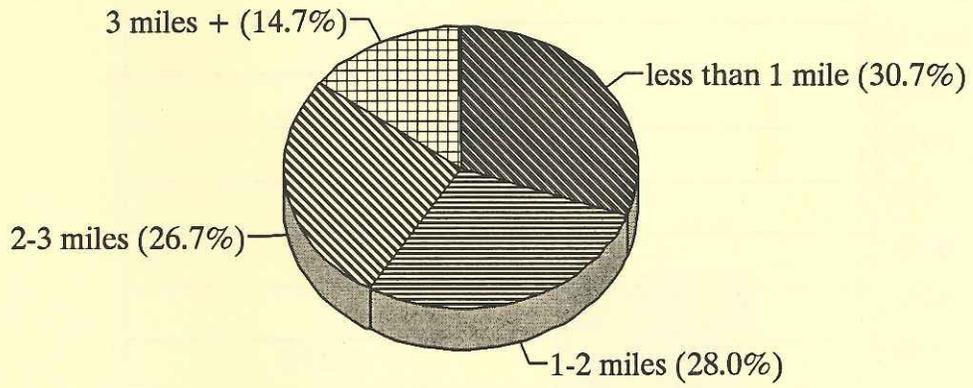


Note: See previous page for delineation of Zones 1 and 2.

Source: Intercity Transit

FIGURE 22

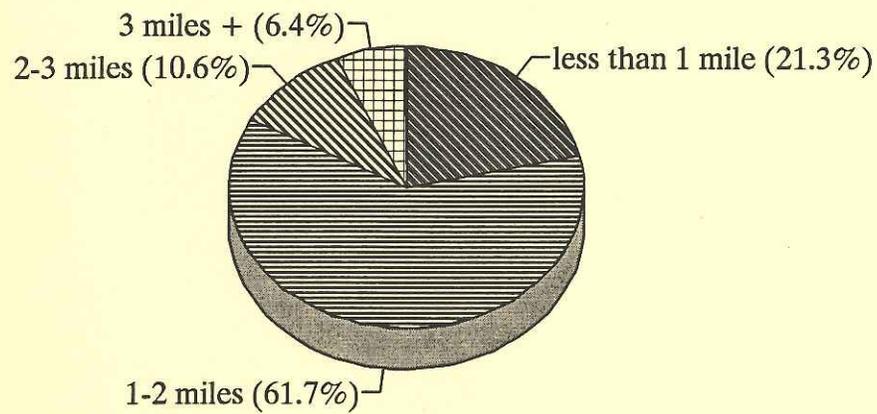
**EMPLOYER DISTANCE AWAY FROM CTR GOAL
THURSTON COUNTY - 1995**



Source: Intercity Transit

FIGURE 23

**EMPLOYER DISTANCE AWAY FROM CTR GOAL
THURSTON COUNTY - 1992**

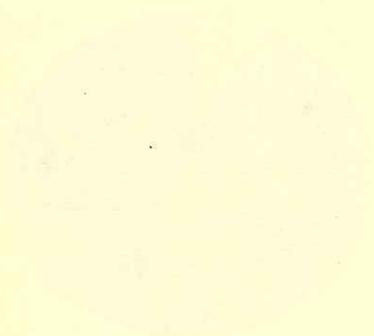


Source: Intercity Transit

1917

RECEIVED

1917



ECONOMY



TABLE 12
 NOMINAL WAGES* BY INDUSTRY
 1990-1993

Industry	Nominal Wages*			
	1990	1991	1992	1993
Government	\$26,216	\$28,259	\$30,305	\$31,662
Federal				
State				
Local				
Wholesale Trade	\$24,304	\$25,579	\$26,598	\$25,804
Retail Trade	\$11,784	\$12,576	\$13,320	\$13,792
Services	\$17,621	\$19,333	\$20,805	\$21,350
Manufacturing	\$26,889	\$27,990	\$28,248	\$28,806
Fin., Insur., Real Est.	\$19,927	\$20,788	\$23,070	\$24,242
Construction	\$20,871	\$21,178	\$21,592	\$21,464
Transportation & Utilities	\$25,874	\$26,321	\$26,474	\$27,416
Agric., Forestry, Fishing	\$13,510	\$13,764	\$14,430	\$14,552
Mining	\$21,954	\$24,755	\$23,582	\$22,715
County Average	\$21,319	\$22,727	\$24,123	\$24,893

Industry	Percent Change in Nominal Wages*		
	1990-91	1991-92	1992-93
Government	7.8%	7.2%	4.5%
Federal			
State			
Local			
Wholesale Trade	5.2%	4.0%	-3.0%
Retail Trade	6.7%	5.9%	3.5%
Services	9.7%	7.6%	2.6%
Manufacturing	4.1%	0.9%	2.0%
Fin., Insur., Real Est.	4.3%	11.0%	5.1%
Construction	1.5%	2.0%	-0.6%
Transportation & Utilities	1.7%	0.6%	3.6%
Agric., Forestry, Fishing	1.9%	4.8%	0.8%
Mining	12.8%	-4.7%	-3.7%
County Average	6.6%	6.1%	3.2%

*"Nominal Wages" reflects average monthly wages without compensation for the effects of inflation.

Source: Washington State Dept. of Employment Security,
 Labor Market and Economic Analysis Branch

TABLE 13
 REAL WAGES* BY INDUSTRY
 1990-1993

Industry	Real Wages*			
	1990	1991	1992	1993
Government	\$22,797	\$23,549	\$24,479	\$25,010
Federal				
State				
Local				
Wholesale Trade	\$21,134	\$21,316	\$21,485	\$20,382
Retail Trade	\$10,247	\$10,480	\$10,759	\$10,864
Services	\$15,323	\$16,111	\$16,805	\$16,864
Manufacturing	\$23,382	\$23,325	\$22,817	\$22,754
Fin., Insur., Real Est.	\$17,328	\$17,323	\$18,635	\$19,149
Construction	\$18,149	\$17,648	\$17,441	\$16,954
Transportation & Utilities	\$22,499	\$21,934	\$21,384	\$21,656
Agric., Forestry, Fishing	\$11,748	\$11,470	\$11,656	\$11,495
Mining	\$19,090	\$20,629	\$19,048	\$17,942
County Average	\$18,538	\$18,939	\$19,485	\$19,663

Industry	Percent Change in Real Wages*		
	1990-91	1991-92	1992-93
Government	3.3%	3.9%	2.2%
Federal			
State			
Local			
Wholesale Trade	0.9%	0.8%	-5.1%
Retail Trade	2.3%	2.7%	1.0%
Services	5.1%	4.3%	0.4%
Manufacturing	-0.2%	-2.2%	-0.3%
Fin., Insur., Real Est.	-0.0%	7.6%	2.8%
Construction	-2.8%	-1.2%	-2.8%
Transportation & Utilities	-2.5%	-2.5%	1.3%
Agric., Forestry, Fishing	-2.4%	1.6%	-1.4%
Mining	8.1%	-7.7%	-5.8%
County Average	2.2%	2.9%	0.9%

*"Real Wages" reflects average monthly wages adjusted for inflation, in constant 1987 dollars.

Source: Washington State Dept. of Employment Security,
 Labor Market and Economic Analysis Branch

TABLE 14
EMPLOYMENT BY INDUSTRY 1990 - 1993

Industry	Percent of Total Employment			
	1990	1991	1992	1993
Government	41%	42%	41%	41%
Federal	1%	1%	1%	1%
State	29%	30%	29%	29%
Local	11%	11%	11%	11%
Wholesale Trade	3%	3%	3%	3%
Retail Trade	18%	18%	18%	18%
Services	18%	19%	19%	20%
Manufacturing	7%	5%	6%	6%
Fin., Insur., Real Est.	3%	3%	3%	3%
Construction	5%	5%	4%	4%
Transportation & Utilities	3%	3%	2%	2%
Agric., Forestry, Fishing	2%	2%	2%	3%
Mining	0%	0%	0%	0%
TOTAL	100%	100%	100%	100%

WAGES BY INDUSTRY 1990 - 1993

Industry	Percent of Total Wages			
	1990	1991	1992	1993
Government	51%	53%	53%	52%
Federal	2%	2%	2%	2%
State	39%	40%	40%	39%
Local	10%	11%	11%	11%
Wholesale Trade	3%	3%	3%	3%
Retail Trade	10%	10%	10%	10%
Services	15%	16%	16%	17%
Manufacturing	8%	6%	6%	7%
Fin., Insur., Real Est.	3%	3%	3%	3%
Construction	5%	4%	4%	4%
Transportation & Utilities	3%	3%	3%	3%
Agric., Forestry, Fishing	2%	2%	1%	1%
Mining	0%	0%	0%	0%
TOTAL	100%	100%	100%	100%

Source: Washington State Dept. of Employment Security,
Labor Market and Economic Analysis Branch

TABLE 15
EMPLOYMENT BY INDUSTRY 1990 - 1993

Industry	Percent of Total Employment			
	1990	1991	1992	1993
Government	41%	42%	41%	41%
Retail Trade	18%	18%	18%	18%
Services	18%	19%	19%	20%
All Others	23%	21%	20%	21%
Total	100%	100%	98%	100%

Industry	Percent of Total Wages			
	1990	1991	1992	1993
Government	51%	53%	53%	52%
Retail Trade	10%	10%	10%	10%
Services	15%	16%	16%	17%
All Others	24%	21%	20%	21%
Total	100%	100%	99%	100%

Source: Washington State Dept. of Employment Security,
Labor Market and Economic Analysis Branch

ENVIRONMENT



TABLE 16
 WATER QUALITY GRADES
 THURSTON COUNTY 1995

	A	A-	B+	B	B-	C+	C	C-	D+	D	Total
Puget Sound Basins											
Marine Shoreline		5 56%		3 33%			1 11%			4 44%	9 100%
Creeks		3 10%		15 48%			13 42%			5 16%	31 100%
Lakes		1 13%		3 38%	1 13%		2 25%		1 13%	3 38%	8 100%
Subtotal		9 19%		21 44%	1 2%		16 33%		1 2%	12 25%	48 100%
Pacific Ocean Basins											
Creeks	1 13%			6 75%			2 25%			1 13%	8 100%
Lakes				1 100%							1 100%
Subtotal	1 11%			7 78%			2 22%			1 11%	9 100%
Total Percent	1 2%	9 16%		28 49%	1 2%		18 32%		1 2%	13 23%	57 100%

Note: The Pacific Ocean Basins make up 43% of the county and the Puget Sound Basins make up 57% of the county.

Source of grades: Thurston County Water Resources Profile 1985 - 1995 prepared by Thurston County Advance Planning and Historic Preservation and Thurston County Advance and Waste Management Dept., Storm and Surface Water Program. Data was collected on water resource projects or programs which Thurston County has paid for within the last ten years or was the recipient of a grant.

TABLE 17
CONVERSION FROM WATER QUALITY CONDITIONS
TO WATER QUALITY GRADES
COUNTY TERMS AND WATER QUALITY CONDITIONS

CREEK CATEGORIES	
COUNTY TERM	WATER QUALITY CONDITIONS
Excellent	No water quality standard violations, and very low fecal coliform and nutrient concentrations.
Good	Usually meets water quality standards; OR violates only one part of the two part fecal coliform standard; OR the violations are most likely the result of natural conditions rather than pollution.
Fair	Frequently fails one or more water quality standards, and other parameters such as nutrients indicate water quality are being impacted by pollution.
Poor	Routinely fails water quality standards by a large margin; other parameters such as nutrients are at elevated concentrations.
LAKE CATEGORIES	
COUNTY TERM	WATER QUALITY CONDITIONS
Excellent	Very low nutrient and chlorophyll <i>a</i> concentrations, and very high water clarity; Classified as Oligotrophic; Uses not impaired.
Good	Low to moderate nutrient and chlorophyll <i>a</i> concentrations, and moderate to high water clarity; Classified as Mesotrophic; Uses not impaired.
Fair	Moderate to high nutrient and chlorophyll <i>a</i> concentrations, and low to moderate water clarity; Classified as Eutrophic; Uses sometimes impaired.
Poor	High nutrient and chlorophyll <i>a</i> concentrations, and low water clarity; Classified as Eutrophic; Uses impaired during most of the summer season by excess algae and/or aquatic macrophyte (plant) growth.

CONVERSION OF WATER QUALITY TERMS TO POINT VALUES

RIVERS AND LAKES	
Term	Values
Excellent	4 points
Good	3 points
Fair	2 points
Poor	1 point
MARINE WATERS	
Term	Values
Open	4 points
Conditionally Approved	3 points
Conditionally Closed	2 points
Closed	1 point

CONVERSION OF WATER QUALITY VALUE TO WATER QUALITY GRADES

RIVERS, LAKES AND MARINE WATERS	
WQ VALUE	WQ GRADE
4.00 - 3.70	A
3.69 - 3.50	A-
3.49 - 3.30	B+
3.29 - 2.70	B
2.69 - 2.50	B-
2.49 - 2.30	C+
2.29 - 1.70	C
1.69 - 1.50	C-
1.49 - 1.30	D+
1.29 - 1.00	D

Source: Thurston County Water Resources Profile 1985 - 1995

prepared by Thurston County Advance Planning and Historic Preservation and Thurston County Water and Waste Management Dept., Storm and Surface Water Program.

TABLE 18
 CUMULATIVE WATER QUALITY GRADES,
 PUGET SOUND BASINS

NAME	RATING	LENGTH (MILES)	WQ VALUE	WQ GRADE
Budd-Deschutes Watershed	2.16	133.36	288.38	C
Marine Shorelines	1.47	20.57	30.26	--
Creek	2.48	87.12	216.09	--
Lake	1.64	25.67	42.03	--
Eld Watershed	3.34	56.51	188.50	B+
Marine Shorelines	3.55	34.29	121.84	--
Creek	3.00	22.22	66.66	--
Lake	--	--	--	--
Henderson Watershed	2.78	51.89	144.49	B
Marine Shorelines	3.23	25.74	83.08	--
Creek	2.48	17.15	42.61	--
Lake	2.08	9.00	18.80	--
Nisqually Watershed	2.81	77.37	217.11	B
Marine Shorelines	3.42	13.54	46.34	--
Creek	2.67	63.83	170.77	--
Lake	--	--	--	--
Totten Watershed	3.76	32.93	123.85	A
Marine Shorelines	3.92	13.50	52.92	--
Creek	3.51	13.82	48.49	--
Lake	4.00	5.61	22.44	--
All Puget Sound Shorelines	2.73	352.06	962.33	B

WQ = Water Quality

Source: Thurston County Water Resources Profile 1985 - 1995

prepared by Thurston County Advance Planning and Historic Preservation
 and Thurston County Water and Waste Management Dept., Storm and
 Surface Water Program.

TABLE 19
 CUMULATIVE WATER QUALITY GRADES,
 PACIFIC OCEAN BASINS

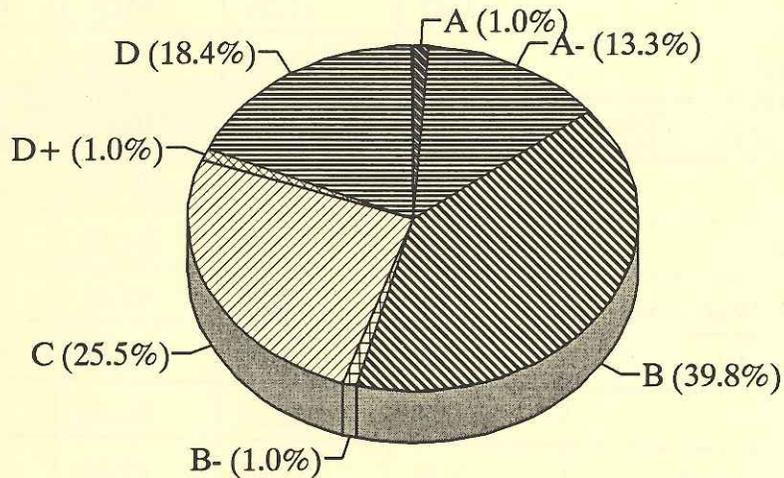
NAME	RATING	LENGTH (MILES)	WQ VALUE	WQ GRADE
Black Watershed	2.38	72.03	171.74	C+
Creek	2.37	70.58	167.39	--
Lake	3.00	1.45	4.35	--
Chehalis Watershed	2.00	42.09	84.18	C
Creek	2.00	42.09	84.18	--
Lake	--	--	--	--
Skookumchuck Watershed	3.00	17.87	53.61	B
Creek	3.00	17.87	53.61	--
Lake	--	--	--	--
Black Hills Watershed	--	--	--	--
Creek	--	--	--	--
Lake	--	--	--	--
All Pacific Ocean Shorelines	2.35	131.99	309.53	C+

WQ = Water Quality

Source: Thurston County Water Resources Profile 1985 - 1995
 prepared by Thurston County Advance Planning and Historic Preservation
 and Thurston County Water and Waste Management Dept., Storm and
 Surface Water Program.

FIGURE 24

**THURSTON COUNTY SURFACE WATER
WATER QUALITY GRADES - 1995**



Grades are based on a numeric scoring formula with point values between one and four with 4 points being the best and 1 point being the worst.

Source: Thurston County Water Resources Profile 1985 - 1995 prepared by Thurston County Advance Planning and Historic Preservation and Thurston County Water and Waste Management Dept., Storm and Surface Water Program.

TABLE 20
 CUMULATIVE WATER QUALITY GRADE
 BY WATER TYPE

NAME	RATING	LENGTH (MILES)	WQ VALUE	WQ GRADE
All Marine Shorelines	3.11	107.64	334.44	B
Budd-Deschutes Watershed	1.47	20.57	30.26	D+
Eld Watershed	3.55	34.29	121.84	A-
Henderson Watershed	3.23	25.74	83.08	B
Nisqually Watershed	3.42	13.54	46.34	B+
Totten Watershed	3.92	13.50	52.92	A
All Creeks	2.54	334.68	849.80	B-
Black Watershed	2.37	70.58	167.39	C+
Chehalis Watershed	2.00	42.09	84.18	C
Skookumchuck Watershed	3.00	17.87	53.61	B
Budd-Deschutes Watershed	2.48	87.12	216.09	C+
Eld Watershed	3.00	22.22	66.66	B
Henderson Watershed	2.48	17.15	42.61	C+
Nisqually Watershed	2.67	63.83	170.77	B-
Totten Watershed	3.51	13.82	48.49	A-
All Lakes	2.08	46.81	97.78	C
Black Watershed	3.00	1.45	4.35	B
Budd-Deschutes Watershed	1.64	25.67	42.03	C-
Henderson Watershed	2.08	9.00	18.80	C
Nisqually Watershed	2.00	5.08	10.16	C
Totten Watershed	4.00	5.61	22.44	A

WQ = Water Quality

Source: Thurston County Water Resources Profile 1985 - 1995

prepared by Thurston County Advance Planning and Historic Preservation
 and Thurston County Water and Waste Management Dept., Storm and
 Surface Water Program.

TABLE 19
 AIR QUALITY - THURSTON COUNTY
 1985-1994

Pollutant	National Standards	Historic Trends							
		Readings		Highest Annual Readings					
		1985	1990	1991	1992	1993	1994	1995	
Particulate Matter* (PM10) 24 Hour Average	150 micrograms per cubic meter	254	141	106	102	79	77	76	
		242	86	99	78	78	63	65	
Carbon Monoxide (CO) 8 Hour Average**	9 parts per million	n/a	n/a	n/a	6.4	5	3.9	6	
		n/a	n/a	n/a	5.2	4.9	3.9	5.8	

* Particulate matter 10 micrometers or smaller in diameter

** No permanent site to measure CO prior to 1992

Source: Olympia Air Pollution Control Authority

HOUSING

**TABLE 20
COST OF HOUSING**

Percent Change in Average Sale Price of Homes
Compared to Percent Change in Median Household Income

Year	County Median Household Income	Average Sale Price of Single Family Homes			Lacey
	Rate of Change	Thurston County	Olympia	Tumwater	Rate of Change
1990-91	5%	11%	16%	11%	9%
1991-92	4%	9%	8%	7%	15%
1992-93	1%	14%	15%	15%	17%
1993-94	3%	4%	2%	0%	7%
1994-95	5%	3%	26%	3%	1%

Source: Multiple Listing Service
Washington State Office of Financial Management

TABLE 21
Average Sale Price of Homes Compared to
Median Household Income

Year	County Median Household Income	Average Sale Price of Single Family Homes			
		Hurston County	Olympia	Tumwater	Lacey
1990	\$33,277	\$91,568	\$95,300	\$101,840	\$78,622
1991	\$34,999	\$101,403	\$110,686	\$113,180	\$85,673
1992	\$36,589	\$111,258	\$119,247	\$121,456	\$98,600
1993	\$37,029	\$126,318	\$137,281	\$139,175	\$114,906
1994	\$38,288	\$131,574	\$139,632	\$138,737	\$123,225
1995	\$40,088	\$135,744	\$176,404	\$142,510	\$121,275

Source: Multiple Listing Service
 Washington State Office of Financial Management

TABLE 22
Housing Affordability Index

Quarter	All Buyers		First Time Buyers	
	Index	Monthly Payment	Index	Monthly Payment
4th Quarter 1994	127.1	\$649	79.2	\$636
4th Quarter 1995	132.2	\$670	79.8	\$656

Notes: The Housing Affordability Index measures the ability of a middle income family to carry the mortgage payments on a median price home. When the index is 100 there is a balance between the family's ability to pay and the cost. Higher indexes indicate housing is more affordable. The first time buyer index assumes the purchaser has an income of 70% of the median household income.

Home purchased by first time buyers is 85% of area's median price.

All loans are assumed to be 30 year loans.

The All buyer index assumes 20% downpayment. The First-time buyer index assumes 10% down. It is assumed 25% of income can be used for principal and interest payments.

Source: Washington Center for Real Estate Research