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Community, Trade and
Economic Development

MEETING THE GROWTH MANAGEMENT CHALLENGE IN GROWING COMMUNITIES

The Washington State Growth Management Act Effectiveness Report

December, 2008
Report to the Legislature
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ACKNOWLEDGEMENTS

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Special thanks to the cities, counties and special districts who participated in this study.

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EXECUTIVE SUMMARY

This report is organized into three parts at the direction of the 2007 Legislature:

“...\$100,000 of the general fund-state appropriation for fiscal year 2008 is provided solely for a study on improving the effectiveness of the Growth Management Act (GMA). Topics may include but are not limited to: How best to meet and finance infrastructure and service needs of growing communities; how to provide incentives to accommodate projected growth and protect resource lands and critical areas; and how local governments are prepared to address land use changes associated with climate change.”¹

In addition, the Washington State Department of Community, Trade and Economic Development (CTED) searched for published documents focusing on the effectiveness of various aspects of the GMA. The search results are reported in Appendix G.

Part 1. The Growth Management Act and Infrastructure

Key Findings

- There has been a significant improvement in the quantity, quality and completeness of local capital facility planning since the last extensive review in the 1999 *State of Washington Local Government Infrastructure Study*.
- Communities across the state, together with state government, invested \$9.1 billion in local roadways, water, sewer and drainage systems between 1998 and 2006. However, the gap between funding needs and local and state funding availability is growing, especially in the areas of roadways and water
- Cities and counties dedicated more than 74 percent of the total resources needed to fund capital facilities during the last planning cycle (six to ten years), primarily from local non-voter approved sources of state authorized revenue. Most growing communities use the full range of non-voter approved capital funding mechanisms. .
- There are substantial numbers of capacity issues identified in current capital facility plans. The capacity issues of cities (transportation, water and parks) are different than counties (transportation, public safety and parks/sewer).
- City and county capital facility plans and strategies do not effectively integrate other service providers such as special districts, especially in unincorporated urban growth areas and in the area of transportation. A large proportion of projects in these two areas are not being completed within planned timelines.
- This lack of effective coordination among service providers misses opportunities to provide facilities at a scale that reduces per capita costs or tax/user rates, and may be connected to a lack of funding of larger scale capital facilities.
- Some high-growth counties continue to experience significant development at relatively low density, requiring high cost capital facility investment now or in the future. This development frustrates the GMA goal of efficient provision of urban services.

¹ Source: ESHB 2687, Section 125 (40), 2007

- After access to funding, jurisdictions identified the following factors as the most significant barriers to decreasing costs and improving execution of capital projects: streamlining environmental requirements and permitting; streamlining of state aid administrative requirements; and, a shortage of local staff with necessary expertise in capital projects.

Key Recommendations

- Require that communities implement integrated, multi - jurisdiction capital facility financing plans to address regional capacity issues.
- Provide state capital facility planning grants specifically for growing communities with smaller populations, and for regions developing regional capital facility financing plans and implementing inter-local agreements.
- Require capital facility plans to include strategies to address the long term cost of capital facilities in lower density development in urban growth areas or rural areas. These plans should identify where existing and planned platted lots may require significant future public infrastructure investment.
- Require capital facility elements of comprehensive plans to include which projects in the last financing plan were executed or substantially underway.
- Streamline permitting and environmental processes, especially for road construction, and administrative requirements for state agency funding programs.
- Focus regionally on capacity issues and adopt more aggressive demand management strategies.
- Reduce overlap or redundancy in maintaining roadways, parks, or other facilities that cross over jurisdictional boundaries in the same geographic area.
- Simplify existing statutes authorizing revenue sources for capital facilities to reduce local government administrative costs and increase flexibility. Consider reducing or eliminating the voter approval threshold provided other conditions are met by a local government or regional financing plan.
- Increase the proportion of growth-related revenue that is reinvested in public infrastructure needs generated by that growth.
- Authorize a general benefit fee system for park operating funding that would meet state constitutional requirements.
- Authorize a significant revenue stream or package of revenue that can be used to pay back loans or bonds for roadway construction.

Part 2. Resource Lands and Critical Areas

Market forces create challenges for local governments to accommodate growth while protecting resource lands and critical areas. Extensive recent legislation and other state programs address issues related to the conservation of agricultural and forest resource lands and the protection of critical areas. More time is required to learn the results of these studies and pilot programs before they are ready for evaluation and review for effectiveness. Of particular interest will be the recommendations emerging from the stakeholder process directed by SSB 5248 adopted in 2007.

Part 3. How Local Governments Are Prepared to Address Land Use Changes Associated with Climate Change

CTED conducted an electronic survey of all cities and counties fully planning under the GMA to learn which are planning for climate change. Based on survey results, some general conclusions and trends can be identified:

- There is some awareness and some effort to address climate change. However, only the larger jurisdictions are spending much money on climate change
- There is strong concern about the ability to adapt to storm events/flooding, stormwater, water supply and economic impacts of climate change.
- The most common mitigation efforts by local jurisdictions include converting fleets to alternative fuels; energy conservation measures; green building codes; and greenhouse gas emissions reduction goals.
- Lack of funding and staff expertise is a major challenge to many jurisdictions.

Local governments are concerned with climate change but most do not yet have the level of local awareness, financial resources, information or state guidance to address this challenge. However, recent legislation and broader climate change efforts are beginning to help local governments address climate change.

INTRODUCTION

Lawmakers approved the Growth Management Act (GMA) in 1990 at least in part because of citizen concerns regarding the negative effects of population growth and suburban sprawl on Washington's forest and agricultural lands, and the environment:

“The legislature finds that uncoordinated and unplanned growth, together with a lack of common goals expressing the public's interest in the conservation and the wise use of our lands, pose a threat to the environment, sustainable economic development, and the health, safety, and high quality of life enjoyed by residents of this state...”
(RCW 36.70A.010)

In 2007, the Washington State Legislature directed the Department of Community, Trade and Economic Development (CTED) to examine the effectiveness of the implementation of several aspects of the GMA.

“...\$100,000 of the general fund-state appropriation for fiscal year 2008 is provided solely for a study on improving the effectiveness of the Growth Management Act (GMA). Topics may include but are not limited to: How best to meet and finance infrastructure and service needs of growing communities; how to provide incentives to accommodate projected growth and protect resource lands and critical areas; and how local governments are prepared to address land use changes associated with climate change.”²

This report carries out this legislative direction. The three main topic areas address several of the 14 planning goals included in the GMA to guide city and county comprehensive plans and development regulations. The GMA states the goals listed below are not in priority order. Differences are expected from jurisdiction to jurisdiction. Although the goals of the GMA may exist in tension, local governments must try to address all the goals to the fullest degree possible. Local governments can't disregard one goal in favor of another. Local governments may not balance the goals in a way that interferes with achieving statutory requirements

- Concentrated urban growth
- Sprawl reduction
- Efficient multimodal transportation
- Affordable housing
- Economic development
- Property rights
- Timely permitting
- Natural resource industries
- Open space and recreation
- Environmental protection

²Source: ESHB 2687, Section 125 (40), 2007

- Public participation and interjurisdictional coordination
- Public facilities and services
- Historic preservation
- Goals and policies of the shoreline management act for shorelines of the state

(RCW 36.70A.020; 36.70A.480)

Each part of the report begins by identifying the GMA planning goals, followed by challenges facing local government in carrying out these GMA goals. Each part of the report contains research results for the specific topic areas directed by the Legislature, including progress in local government implementation and the state's role in assisting it. The conclusion of each part of the report summarizes its findings and, in some cases, recommends areas for further action.

CTED also conducted a literature search for previously published documents addressing the effectiveness of various aspects of the GMA. The results of that search are reported in Appendix G.

PART 1. THE GROWTH MANAGEMENT ACT AND INFRASTRUCTURE

This portion of the report addresses how best to meet and finance the infrastructure and service needs of growing communities. It focuses on five core infrastructure needs – water, sewer, stormwater, transportation, and parks – rather than a broader set of services, due to the resource limitations of this study.

Three **study questions** were developed to guide the research and writing of this report:

- How could the effectiveness of the GMA be improved related to the planning and construction of public infrastructure?
- How can the public infrastructure needs of growing communities best be met?
- How can the public infrastructure needs of growing communities be more effectively financed?

Planning Requirements

The capital facility provisions of the GMA reflect two major public policy objectives:

- Reduce the costs of serving new development with public facilities; and
- Ensure that public facilities will be available at the time of development.

Growth management can provide not only better land utilization; it can reduce the cost of serving new development with public facilities. This compelling proposition was shaped by various studies over the years, including the landmark *Cost of Sprawl* study in 1974, which concluded that sprawling lower density development is costly to serve with public facilities and services. GMA incorporates this public policy objective in its first planning goal (*RCW 36.70A.020 [1]*):

Urban growth. Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.

To address this goal, 29 of Washington’s counties have designated urban growth areas in accordance with *RCW 36.70A.110* (see Figures 1 and 2).

GMA places even more emphasis on ensuring that new development will be served by adequate public facilities as new development occurs, as set forth in planning goal 12 (*RCW 36.70A.020[12]*):

Public facilities and services. Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

To implement these planning goals, GMA requires comprehensive plans to include a capital facility element. Since the Act requires all comprehensive plan elements to be consistent, the capital facility element must be integrated with the land use element, as well as the other elements of the comprehensive plan. The mandatory elements required in a comprehensive plan are found under *RCW 36.70A.070*, and include: land use, housing, capital facilities, utilities, rural (for counties only), and transportation. Economic development and parks and recreation

elements are also listed as required elements but are not mandatory until the legislature provides funding.

The specific requirements for the capital facility element are set forth in *RCW 36.70A.070 (3)*:

(3) A capital facilities plan element consisting of: (a) An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities; (b) a forecast of the future needs for such capital facilities; (c) the proposed locations and capacities of expanded or new capital facilities; (d) at least a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes; and (e) a requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent. Park and recreation facilities shall be included in the capital facilities plan element.

In addition to the capital facilities element, GMA also requires a separate element for transportation facilities. The transportation element has requirements similar to those of the Capital Facility Element quoted above, although stated differently. However, the transportation element goes further than the capital facilities element in implementing planning goal 12 by requiring specific regulatory measures (known as “concurrency”) to ensure adequate transportation facilities are available to serve new development.

Figure 1:
Urban Growth Areas in Western Washington under Growth Management Act

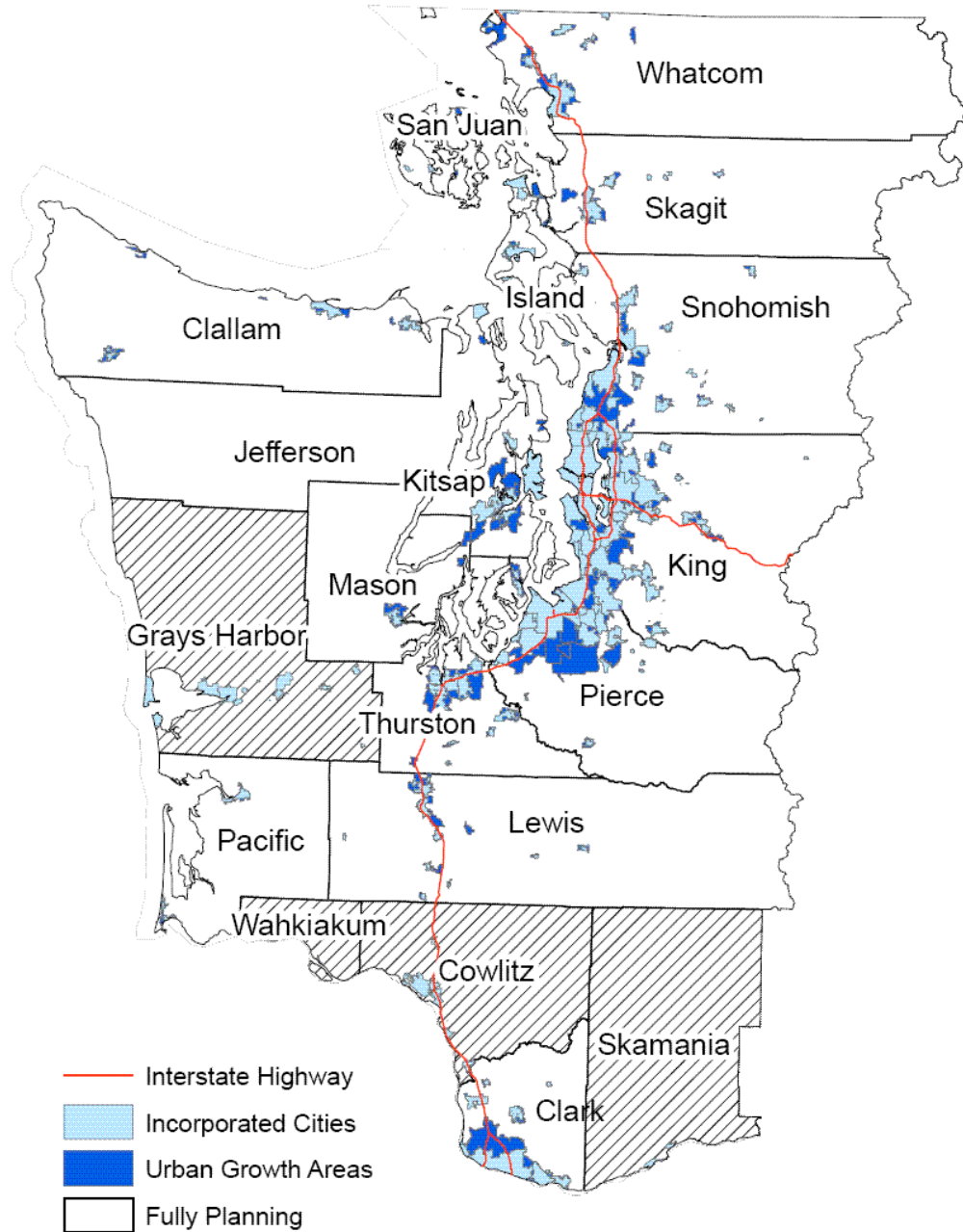
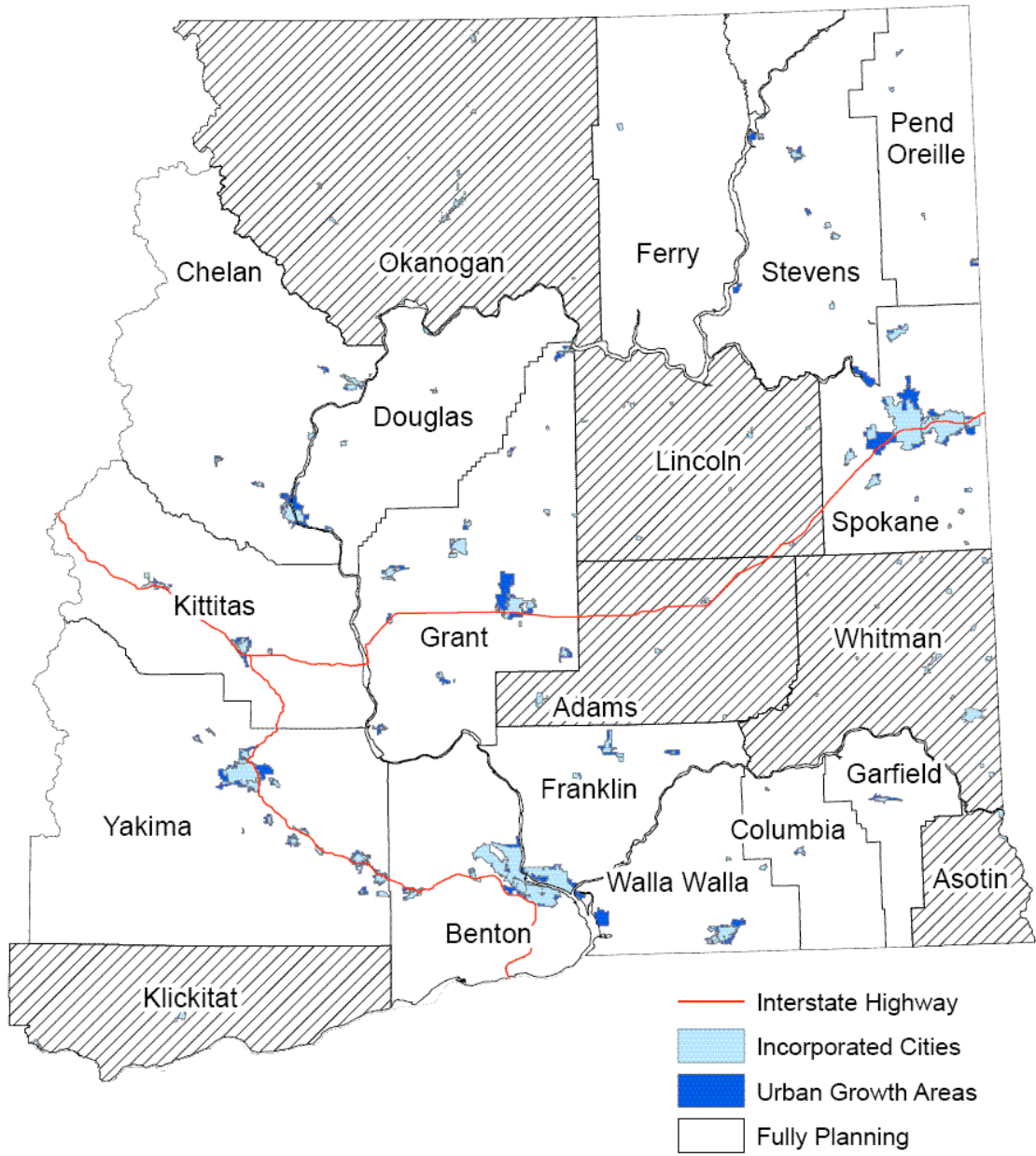


Figure 2:
Urban Growth Areas in Eastern Washington under the Growth Management Act



Typical Local Government Planning Documents

Each local government that is fully planning under the GMA typically produces all or most of the following documents related to capital facility planning:

- A 20-year capital facilities element of its comprehensive plan (required by RCW 36.70A.070 (3)).
- A six-year capital facility plan that provides a comprehensive list of capital improvements needed to accommodate the growth assumptions in the comprehensive plan and how they will be funded (required by RCW 36.70A.070(3)(d)) .
- Separate transportation and utilities elements of their comprehensive plan and a separate parks element if funding is available (RCW 36.70A.070 (4, 6 and 8)).
- A capital improvement plan, which is most often a one - or two - year capital project budget.

Counties may, in addition, address capital facilities as part of their adopted countywide planning policies.

Metropolitan planning organizations (MPO's) and regional transportation planning organizations (RTPO's) may also address capital facilities in their adopted regional plans.

Cities and counties often separately adopt longer term, detailed system plans or reports that address specific capital facilities systems such as drinking water and/or water supply; parks and recreation; or public safety buildings and facilities. These documents may be incorporated into a jurisdiction's Growth Management comprehensive plan by reference.

CHALLENGES LOCAL GOVERNMENTS FACE IN IMPLEMENTING CAPITAL FACILITIES PLANS

Prior to 1990 when the GMA was adopted, few local governments planned for the construction and maintenance of capital facility systems in a comprehensive way. Even fewer developed multi-year financing plans. In order to receive federal or state funding, many local governments completed water and sewer system plans or six-year transportation improvement plans. These plans may or may not have been directly connected to comprehensive land use plans, and the plan's population and employment growth assumptions.

After the GMA was enacted, a larger number of jurisdictions completed long term utility, transportation and parks and recreation plans that were connected to the community's land use plan and its growth assumptions. Communities completed more detailed individual system plans and added capital facility categories over time. For the first time in many communities, all of the capital facilities requirements of the community were considered for funding along with the annual operating budget of the jurisdiction.

Today, local governments face a number of challenges as they implement capital facility plans. The primary challenges fall roughly into five categories:

- *Planning, prioritizing, funding and execution of capital projects* located in unincorporated urban growth areas.
- *Planning, prioritizing, funding and execution of capital projects, often affecting capacity*, that are regional and/or multi-jurisdictional in nature.
- *Access to funding* to meet the capital facility requirements for planned growth.
- *Timely construction* of needed improvements aligned with the location and pace of development.
- *Achieving consistency between city and county capital facility plan implementation* and the availability of capacity or access to services of special purpose districts.

This study focuses on various aspects of these five challenges.

EVALUATING EFFECTIVENESS

There are a number of potential ways to evaluate the effectiveness of the GMA's provisions, as practiced by local government, to plan for and build public infrastructure in coordination with growth and development. This report evaluates six questions that explore various aspects of planning, funding and construction of local public infrastructure:

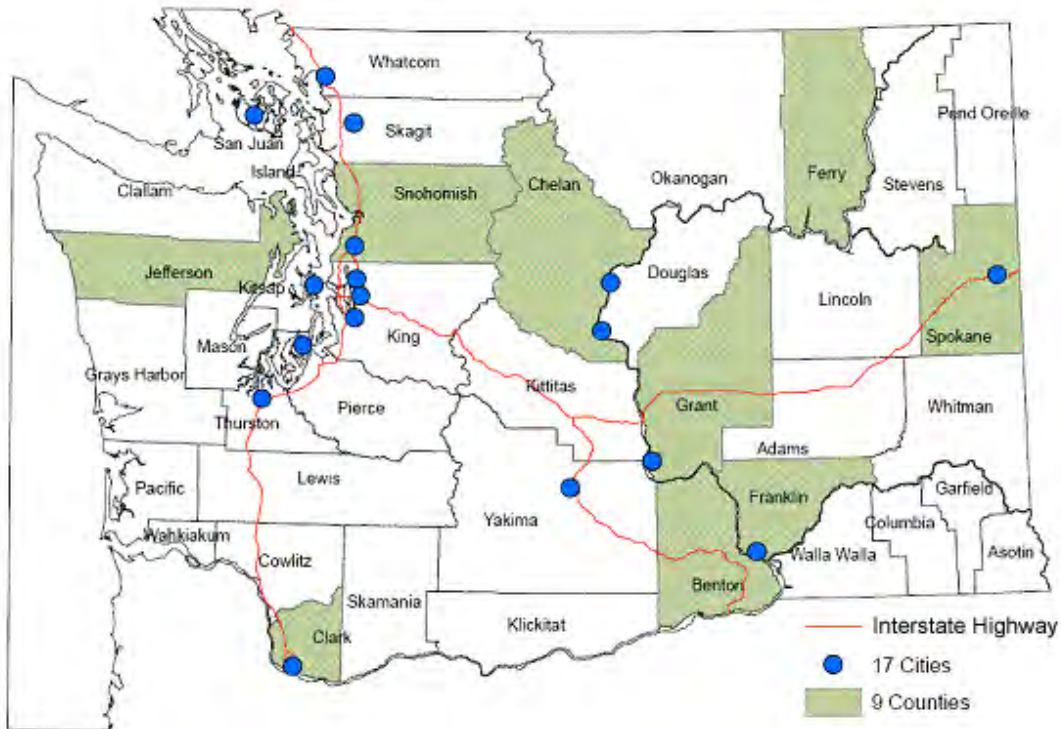
- How many growing communities are developing plans for public infrastructure (capital facility elements of comprehensive plans or six - year capital facility plans) that match growth and development assumptions?
- How many growing communities are developing multi-year funding plans for their identified capital facility requirements?
- Is there enough local and state funding available to meet identified capital facility requirements to support planned growth?
- What actions are growing communities taking when available funding and capital facility requirements do not match?
- How much of the capital facility plan is being completed in the planned time frame? How much of the capital facility plan is being completed within unincorporated urban growth areas?
- How could the effectiveness of the GMA be improved related to the planning and construction of public infrastructure?

Methodology

Effectiveness was evaluated using four sources of information.

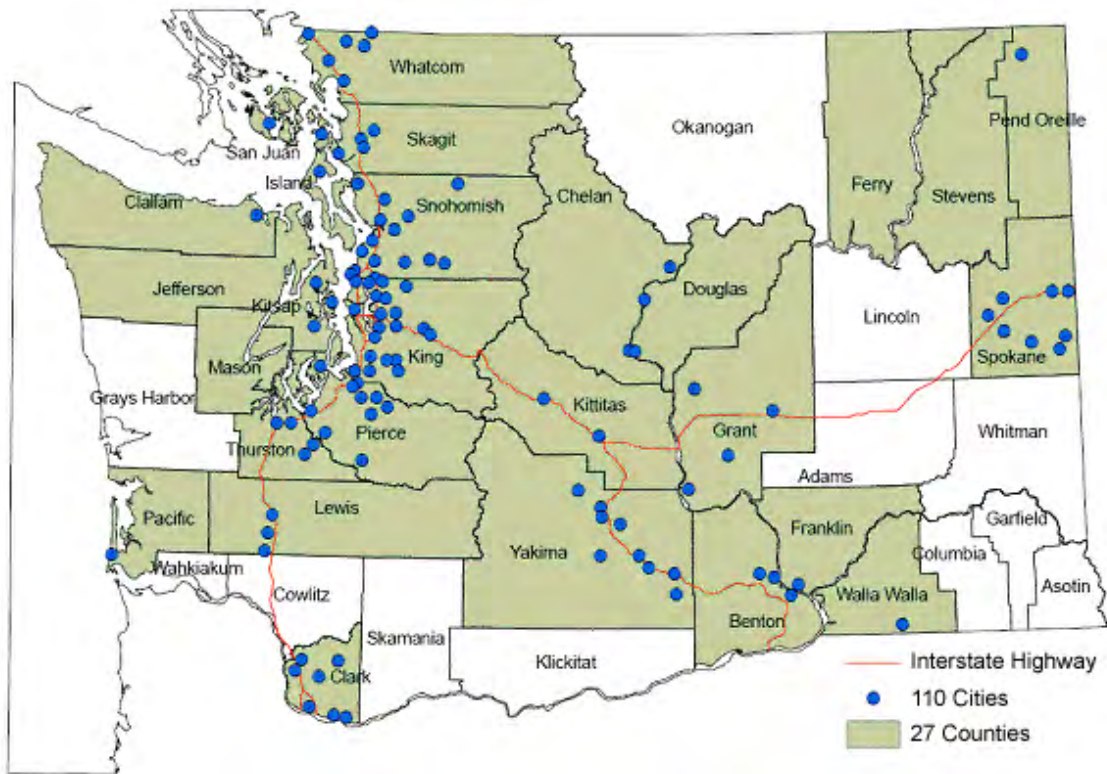
1. Information from more than 40 studies related to local public infrastructure, implementation of the growth management act and infrastructure financing that have been completed since the Public Works Board's, *State of Washington Local Government Infrastructure* study in 1999 (Appendix A).
2. Annual and multi-year data on infrastructure systems and their financing from a variety of public sources (referenced through out the report). (From these first two sources, a series of statewide profiles of the six major capital facility systems were developed. The profiles and an overview appear in Appendix D).
3. Information gathered from a statewide sample of 26 jurisdictions' current comprehensive plans, capital facility elements and/or six-year capital facility plans (see Figure 3 and Appendix C).

Figure 3:
Comprehensive Plan Document Sample Jurisdictions



4. Information from a survey of growing communities and their regional planning organizations. There were 86 respondents to the survey out of a possible 150, or 56 percent. The responding communities represent 86 percent of the population of the surveyed group. Surveys were received from 64 cities, 17 counties and nine regional transportation planning organizations. Sixty percent of the communities in the ten highest growth counties responded - 56 out of a possible 93 communities.

Figure 4:
Survey Jurisdictions



GROWTH MANAGEMENT EFFECTIVENESS: MEETING THE CAPITAL FACILITY NEEDS OF GROWING COMMUNITIES

This section of the report takes each of the six effectiveness questions and summarizes the information related to each question from the four study sources.

How many growing communities are developing plans for public infrastructure (capital facility elements of comprehensive plans or six-year capital facility plans) that match growth and development assumptions?

- Based on the survey of growing communities, 93 percent of cities and counties had *comprehensive plans with capital facility elements*. Of the total with comprehensive plan capital facility elements, 88 percent had recent updates in the 2005 to 2008 timeframe. (Appendix B Survey, Q4 and Q5)
- The same number, 93 percent of cities and counties, had six-year capital facility plans. Of the total six-year capital facility plans, 92 percent had recent updates in the 2005 to 2008 timeframe. (Appendix B Survey, Q6 and Q 7)
- A smaller number of jurisdictions, 70 percent, reported having an annual or biennial capital improvement program/budget. (Appendix B Survey, Q8)
- The sample of 26 comprehensive plan capital facility elements found five core capital facility systems were covered by 95 percent or more of communities – transportation, water, sewer, storm water and parks. In the Survey (Appendix B Q21) jurisdictions reported that their plans covered transportation (85 percent); water (73 percent); sewer (77 percent) and parks (77 percent). Storm water was covered by 65 percent of jurisdictions. Cities were more likely to cover all five core facility systems than counties. Counties covered public safety facilities more often (47 percent) than water (35 percent) for example.

From the sample jurisdictions, the analysis found that in addition to the five core facility types, many jurisdictions included an analysis for capital facility needs associated with eight other facility types (Table 1).

Table 1: Capital Facility Types Commonly Assessed By Sample Jurisdictions

Facility Type	Number of capital facilities elements that had a distinct section analyzing this facility type	Percent
General Government Buildings	17	65%
Fire	18	69%
Irrigation	4	15%
Jails	7	27%
Parks*	26	100%
Safety(sheriff/police)	18	69%
Schools	18	69%
Solid Waste	22	85%
Storm Water *	25	96%
Transportation*	26	100%
Wastewater*	26	100%
Water Supply*	26	100%

* 95% or more of sample jurisdictions included this facility type in plan

- A high proportion of jurisdictions included the following features in their capital planning documents according to the survey:
 - Capital facility project lists generally covering all or most capital facility categories for a *twenty year planning horizon* (56 percent in comprehensive plans, 26 percent in six-year capital facility plan, 10 percent in regional plans, and 10 percent in annual or biennial capital improvement plans). (Appendix B Q9 and Q10)
 - The existing *capacity* of all or most capital facility categories was discussed in planning documents 86 percent of the time. (Appendix B Q12)
 - Cities generally discussed the existing *capacity* of more categories than counties. Counties covered one or a few capital facility categories 36 percent of the time. (Appendix B Q12)
 - Existing capital facility *capacity* was discussed in comprehensive plans (59 percent), six year capital facility plans (26 percent) and other documents (24 percent). (Appendix B Q11)

- *Unincorporated urban growth area* (UGA) capital facility policies were included for all or most capital facility categories 76 percent of the time. (Appendix B Q20) They appear most often in comprehensive plans (51 percent), six-year capital facility plans (21 percent), other documents (11 percent) and regional plans (10 percent). Twenty-one cities (about one third of survey respondents) indicated that they did not have an UUGA, did not know which document the policies appeared in or did not have any policies. All but two counties had UUGA polices in one or more documents.(Appendix B Q19)
- Fifty - five jurisdictions (70 percent) included *concurrency* requirements or policies in their comprehensive plan for transportation. (Appendix B Q24) It should be noted here that jurisdictions may address concurrency in development regulations and these documents were not reviewed in this study.
- *Concurrency* requirements or policies were included for 35 percent of the jurisdictions' water facilities and 34 percent of sewer. (Appendix B Q24)
- Land use elements of comprehensive plans were *reassessed to align with available capital facilities* by 23 (nine counties and 14 cities) jurisdictions as part of planning or modeling through countywide planning policies (20 percent) or as part of their comprehensive plan (48 percent).

How many growing communities are developing multi-year funding plans for their identified capital facility requirements?

- Capital facility plans which included detailed financing plans were found both in the sample and survey at relatively high rates compared to a similar review completed in 1999 as part of the *State of Washington Local Government Infrastructure Study* (See Appendix C for sample jurisdiction data).

The survey found that only four to seven percent of jurisdictions did not include a detailed funding plan in at least one planning document. Cities tended to include their detailed funding plans in comprehensive plans or six-year capital facility plans while counties were more likely to include their detailed funding plan in their six-year capital facility plan or one - to two-year capital improvement plans. Half of the detailed plans covered most capital facility categories and one - third covered all categories. Counties were more likely (40 percent) than cities (six percent) to cover one or a few capital facility categories in their detailed funding plans.

Below is a table that summarizes the findings of the twenty - six jurisdiction capital facility plan sample. Note that the findings with respect to completeness and detail of capital facility funding plans are similar to the survey discussed above.

Table 2: Sample Capital Facility Financing Plan Types Associated with the Population of Jurisdictions				
	Type 1	Type 2	Type 3	
Counties				
Under 100,000	0	1	4	
100,000 or more	2	2	0	
Cities				
Under 10,000	0	3	2	
10,000-49,999	3	3	0	
50,000-200,000	1	5	0	
Total (Counties and Cities)	6	14	6	
Percentage - 2008 study	23.1%	53.8%	23.1%	
Percentage - 1999 study	7%	68%	25%	

TYPE 1 Plans Included:

Individual project narratives
 Cost by project
 Cost by year
 Funding source and amount by project

TYPE 2 Plans Included:

Moderate level of financial detail
 The plan had at least two of the following data sets: cost by year; cost by project; or funding source by project. Limited or no project narratives

TYPE 3 Plans Included:

Limited or no project narrative, financial detail by project is limited and generally aggregated

- Less detailed and complete capital facility financing plans were found more often among jurisdictions that were smaller in population (see Appendix C, sample data).

Is there enough local and state funding available to meet identified capital facility requirements to support planned growth?

There are a number of ways of evaluating the adequacy of funding for capital facility requirements identified in comprehensive plans.

Planning requirements - It is important to note that the GMA requires jurisdictions to include:

“... (d) at least a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes; and (e) a requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent.”
RCW 36.70A.070 (3)

In addition, various state funding program statutes require that a local government’s proposed projects be consistent with their comprehensive plan and capital facility plan. Many jurisdictions interpret these requirements to mean that a grant or loan project must be listed in the local plan. Examples of these requirements among major programs include:

- Transportation improvement board programs (Page 61, Vol. 2, *Inventory of State Infrastructure Programs*, Joint Legislative Audit and Review Committee, 2006)
- Public works board construction loan program (Page 151, Vol. 1, *Inventory of State Infrastructure Programs*, Joint Legislative Audit and Review Committee, 2006)
- Centennial clean water fund program (Page 112, Vol. 1, *Inventory of State Infrastructure Programs*, Joint Legislative Audit and Review Committee, 2006)
- Washington wildlife and recreation funding program (Page 235, Vol. 3, *Inventory of State Infrastructure Programs*, Joint Legislative Audit and Review Committee, 2006)

Funding Plans - In order to meet both the expectation that a local government’s capital facility plan include those projects needed to accommodate projected growth within funding capacity and that projects are included that may be proposed for future state funding, many financing plans show *potential funding* or *unfunded projects*.

The sample of local comprehensive plans found that 85 percent of jurisdictions identified needs or projects with no specific funding source(s) in their financing plans. (See Appendix C) When jurisdictions were asked in the survey “Since 1998 has your jurisdiction adapted to capital funding constraints in your capital facility plan by doing any of the following (multiple choices)”, 53 percent said they have included unfunded projects in their Capital Facilities Plan. (Appendix B Q23) Further, when asked if in the last ten years any of the sources of state or federal funding that were listed in their capital facility plan were ultimately not available, 10 percent to 25 percent of jurisdictions indicated they had not received planned funding from one or more of the twelve largest funding programs. Transportation projects in unincorporated urban growth areas specifically were not being completed. Ninety percent of jurisdictions reported that these transportation projects were mostly not completed or substantially underway by the end of their last six year capital facility plan cycle.

Funding Plans and Capital Facility Capacity – One way to evaluate how many capital facility plans include projects that are linked to planned growth is to determine the extent to which capacity of capital facility systems, growth plans and capital project requirements shown in capital facility financing plans are linked.

Most capital facility plans (95 percent) in the sample and survey discussed capacity of capital facilities to accommodate the growth planned in the community's 20-year comprehensive plan. One hundred percent of jurisdictions in the plan sample showed a capacity issue in one or more capital facility systems and 62 percent showed a capacity issue in one or more of the five core systems. Sixty - nine percent of surveyed jurisdictions indicated a need for increased capacity in transportation on highways and/or arterials in order to accommodate growth; 61 percent needed increased capacity in parks; and 58 percent in supply, treatment or storage of water. (Appendix B, Q 22)

For the purpose of the sample analysis, capacity factors were defined as conditions that are currently generating, or are projected to generate, constraints on all or part of a capital facility. The determination of whether or not a capacity factor existed was based on whether or not the plan included a specific description of a capacity factor and associated constraint(s).

The prevalence of the constraint was determined based on the jurisdiction's description of the constraint and then categorized as: system wide, affecting a core part of a facility or service area, limited to one area or project, or undefined. These categories were developed for this study, are not standard elements of capital facilities analysis, and are subject to interpretation. Thus the data presented in Table 3 should be considered as indicative as possible themes but not definitive. (Refer to Table C-5, Appendix C, for a summary of capacity factors, by facility type, as defined in jurisdiction's capital facilities elements, capital facilities plans, and associated project narratives).

- In some cases jurisdictions may have referred to another plan or another provider and not analyzed capacity factors in their capital facilities element or finance plan. Thus, the figures presented in Table 3, may not be fully representative of capacity issues and associated constraints because they do not include constraints that may have been discussed in other plans that were not reviewed as part of this sample (e.g. transportation plan, sewer, water, or parks plans).
- The majority of constraints were system - wide or impacting a core part of a facility or service area, as opposed to being confined to one area or project.
- Wastewater and storm water had the most system - wide capacity issues and constraints identified in the Capital Facility elements of the sample Comprehensive Plans.
- Transportation and water had the most core facility or service area capacity issues.
- Seventy percent of the samples have one or more other providers that provided service in their jurisdiction. It is not clear how many of these systems may have capacity issues.

Table 3: Summary of Capital Facility Issues Defined By Sample Jurisdictions

Capital Facility	Number of jurisdictions that defined capacity factors and associated facility constraints	Percent	Prevalence			
			System Wide	Core parts of a facility or service area	One area or project	Not defined
Parks	12	46%	3	5	3	1
Storm water	12	46%	8	4	0	0
Transportation	12	46%	2	8	2	0
Wastewater	16	62%	10	6	0	0
Water	15	58%	6	8	1	0
Notes						

Refer to Table C in Appendix C. for a description of the capacity factors as defined by Jurisdictions' in their plans.

In the survey, jurisdictions were asked which of their public facility systems were shown as needing increased system capacity in their most recent comprehensive plan or six - year capital facility plan (Appendix B Q22) (see Table 4). This question included the transportation, utilities and parks elements of comprehensive plans which were not reviewed in the sample. Capacity was defined as an increase in water supply or storage, treatment plant capacity, drainage storage or highway/arterial capacity to accommodate planned growth.

Table 4: Capital Facility Systems Needing Increased System Capacity to Accommodate Planned Growth

CAPITAL FACILITY	TOTAL	CITIES	COUNTIES
PARKS	61%	66%	41%
PUBLIC SAFETY	39%	38%	47%
STORM WATER	43%	47%	29%
TRANSPORTATION	69%	67%	76%
WASTEWATER	49%	52%	41%
WATER	58%	67%	24%

Source: CTED 2008 Survey, Appendix B, Q22.

Note: Capacity was defined in the survey as “an increase in water supply or storage, treatment plant capacity, drainage storage or highway/arterial capacity not whether new feeder streets, hook ups or connections are needed.”

Given the results from the sample and the survey it is highly likely that jurisdictions are including projects that are required to accommodate growth in their capital facility plans and showing potential funding where it is known. Jurisdictions were extensively using a number of strategies to reduce the number and amount of capital requirements (Table 7 and Appendix B Survey Q23) shown in their funding plan, reinforcing the conclusion that capital plans more closely resemble real needs or growth - related *needs* versus “wish lists”.

Local and State Funding Gap – Appendix D, capital facility system profiles, describes the current data available on statewide local infrastructure funding gaps and compares prior estimates of funding requirements to actual expenditures by local governments. A local and state funding “gap” is defined as the difference between local capital facility plan requirements identified to accommodate growth (and adjusted downwards by jurisdictions using a number of strategies) and the amount of local and state funding that is available to finance the capital facility plan requirements (see discussion in prior section). Over the last eight years, projections of capital facilities funding requirements and funding gaps have been developed by the Association of Washington Cities for roadways, using data from six year transportation improvement plans submitted to the Department of Transportation, and by the Association of Washington Realtors using utilities data developed by the Public Works Board. Aggregating these two sources of information provides a general picture of more contemporary funding requirements.

It should be noted that the GMA (RCW 36.70A.070(3)) specifies that capital facility plans contain projects that can be “funded with available resources” so that the projections of capital facility needs may be understated to the extent that this is followed. In practice, local governments have generally developed lists of project needs and modified these lists based on capacity requirements and/or strategies that the local government has undertaken to manage demand or modify land use patterns to reduce public infrastructure investment (see Table 7). The majority of capital facility plans, therefore, list projects that are pared down to reflect the local government’s *needs* to meet growth assumptions that have both identified and unidentified funding sources. In general, projects appear to be shown that meet funding criteria but do not necessarily have funding approval. In fact, there are several state requirements that capital projects be consistent with Growth Management capital facility plans in order to qualify for state funding or qualify for expenditure of impact fees under the GMA (RCW 82.02.070 and WAC 365-195-850). It appears that the result is to show projects in capital facility plans with “identified *potential* funding sources” which often outstrip the actual available local, state or federal funding.

Table 5 shows the aggregate amount of funding *needs* based on more recent transportation improvement plans and public works board surveys together with identified funding levels for 2004 to 2009. The total local government infrastructure local and state funding “gap” based on this data for 2004 to 2009 was reported to be \$7.58 billion or an average of \$1.26 billion per year. The “gap” is defined as the difference between identified local and state funding and the cost of capital projects in capital facility plans.

Table 5: Local Infrastructure Funding Needs and Estimate of Actual Expenditures 2004 – 2009						
(Dollars in Billions)						
	Total Funding Needs	Actual Expenditures 2004 - 2006	Estimated Expenditures 2007-2009	Six - Year Total Estimated Expenditures	Funding Gap	Percent Funding Gap
Domestic Water	\$1.58	\$0.49	\$0.49	\$0.98	\$0.60	37.97%
Sanitary Sewer	\$3.36	\$0.55	\$2.25	\$2.80	\$0.56	16.67%
Storm Sewer	\$0.36	**	**	NA	NA	NA
Roadways/Bridges	\$10.64	\$2.11	\$2.11	\$4.22	\$6.42	60.34%
Total	\$15.94	\$3.15	\$4.85	\$8.00	\$7.58	47.55%
Notes:						
Assumes King County's \$1.7B Brightwater project is fully funded through rates and bond financing.						
Utility numbers are based on 10 of 39 counties and 163 of 281 cities; 15 Ports, 18 PUD's and 61 Water and Sewer Districts						
** Storm water capital is reported with Roadways.						

Source Data: Actual expenditure data - Local Government Financial Reporting System and Legislative Evaluation and Accountability Program, BARS 594 and 595. Funding requirements data - *Washington REALTORS Local Government Infrastructure Study*, Bill Freund and Michael Luis, January 2006 and *2003 Public Works Board Local Infrastructure Database*.

The largest local and state gaps in funding (see table above) and capacity (Appendix B, Survey Q 22) were identified in transportation and water systems.

Regional Transportation Planning Organizations (RTPO) reported in the survey (Appendix B Q22) that the most frequent transportation system capacity issues in their regions were:

- Arterials (89 percent)
- State Highways (78 percent)
- Transit (78 percent)

Urban Growth Areas - In the sample of capital facility plans, jurisdictions often relied on other entities to provide all or part of a capital facility and/or associated service (See Appendix C). For example, a sample jurisdiction may provide solid waste collection but rely on a regional transfer station and landfill to accept the waste; jurisdictions may pool together to operate a regional facility such as a sewer treatment plant managed under a regional governance structure; or they may rely on special districts such as public utility districts, irrigation, sewer or water districts to provide service within all or part of their jurisdiction.

As part of the review of the sample capital facilities plans, an attempt was made to identify capital facilities and/or associated services provided by others that jurisdictions relied on to

provide services within their jurisdiction. The review did not attempt to define every type of capital facility that may be provided by an entity other than the city or county. Instead, it sought to define the core facilities most commonly provided by other entities and any associated patterns regarding the level of analysis that jurisdictions presented in their capital facilities elements and associated plans. The results of this analysis are summarized in Table 6 and discussed below. (Refer to Table C-7, Appendix C for a definition of other providers, by facility type, for the sample jurisdictions).

- Water and wastewater were the capital facilities and associated services that jurisdictions most commonly defined as being provided by other entities.
- Thirty one percent of the plans reviewed defined water as being provided by another entity. The majority of these plans contained significantly less detailed capital facility and financing plans for water than the jurisdictions that owned and operated a water system themselves.
- In some jurisdictions, there is significant reliance on a large number of other service providers. For example, Spokane County defined 500 water providers, Snohomish County defined 23 wastewater providers, Chelan County defined 19 irrigation districts, and Grant County defined 12 fire districts (Table C-8, Appendix C).
- For parks, solid waste, water, and wastewater facilities, the reliance on other service providers did not vary significantly between Eastern and Western Washington.

Table 6: Core Capital Facilities and Services Provided to Cities and Counties by Other Entities

Capital Facility	Jurisdictions that stated another provider was responsible for the capital facility and services	Percent	Number that presented a capacity analysis for the facility	Percent	Location		Jurisdiction	
					Eastern WA	Western WA	County	City
Parks	2	8%	1	50%	1	1	0	2
Solid Waste	5	19%	0	0%	1	3	0	4
Water	8	31%	2	25%	5	3	4	4
Wastewater	6	23%	3	50%	3	3	4	2

Source: Appendix C, Tables C-7 and C-8

What actions are growing communities taking when available funding and capital facility requirements do not match?

Strategies - Communities have been struggling with the gap between available funding and capital facility requirements to accommodate growth for many years. As a result, a number of strategies have emerged that are being used individually or in combination by a large number of jurisdictions. In the survey, jurisdictions were asked, “Since 1998, has your jurisdiction adapted to capital facility constraints in your capital facility plan by doing any of the following,” followed by a list of fifteen possible strategies and an opened ended “other”. (Appendix B Survey, Q23) Table 7 summarizes the strategies most used by the 81 jurisdictions that responded to the survey.

Table 7: Strategies Used by Local Governments to Adapt to Capital Facility Funding Constraints

STRATEGY	TOTAL	CITIES	COUNTIES
<i>DEMAND MANAGEMENT STRATEGIES</i>			
ADJUSTED LEVELS OF SERVICE STANDARDS	39%	37%	47%
ADOPTED CONCURRENCY REQUIREMENTS AND/OR PROGRAMS	46%	48%	47%
USED OR ADOPTED DEMAND MANAGEMENT STRATEGIES	21%	22%	18%
<i>POLICY ALTERNATIVES</i>			
REASSESSED LAND USE ELEMENT TO ALIGN WITH AVAILABLE CAPITAL FACILITIES	33%	25%	69%
CHANGED PLANNED LAND USE PATTERNS	25%	21%	41%
ADOPTED PERMIT MORATORIA	19%	13%	41%
RATIONED PERMITS	3%	2%	6%
<i>FUNDING STRATEGIES</i>			
ADOPTED OR MODIFIED SEPA MITIGATION PROGRAM	36%	33%	47%
INCLUDED UNFUNDED PROJECTS IN CAPITAL FACILITY PLANS	53%	54%	47%
DEDICATED SPECIFIC LOCAL REVENUE TO CAPITAL IMPROVEMENTS	50%	54%	35%
RELIED ON DEBT FINANCING	50%	56%	29%
INITIATED GMA IMPACT FEES	31%	35%	18%
INCREASED GMA IMPACT FEES	31%	35%	18%
ADOPTED ADDITIONAL REVENUE OR INCREASED RATES FROM AUTHORIZED SOURCES	41%	48%	18%

Source: CTED Survey, Appendix B, Q23 and Q25

The vast majority of the strategies used by cities and counties to adapt capital facility plans to constraints involved transportation. For example:

- Eighty-four percent of jurisdictions that adjusted level of service standards did so for transportation, 23 percent for water and 23 percent for parks.
- Seventy-six percent of jurisdictions that adopted demand management strategies adopted them for transportation and 24 percent for water.
- Seventy percent of those who changed planned land use patterns did so for transportation, 35 percent for sewer and 30 percent for water.
- Ninety percent of those who dedicated specific local revenue to capital improvements did so for transportation.

Coordination with Other Providers – According to the survey, a significant number of capital facility systems and projects are shared with other communities or special districts requiring coordinated responses to capital facility capacity issues. For example:

- Seventy-six percent of jurisdictions had major components of capital facility systems *within their existing boundaries* that are shared with or services provided by others, chiefly in order of magnitude, transportation, water and sewer. (Appendix B Q 29)
- Eighty-one percent of jurisdictions had major components of capital facility systems within their *unincorporated urban growth boundary* that are shared with or services provided by others, chiefly in order of magnitude, water, transportation and sewer. (Appendix B Q 31)
- Eighty-five percent of jurisdictions had a *state transportation facility* located within their boundaries or unincorporated urban growth area. (Appendix B Q35)
- Twenty-three percent of jurisdictions had capital facility plan projects that involved multiple jurisdictions for one quarter or more of their project list. (Appendix B Q38)

The mechanisms most often used by jurisdictions to coordinate capital facilities with other providers in unincorporated urban growth areas include: (Appendix B Q33)

- Intergovernmental discussions/negotiations (69 percent)
- Regional planning through county (52 percent)
- Formal agreements adopted by all jurisdictions (48 percent)

The mechanisms most often used by jurisdictions to coordinate transportation capital facilities with the state include: (Appendix B Q36)

- Feedback from and coordination with the state on strategies for addressing capacity issues (68 percent)
- Agreement on designation of lead agency for each capital facility project (38percent)
- Consistent list of capital facilities projects (37 percent)

Are the capital facility projects in the capital facility plan being completed in the planned time frame? How much is being completed within unincorporated urban growth areas?

There is no source of comprehensive information about completion of capital facility plan projects. The number and severity of capacity issues identified over time is one indicator of how well jurisdictions are able to address growth requirements but does not directly address the proportion of capital facility plan projects that are being completed. The number of applications for state and federal funding that are not funded may also be another indicator. Both the *Inventory of State Infrastructure Programs*, (Joint Legislative Audit and Review Committee, 2006) and *Inventory and Evaluation of the State's public infrastructure programs and funds*, (Berk and Associates for the Office of Financial Management, 2005) generally found larger numbers of requests for funds than funds awarded. As a recent example, the Department of Ecology received 77 applications for 2008 Storm Water Implementation Grants and awarded 36 with available funds.³

Completion - As part of the survey, jurisdictions were asked two questions related to project completion:

- “In your last planning cycle, were most of the transportation projects identified in your comprehensive plan or six-year capital facility plan located in an unincorporated urban growth area substantially under way or complete?” (Appendix B Q44) 90 percent of jurisdictions answered “no”. The predominant barrier identified by respondents was “lack of funding”. (Appendix B Q46)
- “In your last planning cycle, were most of the transportation projects identified in your comprehensive plan or six year capital facility plan located on state highways or major roadways extending through more than one jurisdiction substantially under way or complete?” (Appendix B Q47) Seventy-two percent said “no” and 28 percent said “yes”. The predominate reasons cited for project success were clear coordination of efforts and assistance with funding. (Appendix B Q48) The predominate reasons cited for lack of success was “lack of funding” (Appendix B Q49).

Strategies to reduce time to completion or cost of projects – Jurisdictions were asked in the survey to identify which project execution steps, if changed, provided the most opportunity to decrease time to completion of projects. (Appendix B Q39) The highest rated were:

- Environmental compliance (SEPA, critical areas, shoreline, wetlands, etc) (45 percent)
- Acquiring funding (44 percent)
- Permitting (34 percent)

³ Source: *Stormwater Management Implementation Grant Program Fiscal Year 2008: Final Offer and Applicant List*, Department of Ecology, January 2008, Page 18.

Jurisdictions were asked which actions would decrease the time or cost of multiple funding source projects, those that used a combination of local, state and/or federal funding (Appendix B Q42). The highest rated were:

- Streamlined government permitting and/or environmental compliance (53 percent)
- Streamlining funding agency administrative requirements after funding award to reduce local effort (29 percent)
- Streamlining of funding agency application requirements to reduce local effort (25 percent)

Jurisdictions were also asked which resources needed to complete projects were in short or critical supply (Appendix B Q41). The top rated were:

- Adequate local match for state or federal programs (72 percent)
- City staff with necessary expertise (53 percent, more cities than counties)
- Permit or environmental regulation expertise (32 percent)

How could the effectiveness of the GMA be improved related to the planning and construction of public infrastructure?

What's working - Analysis of the four sources of information about GMA effectiveness results identified a number of ways that the GMA is facilitating the planning and construction of public infrastructure.

- Most jurisdictions, and all but a handful of the growing communities in the state, complete comprehensive plans with capital facility elements and six - year capital facility plans including detailed funding plans. This is a significant change from before GMA and since the last extensive look in the 1999 *State of Washington Local Government Infrastructure Study*.
- The quality and completeness of capital facility and funding plans has improved since the 1999 *State of Washington Local Government Infrastructure Study*.
- Most jurisdictions have evaluated and implemented strategies as part of their growth management efforts to reduce the gap between available public infrastructure funding and growth related capital facility requirements.
- Most jurisdictions, to some extent, coordinate planning within unincorporated urban growth areas with other service providers, each other and the state. For many, coordination takes the form of adoption of consistent lists of capital facilities projects, reaching agreements on the designation of a lead agency for inter-jurisdictional projects, and adoption of consistent land use patterns in the urban growth area.
- Many jurisdictions have concurrency policies and programs in place which require roadway and sometimes other public capital facilities to be in place within a specified time in relation to new development. (Note: In 2005 the Legislature amended the concurrency guidelines in GMA (RCW 36.70A.108) to allow local jurisdictions to account for multi-modal trips in assessing transportation concurrency compliance.)

- Communities across the state, together with state government, invested \$9.1 billion in basic local infrastructure between 1998 and 2006.

What could be improved –

- The gap between funding needs and local and state funding availability is growing, especially in the areas of roadways and water.
- There are a substantial number of system-wide and core area capital facility capacity issues identified in current capital facility plans. The most frequent capacity issues for cities are in transportation, parks and water, while the most frequent capacity issues for counties are in transportation, public safety, parks and sewer
- The key transportation capacity issues are on arterials and state highways.
- The large number of jurisdictions that rely on other providers for core capital facilities and services reduces the effectiveness of current planning efforts. Effective integration of these providers into capital facility plans and strategies aimed at adapting to capital facility funding constraints is lacking.
- Planning, coordination and project execution in unincorporated urban growth areas needs attention in order to follow through on coordination of growth and public infrastructure. This is evidenced, in part, by the finding that 90 percent of transportation projects in unincorporated urban growth areas are not being completed within planned timelines.
- A large proportion of multi-jurisdictional transportation projects are not being completed within planned timelines.
- There may be a connection between a lack of funding for larger scale capital facilities and a lack of mechanisms to effectively coordinate resources at a scale that reduces per capita costs or tax/user rates.
- After access to funding, jurisdictions identified environmental requirements and permitting; time consuming state aid application and award administrative requirements and, a shortage of local staff with necessary expertise in capital projects as the most significant barriers to decreasing costs and improving execution of capital projects.
- One of the goals of GMA is to reduce the cost of urban public service provision, including infrastructure, through concentrating development in urban growth areas. Significant development at relatively low density on existing or newly platted lots (requiring significant capital facility investment now or in the future) is frustrating this goal in some high - growth counties.⁴

Recommendations - The following recommendations may improve local and state governments' ability to address the findings above.

1. Expand the use of capital facility financing plans in order to achieve even greater results in aligning capital facility improvements with planned growth:

⁴ Sources: *CTED Buildable Lands reports in 2003 and 2007*, and *Growth Management By the Numbers 2007* Puget Sound Regional Council.

- Include a section in Capital Facility Elements of comprehensive plans or six - year capital facility plans that discusses how many planned capital facility projects were completed or substantially underway within each capital facility system's last six - year planning cycle. Tracking project completion should assist the jurisdiction and the state to better assess progress and pinpoint where further action is needed.
 - Include a section in Capital Facility Elements of comprehensive plans or six - year Capital Facility Plans that discusses policy alternatives, operating efficiencies and demand management strategies adopted by or implemented by the community to better align capital facility requirements and available public financing.
 - Require that communities implement an integrated, multi - jurisdiction financing plan (including policy alternatives, operating efficiencies and demand management strategies) to address *regional capacity and related capital facilities*. One method of implementing these financing plans would be through one or more inter-local agreements between cities and/or counties and other appropriate governments, including the state and special districts. Lead agencies for each improvement project would be designated in the financing plan. Regional capacity improvements could fall into three categories – transportation (covering arterials, state highways and all roadway classifications in unincorporated urban growth areas); water systems (covering drinking water supply, transmission and treatment; regional storm water management facilities; waste water treatment and reuse facilities within the unincorporated and incorporated urban growth area); and parks/open space (covering regional assets).
 - Regional financing plans should be developed along watershed, traffic shed or other agreed regional configurations. MPO's or RTPO's may be used as a mechanism for developing and negotiating the inter-local agreements.
2. Increase the coordination of *non-regional public infrastructure* investment and planned growth through improving the consistency of actions among local capital facility system providers in urban growth areas. One way to do this is to strengthen the alignment between state grant funding criteria, existing statutory requirements for water and sewer system plans (RCW 57.16 and 57.02 and RCW 57.16.010 and 57.02.040) and the participation of local governments, including special districts, in GMA capital facility plans and implementing development regulations
 3. Increase the coordination of public infrastructure investment and planned growth through improving the consistency of actions among local capital facility system providers *in urban growth areas*. One way to do this is to strengthen the alignment between state grant funding criteria, existing statutory requirements for water and sewer system plans (RCW 57.16 and 57.02 and RCW 57.16.010 and 57.02.040) and the participation of local governments, including special districts, in GMA capital facility plans, regional inter-local agreements and implementing development regulations.

4. In concert with regional capital facility financing plans, specifically authorize all local governments to designate portions of urban growth areas where off-site public improvements must be funded completely by property owners and/or developers through development agreements (RCW 36.70B.170 or other existing statutory means) in order to receive land use or building permit approval. This authority would provide an additional tool, allowing jurisdictions to allocate limited public funding in a phased manner, while continuing to permit development in areas with capacity issues provided designated capital facilities are privately financed.
5. Consider providing state planning assistance grants specifically for:
 - Growing communities with smaller populations to improve capital facility financing plans, and
 - Regions developing regional capital facility financing plans and inter-local agreements.
 - Access to and cost effectiveness of the funding may be improved with pre-qualified consultant panels available to qualifying jurisdictions or regions.
6. Consider requiring that capital facility plans address strategies that local governments will use to effectively provide public infrastructure to lower density development in urban growth areas or rural areas where existing platted lots may require current or future costly public infrastructure investment. Include these strategies in regional capital facility plans and inter-local agreements if appropriate.
7. Consider revising the GMA impact fee program (RCW 82.02.150) to extend the refund period (currently six years) in order to better align the availability of local resources and project execution cycles.

FUNDING LOCAL PUBLIC INFRASTRUCTURE

Since GMA was enacted in 1990 local government's financial structure has changed significantly. Part of that change is a result of shifts in population and employment to cities as urban areas have incorporated or annexed under GMA. Another change comes from revenue authority applying citizen tax initiatives and/or legislative action. A 2006 statewide assessment of city and county fiscal health using a nationally recognized fiscal health indicators method, found that a number of counties and cities in Washington were fiscally distressed, including three of the ten high growth counties (Clark, Franklin and Yakima) and many cities within them as well as the majority of cities in Spokane County.⁵

Two primary examples of the structural changes are differences over the last 15 years in county sales tax and road property tax levies, key sources of county revenue. A county's sales tax revenue base is limited to taxes on unincorporated area sales plus 15 percent of one cent in sales tax on incorporated area sales. In addition, a county's Road Fund is limited to property tax revenue from unincorporated county areas. Incorporation and annexation of land into cities reduces the counties' revenue base and creates an economic disincentive for counties, some believe, to implement growth management policies that allocate urban land uses to cities. It is also believed that a portion of a county's service delivery demands decrease with annexation or incorporation. This is true for local services such as basic law enforcement or land use permitting, but it is not true for county services that are provided to all residents as an agent of the state (property tax collection, elections, courts, etc), or services that are regional in nature.

Counties have seen significant shifts since 1990 in their sales tax revenue bases due to incorporation of 15 cities and annexation of significant land area. By 2007, statewide unincorporated population had decreased to 38.7 percent of the state total, a considerable shift from 48 percent in 1990. Between 1990 and 2007, 774,000 people and a land area just slightly smaller than all of Clark County moved from unincorporated to incorporated status. This statewide shift has been even more significant in individual counties such as Benton, Clark, Douglas, King, Kitsap, Pierce, Snohomish, Spokane and Yakima. There are now three counties where the incorporated population represents over 80 percent of the total county population – King, Franklin and Whitman. The remaining unincorporated UGA statewide, as of 2007, totaled 736 square miles, or an area slightly larger than all of Thurston County.⁶

A shift of population into cities has impacted county sales tax revenue. Between 1990 and 2007, at an average annual per capita sales tax amount of \$59.43 to \$90 (2006 Department of Revenue tax distribution statistics) the shift of 774,000 people into cities represented an estimated county revenue *loss* of \$46 million to \$70 million per year. About one million more people still live in

⁵ Source: *County Financial Health and Governance Alternatives, Department of Community, Trade, and Economic Development, 2007 Appendix E, Washington State Local Government Fiscal Stress Analysis, Office of Financial Management and Department of Community, Trade and Economic Development, 2006 pg 15 and 18.*

⁶ Source: *Office of Financial Management population and annexation statistics; land area based on CTED GIS data.*

736 square miles of unincorporated urban growth area (UGA) statewide and remain to be annexed or incorporated, for a potential additional loss of \$60 million to \$90 million in sales tax revenue (*population estimated based on remaining unincorporated UGA population in six counties in the CTED 2005 Annexation Legislative Study plus 20 percent for the balance of the state; land area is based on CTED GIS data*).

The total of \$106 million to \$160 million per year represents an overall *loss of 27 to 42 percent of county general fund sales tax revenue*. This increases pressure on counties to approve development of commercial activity in rural areas, encourages county interest in providing utility and other urban services and encourages some counties to oppose city annexation or incorporation efforts, which is counter to state growth management policies.

Loss of county sales tax revenue is offset somewhat by the passage of the Streamlined Sales Tax program by the 2007 Legislature. This program will shift some sales tax revenue from cities to counties and mitigate the impact of the change in “sourcing” laws for three counties. Overall, sales tax revenues to counties will increase by 5 percent or an estimated \$28.9 million in 2009 increasing to \$35.2 million in 2013 when fully effective. The largest shifts in revenue are occurring in the counties with the largest tax bases – 80 percent of the gain is in King, Pierce, Snohomish, Kitsap, Whatcom, Skagit, and Thurston counties.⁷

County Road Fund property tax levies are also impacted as cities annex unincorporated areas. Even though there has been a significant shift in land area to cities, the relative size of tax receipts to Road Funds has remained constant. In 1998 for example, Road Fund levies statewide were about 44 percent of the size of county general fund levies and that was still true in 2007. Cities however, do not have a similar dedicated source of revenue for roadways; therefore, the overall effect can be a net loss in dedicated funding for roadways as annexation occurs.

Operating revenue for both counties and cities are also being effected by property tax limitations and the repeal of the motor vehicle excise tax (MVET) enacted statewide. Property taxes represent 58 percent of county general revenue and 33 percent of city general revenue on average. MVET revenue losses were significant.⁸

Capital Improvement Cost Increases - In recent years capital facility construction costs have grown dramatically. For example the Transportation Improvement Board estimates that a mile of arterial cost \$8.5 million to construct in 2003 and \$18 million in 2007.

Local funding – A number of changes in revenue dedicated to and authorized for capital facilities have occurred since 1990 (See Appendix D). Real estate excise taxes (REET) and growth management impact fees have been authorized by the legislature to fund capital improvements along with various changes in regional transportation financing alternatives. The legislature also authorized cities to divert a portion of the state sales tax for up to 10 years to help fund services related to large residential annexations in central Puget Sound. Appendix D shows many jurisdictions in high growth counties have, or are, using these revenue sources to assist in

⁷ Source: County Financial Health and Governance Alternatives, Department of Community, Trade, and Economic Development, 2007, pg 19-20

⁸ Source: County Financial Health and Governance Alternatives, Department of Community, Trade, and Economic Development, 2007, pg 14

financing of their capital facility plans (See Appendix D, local funding section of each capital facility profile).

A high proportion of growing communities use all or most non-voter approved sources of revenue to finance capital facilities (Appendix D). Voter approved sources are also used, but not as often. Regional transportation project funding initiatives have been developed in Puget Sound counties over the last decade and, with the exception of Sound Transit funding, failed to receive voter approval. The most recent (2007) ballot proposition included funding for both local and state roadways.

In 2005 cities and counties spent \$1.33 billion on core capital facility system capital projects. Federal and state grant assistance supported approximately \$346 million of those expenditures. Local governments used local funds for approximately 74 percent of expenditures on core capital facilities or 3.8 times the amount of state and federal grant funding in the same year. Total spending by capital facility category included:

- \$704 million for Roadways
- \$170 million for Water
- \$249 million for Parks and Natural Resources
- \$159 million for Sewer
- \$51 million for Stormwater (additional expenditures are included in roadways)

The majority of grant funding was dedicated to roadways and parks. Local governments also spent \$117 million on public safety facilities, \$33 million on solid waste facilities and \$18 million on multi-purpose and cultural facilities.⁹

Local financing of capital improvements on average has risen from 25 percent of all city and county expenditures, to 27 percent of all expenditures over 10 years. In 2006, eight counties and 138 cities (49 percent of all cities) had capital expenditures of *more than 27 percent* of total expenses. This shift is even more significant given the structural changes in local government financing and the fact that county spending per capita for parks and recreation *declined* in the same decade.¹⁰

Based on the survey, in their most recent capital facility financing plan, growing communities (79 reporting jurisdictions) dedicated the following local funding sources to fund capital facilities: (Appendix B Q51)

- Real Estate Excise Taxes (57 percent)
- Developer contributions through development agreements (56 percent)
- System development charges and hook up fees (47 percent)
- User fees and rates (44 percent)

⁹ Source: Local Government Financial Reporting System and Inventory of State Infrastructure Programs, Joint Legislative Audit and Review Committee, 2006

¹⁰ Source: *County Financial Health and Governance Alternatives*, Department of Community, Trade, and Economic Development, 2007 and Appendix E, Washington State Local Government Fiscal Stress Analysis, Office of Financial Management and Department of Community, Trade and Economic Development, 2006 *page 18*.

- SEPA mitigation (41 percent)
- Revenue Bonds (39 percent)
- Utility taxes (35 percent)
- GMA impact fees (34 percent)
- Council approved general obligation bonds (33 percent)
- Local improvement districts (27 percent)
- County Road Property Tax levy (20 percent)
- General fund revenue (20 percent)

State and Federal funding – Federal grant funding for capital facilities (primarily transportation and community development block grant funds) has generally declined while state funding has increased by 23 percent over the last 10 years. State funding more often takes the form of loans) than grants from state revenue. Total state grant awards from state revenue were \$252 million in 2005 (38 percent of total state funding). Loans are generally more appropriate for projects that have dedicated predictable funding streams, such as utility projects, and are less helpful to jurisdictions that are funding transportation or park projects.

State and local spending was partially aligned with capital facility requirements, as summarized in Table 8.

	Six Year Requirements 2004-2009	Annual Average Requirements	2005 Local Infrastructure Expenditures (4)	2005 State Grant Funding (5)
Roadways	\$10.64 billion	\$1.77 billion	\$703 million	\$148.3 million
Water	\$1.58 billion	\$260 million	\$170 million	\$2 million
Sewer	\$3.36 billion	\$560 million	\$159 million	\$20.9 million
Parks	NA	NA	\$249 million	\$58.9 million
Stormwater	\$360 million	\$60 million	\$51 million	0
Other	NA	NA	NA	\$22 million

Notes:

- 1) State programs include only those grant programs that funded \$5 million or more per biennium from state dollars
- 2) Stormwater expenditures are included at times in sewer and roadway projects
- 3) Six Year requirements are for 2004 to 2009
- 4) Cities and Counties (does not include special districts)
- 5) Includes all jurisdictions

Proportion of State and Local Growth Related Revenue Used for Local Capital Facilities --

The state and local governments collect tax revenue from individuals and businesses that are engaged in development. The four largest sources are construction related sales and B&O taxes, real estate excise tax and property tax on new construction. About half of local collections are dedicated to capital facilities compared to a small portion of state construction related revenue. It is difficult to precisely calculate growth - related revenue. Table 9 gives only a general picture of revenue collections. Real estate excise taxes include taxes on all real estate sales and some transfers regardless whether the sale is, or will eventually be, related to new development. In

addition, development that is speculative in nature is not subject to B&O taxation and is only subject to sales tax on materials which is not captured in the estimates below.

Table 9: Major Construction Related State and Local Tax Revenue

(CY 2007, Millions of Dollars)

Growth Related Revenue	State Collection	Use of Funds	City and County Collection	Use of Funds
Construction Related Sales Tax	\$876	<i>Local Capital Facilities:</i> Sales taxes on water pollution control projects go to the Water Quality Account; diverted sales tax goes to rural counties (\$23.7M), LIFT (\$7.5M) and limited term annexation support (5). <i>Other:</i> 95 percent to State General Fund	\$270	<i>Local Capital Facilities:</i> Some local governments dedicate local general fund revenue to capital improvements. <i>Other:</i> Sales tax is mostly a local general fund revenue.
Construction Related B & O Taxes	\$94	<i>Local Capital Facilities:</i> None dedicated. <i>Other:</i> State General Fund Revenue	\$29M (7)	<i>Local Capital Facilities:</i> Not dedicated. <i>Other:</i> Local General Fund Revenue
Real Estate Excise Tax	\$1,159.7	<i>Local Capital Facilities:</i> 6.1 percent to PWB and 1.6 percent to County - City Assistance Account (\$76M) <i>Other:</i> 92 percent to General Fund	\$371	<i>Local Capital Facilities:</i> Restricted to use for capital facilities (4)
Property Tax on New Construction	\$45.5	<i>Local Capital Facilities:</i> None dedicated. <i>Other:</i> 100 percent for added operating costs, K - 12 education	\$87.7	<i>Local Capital Facilities:</i> Not dedicated. <i>Other:</i> General Fund Revenue, 100 percent for added operating costs of local services
Total	\$2,175	Approx. \$107 million for local capital facilities	\$758	\$371 million plus locally dedicated sales tax revenue
Percent of construction related revenue dedicated to local infrastructure	0.05%		49% plus	

Sources:

Property Tax New Construction: 2006 A Comparison of County Assessor Statistics, tax base \$19.7 Billion in new assessed value

Taxable Sales: Department of Revenue website 2007 Statewide Statistics, Construction NAICS codes, tax base \$13.5 Billion in taxable sales

Gross Income: Department of Revenue website 2007 Statewide Statistics, Construction NAICS codes, tax base \$20 Billion in gross income

Real Estate Excise Taxes: Department of Revenue Tax Receipts, 2007, Tax Statistics, Table 2.

Notes:

- 1) State average sales tax rate 6.5 percent of sales; local average rate 2 percent. Sales of materials for construction that is speculative is not included in construction sales.
- 2) State B&O Tax rate assumed at 0.471% of gross income
- 3) State Average Property Tax Rate assumed at \$2.31 per \$1,000 AV; Local rate assumed at \$4.45 for regular levy only.
- 4) A small portion may be used for operations of new parks facilities
- 5) Local Infrastructure Financing Tool (LIFT) has been authorized for up to \$7.5 million in

diverted taxes per year but not yet implemented. Hospital Benefit Zones are not included. Other state authority does not fund core local infrastructure.

6) Construction that is speculative is not subject to B&O tax.

7) Estimate assumes the same proportion of local B&O comes from construction as collected by the state.

Desired changes in existing funding tools – In the survey, local governments identified changes to existing funding sources that would be useful to assist them in funding their six - year capital facility plans (Appendix B, Q53). The following authorized revenues were most often suggested for change:

- GMA Impact Fees (17)
- Real Estate Excise Tax (REET) (15)
- Other (13, many commented on creating fees systems or additional shared revenue for operation and maintenance of capital facility systems, especially transportation)
- Transportation Benefit Districts (11)
- User fees and rates (11)
- Diverted State Sales Tax in Annexation Areas (8)

There were a large number of comments requesting statute changes that would allow *more flexible, simpler or streamlined* approval, administration and “use of funds”. The most comments of this type were received about REET, GMA Impact Fees and Transportation Benefit Districts.

Authorizing existing revenue sources to be used more broadly for transportation improvements was also suggested by a number of jurisdictions. Some of the revenues included were rural county diverted state sales tax, REET, Property Tax Levy Lifts for greater than six years and County Road Levy (extension to cities or a share retained by counties after annexation).

There were a number of suggestions for increasing funding available for capital facilities in unincorporated urban growth areas including:

- Authorizing counties to adopt and collect GMA impact fees for cities that will eventually annex the unincorporated area.
- Authorizing utility service providers to charge system development or hookup fees for cities/purveyors that will eventually annex the unincorporated area.
- Diverting state sales taxes for capital improvements *prior* to annexation as an incentive for the annexing jurisdiction and community to annex.
- Expansion of developer agreement off-site improvement authority to allow the inclusion of off-site improvements that are not adjacent to a development and delayed benefit assessment of benefited property owners.

Local governments also identified parts of the capital project planning and execution process that could be modified to decrease costs or time to completion. (Appendix B, Q39) The highest rated were:

- Environmental compliance (SEPA, critical areas, shoreline, wetlands, etc) (45 percent)
- Acquiring funding (44 percent)

- Permitting (34 percent)

Jurisdictions were asked specifically which actions would decrease the time or cost of multiple funding source projects, those that used a combination of local, state and/or federal funding (Appendix B Q42). The highest rated were:

- Streamlined government permitting and/or environmental compliance (53 percent)
- Streamlining funding agency administrative requirements after funding award to reduce local effort (29 percent)
- Streamlining of funding agency application requirements to reduce local effort (25 percent)

Jurisdictions were also asked which resources needed to complete projects were in short or critical supply (Appendix B Q41). The top rated were:

- Adequate local match for state or federal programs (72 percent)
- City staff with necessary capital project expertise (53 percent, more cities than counties)
- Permit or environmental regulation expertise (32 percent)

How can the public infrastructure needs of growing communities be more effectively financed?

The traditional approach is to identify new funding authority or methods to apply to local infrastructure to help fund the gap in financing needed to meet statewide infrastructure requirements for planned growth and economic development. As the gap grows, and the number of projects increases that are tied to adding capacity to accommodate economic development, the pressure on the system increases. Tax limitations and voter reluctance to approve large capital financing packages adds to that pressure. For the purposes of this study, we looked at the question of financing from several perspectives –

- What can be done to be more effective or efficient in financing and completing projects to be as cost effective as possible in the use of existing capital facility resources?
- What can be done to reduce demand for additional infrastructure capacity or to forestall increasing gaps in local infrastructure financing?
- What can be done to more effectively use local operating revenue in order to potentially create additional resources or, at minimum, reduce competition for capital project financing?
- What existing revenue authority and state aid can be modified in order to increase its availability for capital project financing?
- And last, where are there opportunities for additional funding for growth related capital projects?

What's working – From a review of contemporary studies (Appendix A), capital facility system profiles (Appendix D), information gathered in the sample of capital facility plans (Appendix C), and a survey of growing communities (Appendix B), a number of positive results related to the financing of capital facilities can be identified.

- Over the last planning cycle (six to ten years), local governments have dedicated more than 74 percent of the resources required to fund the \$9.1 billion in capital facilities that were completed or are substantially underway. These funds have come from local sources through existing state revenue authority.
- Most growing communities use the full range of non-voter approved capital funding mechanisms available to them and many also use or have attempted to use voter approved authority in recent years (See Appendix D, Capital Facility System Profiles, local funding sections).
- The State of Washington has partnered with local governments to successfully fund capital facilities to support economic growth, including authorizing an array of local capital financing tools, provision of grants from state collected revenue, pass-through of federal funding, creation of pools of funds used for capital project loans to reduce borrowing costs and participation in authorizing, and planning and development of financing plans for large - scale state and local facility requirements, especially in the transit and transportation arena (See Appendix D for examples under each infrastructure system).

Growing communities, on their own initiative or with state guidance, have developed a number of strategies and programs to balance the capital facility needs of growth and available resources. These strategies include:

- Markedly increasing the density of development and focusing development in urban areas in, and transitioning to, cities.
- Using policy and modeling tools to guide efficient development patterns that reduce long term public operating and capital facility costs, especially in areas where significant legacy subdivision is absent.
- Instituting and sustaining demand management programs for transportation and utilities.
- Using policy tools to influence the timing of development to better align with the expansion of public facility capacity.
- Supporting transit and regionalization of high cost utility system improvements to spread costs on a large scale and reduce redundancy.
- Using inter-local agreements to form alliances that address a variety of issues, from shared service delivery and maintenance to uniform approaches to addressing difficult environmental and resource issues.

State and local governments over nine years (1998 to 2006) have successfully invested \$9.1 billion in local roadways; water, sewer and drainage systems.

Recommendations for improvement --

1. Increase the effective use of existing capital facility resources by:

- Streamlining public capital project government permitting and/or environmental compliance, especially for roadway construction.
 - Streamlining state funding agency application requirements to reduce local effort and cost.
 - Streamlining state funding agency administrative requirements after aid awards to reduce local effort and cost.
 - Exploring methods of increasing the availability of city and county staff with the necessary expertise to execute capital projects.
 - Exploring additional alternative strategies for management of the state’s local infrastructure loan portfolio including:
 - package interest bearing loans for sale in secondary financial markets in order to make revolving loan funds available more quickly for re-loan;
 - provide alternative state pooled bond and/or bond guarantee financing to a proportion of existing loan participants;
 - evaluate the investment in bond interest buy - down programs piloted by the 2008 Legislature compared to the options above;
 - Providing loan or pooled bond financing to jurisdictions for park land acquisition and/or public safety facilities where existing streams of local financing exist;
 - Exploring the feasibility of expanding the Local Infrastructure Financing Tool program (LIFT).
 - Expanding the authority of local governments (counties and special districts) to collect development-related revenue in unincorporated urban growth areas on behalf of future annexing jurisdictions.
 - Considering an increase in the proportion of state aid that addresses the local capital facility requirements of growing communities.
2. Reduce demand for additional infrastructure capacity or forestall increasing gaps in financing by:
- Focusing regionally on capacity issues by requiring implementation of integrated financing plans (including policy alternatives, operating efficiencies and demand management strategies) to address regional capacity and related capital facilities. (See page 32 for more detail).
 - Exploring the concept of adopting more aggressive demand management strategies that build off other successful models. Examples may include: Growth and Transportation Efficiency Centers (ESSB 6566, 2006); water re-use projects; exploring roadway trip reduction through focus on trip chaining or school - related trips; or employer-focused “cap and trade” commute trip reduction programs in the area of transportation.
3. Identify and institute measures to reduce overall operating costs and/or reduce competition for funds that could be used for capital costs. More effectively using local operating revenue would reduce the large proportion of funding available for each capital facility system in the state that is used for operations and maintenance. It is likely that the greatest efficiencies may be gained in reducing overlap and/or redundancy in existing operating systems that maintain and operate roadways or parks that overlap geographic areas. (See Ferry County Management and Organization Review, 2005, page 75-76).

4. Modify existing revenue authority in order to increase its availability for capital project financing.
 - The survey identified a number of existing local revenues where jurisdictions (especially smaller jurisdictions) felt changes in existing statutes would increase the overall usability and availability of funds to finance capital facility plans. While others could also be explored, simplification of statutes that would result in reduced administrative time or costs and increase flexibility in the use of funds were requested for:
 - GMA Impact Fees
 - Real estate excise taxes
 - Authorized fees systems or additional shared revenue for operation and capital investment in capital facility systems, especially transportation
 - Transportation Benefit Districts
 - Explore methods of increasing access to underutilized existing local revenue sources that are voter approved by reducing the voter approval threshold or eliminating it provided other conditions are met by a local government or regional financing plan.
5. Explore opportunities for additional funding for targeted growth - related capital facilities:
 - Better align financing of infrastructure with tax revenue by increasing the proportion of growth - related revenue that is used to address public infrastructure needs generated by growth and development.
 - Ease development of capital facility financing plans, (see recommendations in previous section, page 27) especially in the area of transportation, and revise revenue authority where necessary to encourage successful timely outcomes, including reducing or eliminating the voter approval threshold provided other conditions are met by a local government or regional financing plan.
 - Consider improving funding authority for park operations to remove an identified barrier to local investment in park capital facilities. For example, explore authorizing a general benefit fee system for park operating funding that would meet state constitutional requirements.
 - Unlike other capital facility systems, roadway systems do not have existing revenue authority (especially for cities) that can be used to pay back loans or bonds for capital facility construction. Consider authorizing a significant revenue stream or package of revenue that can meet this need.

PART 2. RESOURCE LANDS AND CRITICAL AREAS

The focus of this part of the study is the interaction between accommodating projected growth and development, and conserving and protecting natural resource lands and critical areas under the Growth Management Act (GMA).

The key GMA goals relevant to this part of the study are those addressing natural resource industries and environmental protection, especially of critical areas.

Natural Resource Industries

The GMA directs cities and counties to “Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forest lands and productive agricultural lands, and discourage incompatible uses”. (RCW 36.70A.020)

Counties and cities are required to designate natural resource lands of long-term commercial significance. Cities and counties fully planning under the GMA must also adopt regulations to conserve natural resource lands of long-term commercial significance (agricultural, timber and mineral). (RCW 36.70A.060, 36.70A.170) Resource lands are protected to support the health of the industries that depend on these lands for their continued operation.

Agricultural land is defined as “... land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed...finfish in upland hatcheries, or livestock, and that has long term commercial significance for agricultural production.” [RCW 36.70A.030(2)] Agricultural lands of long-term commercial significance are determined by evaluation of the land using at least ten factors, in addition to soils characteristics. [RCW 36.70A.030(10); WAC 365-190-050(1)]

Forest land is defined as “... land primarily devoted to growing trees for long-term commercial timber production on land that can be economically and practically managed for such production...and that has long-term commercial significance.” The definition also contains four factors that shall be considered to determine “...whether forest land is primarily devoted to growing trees for long-term commercial timber production on land that can be economically and practically managed for such production.” [RCW 36.70A.030(8)] Long-term commercial significance is also evaluated by reference to seven factors in WAC 365-1950-060 and the forest land grades in WAC 458-40-530 that must be considered when determining which lands should be designated and conserved.

Mineral resource lands of long-term commercial significance must also be identified and classified, though they are not directly a part of this study. The goal is to maintain future access and availability by designating known mineral resources, even where the mineral resources are not presently being exploited. (WAC 365-190-070)

The GMA generally requires that all appropriate natural resource lands in all counties be designated as natural resource lands of long-term commercial significance [RCW

36.70A.170(1)]. The exception is agricultural and forestlands located within urban growth areas (UGAs), which may not be so designated unless the city or county has enacted a program authorizing transfer or purchase of development rights. [RCW 36.70A.060(4)] the GMA recognizes that natural resource industries may also occur outside of designated resource lands, in area designated for rural development.

There are two additional provisions of the GMA related to conserving natural resource lands:

- Incompatible uses on lands adjacent to natural resource lands where the adjacent uses interfere with or prevent the use of the lands for agriculture, forestry or mineral extraction are also prohibited. [RCW 36.70A.060(1)(a)]
- The Rural Element of the GMA comprehensive plan "...shall include measures that apply to rural development and protect the rural character of the area, as established by the county, by: ... (v) Protecting against conflicts with the use of agricultural, forest, and mineral resource lands designated under [RCW 36.70A.070(5)(c)]

Critical Areas

The GMA contains three planning goals that relate directly to critical areas:

- Retain open space and conserve fish and wildlife habitat
- Protect the environment, including the availability and quality of water
- Goals and policies of the shoreline management act (RCW 36.70A.020; 36.70A.480)

Critical areas, specifically identified as wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and wildlife habitat conservation areas, must be designated and protected. (RCW 36.70A.030; 36.70A.060) In so doing, each local jurisdiction is to use the minimum guidelines developed by the Department of Community, Trade and Economic Development (CTED). (RCW 36.70A.050; WAC 365-190-080) When designating and protecting critical areas, counties and cities must "include the best available science in developing policies, and development regulations to protect the functions and values of critical areas." (RCW 36.70A.172) Critical areas are found throughout the state – in, near or around rural and resource lands, as well as urban areas.¹¹

The GMA does not unconditionally exempt preexisting land uses from the protection requirement. In the designation and protection of critical areas, cities and counties must comply with three requirements:

- They must include "best available science" in the developing of policies and development regulations to protect the critical areas;

¹¹ There are extensive administrative code guidelines, WAC Chapter 365-190, and additional guidance in the *Critical Areas Assistance Handbook (CTED 2003, 2007)* to assist counties and cities in designating and protecting of critical areas in the state. Counties and the cities typically develop and adopt a critical areas ordinance (CAO) to protect that jurisdiction's designated critical areas.

- They must give “special consideration” to conservation or protection necessary to preserve or enhance anadromous fisheries;
- They must adopt development regulations that protect the “functions and values” of critical areas. [RCW 36.70A.172(1)]

There are many areas in Washington where designated critical areas overlay designated agricultural lands of long-term commercial significance. The question of how counties or cities should address these situations was addressed before the Washington Supreme Court in *Swinomish Indian Tribal Community, et al. v. Western Washington Growth Management Hearings Board, et al.* (Case No.1-76339-9). The Court recognized that local governments may find it difficult to balance the competing obligations imposed by the GMA including, as here, the tension between maintaining agricultural land and protecting critical areas. The court upheld the Western Washington Growth Management Hearings Board decision, stating the question was “what will work to protect fish habitat in the same environment where ongoing agriculture is well-functioning and being conserved.”

The Court held that the duty to “protect” critical areas does not mandate that degraded critical areas be enhanced. The GMA allows enhancement, but does not require it. It noted that the term “enhance” or “enhancement” is used in three places in the GMA as options for local governments, not requirements. On that basis the Court concluded:

[T]he legislature has not imposed a duty on local governments to enhance critical areas, although it does permit it. Without firm instruction from the legislature to require enhancement of critical areas, we will not impose such a duty. Therefore, to the extent that the Tribe argues that the GMA places a higher burden upon the county than the duty to prevent new harm to critical areas, we disagree. The “no harm” standard, in short, protects critical areas by maintaining existing conditions.

The Court also affirmed the use of monitoring and adaptive management as valid tools for protecting critical areas. The Court explained that “local governments must either be certain that their critical areas regulations will prevent harm or be prepared to recognize and respond effectively to any unforeseen harm that arises.” Relying on WAC 365-195-920, the Court agreed that an effective adaptive management program “relies on scientific methods to evaluate how well regulatory and nonregulatory actions achieve their objectives.”

The Challenge Confronting Local Governments to Implement This Part of the GMA

Market forces for land acquisition and development to meet the needs of a growing population create challenges for local governments in their attempt to accommodate growth while protecting resource lands and critical areas.

Population growth often involves conversion of non-residential, non-commercial lands, at least some of which had been agricultural or forest resource lands on the urban fringe. That land conversion and subsequent development involves important financial issues for local and state government, like the increased cost of providing infrastructure and community services. Valuable ecological services, such as flood abatement or groundwater recharge formerly provided by the converted lands are potentially lost, further adding to the costs of land conversion.

Large-parcel conversion, as well as the cumulative effects of numerous smaller parcel conversions, can result in the fragmentation of resource lands and critical lands that also function as habitat for fish and wildlife.

Local governments work to balance all of the GMA goals, to maintain quality of life for the community. Many counties and cities use a combination of regulatory and incentive-based approaches to conserve resource lands and protect critical areas, while accommodating projected growth. However, many local governments are challenged to find sufficient local resources to plan and process land use policies and implement development regulations and incentive programs in a thorough and meaningful way that includes monitoring and evaluation of the programs effectiveness.

Evaluation of Tools Available to Local Government

Each of the three main topics for this part of this study – Agricultural Resource Lands, Forest Resource Lands and Critical Areas – is important for their economic and environmental significance, as well as benefits and potential risks to public health and safety.

In order to help local governments achieve GMA goals regarding the conservation of agricultural and forest resource lands and the protection of critical areas, the Legislature has approved a series of programs in recent years to address such issues as land conversion and tools for conservation. State agencies have also begun several efforts to assist local governments.

Here's is a summary of recent legislation and other state efforts to conserve resource lands and support natural resource industries while protecting critical areas.

Agricultural Lands

Agricultural conservation easements program – Chapter 89.08 RCW (SHB 2758, 2002)
It was the intent of this legislation to create a state system for purchase of agricultural conservation easements, to enhance the use of federal funds, and to help local governments begin similar programs to "...fight the conversion of agricultural lands they have not otherwise

protected through their planning processes.” Part of the law was that “(E) assessments purchased with money from the agricultural conservation easements account run with the land.” The State Conservation Commission was charged with management of the new conservation easements program.

Farmland Preservation – Chapters 89.08 and 90.84 RCW (SSB 5108, 2007)

SSB 5108 established the Office of Farmland Preservation (OFP) and the Farmland Preservation Task Force. The OFP is located within the State Conservation Commission to implement the Agricultural Conservation Easements Program and develop recommendations for that program’s funding. Other tasks are related directly to the retention and viability of agricultural lands – developing a model program and tools, a grant process for local programs, aligning the farm transition program with the Farmland Preservation Act and also serving as a clearinghouse for the conservation program. In May 2008, the OFP announced grants to these counties: Clallam, Clark, Jefferson, Kittitas, Klickitat, San Juan, Thurston and Whatcom.

Washington Wildlife and Recreation Program for Farmland Preservation – Chapter 79A.15.130 RCW (ESSB 5396, 2005)

In April 2005, the Washington State Legislature established a statewide farmland preservation program to provide grants to preserve economically viable farmlands in Washington State and enhance ecological functions on those lands. The grants may be used to:

- Preserve viable farmland.
- Enhance the ability of the preserved farmland to provide agricultural production.
- Improve or restore the ecological functions of the preserved farmland, including providing benefits to fish and wildlife.

Counties and cities may use the grants to acquire farmland development rights by purchasing agricultural conservation easements. Counties or cities also may buy farmland outright "fee simple," place an agricultural easement on the property dedicating the land to agricultural use, and then resell the property to someone who will maintain the property as a working farm.

A portion of a grant also may be used for improvements that enhance the agricultural production of the preserved farmland and help restore or enhance ecological functions.

Preserving the viability of agricultural lands – Chapter 36.70A RCW (SSB 5248, 2007)

SSB 5248 acknowledges the difficulty of “...efforts to achieve a balance between the productive use of these (agricultural) resource lands and associated regulatory requirements...The legislature believes that this willingness to find and pursue common ground will enable Washingtonians to enjoy the benefits of a successful agricultural economy and a healthy environment, while also preventing the unnecessary conversion of valuable agricultural lands.” (SSB 5248, Sec. 1(1))

SSB 5248 amended the GMA, creating several sections of law that became effective in May 2007 but will expire December 1, 2011. The law directs the William D. Ruckelshaus Center (Center) to convene willing stakeholders and examine conflicts between agricultural activities and GMA critical area ordinances (CAOs). While the Center is working with the stakeholders to develop recommendations, the law created a temporary hold on counties and cities amending or

adopting CAOs as they apply to agricultural activities. CAOs adopted prior to May 1, 2007 are not affected by this law, nor are CAOs affected as they relate to critical areas not associated with agricultural activities.

The Center's role is to provide the necessary support for participants in the stakeholder process to make recommendations, including research resources, contacts and conflict resolution expertise.

The first three of the five steps leading to and including committee recommendations was the focus of the first six months of the committee's work:

- Form a representative stakeholder group;
- Prepare operating principles and ground;
- Initiate fact-finding of regulatory, management and scientific information, and conduct discussions with affected stakeholders to identify issues, desired outcomes, and opportunities and barriers.

The purpose of these steps is to form a basis of common understanding among stakeholders in order to narrow disagreement on the facts. The remaining steps are to prepare a package of findings and recommendations for preserving agricultural viability and protecting critical areas and to build support for recommendations among individuals, organizations and governments affected by the process. The committee will address several new tasks in 2008, including the review of strategies that have been successfully implemented within and outside of Washington State, examining promising areas of new policy and formulating a set of recommendations to address the challenge of balancing the maintenance of agricultural land while protecting critical areas and conduct some field visits.

The Center's November 2007, report to the Legislature describes the important early research for the committee, preparing a county-by-county review of critical areas ordinances (CAOs) and conservation reserve programs across the state. Available CAO spatial information is being incorporated into a single Geographic Information System (GIS) database and additional databases are being constructed for three areas of currently adopted CAOs:

- How each county defines agricultural activities and critical areas;
- What regulatory framework each county employs to protect critical areas associated with agricultural activities; and
- If exemptions from CAO requirements are in effect.

Committee discussions in 2007 were primarily concerned with organizing the process to be effective and credible, provide direction to the Center's fact finding and then to begin reviewing initial fact finding areas. The next Center progress report to the Washington State Legislature is due Dec. 1, 2008.

In February 2008, the Center announced four agricultural pilot projects funded at a total of \$500,000. The projects were selected by an oversight committee and approved by the

Governor's office for demonstrating two goals: increased profitability for agriculture while providing environmental benefits.

The Washington State Conservation Commission administers the grants for the four pilot projects:

- To increase wider adoption of direct seeding in Spokane County in a side-by-side case study comparison with conventionally tilled soil.
- To create farmland habitat for shorebirds on farmland in Skagit County.
- To encourage wider adoption of environmentally friendly integrated pest management strategies with the Integrated Pest Management (IPM) project.
- To test the feasibility and repeatability of converting land coming out of the Conservation Reserve Program into a vertically integrated grass-fed beef production system. (CAHNRS and WSU Extension news release, February 11, 2008)

The Future of Farming Project (SHB 1128, Chapter 522, 2007)

The 2007 Legislature funded the Future of Farming project to develop a 20-year strategic plan, based on the last strategic plan in 1988, to guide decision makers in their work to support the continued viability of the state's food and agriculture industry. The goal of this project is to pass on a healthy and vital farm economy to the next generation of Washington agricultural producers. The project is administered by the Washington State Department of Agriculture (WSDA). A project steering committee representing a wide cross-section of the agricultural industry met to develop a framework to prioritize information collected throughout the project. Private and public sector economists, agronomists, educators and other specialists will provide detailed input as opportunities and challenges are identified.

WSDA is currently gathering information using an online survey and in focus groups with agricultural producers, food processors and other key industry stakeholders throughout the state. The issues that emerge from this process will be taken up by a policy and technical committee that will produce short issue papers on the major issues. The project's final report will be submitted to the Legislature in December 2008.

The plan will be used by the Governor, the Legislature and other decision makers to help guide future actions for Washington's agricultural industry. (Washington State Department of Agriculture (WSDA) news release, March 11, 2008 and interview with Lee Faulconer, WSDA, May 27, 2008.)

Forest Lands

Future of Washington's Forests (ESSB 6090, 2005) (SHB 1128, Chapter 522, 2007)

The 2005 Legislative budget allotted a total of \$1 million for operating budget to the Department of Natural Resources (DNR) for Phase 1 of a report on the future of Washington forests “to examine economic, recreational, and environmental trends influencing the forest products industry and secondary manufacturing sectors in Washington state.” (ESSB 6090)

The report was directed to include forest industry-related economic research and information to:

- Compare the competitive position of Washington's forest products and assess the trends and dynamics that commercial and residential development play in the conversion of the state's forests to nonforestry uses.
- Recommend policy changes that would enhance the competitive position of Washington's forest products industry in Washington state.
- Recommend policy changes that would, to the extent possible, ensure that a productive forest land base continues to be managed for forest products, recreation, and environmental and other public benefits into the future.
- Recommend policy changes that would enhance the recreational opportunities on working forest lands in the state.
- Analyze and recommend policies and programs to assist Cascade foothills area landowners and communities in developing and implementing innovative approaches to retaining traditional forestry while at the same time accommodating new uses that strengthen the economic and natural benefits from forest lands.

The 2007 Legislature passed SHB 1128, including operating budget funding of \$500,000 for a follow-up study to Phase 1 of the report *The Future of Washington Forests*, initiated by ESSB 6090. SHB 1128 provided additional funding for the University of Washington College of Forest Resources (CFR) to continue research in the forest land conversion issue and bio-fuel marketing. Washington State Department of Natural Resources (DNR) and the University of Washington are currently developing analytical tools using technical financial criteria to evaluate forest lands in order for those lands to remain in forest use. The CFR is working with Cascade Land Conservancy on a Transfer of Development Rights (TDR) pilot project, part of an examination of the entire spectrum of potential tools and techniques to address forest land conversion, including a range of financial possibilities that would allow forest owners to remain in forestry activity with their land. (Craig Partridge, DNR, phone interview March 12, 2008)

The Future of Washington Forests study (April 2007) examines the economic-financial, development-related, recreational and environmental trends influencing the sustainability of Washington timber resource lands, forest products industry and related manufacturing sectors primarily from the perspective of the timber operator and timberland owner. The DNR report contributes to a more factual basis for technical and policy discussions and decisions on the future of Washington's forests.

Pertinent to this study, the Future of Washington Forests report recommends a number of tools to assist local governments in conserving forest land, including TDR programs, purchase of

development rights (PDR) programs, purchase of conservation easements, biodiversity mitigation banks and the Small Forest Landowner Program.

Agricultural and Forest Lands

Transfer of Development Rights (TDR) Pilot Grants (ESSB 6386, Chapter 372, 2006)

The 2006 Legislature funded two pilot programs for county transfer of development rights programs to conserve agricultural lands. The pilot grants were administered by CTED, and funded projects in Snohomish and Pierce counties.

Snohomish County

Snohomish County was awarded a \$100,000 CTED grant in 2006-07 to develop a county-wide TDR program.¹² The project identified TDR opportunities based on economic and market conditions that affect rural and urban landowners to preserve farmland while supporting agricultural economy. The county also developed a draft model policy and regulatory strategy to guide and implement TDR opportunities.

On June 3, 2008, Snohomish County Council adopted policies for a county-wide TDR program. The TDR program is to "...establish a market driven TDR program...directed at conserving all commercially designated farmland in the county." (Snohomish County Ordinance No. 08-051)

Pierce County

Pierce County was awarded a \$100,000 CTED grant in 2006-07 to develop regulations to implement Comprehensive Plan policies related to development of a TDR program. The county adopted its Transfer and Purchase of Development Rights program in November 2007, finding "...the proposed amendments implement a transfer of development rights program providing tools for Pierce County to keep resource and rural lands, rural sensitive resource lands, forest lands, shorelines, recreational conservation lands, recreational trails and habitat areas intact by fairly compensating landowners for their lands' development potential." (Pierce County Ordinance No. 2007-91s)

The program became effective in April 2008, and can be made possible through an agreement between the County and an interested city or town, or through a County comprehensive plan amendment.

The county also has an adopted PDR program. It uses many of the same components as the TDR program and is authorized through the same chapter in county code, but extinguishes the development rights associated with the sending site rather than transferring them to a receiving site. A PDR transaction can occur through a private transaction. There is currently a Washington State Recreation and Conservation Office matching grant available to buy the development rights on two farms. The source of the county funding is its conservation futures program.

¹² Snohomish County also adopted an interlocal agreement with the City of Arlington in 2004 for a TDR program. The agreement allowed expansion of the UGA on condition that the area become a receiving area for TDRs from farmland surrounding the city. No transfers into the receiving area have occurred to date.

Regional transfer of development rights program – Chapter 43.362 RCW (2SHB 1636, 2007)

RCW 43.362.020 directs the Department of Community, Trade and Economic Development (CTED) to fund a process consistent with the GMA that involves King, Kitsap, Pierce and Snohomish counties and all 71 cities within them to assist in the "...development and implementation of regional frameworks and mechanisms that make transfer of development rights programs viable and successful." In doing so, CTED is to work with the Puget Sound Regional Council and an advisory committee to develop this market-based program. Findings and recommendations to implement the program are due to the Governor and Legislature by December 1, 2008.

It should be noted that all four counties and some of the cities have adopted TDR programs. King County adopted a pilot program in 1998, making it permanent in 2001. It is the most well established program, with over 92,000 acres of rural, agricultural and forest land preserved. King County currently has an inter-local agreement with the Cities of Issaquah and Seattle to receive development rights from the county. Issaquah, Redmond and Seattle all also have TDR programs internal to the city. The county is actively pursuing more interlocal agreements with the cities.

Kitsap County adopted a program in 2006 to conserve rural and forest land. The original program was found out of compliance by the Growth Management Hearings Board. The county amended the program and was found in compliance in March, 2008.

Pierce and Snohomish Counties have also adopted TDR programs.

Farm and forest land preservation and environmental restoration – (SSB 6805, 2008)

The Legislature passed SSB 6805 in 2008, the purpose of which is "...to evaluate the feasibility and potential effectiveness of conservation markets in Washington state that provide dual benefits of improving the viability of agriculture and providing environmental or fish and wildlife benefits."

SSB 6805 directs the Washington State Conservation Commission (Commission) to "...conduct a study to evaluate the feasibility and desirability of establishing farm-based or forest-based conservation markets in Washington." In doing so, the Commission or its consultant shall, in making its market evaluation:

- Collaborate with Washington farm and small forestry organizations, local governments and natural resource agencies.
- Work with the Washington State Department of Transportation and other public agencies to determine the demand for restoration products.
- Consult with Washington departments and local government permitting agencies to determine their willingness to use farm-produced restoration products.

- Coordinate with Department of Agriculture, the Ruckelshaus Center on its work with farmland preservation and critical areas protection, the Office of Farmland Preservation regarding efforts to retain farmland in agricultural production, the Western Biodiversity Project, the Department of Ecology regarding its “Mitigation that Works” project, and the Office of Regulatory Assistance with its integrated project review and mitigation to ensure consistency with these efforts.

If the study concludes that farm-based conservation markets are “...feasible and desirable...”, then two demonstration projects shall be conducted in Washington farm communities. The Commission is to present the study findings and recommendations to the governor and appropriate committees of the legislature by December 1, 2008. If the project proceeds to the demonstration project stage, then those findings and recommendations are to be presented to the governor and appropriate committees of the legislature by December 1, 2009.

Lewis County watershed planning and economic development project (SHB 1128, Chapter 329, 2008)

The 2008 Legislature passed a budget proviso providing \$225,000 for a demonstration project “...to identify lands and resources suitable for economic development within Lewis County and outside the floodplains of Chehalis and Cowlitz river watersheds.”

The project involves the Washington Department of Fish and Wildlife (WDFW) and Washington Department of Ecology (Ecology) developing a watershed characterization and conducting a local habitat assessment of the project area this work will assist Lewis County in developing a subarea plan consistent with the GMA that identifies, among other factors:

- Defined area(s) for future economic development.
- Designated agricultural, forestry, wildlife habitat, and other critical areas lands.
- Mechanisms for “...long-term conservation of important aquatic and terrestrial resources...”
- Defined mitigation and restoration areas.
- Identification of capital facility improvements to implement the plan and financing of the capital facilities A plan for monitoring and adaptive management.

Critical Areas

The GMA, at RCW 36.70A.030(5), lists five types of critical areas for designation and protection: fish and wildlife habitat conservation areas, wetlands, frequently flooded areas, critical aquifer recharge areas, and geologically hazardous areas. Of these five types of critical areas, recent state initiatives have focused on habitat conservation areas and wetlands, to which development has directly resulted in fragmentation, reduction or loss of function, or elimination.

Wetland Mitigation Banking – Chapter 90.84 RCW (ESSHB 2339, 1998; (SSB 6761, 2008)

Wetland mitigation banking is a natural resource management tool that can provide required compensation to resource managers and local governments for unavoidable impacts to wetlands in Washington State. A wetland mitigation bank site is where wetlands are preserved, enhanced, restored or created. A bank is established to generate credits gained by increases in wetland function. Those credits can be used or sold to compensate for wetland losses that are unavoidable due to such projects as bridge replacements or public road widening. (*Frequently Asked Questions About Wetland Mitigation Banking*, Washington State Department of Ecology Publication #07-06-013)

The 1998 Legislature directed the Department of Ecology (Ecology), with the passage of ESSHB 2339, to develop rules for a statewide wetland banking certification program. The draft rule, WAC 173-700, was published in January 2001 and identifies the necessary criteria to implement a wetland mitigation banking system in Washington State.

In 2007 and 2008 concerns regarding the size and service areas of wetland mitigation banks, as well as the location of several banks on designated agricultural resource lands, led to the introduction of several bills in the Legislature to limit their extent.

The 2008 Legislature amended RCW Chapter 90.84 in two ways:

- Restricting the maximum extent of a service area of a wetlands mitigation bank to the water resource inventory area (WRIA) as established under chapter 173-500 WAC unless including parts of other WRIs is “...ecologically defensible and appropriate.”
- An application for a banking instrument for a wetland bank may not be certified by the Ecology “...without local approval of the bank. The local jurisdiction in which the bank is located has final approval over the certification of the mitigation bank.”

“Mitigation That Works” Forum at Washington State Department of Ecology (2008)

In 2008, Ecology convened a forum of stakeholders with a goal to improve the effectiveness of environmental mitigation by achieving a 100 percent success rate for aquatic resources mitigation projects and attain improved predictability and efficiency for permit applications. Ecology cites the “...need for enhanced coordination, reduced overlap in the review process, and consistent review standards and permit conditions for proposed mitigation projects.” Further, the department notes “...Washington State needs a range of mitigation options to adequately protect a variety of resources that are impacted by development projects, ranging from wetlands, to fish, upland habitats and endangered species.”

Stakeholder Forum will convene on a regular basis until November 2008, to evaluate previous mitigation efforts and build on them to create a “...shared, coherent and effective approach to mitigation...” The Forum has considered new joint guidance with the Army Corps of Engineers and the U.S. Environmental Protection Agency and expressed interest in a multi-agency watershed characterization tool to help identify and prioritize areas within watersheds for preservation, restoration and development purposes. This tool can help determine where wetlands can be successfully restored on land suited for such restoration within the same

watershed requiring mitigation – land that may otherwise be lost to development. (Mitigation that Works, Stakeholder Forum Home, Department of Ecology Web site)(Issue Up Close: Sustaining our remaining wetlands for people, fish and wildlife, Ecology, November 2006)

Conclusion

Extensive recent legislation and other state programs address issues related to agricultural and forest resource land as well as critical areas.

More time is required to learn the results of these studies and pilot programs before they are ready for evaluation and review for effectiveness. Of particular interest will be the recommendations emerging from the stakeholder process directed by SSB 5248.

PART 3. HOW LOCAL GOVERNMENTS ARE PREPARED TO ADDRESS LAND USE CHANGES ASSOCIATED WITH CLIMATE CHANGE

The Growth Management Act (GMA) was passed in response to the negative effects of population growth and suburban sprawl in the 1980s, especially in the central Puget Sound area.

Some effects of population growth and suburban sprawl are being shown to contribute to the more pervasive aspects of air and water pollution. Serving low-density, sprawl development with the automobile has contributed to greenhouse gases (GHGs) emissions. GHG emissions are in turn are creating the atmospheric conditions that contribute to climate change.

The GMA provides a visioning and planning framework within which counties and cities can develop policies and implementation strategies to address the production of GHGs and other impacts of climate change in those jurisdictions. The GMA includes fourteen statewide planning goals. Of those 14 planning goals, the most directly related to climate change concern:

- Concentrated urban growth
- Sprawl reduction
- Efficient multimodal transportation
- Economic development
- Natural resource industries
- Environmental protection
- Public participation and interjurisdictional coordination
- Public facilities

A GMA-planning county or city has much latitude to use its GMA planning instruments to help address climate change issues within its boundaries.

Examples

County-wide planning policies (CWPPs)

The adoption of CWPPs by a county, working with its cities and towns, provides a policy framework for addressing regional issues in that county. The subsequent development and adoption of local GMA comprehensive plans and policies must be guided by and be consistent with the CWPPs.

Coordination of comprehensive plans where there are common borders or related regional issues is required of GMA counties

When addressing air quality issues such as GHG emissions that are not confined within a particular political boundary, it is imperative that adjacent counties coordinate to consistently address a regional issue with negative regional impact.

Optional elements of local governments' comprehensive plans

Beyond the elements required under the GMA,¹³ jurisdictions may adopt additional elements to address emerging issues. To that end, those jurisdictions may adopt an additional element to address climate change.

State Environmental Policy Act (SEPA)

In addition to the GMA, local governments may address potential impacts of climate change through their administration of SEPA. Under SEPA, actions by a governmental entity, such as granting a development permit, must be assessed for potential impacts to the natural and built environment. To perform this assessment, most local governments use a SEPA checklist.

The SEPA checklist consists of a series of questions that ask for information about a proposal, such as a subdivision, a commercial building or a public building. Part of the checklist requests information describing the proposed action's impact on "climate", but there is no guidance on whether or how to quantify, analyze and mitigate for GHG emissions.

To begin to provide such guidance, the Washington State Department of Ecology (Ecology) is engaged with a SEPA working group to help clarify the SEPA rules and prepare important guidance information to:

- Clarify how, where and when to incorporate climate change considerations into the environmental review of a proposal.
- Recommend changes to the SEPA rules and/or environmental checklists, threshold determination, and/or Environmental Impact Statements (EIS).
- Provide instruction or guidance to local and state governments on how to determine possible mitigation strategies, and whether the impacts of climate change may affect the project over its lifetime. (Ecology letter dated April 30, 2008)

Expected impacts of climate change in Washington (Ecology/CTED publication #08-01-003)

In Washington State, likely climate change impacts and indicators that may need to be addressed include:

- Likely increase in frequency and intensity of heat waves.
- Retreating glaciers and reduced snowpack in the mountains.
- Likely rise in sea level accompanied by coastal erosion.
- Change in volume and timing of precipitation with possible landslides and flooding.
- GHG emissions increase.
- Degraded air quality.
- Fish and wildlife habitat destruction; highly altered critical areas and ecosystems.
- Likely spread of infectious diseases with resulting devastation on plants.
 - A 2006 economic study, sponsored by CTED, warned that without focused efforts to reduce GHG emissions and to prepare for impacts, the negative economic effects are likely to increase.

¹³RCW 36.70A.070 requires the following elements in a GMA comprehensive plan: land use, housing, transportation, capital facilities, utilities, and rural (counties only). Economic development and park and recreation elements are required when sufficient state funds to cover local government costs are appropriated and distributed at least two years before the next comprehensive plan update is required in RCW 36.70A.130.

(Focus, Dept. of Ecology Publication No. 08-01-003)

Addressing Climate Change: Mitigation and Adaptation

Addressing the causes of climate change is referred to as mitigation. One of the principal means of mitigating climate change is reducing the production of GHG emissions.

Adaptation is the term used for adjusting in response to actual or expected climatic changes, to moderate harm or exploit beneficial opportunities. Several types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation.

To begin to address climate change impacts through mitigation or adaptation, local governments will need to examine current planning practices and use development and the provision of infrastructure and public services. The first part of this report notes the significant challenges to meet the costs of currently-envisioned infrastructure improvements, especially for transportation. This part of the study summarizes a survey assessment of how local governments are prepared to plan for and address land use changes that may be needed due to potential impacts of climate change. It also provides a brief summary of broader efforts toward identifying and implementing needed actions by local governments.

Survey Of All Counties And Cities Fully Planning Under The Growth Management Act

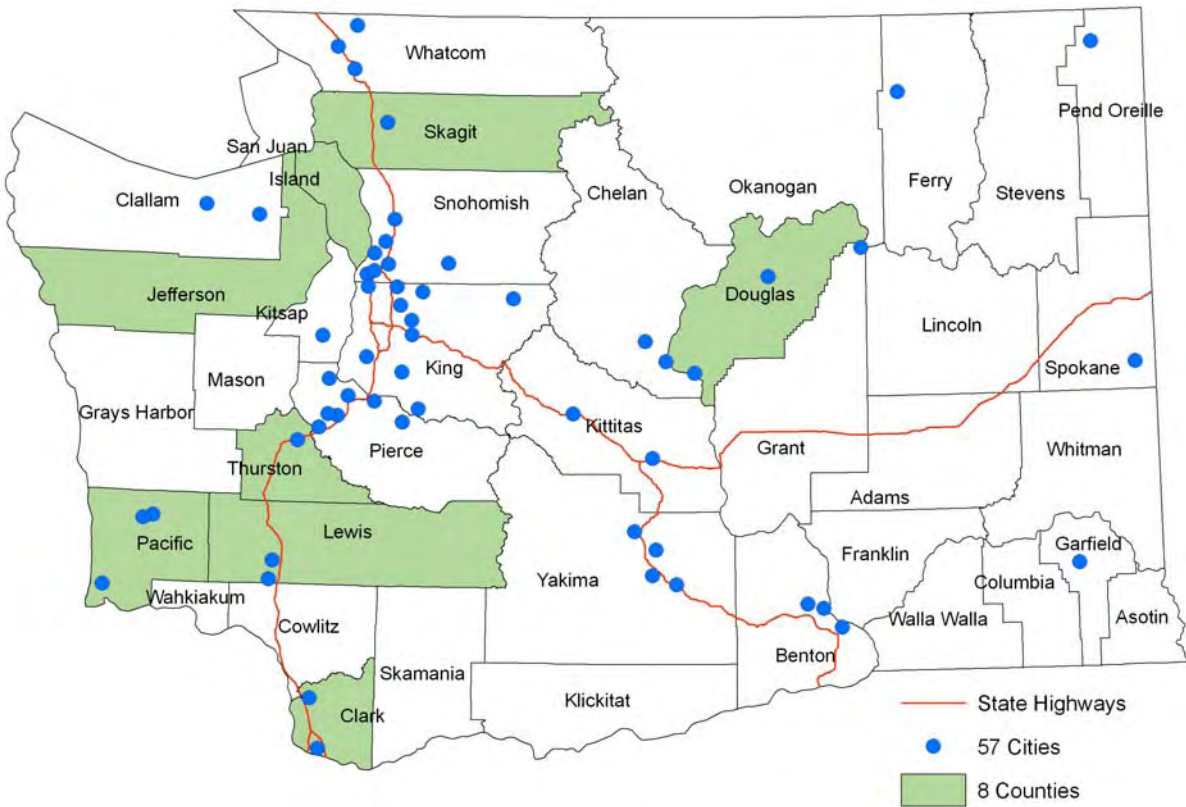
To learn the extent to which local GMA counties and cities are planning for climate change, CTED conducted an electronic survey of all cities and counties planning fully under the GMA – 29 counties, and 221 cities and towns. Table 10 shows survey respondents divided into four population groups. Location of all respondents is shown in Figure 5.

**Table 10 – GMA Effectiveness Study: Climate Change Survey
Respondents by Population Group**

(OFM population estimates – 6/27/2007)

COUNTY					Total number of jurisdictions
	Group 1 – Less than 10,000	Group 2 – 10 - 50,000	Group 3 – 50 - 100,000	Group 4 - More than 100,000	
Cities/Towns	152	53	11	5	221
Counties	3	7	8	11	29
Total number	155	60	19	16	250
% of total number GMA jurisdictions	61.8%	23.9%	7.6%	6.8%	100%
Total number of responses	71	31	9	15	126
% of total responses	56.3%	24.6%	7.1%	11.9%	99.9%

Figure 5. Climate Change Survey Respondents



Survey Results

A complete set of all survey responses is contained in Appendix E. A summary of responses follows, arranged by topic addressed in the survey.

References to groups correspond to the population group on Table 10.

County-wide Planning Policies (CWPPs), Comprehensive Plan

- The clear majority of each population group does not include climate change in their CWPPs.
- When asked if the jurisdiction integrated climate change policies or programs in its comprehensive plan, each group had “no policies or programs in comprehensive plan” in its top three choices. Groups 1, 2 and 4 also had “land use” and “transportation” in their top three choices, apparently referring to land use or transportation programs that are not part of their comprehensive plan.
- The majority of each population group reported their comprehensive plan policies or programs were not prioritized.

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Specific Actions Already Undertaken, or Planned Activities Actions, to Address Climate Change

- When asked about partnering with other local governments, non-profit organizations or private sector entities, some jurisdictions from three of the population groups cited ICLEI (Local Governments for Sustainability) membership. Group 4 added regional and city-county cooperation.
- Whether specific actions had already been undertaken, some jurisdictions from all groups confirmed implementation of a conservation and/or carbon emission reduction program, and three groups cited adoption of a council or commission resolution and/or issuance of an executive order or directive.
- Jurisdictions that mentioned other ongoing or planned activities or actions taken most often-mentioned sustainability planning, GHG reduction, green building standards and transportation.
- Of those identifying a local climate change action plan, jurisdictions in Groups 1 and 2 responded “more than two years” and groups 3 and 4 “within one year” on the completion time of their local action plan for climate change.
- Characterizing local efforts to address climate change, each group’s most frequent choice was: 1) “not any actions at this time; 2) “minimal”; 3) “none”; and 4) “moderate”.

Money Spent or Budgeted For Climate Change Planning

- When asked about money already spent on climate change planning (open-ended), whether there is climate change funding in the current budget and the extent of such funding over the next two years (open-ended): . the majority of Group 1 replied no, minimal or unknown funding; Group 2 replies ranged from zero to \$280,000; Group 3 replies ranged from zero to \$80,000; Group 4 replies ranged from zero to \$300,000 and was the only group with a majority of responses affirming funding in the current budget.

Potential Climate Change Effects and Challenges to Address Climate Change

- The most frequent choices in each group regarding which climate change effects may be an issue in the future were “storm events/flooding” “stormwater” and “economic impact”.
- The majority in each group identified “funding”, then “lack of available data” as obstacles faced in addressing climate change. Additional issues identified included complexity and lack of common understanding of the issues.
- Generally Groups 1 and 2 checked “minimal” while Groups 3 and 4 checked “moderate” when responding to the level of awareness of climate change in their jurisdiction.

Tools and Guidance to Help Community Prepare for Climate Change

- Each group checked “funding to develop local action plans”, “education to increase understanding of climate change at the local level”, and “incentives for builders to construct green buildings” as the kinds of tools that would help their community prepare for climate change. Additional responses included the need for state leadership and compact urban development.
- Each group identified land use transportation and infrastructure guidance would be most useful to develop climate change planning. Their other responses included economic development and GHGs addressed in the SEPA checklist.

General Comments Related to Preparedness for Climate Change

- Smaller communities tended to cite lack of growth and lack of funding as more pressing issues than climate change.
- Several comments included city-county cooperation and the need for more leadership and support at the state and federal level to give local government direction.
- One jurisdiction cited ICLEI and Cascade Agenda participation, and adoption of the Kyoto Protocol.

General Conclusions and Trends

Based on survey results, some general conclusions and trends can be identified:

- There appears to be some awareness and some effort to address climate change, activity that generally appears to increase in the number of tools used and money allocated as the size of the jurisdictions increases.
- There is strong concern about the ability to adapt to storm events/flooding, stormwater, water supply and economic impacts of climate change.
- The most common mitigation efforts by local jurisdictions include:
 - Converting fleets to alternative fuels
 - Implement energy conservation measures
 - Green building codes/LEED
 - Adopted GHG emissions reduction goals
 - Renewable energy programs
 - Need for more funding to retrofit infrastructure for energy efficiency
 - Some jurisdictions want guidance on sustainability
 - Market-based approach to reduce carbon footprint of jurisdiction
 - Need to address the issue of vehicle miles traveled (and this was before \$4/gallon gasoline)

Related to Land Use Planning Changes to Address Climate Change:

- County-wide planning policies are not being used.
- Half or more of each population group are amending comprehensive plans.
- Despite frequent mention of transportation issues, efforts were not specifically referenced to change transportation improvement plans (TIPs) or capital facilities plans.

- There have been few efforts to address climate change through development regulations such as zoning or critical area ordinances.
- Green building codes are being introduced.

Other Approaches Include:

- Membership in ICLEI, other organizations to gain technical assistance.
- Council or commission resolution.

Only the Larger Jurisdictions are Spending Much Money on Climate Change.

There Is Some Indication of Joint Efforts to Plan Regionally Among Counties and Their Cities.

Lack of Resources Is a Major Challenge to Many Jurisdictions, Including:

- Funding to develop local action plans, especially smaller jurisdictions (under 50,000 population)
- Funding to retrofit infrastructure for energy efficiency
- Funding for infrastructure to serve high-density mixed use development
- Staff

Guidance, Training, and Education are Needed Throughout the Entire State:

- Level of awareness is minimal in the two population groups under 50,000 and only moderate in those two population groups over 50,000 population.
- All four population groups stated the most useful guidance would be in land use, transportation and infrastructure, economic development, GHGs.
- Local governments appear to want stronger, definitive and well-thought-out guidance on climate change from the state and national levels.
- Need for state leadership and strategies for rural governments.
- Training to inventory GHGs.

Incentives May Be Useful from the State for Helping Local Governments to:

- Establish green building practices.
- Eliminate barriers to compact urban development.
- Reduce vehicle miles traveled.
- Plan regionally – within and among counties.
- Encourage alternative energy sources.
- Combine clean air programs with better development practices.

Local governments are concerned with climate change but most do not yet have the level of local awareness, monetary resources, information or state guidance to address climate change. However, the brief review of legislation and broader climate change efforts below begins to supply some state resources to support local governments in their climate change efforts.

Summary of Broader Climate Change Efforts

The following is a summary of other efforts and on-going studies on climate change that may provide guidance or assistance to local governments. Some sources of data and research are periodically available for examination while other sources may not be available until the end of a study or research project. Details on some of these efforts may be found in the Appendix F.

International Efforts

ICLEI (Local Governments for Sustainability).

ICLEI began in 1990 as the International Council for Local Environmental Initiatives. ICLEI is now an international association of local governments and national and regional local government organizations committed to sustainable development. A number of Washington cities are members. ICLEI provides technical consulting, training and information services to build capacity, share knowledge and support local government in the implementation of sustainable development at the local level. The basic idea is that locally-designed initiatives can best achieve local, national and global sustainability objectives.

U.S. Regional Efforts

Western Climate Initiative (WCI)

Originally signed on February 26, 2007, the WCI response to climate change is a collaboration among western states, Canadian provinces and Mexican states to reduce GHGs. The original signatories were the governors of Washington, Oregon, California, Arizona and New Mexico. The provinces of British Columbia and Manitoba and the states of Utah and Montana have since joined as formal partners. Kansas, Wyoming, Nevada, Colorado, Alaska, Idaho, the provinces of Quebec, Saskatchewan and Ontario, and the Mexican states of Sonora, Tamaulipas, Baja and Chihuahua are observers.

The WCI operates on a consensus decision-making process and works through subcommittees, in which partners and observers take part. Each partner participates in monthly staff-level work sessions. The Center for Climate Strategies provides technical analysis for the WCI. Overall project management is provided under contract by the Western Governors Association.

Two tasks have been accomplished: a **regional reduction goal** has been established for GHGs, and all partners and observers have joined The Climate Registry, the only multi-state registry in the United States. The regional reduction goal has been set at a 15 percent reduction from 2005 levels by 2020. The climate registry is in the process of developing **standard protocols** for consistent, accurate and verifiable reporting of GHGs to assure that a ton of carbon is counted in the same way, wherever it is emitted or reduced. A third task, to develop a design for a regional multi-sector, market-based mechanism (also known as a “cap and trade” system) to help achieve the emission reductions, is to be completed by August 26, 2008.¹⁴

¹⁴Note: Another process WCI is researching, that stores carbon naturally is called **sequestration**. This happens when carbon dioxide from the atmosphere is absorbed by trees, plants and crops through photosynthesis and stored

Five subcommittees of the WCI are analyzing the technical aspects of creating a cap and trade program to make recommendations to the partners on these subjects. Cap and trade is a market-based system in which a central authority sets a limit, or **cap**, on the amount of a particular pollutant that may be emitted. Companies or other groups are issued emission permits and are required to hold an equivalent number of allowances, or credits, which represent the right to emit a specific amount of pollutant. The total amount of allowances and credits cannot exceed the cap that has been set. Companies that need to increase their allowed emissions must purchase credits from those companies that pollute less than their allowed amount of emissions.

The transfer of allowances is referred to as a **trade**. The mechanism has the buyer paying a charge for emitting more pollution while the seller is rewarded for reducing its allowed amount of pollution. A key advantage of a cap-and-trade system compared with other emission reduction strategies is that it gives companies flexibility in the manner in which they may achieve their emission targets. Another advantage is that it sets a clear and defined limit on emissions.

One cap and trade issue being address by the WCI is offsets. Offset is an alternative compliance mechanism in which emissions reductions are made in areas not explicitly covered by the specific cap-and-trade program, but are allowed into that program subject to certain rules and guidelines. An alternative offset compliance mechanism is one in which GHG emissions reductions are made in areas not explicitly covered by the cap and trade program but are allowed into the existing program subject to certain rules and guidelines.

State of Washington Efforts

Executive Order 07-02, the Washington Climate Change Challenge.

This order was issued by Governor Chris Gregoire on February 7, 2007, setting goals for the reduction of GHGs to 1990 levels by 2020, increasing clean-energy jobs and reducing spending on imported fuels. The Governor tasked the Departments of Ecology and CTED to consult with a wide range of stakeholders to develop recommendations for a full range of policies and strategies to enable the state to meet its climate change goals.

The stakeholders, consisting of 27 leaders from business, tribal, environmental and faith communities, and local, regional and state government, formed the group formerly known as the Climate Advisory Team (CAT) in March 2007. Five Technical Working Groups (TWGs), supported the work of the CAT by providing options and strategies fitting the state's economy, environment and institutions:

- Agriculture
- Energy Supply
- Residential
- Commercial and Industrial
- Forestry; and Transportation

as carbon in biomass, such as tree trunks, branches, foliage and roots, and soils. The induced process being researched is referred to as **carbon capture and storage**.

CAT Interim Report.

Leading the Way on Climate Change: The Challenge of Our Time (February 2008).

The interim report contains 12 recommendations and 31 strategies to reduce GHGs, and increase the number of clean-energy jobs and supplies of in-state fuels. The Center for Climate Strategies conducted an analysis of the interim report's recommendations, estimating a net benefit to the state economy of \$1 billion by the year 2020. The interim report also contains:

- Recommendations prepared by the Preparation and Adaptation Working Groups to help the state prepare for climate change impacts to human health, agriculture, forestry, coasts and infrastructure, and water quality and storage, and
- The Preparation and Adaptation Working Groups identified and selected a set of limited, but fundamental, strategies to help the state prepare for and deal with the effects of a changing climate, notably that adaptation and mitigation are necessary complementary strategies for responding to the climate change challenge.
- Updates on local, state and regional efforts to address the effects of climate change.

The Climate Advisory Team, renamed the Climate Action Team, will continue working to provide "...refined recommendations and plans for action before the 2009 legislative session." (Interim Report letter to the Governor) The CAT was reauthorized in ESSHB 2815 (2008).

Chapter 47.01 RCW – Creating a Framework for Reducing Greenhouse Gas Emissions in the Washington Economy (E2SHB 2815, 2008)

This legislation requires the state to limit GHG emissions to specific levels and requires the Washington State Department of Transportation (WSDOT) to develop and implement a system to monitor and report GHG emissions, and adopt statewide goals to reduce annual per capita vehicle miles traveled (VMTs) by 2050, consistent with the goals stated in Executive Order 07-02. Ecology and WSDOT will include in their report to the Legislature strategies to reduce the quantity of emissions of GHG per distance traveled in the transportation sector, and provide recommendations on how local governments could be included in the multisector market-based system to limit and reduce GHG emissions.

WSDOT, Ecology and CTED must make recommendations to the legislature that include a set of tools and best practices to assist state, regional and local entities in making progress toward achieving the statewide VMT reduction benchmarks. The recommendations must identify potential new revenue options for local and regional governments to finance VMT reduction efforts, and include tools that measure progress toward the benchmarks and adequately distinguish between common travel purposes. WSDOT must also examine the access of public transportation areas with affordable housing and make recommendations for steps to ensure those areas are adequately served by public transit. Several state agencies will conduct labor market research as part of the Green Economy Jobs Growth Initiative and the act also creates a new account in the state treasury that will be used to supplement the state opportunity grant program.

Initiative 937 (2006)

This initiative was approved by the voters of Washington, created the Washington Renewable Energy Standard, requiring public utilities to provide at least 15 percent of their energy supply from renewable sources other than hydroelectric power.

Greenhouse gas emissions Chapter 80.80 RCW (ESSB 6001, 2007)

The Legislature:

- Stated its intention to establish statutory goals for statewide reduction in greenhouse gases emissions and to adopt the recommendations provided by the Washington climate change challenge stakeholder group that became the Climate Advisory Committee (CAT), and
- Established greenhouse gases emissions reduction performance standards and clean energy economy goals for the state.
- Required the total emissions associated with producing electricity shall be included in determining the rate of emissions of greenhouse gases for baseload electric generation.
- Established an employment goal for clean energy sector jobs.
- Provide that the Office of the State Climatologist serve as an expert source of climate and weather information for state and local decision makers and agencies working on climate change as well as drought and related emergency preparedness.

The governor shall develop policy recommendations to the legislature on how the state can achieve the GHGs emissions established in this act.

- Market mechanisms
- Carbon sequestration
- Replace old technology thermal electric plants
- Utilize indigenous resources
- Improving regulatory and tax policies for electric utilities

Mitigating impacts of climate change through the GMA – Chapter 36.70A RCW (ESSB 6580, 2008)

The purpose of this legislation is to engage counties and cities to implement activities to reduce greenhouse gas emissions, and prepare and adapt to climate change impacts.

Requirements of this legislation:

- Methodologies, modeling and analytical tools.
 - CTED must provide cities and counties with a range of advisory climate change response methodologies, a computer modeling program, and an estimate of GHG emission reductions resulting from specific actions.
 - CTED must work with WSDOT on reduction of vehicle miles traveled through efforts associated with and independent of E2SHB 2815 process.
- Pilot project for a mitigation and adaptation program
 - Establish a local government global warming mitigation and adaptation program, to be administered by CTED. Three or fewer counties and six or fewer cities must be selected for the program, if funding is provided.

- Provide financial and technical assistance to selected cities and counties to inventory and mitigate GHG emissions, or adapt to the adverse impacts of climate change.
- Report of program findings and recommendations must be provided to the Governor and the legislature by January 1, 2011. Positive and negative impacts to affordable housing, employment, transportation costs, and economic development must be considered.
- Advisory Policy Committee and content of the December 1, 2008 report to the Governor and legislature
 - Advisory Policy Committee membership includes: legislators, officials from three counties and five cities, and one tribal representative – all voting members, plus twelve nonvoting members.
 - Technical support team will support the Advisory Policy Committee and CTED. Ecology, CTED, WSDOT must be represented on the technical team.
 - Report must include:
 - Actions being taken by counties and cities to address climate change;
 - Recommendations of changes, if any, to the GMA and other statutes to enable counties and cities to address climate change in their land use and transportation planning processes;
 - Existing and potential analytical and assessment tools that can be used by counties and cities to address their own proprietary and regulatory activities to reduce GHG emissions;
 - Consideration of positive and negative impacts to housing, transportation, and economic development resulting from local climate change actions; and
 - Assessment of state and local resources needed.
 - Growth Management Hearing Boards are not authorized to hear cases alleging noncompliance with work completed under the global warming mitigation and adaptation program.

Conclusions on Climate Change

Legislation within the past two years has started to provide help for local governments to address climate change. Goals have been established to reduce GHG emissions, to improve clean energy sector jobs and receive information from the Office of the State Climatologist. There is a process in place pending future funding for a pilot program to some local action plans, infrastructure, staffing and education at the local level. Mitigation guidance and training will be available for land use and transportation issues. There will also be monitoring and reporting of GHG emissions, and recommendations on strategies to reduce the quantity of GHG emissions and on how to include local governments in a market-based system to limit and reduce GHG emissions. The recommendations will also include a set of tools and best practices to assist state, regional and local entities to make help achieve statewide VMT reduction. Recommendations will also identify new revenue options for local and regional governments to finance VMT reduction efforts. WSDOT will examine the access of public transportation areas with affordable housing. In addition, advisory methodologies for reducing GHGs will be available from CTED. Recommendations for changes to the GMA of other related statutes to better enable cities and

counties to address climate change impacts will be delivered to the Legislature in December 2008.

The GMA provides a framework for counties and cities to develop policies and implementation strategies to address the production of GHGs and other impacts of climate change in those jurisdictions. Local governments could also address climate change in their comprehensive plan policies. Once these policies are in place, counties and cities can implement development regulations, zoning, and building practices consistent with those policies and plans.