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I. Executive Summary

The State of Washington Local Government Infrastructure Study was authorized during the 1998 Washington State Legislative Session through Substitute House Bill 6455. This legislation directed the Public Works Board, in consultation with the Department of Community, Trade and Economic Development (CTED), to contract for a local government infrastructure needs assessment. The consultant team retained to perform this study worked in partnership with the Public Works Board, CTED, the Legislative Evaluation and Accountability Program (LEAP), and two committees, both of which were comprised of governmental, business, and environmental leaders.

Study Purpose

The Local Government Infrastructure Study was commissioned to answer several important questions relative to local infrastructure planning and funding. This report provides answers to the following questions:

- What infrastructure needs do local governments anticipate over the six-year period 1998 through 2003?
- What funding sources and amounts are planned to be utilized by local governments to fund infrastructure needs for the period 1998 through 2003?
- What funding gap exists between infrastructure needs and funding sources and amounts identified by local governments for the period 1998 through 2003?
- What public and private financial resources are available to address infrastructure needs?
- What level of use of available financial resources is projected to address infrastructure needs for the period 1998 through 2003?
- What funding options and policy alternatives exist for addressing the infrastructure funding gap?
- How can capital facilities plans and the planning process be improved?
- What type of decision support system could enable state and local policy-makers and the private sector to monitor and compare, on an ongoing basis, infrastructure needs, resources, and the gap between them?

Study Methodology, Parameters, and Basis for Results

The information needed to address identified planning and funding issues was collected from three primary sources. These sources included local government capital facilities plans; interviews with finance, planning, and public works personnel from a sample set of jurisdictions; and focus groups with local government planning and funding officials.

Infrastructure categories covered by this study include roads, bridges, domestic water systems, sanitary sewer systems, and storm water systems. Local governments included in the study encompass cities, counties, special purpose water and sewer districts, and public utility districts (PUDs) providing water service. This totals 487 local governmental entities.

Infrastructure funding needs and strategies reported by the local governments that participated in the study formed the foundation for the study results. In total, 354 out of the 487 jurisdictions included in the study submitted information regarding capital facilities needs. Of the 354 jurisdictions, 324 identified projects for the period 1998 through 2003. These 324 jurisdictions represent a total of 91% of the Washington's population, including 90% of the statewide population residing within cities, 94% of the statewide population residing in the unincorporated areas of counties, and 74% of the customers of water and sewer districts and 80% of the customers of PUDs included in the study.

Overview of Study Results

The local government infrastructure planning and funding questions posed by this study were answered based upon the best available information. The results of funding analysis, suggestions for improving capital facilities plans and the planning process, and the role of an infrastructure decision support system to answer future questions are summarized below.

- ***Infrastructure Funding Needs***—A total funding need of $8.16 billion in 1998 dollars was reported by 324 local jurisdictions for the period 1998 through 2003. Extrapolated for the 133 jurisdictions from which no information was received and for the 100 jurisdictions with capital facilities plans that did not cover the full six-year study period the total funding need is estimated to be $9.43 billion in 1998 dollars.

- ***Infrastructure Funding Utilization***—Funding sources and amounts reported by the same 324 local jurisdictions for the total funding need of $8.16 billion in 1998 dollars includes local (public and private) sources at 47% ($3.95 billion); state sources at 13% ($1.01 billion); federal sources at 10% ($0.82 billion); "combined" federal, state, and/or local sources (individual amounts not identified) at 4% ($0.31 billion); and "unfunded, unspecified, or unknown" sources at 26% ($2.07 billion).

- ***Infrastructure Funding Gap***—A potential funding gap of $3.05 billion in 1998 dollars, or 38% of total funding needs, exists when comparing funding needs with identified funding sources and amounts. This gap consists of "unfunded, unspecified, or unknown" sources, as well as "unspecified" local, state, and federal funding sources that were included within their respective level of government totals in the funding utilization results. Funding needs, utilization, and gap are summarized for the period 1998 through 2003 in Exhibits I-1 and I-2 by infrastructure category and jurisdiction type, respectively.

Exhibit I-1, Total Funding Summary by Infrastructure Category: 1998-2003

	Roads	Bridges	Domestic Water	Sanitary Sewer	Storm Water	Total
Funding Needs	$3.70 billion	$0.39 billion	$1.68 billion	$1.82 billion	$0.57 billion	$8.16 billion
Funding Utilization	$2.15 billion	$0.25 billion	$1.10 billion	$1.34 billion	$0.27 billion	$5.11 billion
Funding Gap	$1.55 billion	$0.14 billion	$0.58 billion	$0.48 billion	$0.30 billion	$3.05 billion
Funding Gap	41%	35%	35%	26%	52%	38%

All amounts are expressed in 1998 dollars.

Exhibit I-2, Total Funding Summary by Jurisdiction Type: 1998-2003

	Cities	Counties	Water/Sewer Districts	PUDs	Total
Funding Needs	$4.81 billion	$2.89 billion	$0.37 billion	$0.09 billion	$8.16 billion
Funding Utilization	$2.54 billion	$2.24 billion	$0.26 billion	$0.07 billion	$5.11 billion
Funding Gap	$2.27 billion	$0.65 billion	$0.11 billion	$0.02 billion	$3.05 billion
Funding Gap	47%	22%	31%	16%	38%

All amounts are expressed in 1998 dollars.

It is important to note that funding needs are required to be "fiscally constrained" for those cities and counties planning under the Growth Management Act (GMA). If the fiscal constraint requirement was removed, then the funding needs and gap would likely be significantly larger.

- ***Available Infrastructure Funding Sources***—Many funding sources are available, but jurisdictions typically have to "piece" together a "patchwork" of federal, state, and local, grant, tax, and debt sources to assemble an infrastructure funding package. Except for transportation grants, state and federal grants and loans are usually not available for growth-related projects. Investments in utilities are most often financed by local ratepayers. Funding for infrastructure takes many forms, including rates, bonds, some dedicated tax (general fund) sources, and some private sources. The availability of local funding must be viewed in context of other general government funding needs.

- ***Level of Use of Available Infrastructure Funding Sources***—Evaluation of the 13 primary state and federal grant and loan programs that provide funding for infrastructure projects indicates that for the latest funding cycle all but two programs are fully- or over-subscribed. The level of subscription ranges from 73% to 593%. Local sources that are available and being used include rates, user charges, grants, loans, and general fund sources. Sources used less frequently in comparison include utility taxes, real estate excise taxes, local-option taxes, debt, and some private sources. Transportation benefit districts, local option gas tax, and employee taxes are available to fund infrastructure, but jurisdictions do not utilize them as funding sources.

- ***Infrastructure Funding Options and Policy Alternatives***—A host of factors influence the funding environment for infrastructure, including regulations, the state of small utility systems, and concurrency and capacity requirements. Some modifications to existing sources and new funding strategies are outlined in the study to address the greatest funding needs, especially city and county transportation projects and small utility system needs. A comprehensive review of funding options requires more time and review by the Assessment Committee and Technical Advisory Group. In addition, policy alternatives to address issues external to local government (e.g., regulatory, environmental, economic, and political) that impact the cost of infrastructure should also be carried forward for further study.

- ***Suggestions for Improving Capital Facilities Plans and Planning***—A number of suggestions have been identified to strengthen capital facilities plans (CFPs) and planning. Suggestions address the CFP document, the process by which CFPs are developed, and the role of the state in supporting suggested changes.

  These changes will benefit local jurisdictions and the State by enabling more effective decision making as a result of more consistent, reliable, and accessible infrastructure needs and funding information. However, some of the suggested changes will place burdens on local staff and financial resources. Thus, these suggestions include an element of state technical and financial support. The Department of Community, Trade and Economic Development should assist local jurisdictions implement these suggestions.

- ***Infrastructure Decision Support System***—Decision makers throughout the state of Washington, from both the public and private sectors, currently do not have the ability to comprehensively identify, track, and analyze critical infrastructure planning and funding information on a statewide basis. An infrastructure decision support system is needed to collect, organize, analyze, and report infrastructure revenue, expenditure, and contextual data.

  The business case for this system is strong, and optimal technology exists to make it a reality. Under the leadership of the Legislative Evaluation and Accountability Program, State Auditor's Office (SAO), Public Works Board, and Department of Community, Trade and Economic Development, a pilot project is being conducted to test system feasibility and provide recommendations for proceeding to the Legislature during the 2000 legislative session. This system is anticipated to leverage the Local Government Financial Reporting System (LGFRS).

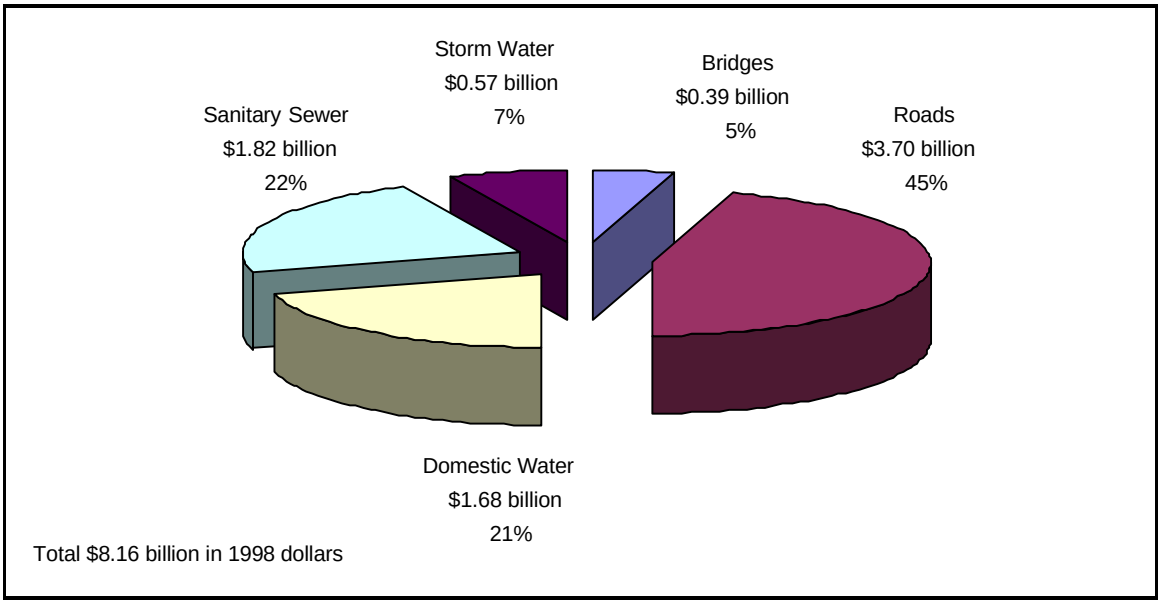
Each of these study elements is described in more detail in the remainder of the Executive Summary. In addition, recommended next steps are provided based on the study results.

Infrastructure Funding Needs

This study identified local government infrastructure funding needs totaling $8.16 billion for the six-year period 1998 through 2003, as reported by 324 local jurisdictions. Funding needs, as measured by this study, are summarized in Exhibit I-3. Infrastructure funding needs are dominated by cities and counties, which together account for 93% of the total. Analysis of needs by infrastructure type shows that 50% of the needs are for transportation (roads and bridges) and 50% are for utilities (domestic water, sanitary sewer, and storm water). The most significant needs, by dollar amount, are for city streets ($2.25 billion or 61% of total road needs), city domestic water systems ($1.33 billion or 79% of total domestic water needs), and county sanitary sewer systems ($0.96 billion or 53% of total sanitary sewer needs).

It is important to keep in mind that these results do not reflect the needs of the approximately 16,000 private and community water systems in the state of Washington, which were not included in this study. Likewise, irrigation, reclamation, diking, and other special districts were not included within the scope of the study.

Exhibit I-3, Total Funding Needs by Infrastructure Category: 1998-2003



The study findings indicate that transportation has the most significant funding problem among the infrastructure types studied. One element of this funding problem is that transportation projects are focused on maintaining concurrency and capacity in communities, which pull funding support away from maintenance and preservation efforts. In addition, within cities and counties transportation needs compete with other general government functions for limited resources (i.e., few dedicated local funding options are available for transportation projects).

Transportation funding also suffers from a structural problem. There are multiple transportation funding sources, many with different requirements and funding levels. Hence, putting together a transportation capital plan is like putting together a puzzle – lots of different pieces, in different sizes and shapes are required. The most significant transportation funding shortfalls are for (1) capacity improvements in growth areas, particularly those with older infrastructure or facing freight mobility challenges, (2) maintenance and preservation projects, and (3) funding for large, multi-jurisdictional projects.

Small water and sewer utilities, particularly those in rural or low growth areas, also face substantial financial challenges. Some of these entities have a limited rate base and critical needs. State funding programs are used to fund needed improvements, but the needs typically exceed available funding.

Both large and small jurisdictions identified state and federal regulations as the key driver or influence on infrastructure funding needs. Some cited specific examples, such as requirements to comply with National Pollutant Discharge Elimination System (NPDES) and changes to Safe Drinking Water Act (SDWA) standards. The Endangered Species Act (ESA) was cited numerous times as having a significant impact on infrastructure project costs. Most jurisdictions have not yet quantified the ESA's potential effect on project costs, but there is widespread understanding that it is likely to add an additional "layer" of cost and complexity.

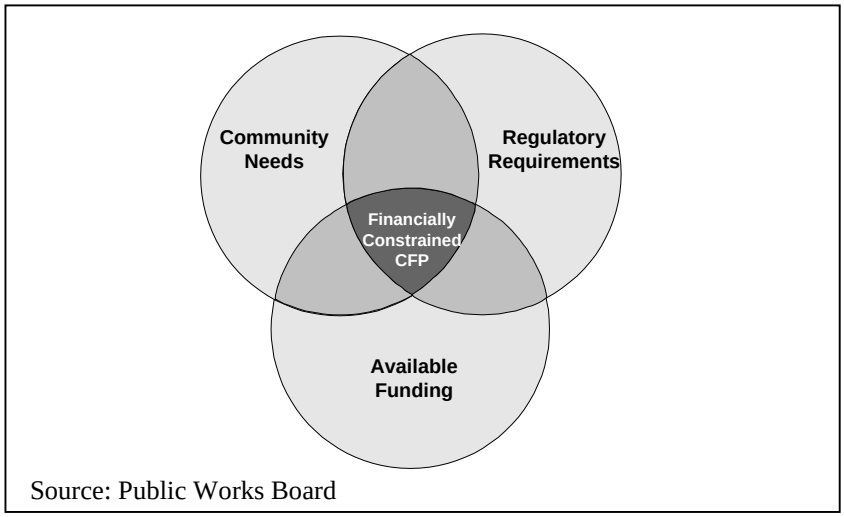
While this study provides a comprehensive representation of the infrastructure funding needs reported in capital facilities plans by cities, counties, special purpose water and sewer districts, and PUDs providing water service, there are two notable limitations to the results. First, capital facilities plans were not received from 133 of the 487 jurisdictions included in the study. Second, 100 of the 354 jurisdictions from which capital facilities plans were collected have plans that do not fully cover the six-year study period.

In order to provide a more complete estimate of statewide funding needs for the 487 jurisdictions included in the study, reported needs of $8.16 billion were extrapolated to address these two data limitations. Reported needs were extrapolated first for submitted plans that do not fully cover the six-year planning period, and second for plans not received. Together, these two extrapolations produced estimated funding needs of $9.43 billion, 16% more than reported needs.

Another consideration in attempting to estimate full statewide funding needs is the effect of fiscal constraint on reported needs. Under GMA, local jurisdictions' capital facilities plans are required to show that the financial capacity exists to meet planned improvements. Communities must prioritize their needs from a "full" list of projects by carefully balancing community needs, regulatory requirements, and available funding.

The result of this balancing process is a financially constrained plan, the six-year CFP, which typically contains a subset of the "full" list of projects that a community may actually need and consider for funding. In other words, some projects "do not make the cut." The relationship between the factors that influence infrastructure decisions is depicted in Exhibit I-4, with the intersection of the three circles representing the fiscally constrained CFP.

Exhibit I-4, Factors that Influence Infrastructure Decisions



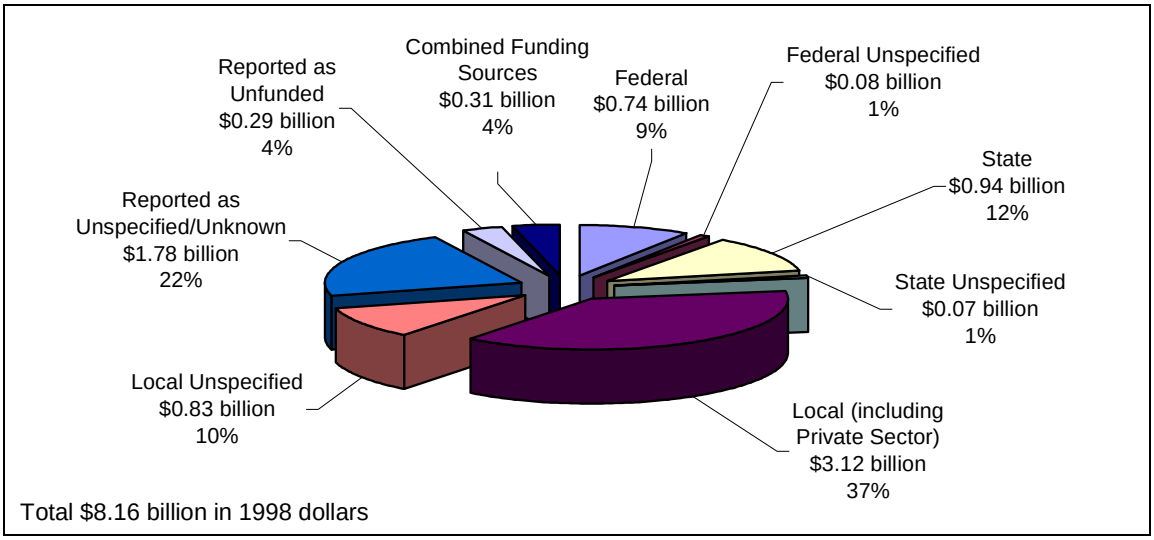
Source: Public Works Board

An analytical exercise to begin to identify possible relationships between constrained and unconstrained needs determined that, purely as an example, one Western Washington community's unconstrained roadway needs are approximately 1.75 times its reported constrained need for the period 1999 through 2005. In this case, $30 million separates an unconstrained need of $68 million and a constrained need of $38 million. This case study illustrates the potential size of identified local government infrastructure funding needs that do not appear in financially constrained capital facilities plans.

Infrastructure Funding Utilization (Sources and Amounts)

Once local infrastructure needs were estimated at $8.16 billion, planned sources of funding for these needs were analyzed. This analysis focused on data gathered from CFPs using the same methodology as that used for the needs assessment. Local governments draw upon local (including private sector), state, and federal sources to address their infrastructure needs. Additional categories summarizing funding information reported in CFPs are "combined" sources; "unfunded;" "unspecified/unknown" sources; and "unspecified" local, state, and federal sources. Funding source data are provided in Exhibit I-5, and each of the funding sources identified in Exhibit I-5 is defined below.

Exhibit I-5, Total Funding by Source: 1999-2003



Based on information reported by local governments, it is significant to note that 47% ($3.95 billion) of total funding, as shown in Exhibit I-5, is projected to be derived from local (including private sector) sources. This reported funding level includes both "unspecified" (10%, $0.83 billion) and specified (37%, $3.12 billion) local sources. "Unspecified" local funding sources include sources that local jurisdictions generically indicated as "local" funding for a project. Specified local funding sources include all locally-derived general tax revenues, utility rates and charges, and revenues from "private" sources, defined as local improvement districts (LIDs), road improvement districts (RIDs), impact fees, utility connection charges, developer contributions, and other growth-related mitigation funding programs. Local funding sources also include gas tax proceeds distributed by the State to cities and counties for deposit in the jurisdictions' road and street funds. These gas tax funds, while treated in the study as "local," are state-shared revenues.

Also as shown in Exhibit I-5, 13% ($1.01 billion) of total funding is reported to come from state sources and 10% ($0.82 billion) from federal sources. As for local funding, state and federal totals include both "unspecified" and specified sources. "Unspecified" state and federal funding sources reflect instances where local jurisdictions generically indicated "state or federal grant or loan" as a funding source for a project. Examples of specified state and federal grant and loan sources include the Transportation Equity Act for the 21st Century (TEA-21), Transportation Improvement Board (TIB), and Public Works Trust Fund (PWTF).

Another category of specified funding sources is "combined" sources, which represent 4% ($0.31 billion) of total funding. "Combined" funding indicates funding from multiple sources with the funding level reported in the aggregate and not by individual source. As a result, these local, state, and federal sources could not be assigned to their respective funding groups.

As indicated in Exhibit I-5, it is also a significant finding that 22% ($1.78 billion) of all funding is reported by local jurisdictions to come from "unspecified/unknown" sources, and 4% ($0.29 billion) of total funding is reported as "unfunded." "Unspecified/unknown" sources include unspecified grants and loans, as well as truly "unknown" sources. "Unfunded" reflects instances when a local jurisdiction reported the funding source for a project as "unfunded." The significance of these categories, and the "unspecified" local, state, and federal sources, is discussed below.

Examination of projected funding sources and amounts at a more detailed level leads to a number of observations regarding how local governments plan to fund their infrastructure projects. Some of the more significant observations regarding funding sources and amounts (all in 1998 dollars) for the period 1998 through 2003 are provided below.

- The majority of federal (77%, $0.65 billion) and state (79%, $0.81 billion) funding sources are projected to be used for road and bridge projects.
- Local, including private sector, funding sources are fairly evenly distributed across infrastructure categories, with 44% ($1.78 billion) for road projects, 30% ($1.12 billion) for domestic water projects, and 15% ($0.62 billion) for sanitary sewer projects.
- "Unspecified/unknown" funding sources are projected to be primarily used to pay for road projects (57%, $1.06 billion), domestic water projects (25%, $0.42 billion), and sanitary sewer projects (12%, $0.21 billion).
- TEA-21 is projected to be the largest federal funding source at 60% ($0.48 billion) of total federal funding.
- The most substantial state funding sources include the Transportation Improvement Board (40%, $0.39 billion), County Road Administration Board (19%, $0.19 billion), Public Works Trust Fund (14%, $0.14 billion), and Department of Transportation (7%, $0.07 billion).
- Local funding draws from various sources including utility rates (18%, $0.66 billion), Road or Street Fund (18%, $0.65 billion), bonds (18%, $0.63 billion), private sources (12%, $0.42 billion), and general purpose revenues (8%, $0.28 billion).
- Private funding sources include, but are not limited to, developer contributions (26%, $0.11 billion), local improvement districts (26%, $0.11 billion), utility connection charges (17%, $0.07 billion), and impact fees (14%, $0.06 billion). The majority (83%) of private revenues are projected to be used for city streets and county roads. A significant portion of infrastructure investments in this state, particularly for utility systems, is made through "developer extensions," (i.e., developer-funded and constructed projects that are turned over to local jurisdictions). These investments are not covered by this study.

- Communities appear to focus projects on expansion of system capacity. The primary types of project reported by infrastructure category include road capacity expansion ($2.39 billion, 68% of total road funding); bridge repair, replacement, and rehabilitation ($0.28 billion, 73% of total bridge funding); and domestic water, sanitary sewer, and storm water capacity expansion ($2.09 billion, 72% of total water, sewer, and storm water funding).

It is important to note that infrastructure needs and funding mechanisms vary significantly by type of infrastructure and by type of jurisdiction – "one size does not fit all." Different jurisdictions face different challenges and have different tools at their disposal to address their funding needs. What all jurisdictions have in common is a very complex challenge in determining how to fund their infrastructure needs. Each agency must piece together a workable capital facilities plan, given a mix of funding options and tools; legal, political, and administrative realities; shifting regulatory mandates; and competing priorities and community needs.

All jurisdictions identified state and federal regulations as the key driver or influence on infrastructure needs and funding strategies. Factors that may influence a jurisdiction's approach to funding projects include the age and condition of the physical plant across all infrastructure types, their history and experience using various financing tools, available funding, the community's growth rate, level of service (LOS) standards, economic development objectives and policies, and the extent of annexations and incorporations.

Infrastructure Funding Gap

Although a minimal funding "gap" between needs and resources was anticipated because of fiscal constraint planning requirements mandated by GMA, a significant funding gap is evident in local government capital facilities plans. This reflects both the uncertainty of future funding sources and the jurisdictions' capacity to fund projects. Specifically, the gap is made up of projects that local governments actually note as "unfunded;" "unspecified/unknown" sources; and "unspecified" local, state, or federal funds. The total potential funding gap identified in 324 capital facilities plans is $3.05 billion, or 38% of total funding needs for the period 1998 through 2003, as shown in Exhibit I-6.

Exhibit I-6, Summary of Potential Funding Gap

Reported by Local Jurisdictions	1998-2003 Funding Gap)	Percent of Total Need ($8.16 billion)
"Unfunded"	$0.29 billion	4%
Unspecified/Unknown	$1.78 billion	22%
Unspecified		
Unspecified local funding	$0.83 billion	
Unspecified state grant/loan	$0.07 billion	
Unspecified federal grant/loan	$0.08 billion	
Subtotal Unspecified	$0.98 billion	12%
Total Potential Funding Gap	$3.05 billion	38%

All amounts are expressed in 1998 dollars.

It is important to note that there is a significant distinction in the representation of information between the funding utilization and funding gap elements of this report. Specifically, to document funding utilization (i.e., reported sources of funding), "unspecified" local, state, and federal funding sources were categorized as local, state, and federal funding. In contrast, to estimate funding gap "unspecified" local, state, and federal funding sources were treated as "unfunded" to reflect the uncertainty that jurisdictions face in securing funding.

Another important point is that the estimated potential funding gap does not take into account recent legislative efforts to increase infrastructure funding. Notable are potential contributions resulting from actions by the 1999 Legislature regarding rural economic development, Referendum 49, and the state transportation budget.

Available Infrastructure Funding Sources

For all infrastructure funding sources, particularly for transportation projects, the challenge for local governments is to (1) secure financing, regardless of funding source, and (2) assemble a funding "package" for projects. Many sources are available, but successful jurisdictions find that a certain level of effort, experience, and resources to devote to planning and assembling the "funding package" is required.

State and Federal Funds. A range of state and federal programs is available to fund local infrastructure projects. In general, the financial assistance offered through these programs is limited, and the competition for funding is strong. As the emphasis in funding has shifted from grants to loans, local communities have become more directly responsible for the costs of infrastructure investments. Loans can help reduce the cost of project financing, but the revenues needed to meet interest and principal payments must come from local sources.

Although transportation projects stand as an important exception, state and federal funding is generally not available for infrastructure needs that are driven by growth. For basic services, such as drinking water and sewer systems, the costs of addressing new demands must be borne directly by new customers or shared across the existing rate base.

In reviewing potential future funding, it can be ascertained that federal transportation funding has increased under TEA-21, but state funding is not projected to grow. Funding from the Public Works Trust Fund will generally be increasing, but the loans offered through the State's other revolving funds may diminish as federal capitalization grants "dry up." The following ranges of annual funding are anticipated to be available by infrastructure type (across a variety of programs):

- $275-$300 million in grants and $10-$12 million in loans for transportation projects;
- $34-$35 million in grants and $73-$93 million in loans for sewer and storm water projects;
- $3-$4 million in grants and $63-$73 million in loans for drinking water projects; and
- $64-$77 million in grants and $7-$9 million in loans for economic development programs, some tailored to specific needs.

Local Funds. Options for funding infrastructure projects with local revenues can take many forms, and jurisdictions tend to "piece together" these available sources. City and county general funds represent a potential source, but strong competition exists with general government services, meaning that local governments must balance operating and capital needs. Bonds, which represent debt to a jurisdiction, are available in several ways, the most common being voted or non-voted general obligation (GO) bonds and revenue bonds. Alternative bond financing mechanisms, such as "63-20" and Section 108 financing, also expand the available debt options for local governments.

Dedicated sources for infrastructure investments include the real estate excise tax (REET) and sales and use tax for distressed counties. There are several funding sources that can be employed for transportation projects at the local level. They include county road levies, motor vehicle fuel tax (MVFT), one local option of the motor vehicle excise tax (MVET), one local option of the gas tax, employer tax, license fees, parking tax, and transportation benefit districts.

Utilities, as special purpose districts or within city and county government, are usually managed through enterprise funds that have rates, charges, and bonds as available sources. PUDs also have the ability to levy property taxes. Water and sewer districts are statutorily limited to the imposition of a one-time property tax assessment, for a finite period of time, and for costs associated with formation only.

Private sources of funding for transportation projects include State Environmental Protection Act (SEPA) mitigation (a declining source), impact fees, LIDs and RIDs, and developer contributions. Areas planning under GMA have authority to impose impact fees (36 cities and 7 counties currently impose impact fees). For utilities, private sources include the same sources as noted for transportation, plus the ability to assess system development charges.

Level of Use of Available Infrastructure Funding Sources

Determining the extent to which state and federal grant and loan sources are over- or under-subscribed was not possible using the capital facilities plans, due to the sizable total of "unknown" and "unspecified" funding sources, as well as the number of jurisdictions that did not submit plans. Therefore, a revised approach was undertaken using interviews with state and federal grant and loan program managers. The results of this approach indicated that jurisdictions' level of use of these programs is extensive. All programs but two are fully- or over-subscribed for the latest funding cycle, indicating high demand for state and federal grant and loan programs. Subscription levels range from 73% to 593%.

Infrastructure Funding Options and Policy Alternatives

Early in the study process, members of the Assessment Committee and Technical Advisory Group met to discuss funding options and policy alternatives to be analyzed within the study. The group discussed the fact that there are many issues external to local government operations—regulatory, environmental, economic, and political—that increase local government infrastructure project costs and limit the feasibility of potential funding options. It was concluded that more time would be required to review these issues sufficiently enough to provide the Legislature with a full list of funding options and policy alternatives. As a result, it was agreed that a range of important issues should be pursued through future study. Potential funding options and policy alternatives that need to be described and evaluated in detail through further study are identified below.

Use of Current Funding Sources. Many jurisdictions have the ability to levy taxes at a higher rate or increase debt financing; however, they do not. Some of the comparatively less utilized or unutilized funding sources include REET, utility taxes, local option transportation taxes (e.g., gas tax and employer tax), and increased reliance upon private sector funding mechanisms, such as local improvement districts, SEPA mitigation, developer contributions, and public-private partnerships.

Potential New Funding Options. Potential new funding options include modifications to existing funding sources and new funding sources, as identified below:

- ***Modifications to Existing Funding Sources***—these include a streamlined application process, increased loan funding for emergency needs, lower thresholds for voter approval of bond issues, periodic increases in the gas tax and indexing of this tax to keep pace with inflation, changes to current gas tax allocations, and increased emphasis on maintenance, preservation, and growth-related funding; and

- ***New Funding Sources***—these include extension of local utility tax authority, extension of business and occupation (B&O) tax authority, redistribution of construction sales tax, expansion/revision of local option authority, enterprise funding for transportation, tax increment financing, sales tax exemption for infrastructure projects, creation of the Growth Management Infrastructure Account with dedicated revenue sources, Forward Thrust-type infrastructure initiatives, such as "Forward Thrust for Infrastructure 2000," and raising private-use bond caps.

Potential Policy Alternatives. Suggested policy alternatives, based on other states' experience, include increasing use of benefit assessment districts, air and land rights leasing, and turnkey procurement agreements. Other policy alternatives include liability reform, regulatory reform, review of prevailing wage laws, privatization and contracting, process efficiencies, project prioritization, reduced levels-of-service, redefining or tightening infrastructure project definitions, and defining "basic levels of service."

Suggestions for Improving Capital Facilities Plans and Planning

Suggestions for improving capital facilities plans and planning were developed to respond to issues that were identified through the analysis of capital facilities plans collected for this study and through the in-depth sampling of a representative group of jurisdictions. The suggestions address the CFP document, the process by which CFPs are developed, and the role of the state in supporting the recommended changes.

These changes will benefit local jurisdictions and the State by enabling more effective decision making as a result of more consistent, reliable, and accessible infrastructure needs and funding information. However, some of the suggested changes will increase demands on limited local staff and financial resources. Thus, these suggestions include an element of state support for technical and financial assistance. Improvement should be implemented through a phased process, such as that used for GMA implementation. Suggestions are summarized below.

The Plan Document

- A standardized template, which would include projects, costs, funding information, and project phasing, is suggested to achieve greater consistency in the way capital facilities plans are presented. Using the template, jurisdictions would also indicate the responsibility of other jurisdictions in helping to finance projects, and where projects extend beyond the six-year time frame of the plan. This will support a more consistent data structure for the information contained in CFPs, and play an important role in supporting state and local infrastructure investment policy development.

- A methodology should be established, with the assistance of the state, to allow jurisdictions to convey information about their total unconstrained needs in CFPs, while still complying with the requirements of the Growth Management Act. CTED should develop a mechanism to present this information in a way that meets the legal requirements of GMA.

- An annual update to each jurisdiction's CFP is suggested. This will address those jurisdictions that do not prepare an annual update to their capital plan. It will enable the formulation of a full, statewide six-year projection for all jurisdictions for the same six years.

The CFP Planning Process

- All jurisdictions, including cities, counties, water and sewer districts, and PUDs, should prepare annually updated capital facilities plans in a consistent format, which meets the requirements of applicable regulatory agencies, including CTED, the Department of Ecology (DOE), and the Department of Health (DOH). These state agencies will need to work together to establish uniform planning guidelines and requirements.

- Several state funding sources, such as the TIB and PWTF, require a CFP in order to apply for funds. Phasing in expansion of these requirements to all state funding sources is suggested to help bring further consistency to the CFP planning process.

- A centralized process and coordination strategy should be defined by each jurisdiction for their capital facility planning activities. Each jurisdiction should designate a "lead person" who is the single point of contact for inquiries regarding the jurisdiction's CFP.

- Coordinated planning between cities and counties should be required for potential annexation areas. There is a need to provide capital investments in these areas in a way that responds to both city and county service standards and addresses financial equity issues created by annexations.

The Role of the State

- Many of the suggestions for improving CFPs and the CFP planning process will place burdens on local government staff and financial resources. Therefore, the State should assist jurisdictions, through technical and possibly financial support, to respond to these suggestions. It is suggested that CTED provide this assistance. CTED may require financial support to fulfill this role. Currently, CTED provides assistance to local government in several areas, including GMA compliance.

- As part of a technical assistance role, CTED should prepare an update to the CTED guidebook, "Making Your Comprehensive Plan A Reality: A Capital Facilities Plan Preparation Guide." The update could include recommended approaches for responding to suggested changes to the CFP and CFP planning process.

Infrastructure Decision Support System

Decision-makers throughout the state of Washington have a limited ability to monitor, analyze, and compare infrastructure needs, resources, and the gap between them. A decision support system is needed that collects the necessary data within the existing infrastructure planning and reporting process and stores the data centrally to allow statewide reporting and ad hoc query analysis. The system needs to operate at two distinct levels: provide state policy makers, and the private sector, a sense of what is happening across the state at a high level, and enable local governments to compare what is happening in their jurisdiction to peers of their own choosing. Local government comparisons would help to identify trends that allow jurisdictions to learn from their peers and, ultimately, develop best practices for planning and funding their infrastructure needs.

The decision support system should be grounded in data consisting of infrastructure revenues, expenditures, and contextual data (e.g., population, infrastructure condition, and outcomes) reported by jurisdiction, infrastructure category, and project type. Data would be collected, stored, organized, analyzed, and reported within the system. Over time, data requirements would be expanded beyond those defining the parameters of this study to encompass a more comprehensive set of jurisdictions, infrastructure categories, and project types, including those defined below.

- ***Jurisdictions***—cities, counties, water and sewer districts, PUDs, ports, school districts, transit systems, parks and recreation districts, fire districts, public facilities districts, library districts, and the state of Washington.
- ***Infrastructure categories***—roads, bridges, water systems, sewer systems, storm water systems, transit systems, parks, jails, solid waste systems, schools, fire/emergency systems, libraries, and community facilities such as convention centers.
- ***Project types***—maintenance and preservation (i.e., repair, replacement, and rehabilitation), operations and administration, and improvement (i.e., capacity expansion).

The business case for a decision support system is strong. This system would provide greater utility at the state and local levels, because it would:

- Support investment strategies that are coordinated between state and local governments;
- Facilitate trend analysis and prioritization of alternative funding strategies;
- Support evaluation of cost drivers such as regulations, amenities, and public involvement;
- Streamline local reporting requirements;
- Connect critical data elements for planning, budgeting, and reporting; and
- Enhance the consistency and integrity of data through common data elements and definitions.

Next Steps

This comprehensive local government infrastructure report contains a wealth of information that responds to the objectives of the study. It is anticipated that the study results will support deliberations on many fronts. There are several actions that appear to be logical next steps to build upon and leverage knowledge gained from this undertaking. Recommended next steps are provided below.

- ***Decision Support System***—Continue the work of the Policy Working Group, which was convened by the Legislature, to conduct a pilot project to test the feasibility of a decision support system for state and local infrastructure planning and funding decision-making. The pilot project should investigate the potential use of geographic information systems (GIS). Developing and implementing a decision support system is critical to being able to more efficiently and effectively answer infrastructure planning and funding questions on an ongoing basis. The 1999 Legislature appropriated funding for LEAP to lead this effort.
- ***Funding Gap, Funding Options, and Policy Alternatives***—Initiate discussions, which take into consideration funding options and policy alternatives, regarding how to most effectively address the potential infrastructure funding gap of $3.05 billion. In order facilitate these discussions, further analysis is needed to assess the advantages and disadvantages of each funding option and policy alternative. The Public Works Board is considering such an assessment as a follow-on activity to this study.
- ***CFP and CFP Planning Process Improvements***—Implement suggested improvements to capital facilities plans and the capital facilities planning process. CTED should work with local jurisdictions to determine how the State can best assist local jurisdictions with implementation.
- ***Needs Assessment of Other Infrastructure Categories***—Determine funding needs, utilization, and availability for the many infrastructure categories not covered by this study. These categories include jails, parks, schools, solid waste systems, transit systems, fire/emergency systems, libraries, community facilities, and all water systems and community sewer systems not covered by this study.

Quantifying the needs of other infrastructure categories is critical to conveying the strong and fierce competition for limited financial resources. Two components of the infrastructure funding picture that were not fully addressed by this study and should be in the future are unconstrained needs and the contributions of the private sector through infrastructure improvements.

- ***Financial Viability of Private and Community Water Systems***—Assess the financial viability of private and community water systems as highlighted in the Funding Options section of the report. Since local governments typically acquire private and community systems when they fail, it is important to quantify the potential financial impact of water system failures on local governments.

- ***Infrastructure Communications Program***—Develop an ongoing program for communicating infrastructure funding information to the Legislature, state and local officials, the private sector, and the public. This mechanism should leverage the infrastructure decision support system.

II. Introduction

In 1998, the Washington State Legislature passed, and the Governor signed, Substitute House Bill 6455. Section 1 of this bill directed the Public Works Board, in consultation with the Department of Community, Trade and Economic Development (CTED), to contract for a local government infrastructure needs assessment. As a result, the Public Works Board and CTED issued a request for proposals to conduct the State of Washington Local Government Infrastructure Study.

The consultant team, led by Moss Adams LLP, was retained to work with the Public Works Board, CTED, and the Legislative Accountability and Evaluation Program (LEAP) to conduct the study. The other members of the consultant team include Berk & Associates, Inc., Reid Middleton, Stanton-Masten Associates, Inc., and Development Resources. In addition, two committees were established to assist the consultant team. They included an Assessment Committee and a Technical Advisory Group. Both groups were comprised of governmental, business, and environmental leaders in the state of Washington.

A. Study Objectives

The Local Government Infrastructure Study was commissioned to provide legislators with critical information needed to make infrastructure investment decisions. Specifically, the study was designed to meet several objectives. They included determining and documenting the following:

- Magnitude of infrastructure needs;
- Funding sources and amounts planned to be utilized by local governments to pay for infrastructure needs;
- Public and private funding sources available to address infrastructure needs, and the projected level of use of those resources;
- Funding gap between infrastructure needs and funding sources planned to be utilized to pay for the needs;
- Range of funding and policy options for addressing the funding gap;
- Capital facilities plan improvement opportunities; and
- Criteria for an infrastructure decision support tool for future use by state and local governments.

Taken together, these objectives represent a framework for addressing the various business, governmental, and environmental interests involved in the creation and scoping of this study.

B. Study Work Plan

The Public Works Board and CTED, in cooperation with their state and local partners, developed a comprehensive scope of work based on Substitute Senate Bill 6455. The scope of work is depicted in Exhibit II-1.

Exhibit II-1, Study Work Plan

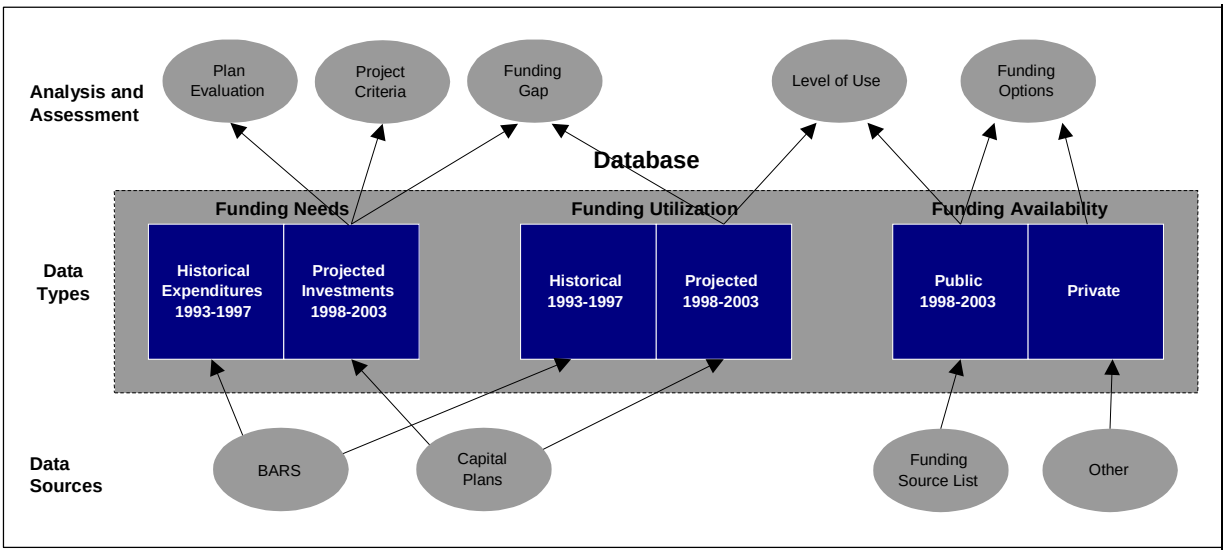


Exhibit II-1 identifies the data sources, data types, database, and analysis and assessment components of the study. The data sources include the Budget, Accounting, and Reporting System (BARS) maintained by the State Auditor's Office, local government capital facilities plans (CFPs), and other documented funding information.

Three primary types of data were used to achieve the study objectives. They included:

- ***Funding Needs***—historical expenditures and projected investments;
- ***Funding Utilization***—funding sources that have been utilized historically to pay for projects, and funding sources that are expected to pay for planned projects; and
- ***Funding Availability***—public and private funding sources and amounts that are available to pay for local government infrastructure projects.

Data relative to projected funding needs and utilization were collected and analyzed using a database designed as part of this study.

Once gathered in an organized fashion, data were analyzed and assessed in five major ways. They include (1) evaluating the format, content, and utility of local government capital facilities plans; (2) investigating issues and concerns associated with how local governments determine infrastructure projects; (3) determining the funding gap between projected local government infrastructure needs and funding utilization; (4) assessing the level of use of available funding sources; and (5) analyzing future funding options.

Also, as part of the study, a decision support system was conceptually designed to support future local government infrastructure planning and funding decisions. The intent was to define a tool that could be used to answer fundamental infrastructure planning and funding questions on an ongoing basis.

Infrastructure categories covered by this study include roads, bridges, domestic water systems, sanitary sewer systems, and storm water systems. Local government study participants encompassed all cities and towns, counties, special purpose water and sewer districts, and public utility districts (PUDs) providing water service in the state of Washington. This includes 275 cities, 39 counties, 152 special purpose water and sewer districts, and 19 PUDs, for a total of 485 jurisdictions.

C. Growth Management Act Impacts on Capital Facilities Planning

Washington State's Growth Management Act (GMA), passed by the Legislature in 1990, and modified in 1991, significantly changed the process and requirements for land use planning in the State. The Legislature found 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." GMA requires that "citizens, communities, local governments, and the private sector cooperate and coordinate with one another in comprehensive land use planning."

Thirteen planning goals were identified in GMA that were to be achieved through the adoption of comprehensive plans and development regulations of those counties and cities that were required to, or chose to, plan under GMA. These planning requirements and development regulations were applied to counties, and the cities within them, which met certain population thresholds. Currently, 29 counties and the cities located within them are planning under the requirements of GMA. These requirements were phased in over a period of several years following passage of the legislation. The capital facilities plan is one of six required elements of a comprehensive plan.

III. Data Collection and Database Development

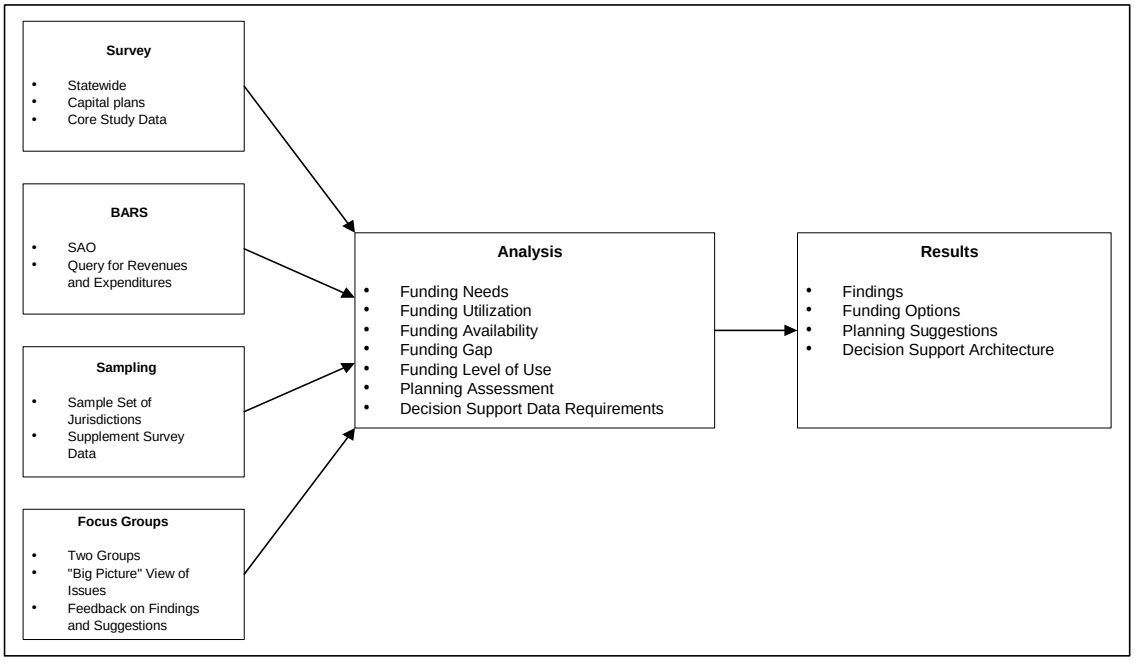
The authorizing legislation for this study directed both a "look forward" for the six-year period 1998 through 2003 and a "look backward" for the five-year period 1993 through 1997. The "look forward" was designed to identify infrastructure needs, funding sources planned to be used to address needs, available funding sources, projected level of funding use, and obstacles to full utilization of available funding sources. The "look backward" was intended to document infrastructure expenditures, including source of funds by jurisdiction, for the period January 1, 1993, through December 31, 1997, for local governments with populations of 50,000 or greater, and for the period January 1, 1995, through December 31, 1997, for local governments with populations less than 50,000.

Local government capital facilities plans served as the primary source of information for the study and provided planning and funding information for the period 1998 through 2003. These documents were obtained through a statewide survey of jurisdictions included in the study. BARS was utilized to investigate infrastructure expenditures for the period 1993 through 1997. This information was provided by the SAO through a database created from a query of BARS.

In addition to the aforementioned two sources, a sample set of local governments and two focus groups were used to obtain anecdotal information that would be helpful in providing context for statewide data. The overall four-part data collection process is illustrated in Exhibit III-1 and described below.

It is important to identify the jurisdictions that were not covered by the study. They include reclamation districts, irrigation districts, flood control districts, diking districts, conservation district, and private and community water systems.

Exhibit III-1, Data Collection Process



A. Statewide Survey

The statewide survey process represented the most extensive component of the data collection process. The survey process encompassed ten steps. They included (1) identifying survey recipients, (2) developing the survey packet, (3) collecting survey responses, (4) developing a study database, (5) entering survey responses into the study database, (6) tracking survey responses, (7) making adjustments to ensure data consistency, (8) identifying data issues, (9) verifying survey responses, and (10) addressing missing 1998 data.

1. Jurisdictions Included in the Study and Survey Process

The legislation that commissioned the Local Government Infrastructure Study identified the jurisdictions to be included in the study and the parameters for the data collection effort. The legislation defined "local government" to include "each city, county, town, and each water, sewer, storm water, and public utility district providing water or sewer services in the state of Washington." Infrastructure needs were to be documented based on information contained in "local capital improvement plans," to the extent available.

Working with the Association of Washington Cities (AWC), Washington State Association of Counties (WSAC), Washington Association of Sewer and Water Districts, and Washington PUD Association, 487 local governments were identified that met the jurisdictional criteria for the study. These included 277 cities, 39 counties, 152 special purpose water and sewer districts, and 19 PUDs providing water service. The water and sewer districts represent 75 districts that are members of the Washington Association of Sewer and Water Districts, plus 77 other districts on the Association's mailing list. The cities and counties included both GMA and non-GMA jurisdictions. Each of these 487 jurisdictions received a survey. A complete list of all jurisdictions included in the study is provided in Appendix A.

2. Jurisdiction Survey

A survey was sent, through their associations, to the 487 jurisdictions included in the study requesting submittal of their most recent capital facilities plan and/or completion of the survey for the six-year period 1998 through 2003. A copy of the survey packet, including a sample cover letter, is included in Appendix B.

The survey was developed to focus the jurisdictions on the limited set of data identified in the legislation. The survey was designed to collect and organize the information that would be entered in to the study database. Information requested to be provided on the survey is described below.

- ***Project Description and Agency Reference/Record Number—***This information included a brief description of the project, including any reference or record number assigned to the project by the jurisdiction.

- ***Infrastructure Category—***For the purposes of this study, infrastructure categories were limited to those set out in the authorizing legislation, including bridges, roads, domestic water, sanitary sewer, and storm water systems.

- ***Project Type—***The legislation also specified project types to be covered by the study. They included planning, acquisition, new construction, repair, replacement, rehabilitation, and improvement. Working definitions were developed for the purposes of this study. These definitions were provided to each jurisdiction to use to categorize project types. Study definitions for project types are provided in Exhibit III-2.

Exhibit III-2, Project Type Definitions

Project Type	Definition
Planning	Projects or portions of projects dedicated to pre-construction activities, including but not limited to, design, public participation, environmental review, and permitting.
Acquisition	Projects or portions of projects dedicated to acquiring rights-of-way or materials not included in construction costs necessary to complete the capital project.
New Construction	Capacity creating projects or portions of projects dedicated to constructing wholly new capital facilities.
Repair	Projects or portions of projects dedicated to repairing unanticipated damage to existing capital facilities.
Replacement	Projects or portions of projects dedicated to wholly replacing existing capital facilities.
Rehabilitation	Projects or portions of projects dedicated to extending the life of existing capital facilities without wholly replacing them.
Improvement	Projects or portions of projects dedicated to increasing the capacity of existing capital facilities.

- ***Funding Source—***Each jurisdiction was instructed to identify the funding sources planned to pay for each project. A list of local, state, and federal funding sources was provided with the data collection form. The study team created the initial list of funding sources from a similar matrix prepared by AWC for an infrastructure needs assessment conducted in 1997. The list was expanded based on input from the Assessment Committee, Technical Advisory Group, and others familiar with the broad range of funding options used to fund local infrastructure projects.

An alphanumeric coding system was used for each of the four areas identified above. This coding system, created initially for the survey, later became the method for data entry into the study database.

3. Responses to the Survey

With the assistance of the associations of the four types of jurisdictions participating in the study and CTED, a strong response to the survey was received. A summary of the response to the jurisdiction survey is provided in Exhibit III-3. Response statistics do not distinguish between capital plans and completed surveys.

In some cases, when no information was received in response to the survey, CTED provided capital facilities elements of Comprehensive Plans for GMA cities and counties. As such, the results indicated in Exhibit III-3 include plans obtained from CTED.

Exhibit III-3, Summary of Survey Responses

Jurisdiction Type	Jurisd. In Study	Jurisd. Plans/ Surveys	CTED Plans	Total Plans/ Surveys	Percent of Study Jurisd.	Percent of Study Pop.
Cities	277	154	74	228	82%	90%
Counties	39	21	12	33	85%	94%
Water and Sewer Districts	152	77		77	51%	80%
Public Utility Districts	19	16		16	84%	74%
Total	487	268	86	354	73%	

The figures presented in Exhibit III-3 indicate that information was obtained for 73% (354) of the 487 jurisdictions included in the study. In terms of study population, it equates to 90% for cities, 94% for counties, 74% for water and sewer districts, and 80% for PUDs. The combined city and county population encompasses 91% of the state population. It is important to note that population numbers for water and sewer districts and PUDs are based on dues units and water customers, as opposed to population.

A series of maps are enclosed at the end of this section of the report. These maps geographically identify the responding and non-responding jurisdictions. A description of each map is provided below.

- ***Map 1***—displays the responding/non-responding counties and their GMA status. As the map shows, 33 of the 39 counties responded; the 6 that did not respond are not required to plan under GMA. The 33 responding jurisdictions encompass 94% of the state's unincorporated county population.

- ***Map 2***—shows the responding and non-responding cities. A total of 228 cities responded (49 did not) for a 90% coverage rate for the state's incorporated city population.

- ***Map 3***—shows responding and non-responding water and sewer districts overlaid against a map of GMA/non-GMA counties. As the table accompanying the map shows, 77 districts responded to the survey request (75 did not). However, because most of the larger districts did respond 80% of customer or billing units are represented within the study's database.

- ***Map 4***—shows the PUDs eligible for participation in the study (i.e. those that provide water or sewer service). Of the 19 total PUDs providing such services, 16 responded to the survey, for a billing/customer unit coverage of 74%.

As identified above, the study team received information directly from 268 jurisdictions in response to the survey. This was supplemented by 86 plans on file with CTED, which increased the total to 354. Of that total, 30 plans could not be included in the database. These plans were unusable for a number of reasons. The primary reasons these plans could not be used are described in Exhibit III-4. The majority of these unenterable plans (20 plans or 67%) were from cities required to plan under GMA with a population of less than 2,000.

Exhibit III-4, Summary of Unenterable Plans

Reason Plan Unenterable	# of Plans
No "needs" information provided or policy document only	11
No project specific information provided	8
Costs not allocated by year, project, or funding source	5
Plan does not cover study years	2
Other (e.g., engineering study or facility inventory only)	4
Total	30

In summary, the entire database used for the purposes of the study is populated by information for 324 jurisdictions from the total study group of 487 jurisdictions. This summary is provided in Exhibit III-5.

Exhibit III-5, Summary of Information in Study Database

Information Sources	# of Plans
Jurisdictions included in study	487
Jurisdictions responding to request for data	268
Plans obtained from CTED	86
Jurisdictions for which information was obtained	354
Unenterable plans	(30)
Jurisdictions represented in study database	324

4. Database Structure

A study database was created using Microsoft Access to organize and support analysis of data submitted by local jurisdictions. The database contains three separate, yet interrelated tables. They are based on agency, project information, and funding source information. By using an Access database, a broad range of information could be correlated and tabulated to support subsequent analysis. The relational database tables contain the following information:

Table 1: Agency Table

- Jurisdiction Name
- Identification Number
- County
- Jurisdiction Type
- GMA/Non-GMA Identifier
- Population

Table 2: Project Table

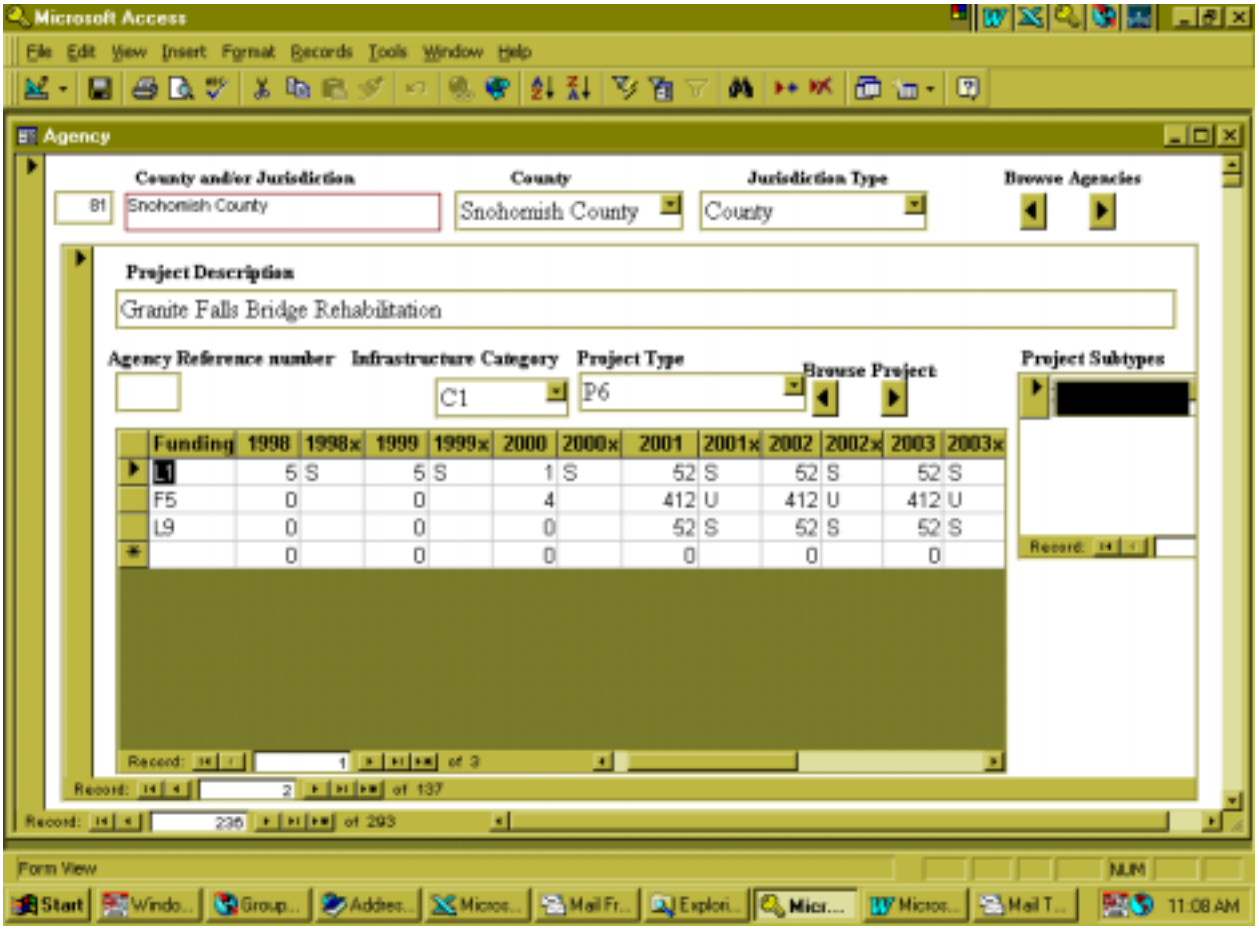
- Project Description
- Agency Reference Number
- Infrastructure Category
- Project Type

Table 3: Funding Source Table

- Funding Sources and Amounts
- Funding Years 1998 - 2004
- Secured/Unsecured Identifier

The design of the study database allowed for considerable flexibility in both data management and subsequent data analysis. The actual data entry screen utilized to enter the information for each jurisdiction is shown in Exhibit III-6.

Exhibit III-6, Data Entry Screen for Study Database



5. Data Entry of Survey Responses

In response to the request for information, jurisdictions submitted either the most recently adopted capital plan or a completed survey. While the Legislature directed the study to draw upon adopted plans as the source of information, not all jurisdictions were able to submit an adopted capital plan. In fact, the study team discovered that the type of planning document prepared by jurisdictions varies considerably. Factors that appear to cause this variance include the size of and type of jurisdiction and whether or not the entity was a GMA jurisdiction.

The variation in data means that, in some cases, information reported on the survey could not be correlated with a formally adopted local government capital plan. However, in many cases, completed surveys provided more detailed information than that contained in capital facilities plans.

Information from the study population of 324 jurisdictions was entered into the study database. Electronically returned surveys were converted directly into the database format. Data distilled from capital facilities plans or capital improvement plans (CIP) were entered manually using the alphanumeric coding created for the survey. In some cases the only information provided came from a jurisdiction's adopted transportation improvement plan (TIP).

The final study database contains over 18,000 records representing projects for the 324 jurisdictions that submitted plans. A sample query of the study database is provided in Appendix C. A number of assumptions were made upon entering data to develop a level of standardization in the records. These assumptions are described below.

- All costs were rounded to the nearest thousand, as this is the standard method used in typical CFPs, CIPs or TIPs.
- Costs were aggregated over the six-year period in some cases. Six-year TIPs report annual costs for years 1 through 3, and aggregate costs for years 4 through 6. In the database, these aggregated costs were distributed evenly over this three-year period.
- In some cases the costs were not differentiated by year. In these cases, the six-year costs for a project were distributed evenly across the six-year period.
- All reported costs were converted to 1998 constant dollars.

6. Survey Response Tracking

As each plan was entered into the database, a tracking system was developed to maintain a general record of information collected from each jurisdiction. For each jurisdiction, the following information was tracked: source document, type of document, whether or not the document had been formally adopted, years covered by the document or data collection form, and components of the document.

The plan components recorded in the tracking system include project narratives, cost differentiation by phases, cost differentiation by project, cost differentiation by funding sources, cost allocation by year, no cost differentiation by funding sources, and a catch all category of "other." The completed plan tracking spreadsheet is included in Appendix D.

7. Data Consistency Adjustments—Constant and Current Dollars

In providing capital plans or completed surveys for the study, jurisdictions were not asked to specify whether reported needs were expressed in nominal (current-year) dollars or real (constant-year) dollar terms. As a result, a mix of formats were received: some jurisdictions reported needs in constant 1998 dollars; some reported needs in constant dollars with a year other than 1998 as the base; and the majority of jurisdictions reported their needs in current dollars, i.e. assuming inflationary increases in costs from year to year. Given this mix of reporting terms and formats, it was necessary to convert all reported data to a consistent format. For analytical purposes it was determined early in the study that 1998 constant dollars would be the common reported format. This approach is consistent with the one used in the 1983 and 1988 infrastructure studies.

The conversion task consisted of an organizational and computational effort. First, jurisdictions that had reported in 1998 dollars were identified. Next, jurisdictions that reported needs in constant dollars in years other than 1998 were identified, and their figures were adjusted to reflect 1998 dollars. Finally, the majority of jurisdictions that reported in current dollars were identified. Those jurisdictions that specified inflation factors were singled out and adjusted to reflect 1998 dollars. The majority of jurisdictions, however, reported current-year dollars and did not include the inflation factors reflected by their reported needs. In these cases, current dollars were adjusted to 1998 dollars with 1998 and 1999 Gross Domestic Product (GDP) deflators published in the Economic Report of the President of the United States. This adjustment task resulted in a database of consistently reported needs in dollar terms, which in turn increased the reliability of analytical findings.

8. Quality of Data

The quality of data available for analysis depended solely upon what the plans contained. Given the broad range of information provided for projects, funding sources, and relationships between the two, the contents of the database reflect a varying level of detail for each jurisdiction. As such, the database presented some challenges as an analytical tool. Some of the significant differences between the plans that impacted study analyses include:

- ***Differences in how jurisdictions describe "secured" funds***—Are they really secured? Are the plans fiscally constrained as required by GMA? Terms used include "potential funding sources," "proposed funding sources," "funding options," and "anticipated funding sources." These terms indicate funding sources may not actually be secured. For water and sewer districts, PUDs, and non-GMA cities and counties there is no requirement for fiscally constrained plans, thus, potentially allowing a broader range of projects to be included in the plans. These plans then potentially conflict in their scope with the GMA "constrained" plans.

- ***Inconsistency in years reported***—Plans were based on different periods of time. For example, one jurisdiction may have a plan that covers the years 1997 through 2002, while another covers the period 1998 through 2003. Plans on file with CTED were generally older than the plans received directly from participating jurisdictions. Also, many jurisdictions have not prepared annual updates of their plans.

- ***Differences in identification of funding sources and amounts***—Some funding sources and amounts were listed by project, but not tied to phases of a project. In other cases, funding sources and amounts were not specified for each year of a project or not even listed by project. In other instances, funding sources and amounts were not identified at all.

9. Verification of Survey Responses

A report summarizing the information for each jurisdiction was prepared and sent to the appropriate jurisdiction for verification. The reports were generated using the database, and they matched the format of the survey.

The purpose of this task was threefold: (1) eliminating projects that may have already been completed and, therefore, should no longer be included in the database, (2) collecting new information to supplement plans that did not cover the study period, and (3) confirming the accuracy of information entered into the database. Revising information and asking the jurisdictions to review the entries was particularly important given the broad range of sources from which the data was extracted. A sample request for verification is shown in Appendix E.

In response to the request for verification, 36 jurisdictions provided changes to the report generated from the database. These changes were entered into the study database. At the same time, quality assurance of the database was performed to identify and correct any data entry errors. For example, where multiple funding codes had been applied to the same funding source, the single, correct code was entered.

10. 1998 Survey Data Collection Issues

After entering the data into the database, the study team conducted an initial analysis of the years for which data had been collected in order to determine how many jurisdictions reported information for each of the years covered by the study (1998 through 2003). Upon review, it appeared the database contained a gap of information for the initial study year of 1998. It was discovered that the primary reason for this data gap was the timing of the information request.

In the fall of 1998, when the request for data was sent to the jurisdictions, many of the jurisdictions had just completed an updated plan for the years 1999 through 2004. While the information for 2004 was not entered into the database, this discrepancy created a gap in the information for 1998 for those jurisdictions. It was determined that a total of 51 jurisdictions submitted plans covering the years 1999 through 2004. In order to resolve the data gap for 1998, a request was sent to those 51 jurisdictions to provide information for 1998. This request for additional information resulted in data being submitted by 33 jurisdictions. An itemization of jurisdictions affected by this issue is provided in Appendix F, along with a copy of the 1998 information request.

The information submitted in response to this issue was entered into the database using two different methods. In some instances, only projects from 1998 were entered, while information for other years covered by the study remained unchanged. In other instances, all records in the database for the jurisdiction were deleted and information was reentered for the entire study period, 1998 through 2003. As a result of adding the additional 1998 data information, the database presented a more complete picture of the needs for the six-year study period.

B. Information Obtained from BARS

In order to quantify historical local infrastructure expenditures, relevant data was extracted from BARS. For cities and counties, BARS provided (1) expenditures by infrastructure category and for roads and bridges also by project type (e.g., planning, acquisition, construction, and improvement), and (2) revenues by funding source. Although BARS provided a considerable amount of data on local government expenditures and revenues, it has several deficiencies regarding level of detail of and linkages between data targeted for this study. A summary of account codes, definitions, and related issues follows:

1. Issues Related to Capital Expenditures

Basic capital outlay expenditure accounts include 594, 595, and 596. Capitalized expenditures are covered by account 594; roads and street construction are included in account 595; and uncapitalized improvements and facilities, except roads and streets, are included in account 596. In addition, Category II local governments can use account 596 for all capital outlays, except roads and streets. They may also use account 594 for capital outlays that are subject to physical inventory. Relevant BARS capital expenditure accounts are provided in Exhibit III-7. Issues related to capital expenditure accounts relevant to this study include:

- BARS does not contain information for water and sewer districts and public utility districts.
- Expenditures are not reported relative to projects.
- Types of projects are identified only for road expenditures, and these categories only partially correlate with the project types prescribed for this study.
- Expenditures are not tied to funding sources.
- Some relevant accounts include additional data not targeted for this study. For example, account 596 includes non-infrastructure capital outlays such as vehicles and equipment.

2. Issues Related to Capital Revenues

Basic resource (revenue) accounts include the 300 series. Revenues are reported by fund. Funds are distinguished between local, state, and federal accounts. The primary, relevant BARS resource accounts are listed in Exhibit III-8. Issues related to resource accounts relevant to this study include:

- Revenues are not reported relative to projects.
- Revenues cannot always be tied to a specific infrastructure category.
- Revenues cannot always be tied to capital only expenditures. Examples include general-purpose revenues, utility rates, and service charges.

Exhibit III-7, Relevant Capital Expenditure Accounts

Infrastructure Category	Account Code	Definition
Roads	• 595.10 Engineering	• The costs of engineering associated directly with a construction project.
	• 595.20 Right of Way	• The purchase of land or interest therein, including all work incidental to the acquisition of property rights for or devoted to a public road/street.
	• 595.30 Roadway	• The costs of all construction within the roadway prism, including all appertaining structures and other necessary features.
	• 595.60 Traffic and Pedestrian Services	• The costs of work on construction projects that relates to traffic and pedestrian service facility installations.
	• 595.70 Roadside Development	• The costs of construction projects involving roadside development. This includes landscaping, beautification, sound barriers, and irrigation.
	• 595.80 Ancillary Operations	• The cost of construction that is not normally associated with the street or road department function but is performed by street or road departments in some localities because of unique geographical or organizational situations.
	• 595.90Constr. Admin./ Overhead	• Supervisory operations. Also includes general services that can be directly associated with the construction function of the department. (Optional)
Bridges	• 595.50 Structures	• The costs of constructing bridges over 20 feet in length, tunnels, sea walls, irrigation canal crossings and live stock crossings that are necessary to provide protection or to provide a means for the roadway to pass over or through an obstacle within the right-of-way.
Water	• 594.34 Water Utilities • 596.34 Water Utilities	• Capitalized water utility expenditures. • Uncapitalized water utility expenditures.
Sewer	• 594.35 Sewer Utilities • 596.35 Sewer Utilities	• Capitalized sewer utility expenditures. • Uncapitalized sewer utility expenditures.
Storm Water	• 595.40 Storm Drainage	• The costs of constructing storm drainage systems. Sanitary sewer systems are excluded.

Exhibit III-8, Relevant BARS Resource Accounts

Funding Source	Account Code	Title
Local		
• General Purpose Revenues	• 311	• General Property Taxes
	• 313.10	• Local Retail Sales and Use Tax
	• 316	• Business Taxes
• Real Estate Excise Tax	• 317.30	• Real Estate Excise Taxes
• Local Option Trans. Taxes	• 313.22	• Local Transportation Tax for HCT
• Road or Street Fund	• 344.50	• Fuel Sales
	• 344.80	• Planning/Development Fees & Charges
	• 344.90	• Other Transportation Fees & Charges
• GO Bonds (voted)	• 382.10, 391.10	• General Obligation Bond Proceeds
• GO Bonds (non-voted)	• 382.10, 391.10	• General Obligation Bond Proceeds
• Revenue Bonds	• 382.20	• Revenue Bond Proceeds
• Impact Fees	• 344.85	• Impact Fees for Transportation
	• 345.85	• Impact Fees for Economic Development
• Developer Contributions	• 367.00	• Contributions and Donations from Private Sources
	• 388.10	• Contribute Capital - Local Sources
• Local Improvement Districts	• 368.00	• Special Assessment Principal
• Utility Rates	• 343.40	• Water Sales
	• 343.50	• Sewer Service Charges
	• 343.83	• Storm Drainage Fees and Charges
	• 343.85	• Street Utility Charges
• Utility Connection Charges	• 388.10	• Contribute Capital - Local Sources
State		
• Trans. Improvement Board	• 334.038	• Motor Vehicle Fuel Tax - Urban Arterial
• Cent. Clean Water Fund		• Not listed in BARS
• WA State Dept. of Transportation	• 334.036	• Motor Vehicle Fuel Tax - County Ferries
• Public Works Trust Fund		• Not listed in BARS
• Community Economic Revitalization Board	• 334.042	
• Department of Health	• 334.049	
• County Road Admin Board	• 334.037	• CRAB
Federal		
• Clean Water State Revolving Fund	• 331.66458 333.66458	• Capitalization Grants for State Revolving Fund
• Drinking Water State Revolving Fund	• 331.66468 333.66468	• Capitalization Grants for Drinking Water State Revolving Fund
• USDA Rural Development	• 331.1076, 1077	• Rural Utilities Service
	• 333.1076, 1077	
• Community Development Block Grant	• 331.1421, 331.1422	• Community Development Block Grants
• ISTEA or TEA-21	• 331,2020, 333.2020	• Highway Planning and Construction
• Federal Emergency Mgmt Agency	• 331.83, 333.83	• Federal Emergency Management Agency
• USDA Forest Service Financial Assistance Plan	• 331.10665, 333.10665	• Schools and Roads—Grants to States
	• 331.10666, 333.10666	• Schools and Roads—Grants to Counties
• Farmers Home Administration	• 331.10404, 333.10404	• Emergency Loans
• Housing and Urban Development	• 331.14, 333.14	• Department of Housing and Urban Development

Due to the limitations of expenditure and revenue data contained in BARS, there was limited basis for comparing historical expenditures to historical revenues and historical expenditures and revenues to projected expenditures and revenues. As a result, this information was not utilized as part of the study analysis. Refer to Appendix G for a summary of relevant BARS data. However, the information obtained from BARS proved to be extremely useful in helping to identify potential changes to BARS that would enable it to play an integral role in future analyses aimed at comparing infrastructure expenditures and revenues and linking historical and projected data.

C. Jurisdictional Sampling

The purpose of jurisdiction sampling process was to supplement the information obtained through the statewide survey, as described above in Section A. Information gathered through the sampling process was used to highlight planning and funding issues identified through the capital facilities plan survey. Specifically, the sampling process enabled the consultant team to learn more about how local governments make planning and funding decisions and how those decision are reflected in capital facilities plans. The results of the sampling process were used for the analysis of ways to improve capital facilities plans and the capital facilities planning process. (See Section IX, Planning Assessment and Suggested Improvements.)

A set of 50 jurisdictions was formulated for this sampling process, including 25 cities, 10 counties, 10 water and sewer districts, and 5 PUDs. A set of criteria was developed to select jurisdictions to participate in the sampling process. Issues relative to capital facilities planning and funding formed the basis for the information sought from these jurisdictions.

1. Sampling Criteria

Selection criteria were used to achieve a representative cross-section of the jurisdictions participating in the study, which reflects the differences that exist between jurisdictions. Five criteria were used to select jurisdictions to participate in the sampling process. The criteria are described below.

a. ***Submitted Capital Facilities Plan***—Jurisdictions were selected from the group that responded to the first data request for their capital facilities plans.

b. ***Plan Types***—Jurisdictions were selected to represent each of the plan types that were identified that characterize the level of detail of information contained in the plans. (Four types of plans were identified. Each type is described in Section VIII of this report.

c. ***Geographic Distribution***—Jurisdictions were selected that represent a distribution between eastern and western Washington for each of the four types of jurisdictions in the study (i.e., cities, counties, special purpose water and sewer districts, and PUDs).

d. ***Population***—Jurisdictions that were selected represent one of four categories of population ranges that were established for this effort. These are 1) under 10,000 population; 2) 10,000 to 50,000 population; 3) 50,000 to 100,000 population, and 4) over 100,000 population. Particular attention was given to addressing urban and rural distinctions as part of this criterion.

e. ***GMA***—Jurisdictions include those that fall under GMA planning requirements and those that do not.

The jurisdictions that were selected to participate in the sampling process are listed in Exhibit III-9. These jurisdictions are also identified in Appendix H, which indicates the criteria that each jurisdiction met. Also, these jurisdictions are depicted in Map 5, which is included at the end of this section of the report.

Exhibit III-9, Jurisdictions in Sampling Process

Cities	Counties	Water/Sewer Districts	PUDS
Bellevue	Adams	Annapolis Water District	Klickitat County PUD
Bellingham	Clark	Beacon Hill Sewer District	Mason County PUD #1
Clarkston	Grays Harbor	Birch Bay Water & Sewer District	Pend Oreille County PUD
Dupont	King	East Wenatchee Water District	PUD #1 of Kitsap County
Ellensburg	Kitsap	Hazel Dell Sewer District	Snohomish County PUD
Everett	Lincoln	Irvin Water District #6	
Kent	Pierce	Lake Stevens Sewer District	
Lacey	Snohomish	Skagit County Sewer District #2	
Lake Stevens	Spokane	Soos Creek Water/Sewer District	
Longview	Yakima	Terrace Heights Sewer District	
Lynnwood			
Newcastle			
North Bonneville			
Oak Harbor			
Omak			
Palouse			
Pullman			
Redmond			
Richland			
Seattle			
Spokane			
Tacoma			
Vancouver			
Wenatchee			
Yakima			

2. Capital Planning and Funding Issues

Working with the Assessment Committee and Technical Advisory Group, a series of capital planning and funding issues were identified to be addressed through the sampling process. A questionnaire was developed from these issues and administered to the sample jurisdictions through telephone interviews and written follow-up. Planning and funding issues explored with the jurisdictions participating in the sampling process are identified below.

Planning Issues:

- What agencies and/or departments have input into the development of the CFP?
- How do jurisdictions determine what is contained in the CFP and the format in which it is presented?
- How do factors such as community needs (e.g., age of systems, population growth, and economic development), regulations or standards, and resource availability influence infrastructure decisions?
- What is the review process as the plans are developed (e.g., input from staff within the jurisdiction and from other jurisdictions)?
- What is the approval process? When in the development of the plans are public hearings held or the general public otherwise brought into the process? What is the process for adopting the plan by the legislative body?
- How often are the various components of the plan updated?
- How is the plan intended to be used within the jurisdiction (e.g., reference document, management tool, or other)?
- What is the public's expected use of the plan, and how does this affect the way information is presented?
- Is the plan considered a tool to understand future growth and development of the jurisdiction?
- How does planning for annexation areas affect the plan and planning process?
- Is there any correlation between jurisdiction characteristics (e.g., size or type) and the level of detail of information contained in capital facilities plans?

Funding Issues:

- What is the percentage of funding sources by infrastructure type, summarized for each jurisdiction and for the sample as a whole?
- What is the utilization of "public" versus "private" funding sources for each infrastructure type? For example, how reliant are jurisdictions on local improvement districts (LIDs) and road improvement districts (RIDs)?

- How are infrastructure projects funded by various types of jurisdictions (e.g., GMA/non-GMA cities; large, medium, and small jurisdictions)?
- What are key external issues affecting revenues (e.g., annexations and court rulings)?
- What are the most important elements of each jurisdiction's infrastructure funding strategy?
- What is the impact of competing demands for limited resources on infrastructure funding decisions?
- What is the percentage of total capital facilities needs by infrastructure type?
- What is the effect of growth on infrastructure funding sources? Does growth change the relative share of funding sources?
- What is the extent of developer contributions as a percentage of total revenues by infrastructure type? How has this changed in the last three to five years?
- What is the level of use of local option taxes? For example, are jurisdictions using all utility tax options, and if not, why? Likewise, real estate excise tax options will be explored.
- What changes, shifts, or trends can be identified for the last three to five years by infrastructure type?
- What types of debt are used and in what amounts by infrastructure type?
- For distressed counties only, how does the jurisdiction plan to spend revenues from the 0.04 percent rebated state's share of the sales and use tax?
- What infrastructure financing options that would be useful are currently not available in Washington?

The planning and funding questionnaires, which were prepared based on the above referenced issues, are presented in Appendix I.

3. Responses to the Questionnaire

Several methods were used to administer the planning and funding questionnaires. The first point of contact with the jurisdictions was that person identified through the earlier data gathering phase of the study. From there, appropriate individuals were identified to provide responses to the questionnaire.

These included staff from planning, public works, and/or finance departments at each jurisdiction.

The planning and funding questionnaires were faxed or e-mailed to each jurisdiction selected to participate in the sampling process. Calls were then made to schedule follow-up interviews to review the questionnaires. Interviews were conducted in person or by telephone. In some cases, multiple departments, such as public works, planning, and finance, collaborated to complete the questionnaires and participate in an interview. The overall response rate achieved administering the planning and/or funding questionnaires was 92%.

D. Focus Groups

Focus groups also played an important role to provide input regarding the format, content, and utility of the capital facilities plans and the way local governments plan for and fund infrastructure projects. The focus groups built upon the collection and analysis of capital facilities plans and the jurisdictional sampling work. The focus groups were designed for participants to share ideas regarding (1) how to strengthen capital facilities plans and the planning process and (2) what options should be considered for funding future infrastructure projects.

Two focus groups were conducted near the completion of this study. The timing of these sessions facilitated the discussion of capital facilities planning and funding issues and the critique of preliminary findings, options, and suggestions.

Focus group participants were identified through a number of sources. As with the jurisdictional sampling, participants were selected to provide representation from all four types of jurisdictions participating in the study and to provide a balance between planning and funding disciplines. Additionally, some members of the focus groups were "experts" in the fields of planning or finance who had not previously been involved with the study.

Each focus group was conducted as a half-day session. To achieve geographic diversity, one session was held in Seattle and the other in Spokane. The participants of each group are identified in Appendix J, along with the invitation and agenda for these events.

E. Summary of Data Collection and Database Development

Through the collection of survey information, database development, jurisdictional sampling, and focus group participation, the study team developed a broad overview of the capital facilities planning process in the state of Washington. Moreover, the results of this effort established a significant database from which to conduct analysis of funding needs, funding utilization, level of use of funding sources, and gaps in funding. This database provided the foundation for the analysis in this report and the architecture for a future method for recording, analyzing, and reporting local government needs.

While the study team sought to fully document infrastructure needs and funding through these data collection methods, a variety of factors limited the comprehensiveness and consistency of the data. First, not all jurisdictions responded to the survey by submitting plans. Second, of those who responded, the format for recording information in CFPs or

CIPs varied widely creating gaps in the database. Third, jurisdictions interpreted the GMA requirements to prepare fiscally constrained plans in many different ways. This resulted in significant differences in how jurisdictions reported funding needs. Moreover, the study jurisdictions included non-GMA cities and counties, water and sewer districts, and PUDs, none of whom are required to prepare fiscally constrained plans.

Regardless of the gaps and differences, the data included in the database is rich with information to identify and analyze infrastructure needs and funding as described in the subsequent sections of this report. A discussion on improvements to capital facilities plans and planning process derived from this information can be found in Section IX of this report.

IV. Funding Needs

This section of the report covers four aspects of infrastructure needs. First, it presents statewide infrastructure needs based on data reported by 324 jurisdictions. Second, it provides extrapolated results for all jurisdictions and all years covered by the study. Third, it provides an example of what unconstrained needs might look like. Finally, this section of the report puts the results of this study in context with previous infrastructure studies.

Of the 16,000 water systems in the state of Washington, most are privately owned. About 1,800 are public entities, and about 200 systems serve approximately 80% of those served by public entities. Because the study is focused on publicly-owned water systems, the study does not cover the needs of small, rural, or suburban systems which may also lack access to capital and have significant needs. A survey conducted by the Environmental Protection Agency (EPA) in 1995 covered some Washington water system needs by size of system, and type of need. The State Department of Health (DOH) consistently works to identify and document these needs, which will be updated during 1999.

A. Funding Needs Based on Core Data

The primary focus of assessing needs was the quantification of infrastructure funding needs for the 1998 through 2003 study period based on information contained in capital plans. Analysis of the study database showed that, based on the 324 reporting jurisdictions, total needs for the five infrastructure types for 1998 through 2003 are projected to be $8.16 billion in 1998 dollars. Exhibit IV-1 shows the needs by jurisdiction type, with the following distribution: cities 59% ($4.81 billion), counties 34% ($2.89 billion), water and sewer districts 6% ($0.37 billion), and PUDs 1% ($0.09 billion). Special districts do not exhibit great needs because their infrastructure programs are often addressed on a “pay-as-you-go” basis, funded by rates and charges and meeting needs as they arise.

Exhibit IV-1, Total Needs by Jurisdiction Type: 1998-2003

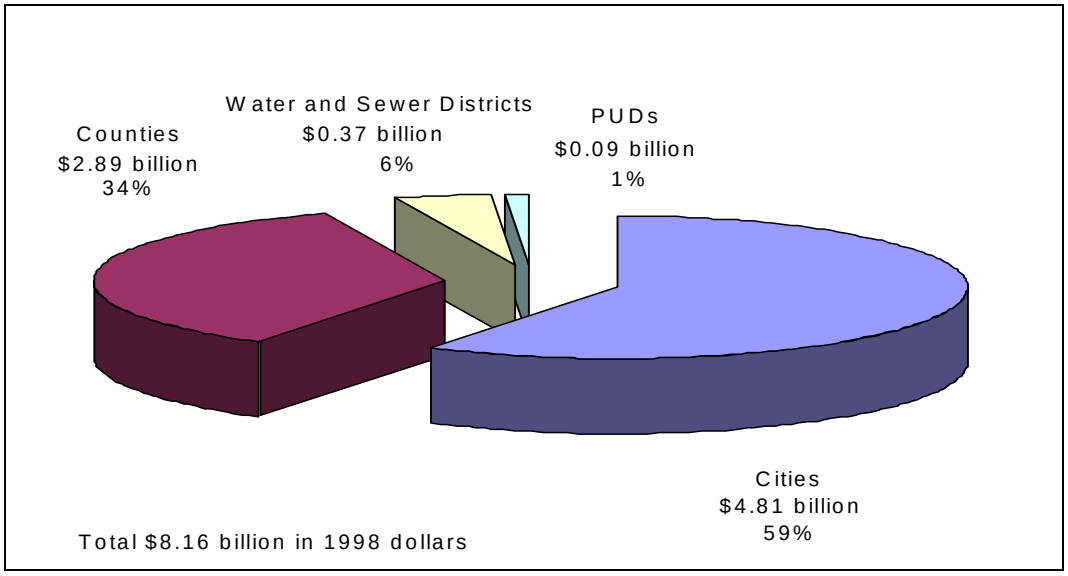
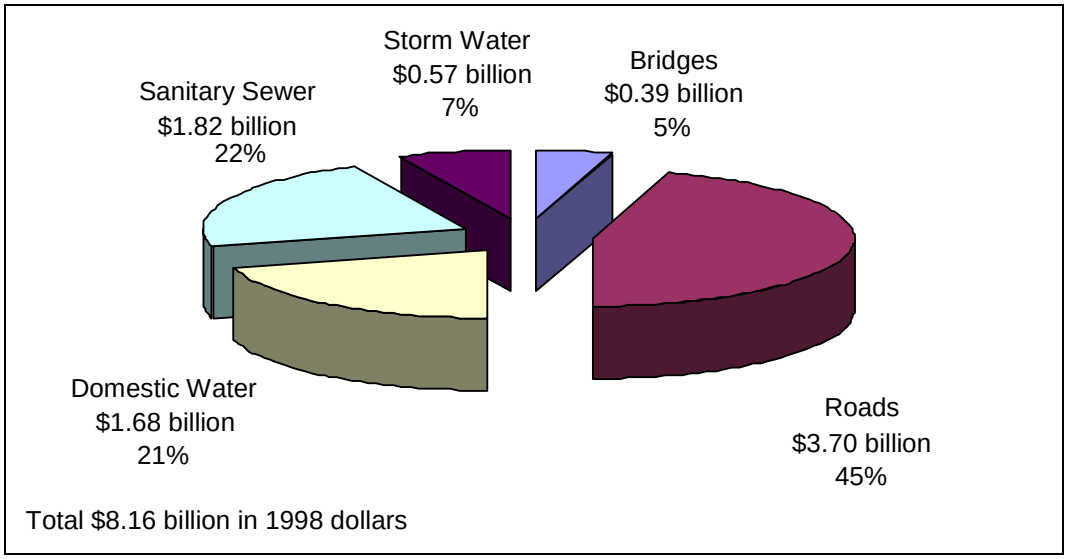


Exhibit IV-2 portrays these needs by type of infrastructure category. As the figure shows, transportation (i.e., roads and bridges) comprises the largest share of the need at 50% or $4.09 billion. The remainder of the funding needs consists of domestic water systems at 32% or $1.68 billion, sanitary sewer systems at 22% or $1.82 billion, and storm water systems at 7% or $.057 billion.

Exhibit IV-2, Total Needs by Infrastructure Category: 1998-2003



Exhibits IV-3 and IV-4 illustrate projected funding needs by jurisdiction type for each of the five infrastructure types examined in the study. As Exhibit IV-3 shows, roadway funding needs of $3.7 billion for the period 1998 through 2003 are split between cities 61% ($2.25 billion) and counties 39% ($1.45 billion). Bridge funding needs for the same period are projected in Exhibit IV-4 to be $0.39 billion, with counties projecting $0.22 billion (58%) and cities projecting $0.17 billion (42%) of those needs.

Exhibit IV-3, Road Funding Needs: 1998-2003

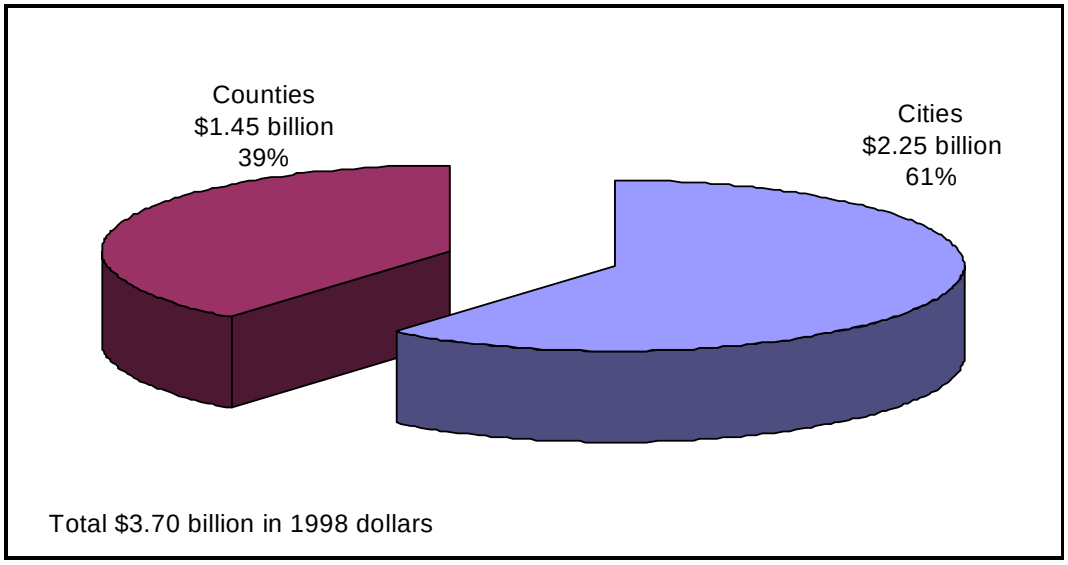
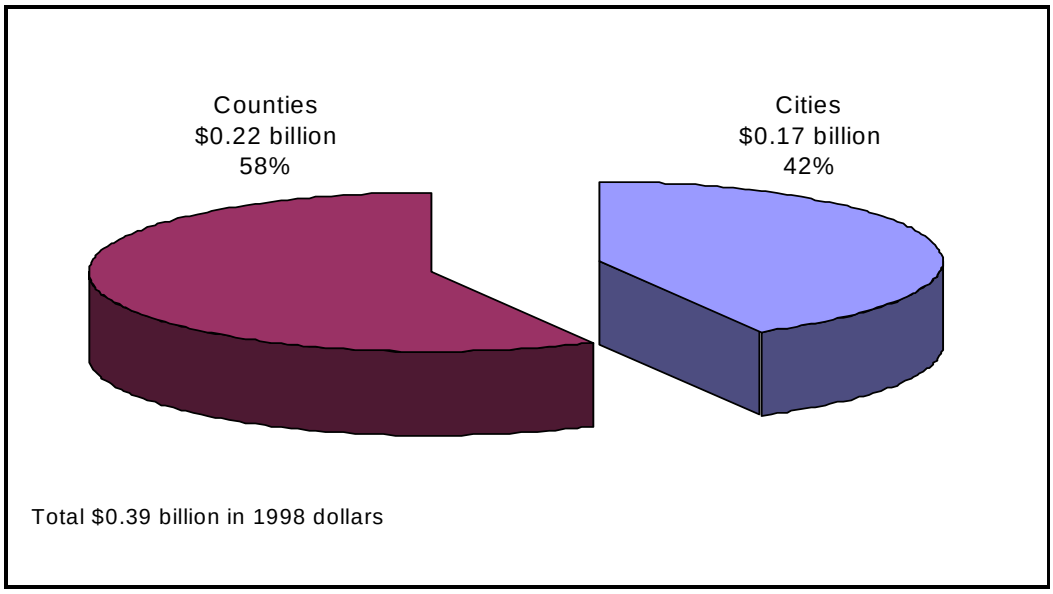
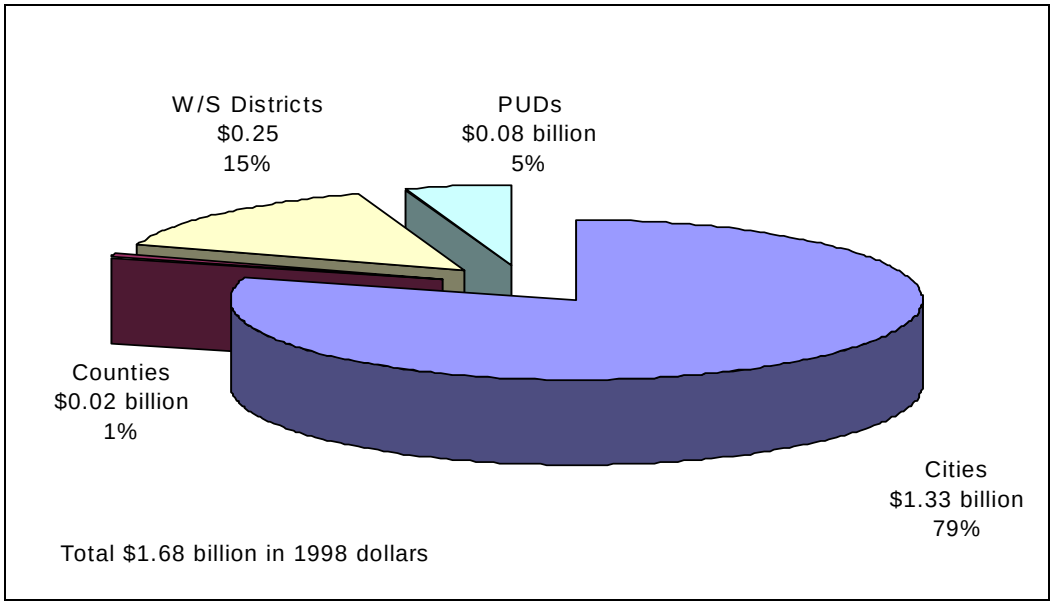


Exhibit IV-4, Bridge Funding Needs: 1998-2003



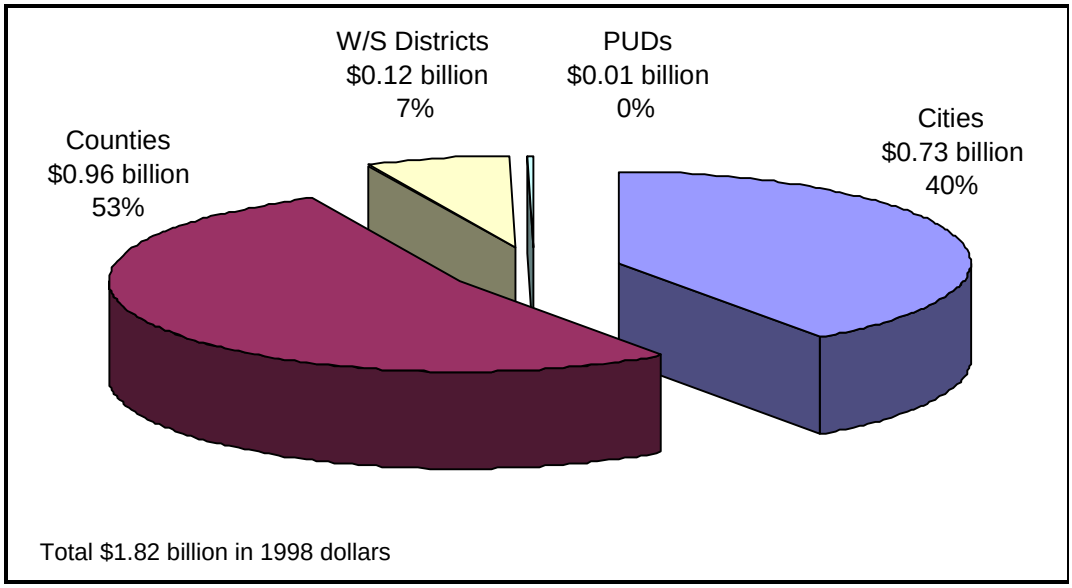
As Exhibit IV-5 indicates, the majority of domestic water system funding needs for the period are projected to be with cities at $1.33 billion or 79% of the total. Water and sewer district needs comprise 15% of the total at $0.25 billion, PUDs comprise 5% at $0.08 billion, and counties comprise 1% at $0.02 billion.

Exhibit IV-5, Water System Funding Needs: 1998-2003



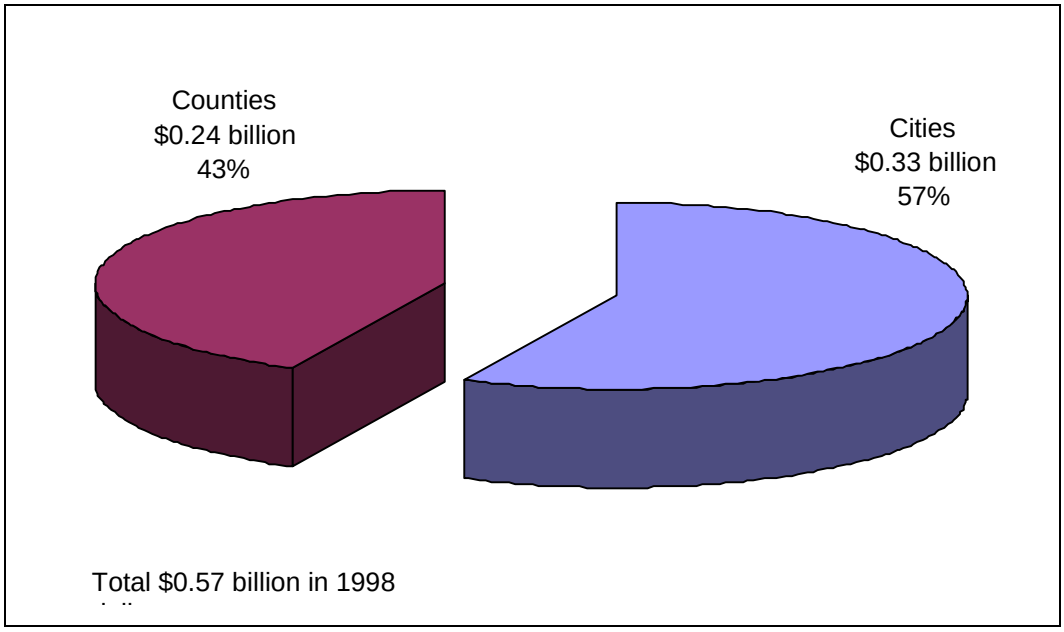
Projected sanitary sewer funding needs are shown in Exhibit IV-6. As the figure shows, counties have 53% of the need ($4.96 billion), cities have 40% ($0.73 billion), water/sewer districts have 7% ($0.12 billion) and PUDs have less than 1% ($0.01 billion).

Exhibit IV-6, Sewer System Funding Needs: 1998-2003



Projected storm water funding needs are shown in Exhibit IV-7. Total needs of $0.57 billion are split between cities at 57% or $0.33 billion and counties at 43% or $0.24 billion.

Exhibit IV-7, Storm Water Funding Needs: 1998-2003

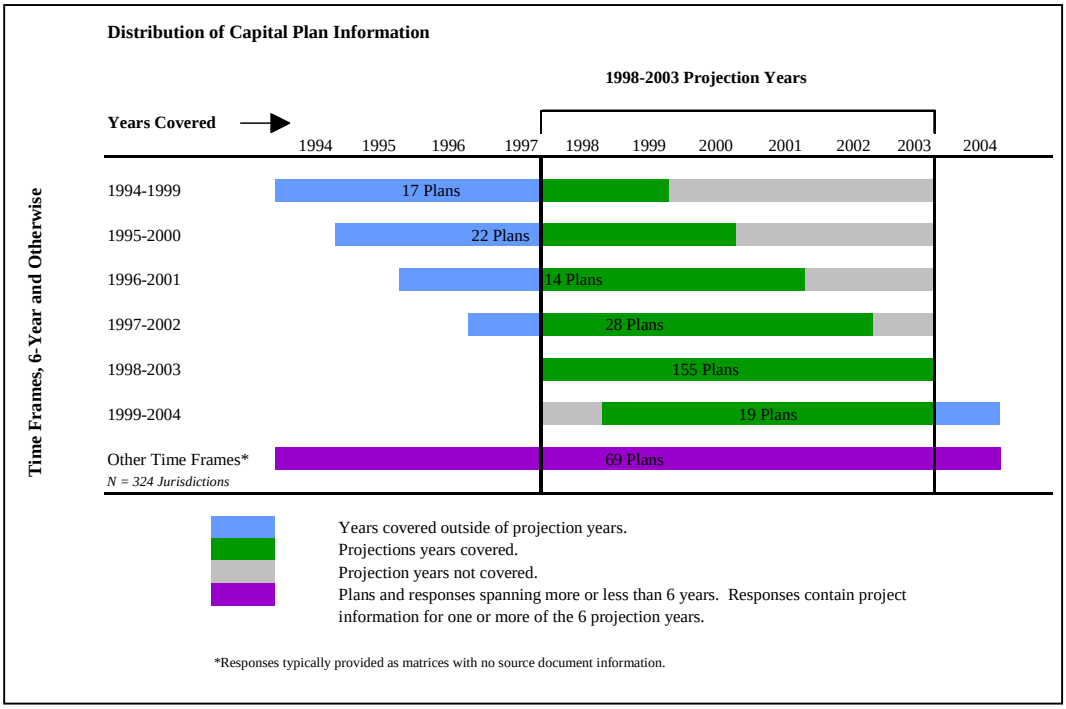


B. *Limitations on Determination of Full Statewide Needs*

As discussed above, projected needs for roads, bridges, water, sewer, and storm water systems for the 1998-2003 planning period are based on plans compiled from 324 jurisdictions. However, a number of those plans do not fully cover the six-year study period; some begin with 1999 and, therefore, are missing data for 1998 (19 plans) and many more begin earlier than 1998 (some as early as 1994) and, therefore, do not extend to 2003 (81 plans). These missing plan years, dubbed the missing "heads" and "tails," and their associated missing data, constitute one way in which the study represents a "snapshot in time" based on available data. It also represents a small and unavoidable limitation on the study's ability to portray total and complete statewide needs.

The plan-year coverage of the 324 plans in the database is shown graphically in Exhibit IV-8. As this graphic illustrates, only 155 of the 324 plans in the database encompass the years 1998-2003 (48%). The rest of the plans cover less than the full six years.

Exhibit IV-8, Sliding 6-Year Plans: Plans Cover a Range of Planning Periods



Analysis of the distribution of the plan years in the database shows the following mix of jurisdictional planning horizons. Plans in the "Other Timeframes" category include plans submitted that were either more or less than six years (i.e., two-year plans, 20-year plans, etc.). The distribution of plans by planning timeframe is summarized in Exhibit IV-9.

Exhibit IV-9, Summary of Plans by Planning Horizon

Planning Horizon	Number of Plans	Percent of Total
1994 through 1999	17	5%
1995 through 2000	22	7%
1996 through 2001	14	4%
1997 through 2002	28	9%
1998 through 2003	155	48%
1999 through 2004	19	6%
Other Timeframes	69	21%

In addition to the missing plan years, a second data limitation relates to the number of jurisdictions represented in the database. As previously discussed, 487 jurisdictions are within the study's purview, and 324 jurisdictional plans were entered in the database, representing approximately 91% of the state's population. This leaves 163 jurisdictions whose plans are not represented in the database.

C. Extrapolation of Reported Needs

In order to address these data limitations and develop a full and comprehensive picture of statewide infrastructure needs, two statistical estimation procedures were used to extrapolate the study's reported needs to total needs. The approach and methodology for these two extrapolations are described in detail in Appendix K. The relationship between reported database findings and extrapolated totals is shown conceptually in Exhibit IV-10. As the graphic indicates, the shaded square represents the 324 jurisdictions and their reported data for the study period. In addition, there are three areas for which the study data does not present a complete picture of statewide needs. They include:

1. Full six-year period coverage (A to B on Exhibit IV-10)
2. Full statewide coverage (B to C area on Exhibit IV-10)
3. Additional needs beyond those reported in the fiscally constrained plans (C to D on Exhibit IV-10)

Areas #1 and #2 were addressed through the two extrapolations. The results of these extrapolations are summarized in Exhibit IV-11. As the exhibit shows, $1.27 billion in 1998 dollars in additional funding needs if the study's database encompassed all jurisdictions for all six years of the study period. This is a 16% increase over the study's baseline reported needs of $8.16 billion in 1998 dollars.

Exhibit IV-10, Conceptual Depiction of Study Results and Additional Needs

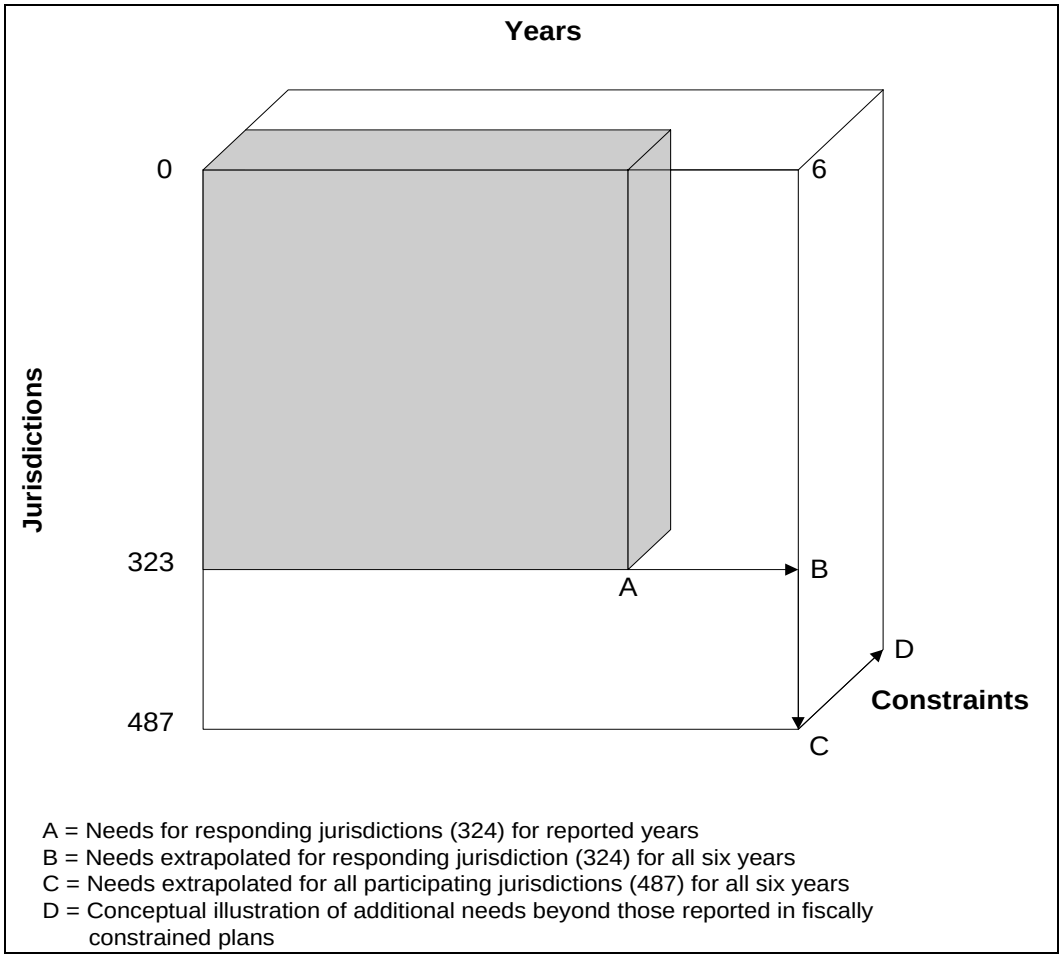


Exhibit IV-11, Summary of Extrapolated Need: 1998-2003

Planning Horizon	Funding Need (in 1998 dollars)	Percent of Baseline Need
Baseline Need	$8.16 billion	
Extrapolation #1	$0.39 billion	5%
Extrapolation #2	$0.88 billion	11%
Extrapolations #1 & #2	$1.27 billion	16%
Extrapolated Need	$9.43 billion	

Please note that the extrapolated estimates were prepared for information only, and were not used in any element of this study's analysis. The following section discusses the third dimension of needs not addressed in the study, the potential effect of fiscal constraint on reported funding needs.

D. Unconstrained Funding Needs are Real, and Outside Study's Scope

A third conceptual step in quantifying full statewide needs would be to take into account the effect of fiscal constraint on reported funding needs. Under GMA, local jurisdictions' capital facility plans are required to show that the financial capacity exists to meet planned improvements. Communities must prioritize their needs from among a comprehensive "list" of projects, carefully balancing community needs, regulatory requirements, and available funding. The resulting financially constrained plan (the six-year plan) constitutes a subset of the full list of projects that a community may actually need and consider for funding. Some projects "don't make the cut."

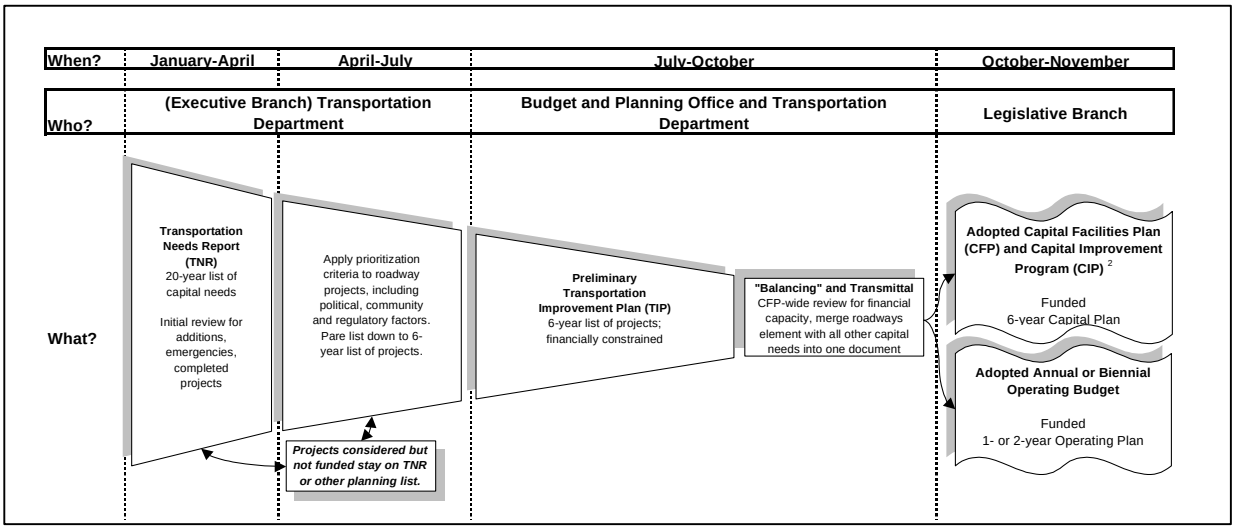
A quantitative analysis of the unconstrained need is not possible from the survey of capital facility plans, since CFPs show only the six-year constrained need, not the full list of needs that communities may have identified. Additional needs beyond those reported in the jurisdictions' fiscally constrained plans often exist, but they are not published in the plans and are not prioritized for funding. A more extensive study, with a different mandate and a different database, would be required to quantify how much greater the statewide funding needs would be if plans were not financially constrained.

In lieu of this extensive study, and because limited examples exist, a single illustration of constrained versus unconstrained need is presented below. This example provides an insight into one (unnamed) Western Washington community's roadway needs, and is provided to show that significant funding constraints do exist.

This jurisdiction has prepared a preliminary (draft) CIP for the years 1999 through 2005, including two project lists. First is the list of "recommended" infrastructure investments for roadways, totaling $38 million, which will become the adopted CFP. The second list is of roadway investments that were "considered but not funded," totaling an additional $30 million. These two lists indicate that, for this jurisdiction, funded needs represent 56% of total needs, or expressed differently, that the unconstrained need is roughly 1.75 times the need that is actually funded. This single example should not be interpreted to represent a statewide need. It simply illustrates that financial constraint affects the funding needs reported for a given jurisdiction.

Exhibit IV-12 graphically depicts the relationship between planning, project prioritization, and funding for a jurisdiction and illustrates the linkage of CIP, CFP, and adopted budget processes. This approach may serve as a useful model for other jurisdictions as they endeavor to both respond to GMA requirements and communicate the magnitude of competing needs and funding constraints to their various constituencies. The exhibit also illustrates the process of "paring down" a list of infrastructure needs to what fit within available funding.

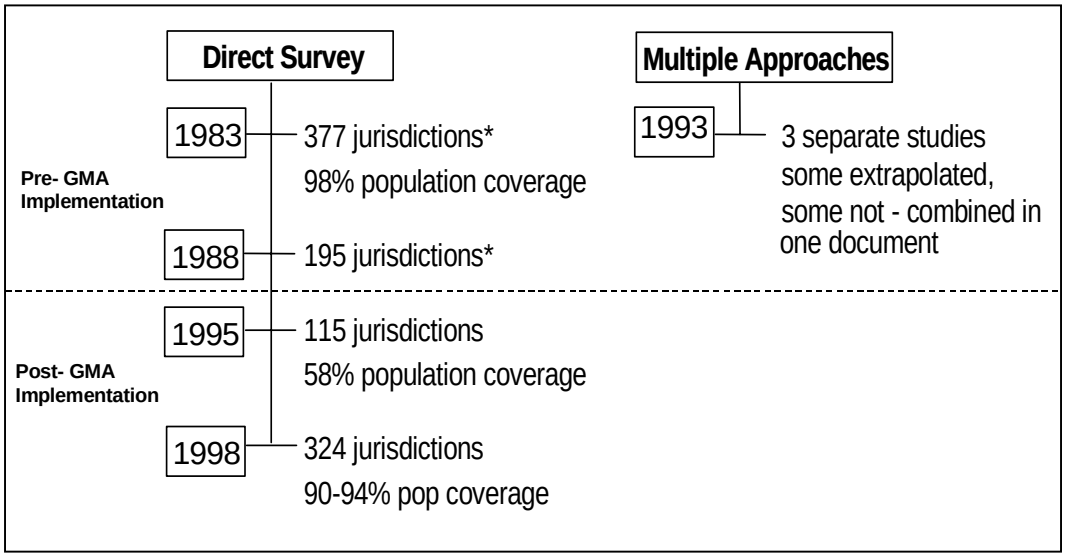
Exhibit IV-12, Example of Capital Planning and Budget Prioritization Process for City Roadway Element



E. Study Findings in Relation to Previous Studies

As previously noted, several statewide infrastructure needs assessment studies have been conducted in recent years. To facilitate a comparative review of the various studies and their findings, a summary analysis of each of the plans was prepared. Exhibit IV-13 summarizes the various approaches and coverage levels of the current study and its four predecessors.

Exhibit IV-13, Five Infrastructure Studies Conducted: 1983-1998



*Includes diking, irrigation, reclamation, and flood control districts.

As the figure shows, the first major infrastructure study was undertaken in 1983. This study, which encompassed a seven-year period, involved a major level of effort by state agency staff. This effort, including workshops held around the state to assist jurisdictions in responding, resulted in a relatively high response rate—377 jurisdictions and 98% statewide population coverage. The 1988 study was a much briefer update of the 1983 effort, with 195 jurisdictions participating.

The 1993 study is distinct from all other studies, including the current analysis, in that it did not utilize a direct jurisdictional survey approach. Instead, the study was divided by infrastructure types, with different state agencies responsible for assessment of each component part. Needs were projected using different methodologies for each infrastructure type, with the component findings reported individually, and brought together via a policy advisory committee.

The next study, conducted in 1995, came in the early phases of GMA implementation. This study used the direct survey approach to obtaining six-year plans prepared under GMA requirements. The study encompassed 115 jurisdictions, representing 58% of the statewide population.

Exhibit IV-14 summarizes the infrastructure funding needs of each of the five statewide studies, with previous study totals inflated to 1998 dollars for comparative purposes. In addition to the methodological and population coverage differences discussed above, the studies also present a mix of planning periods. The 1995 and 1998 (current) studies used a six-year horizon, the 1988 and 1993 studies used five years, and the 1983 study used seven years, which was normalized to five years for comparative purposes. (Note: this normalization was performed for the report *A Comparative Study of the 1983 and 1993 Public Works Reports, June 1993;* the normalized numbers were used in this analysis.)

Exhibit IV-14, Summary of Infrastructure Study Results: Comparative Needs Assessment

System	1983 Study 1984-1988 (5 years)	1988 Study 1989-1993 (5 years)	1993 Study 1993-1997 (5 years)	1995 Study 1995-2000 (6 years)	Current 1998-2003 (6 years)
Roads, Streets and Bridges	$ 3,739	$3,449	$ 7,011	$2,441	$4,093
Storm Water/Sewer	1,803	793	2,499	1,613	2,388
Water	703	365	1,838	1,065	1,684
Total	$ 6,244	$ 4,607	$ 11,348	$5,119	$ 8,165

All amounts expressed in millions of 1998 dollars.

Notes: Data from 1983 and 1993 studies were normalized to a five-year period (1984-1988 for 1983 study; 1993-1997 for 1993 study.)
Source: A Comparative Study of the 1983 and 1993 Public Works Report, June 1993

As Exhibit IV-14 shows, no clear trend among the various study findings is apparent. Study participants have designed the current study to serve as a benchmark for future analyses, so apples-to-apples and dollars-to-dollars comparisons can be made more readily.

F. Summary of Findings

Cities, counties, water and sewer districts, and public utility districts report that $8.16 billion in funding is needed to fund infrastructure across all types of projects for the years 1998-2003. Funding needs by infrastructure type are split evenly (50%/50%) between transportation (roadways and bridges) and utility projects (water, sewer, and storm drainage) for these years. The most significant needs are for city streets ($2.25 billion and 61% of total road needs) and city water systems ($1.33 billion or 79% of total water needs), and county sewer systems ($4.96 billion or 53% of total sewer needs).

Extrapolating reported needs of $8.16 billion to a full, statewide need requires two steps: (1) extrapolating for submitted plan that do not fully cover the six-year planning period, and (2) extrapolating for plans not received. Taken together, these two extrapolations produce a total estimated statewide need of $9.43 billion, or 16% more than the reported baseline total. It is worthwhile to recognize that fiscal constraint requirements place a further limit on fully estimating the total statewide need.

V. Funding Utilization

A. Projected Funding by Source

Using the study's database, revenues projected to pay for infrastructure projects reported by jurisdictions for the period 1998 through 2003 were compiled and analyzed. Exhibit V-1 shows total projected funding (revenues) by source for the study. As the graphic shows, 47% of total revenues are projected to be derived from local sources. This category includes all locally-derived general tax revenues, utility rates and charges, and revenues from "private" sources, (defined as LIDs, RIDs, impact fees, utility connection charges, developer contributions, and other growth-related mitigation funding programs). The "local" category also includes gas tax proceeds distributed by the state to cities and counties for deposit in the jurisdictions' road and street funds. These gas tax funds, while treated in the study as "local," are state-shared revenues.

Exhibit V-1, Total Funding by Source: 1998-2003

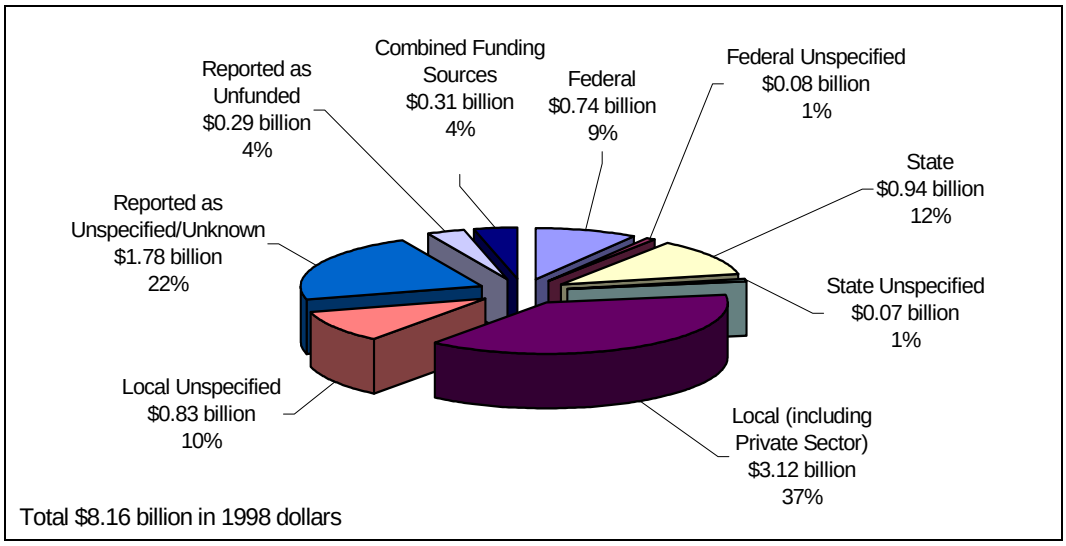


Exhibit V-1 also shows that 10% of projected revenues are anticipated to come from federal sources ($0.82 billion) and 12% from state sources ($1.01 billion). Four percent ($0.31 billion) of projected revenues are planned to come from multiple or combined funding sources, which could not be disaggregated for analytic purposes. These revenues are categorized in the study as "combined" funding sources.

One of the study's most significant findings concerns the "unspecified/unknown" and "unfunded" categories shown in Exhibit V-1. The data show that 22% ($1.78 billion) of projected revenue needs were classified by the jurisdictions as "unspecified/unknown" and another 4% ($290 million) were categorized by the jurisdictions as "unfunded." The reported as "unspecified/unknown" category includes revenue sources specifically identified in the plans as "unknown" and "unspecified" as well as non-specific grants and loans identified as revenue sources. For example, when a jurisdiction notes that a particular project will be funded by "grant" or "loan," those revenue requirements were grouped into the "unspecified/unknown" category.

Where it was possible to identify the level of government but not the exact nature of the source, the three categories "local unspecified," "state unspecified," and "federal unspecified" were used. This approach reflects the expected source of funding and what is fully known about the use of these sources. This issue will be discussed further in the Funding Gap and Level of Use section of the report, where these same funding sources were treated differently.

Exhibits V-2 and V-3 show projected federal and state funding by infrastructure type, respectively. Exhibit V-2 shows that the majority (77%) of federal funding is expected for transportation projects, including roads (52% or $462 million) and bridges (25% or $183 million). The remainder of expected federal funding for the 6-year period is planned for sanitary sewer systems (19% or $141 million), domestic water systems (3% or $26 million), and storm water systems (1% or $7 million).

Exhibit V-2, Federal Funding by Infrastructure Type: 1998-2003

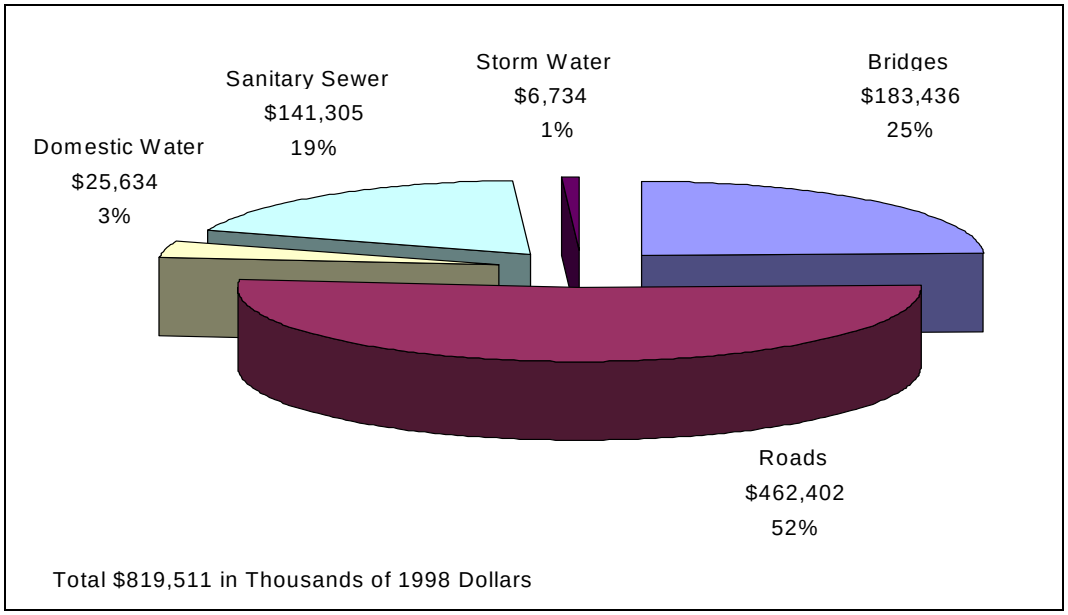


Exhibit V-3 shows state funding by infrastructure type, and again, the majority of funds (79%) are expected to be obtained for transportation projects, i.e., roads (73%, $753 million) and bridges (6%, $59 million). Water systems are projected to receive 11% of total state funding ($102 million), sewer systems 7% ($68 million), and storm water systems 3% ($28 million).

Exhibit V-3, State Funding by Infrastructure Type: 1998-2003

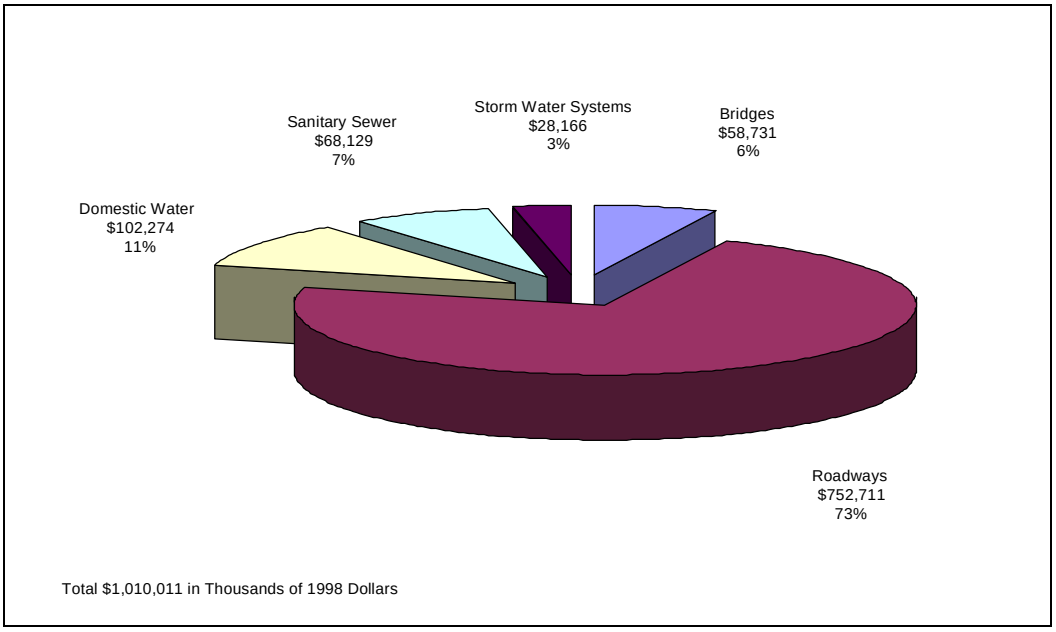


Exhibit V-4 shows local funding expected by infrastructure type. Forty-four percent of local funds are projected to be spent on roadways ($1.78 billion), 30% on water systems ($1.12 billion), 15% on sewer systems ($622 million), 8% on storm water systems ($309 million), and 3% on bridges ($116 million).

Exhibit V-4, Local (Including Private) Funding by Infrastructure Type: 1998-2003

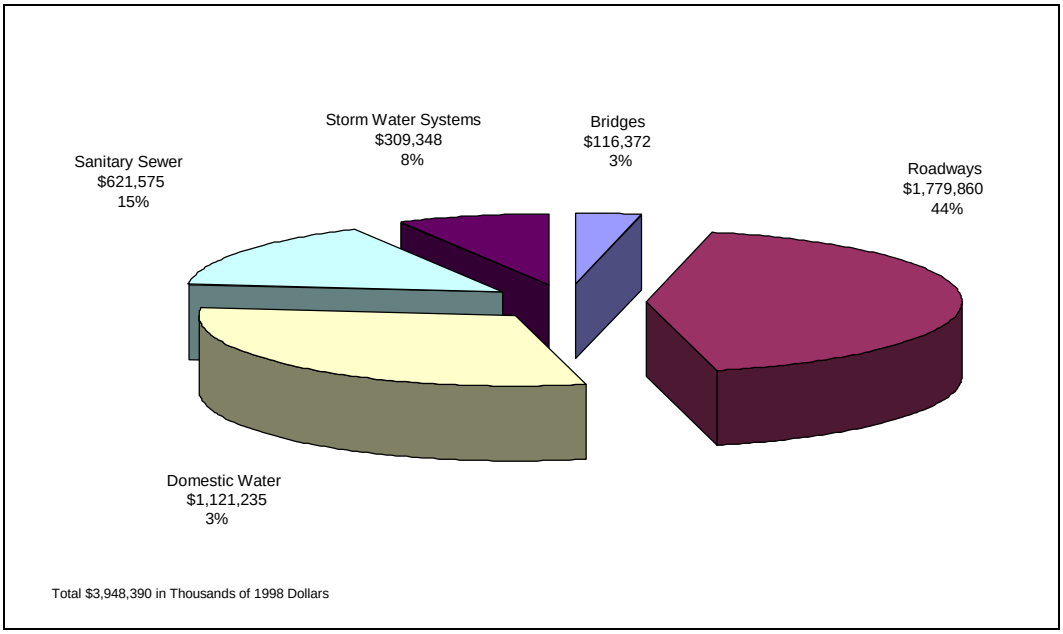


Exhibit V-5 shows the distribution of the "unspecified/unknown" funding category by infrastructure type. Fifty-seven percent of this category is attributable to roadways ($1.06 billion), 25% to water systems ($417 million), 12% to sewer systems ($206 million), 4% to storm water systems ($68 million), and 2% to bridges ($27 million).

Exhibit V-5, Unspecified/Unknown Funding by Infrastructure Type: 1998-2003

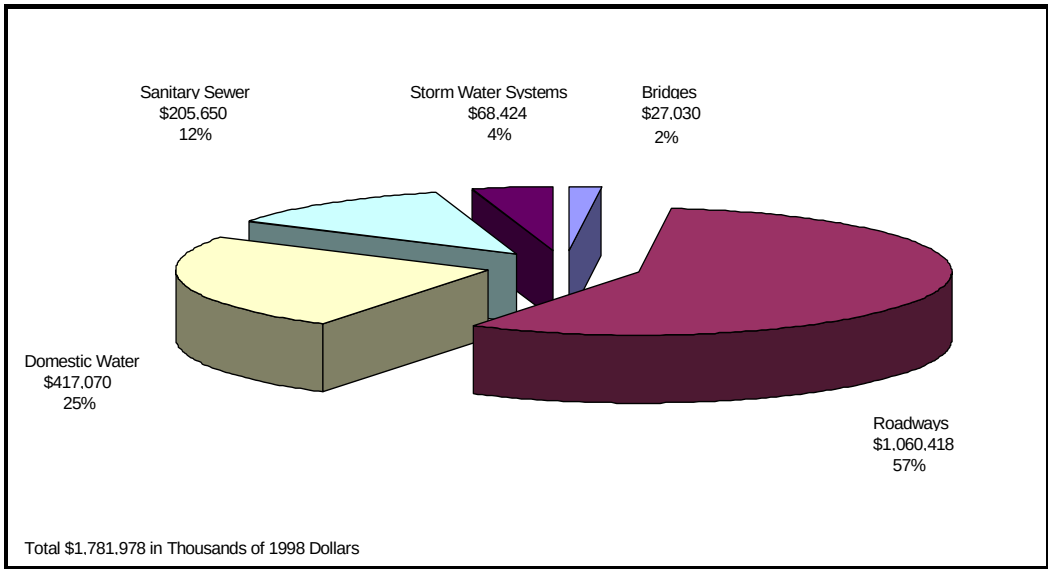
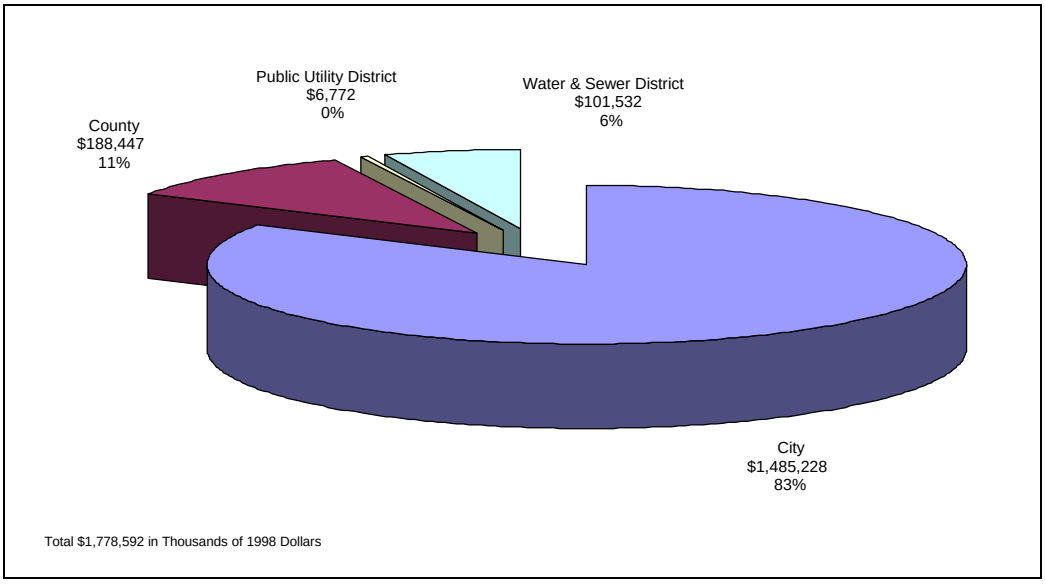


Exhibit V-6 presents the same total "unknown/unspecified" funding needs categorized by jurisdiction type. As the Exhibit shows, 83% of those unknown or unspecified revenues ($1.49 billion) are attributable to cities, 11% to counties ($188 million), 6% to water and sewer districts ($102 million), and less than 1% ($7 million) to PUDs. Note that the Exhibit V-5 and V-6 totals do not exactly match, due to varying levels of detail of data available when sorting by infrastructure type versus jurisdiction.

Exhibit V-6, Unspecified/Unknown Funding by Jurisdiction: 1998-2003



B. Projected Funding by Specific Source or Program

This section presents an analysis of the projected revenue data by specific funding source or program. Exhibit V-7 shows a more detailed breakdown of total federal funding by programmatic source. The exhibit shows that of the total projected federal funding, 60% ($485 million) of the $810 million over the 6-year period is attributable to Intermodal Surface Transportation Efficiency Act (ISTEA) or Transportation Equity Act for the 21st Century (TEA-21) funding; 24% ($195 million) is categorized as "unspecified" federal funding, and the remainder is split among a variety of federal programs, such as Community Development Block Grant (CDBG), Federal Emergency Management Agency (FEMA), the United States Department of Agriculture (USDA) Forest Service Financial Assistance Plan, and the USDA Rural Development Program.

Given that transportation projects comprise such a significant portion of the total expected state funding, the data was further sorted to specifically show federal transportation funding by source, as presented in Exhibit V-8. This graphic shows that of total projected federal transportation funding for the six-year period, 76% is assumed to come from ISTEA or TEA-21 programs, 22% is from unspecified federal sources, meaning that jurisdictions do not know more than the fact that they will likely apply for a federal grant, and the remaining 2% is from the USDA, FEMA, CDBG, Housing and Urban Development (HUD), and the Drinking Water State Revolving Fund (DWSRF) programs.

Exhibit V-7, Federal Funding by Source: 1998-2003

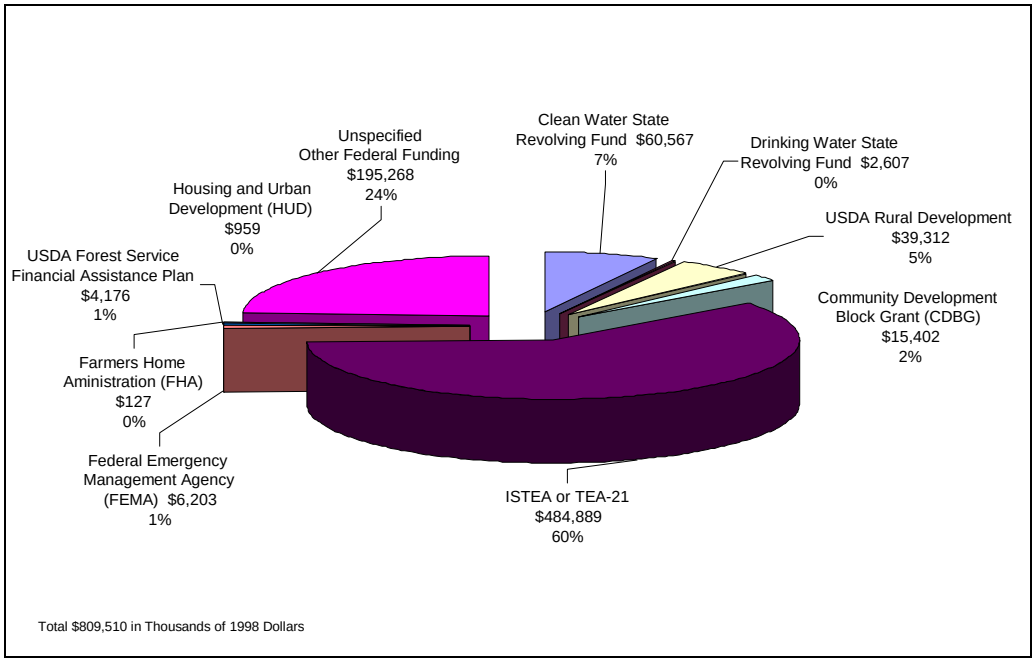


Exhibit V-8, Federal Transportation Funding by Source: 1998-2003

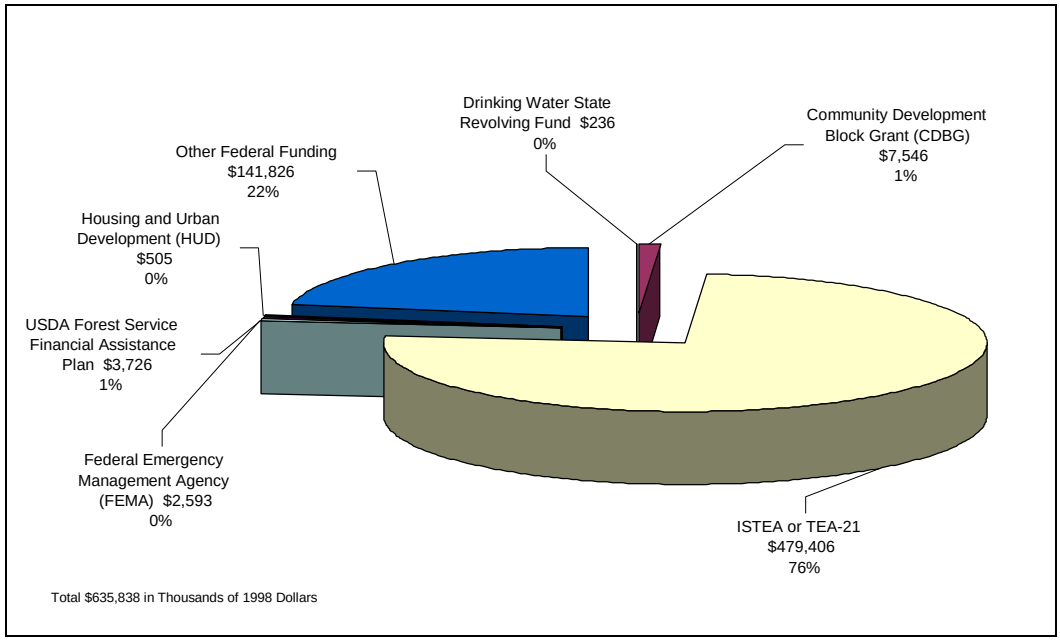


Exhibit V-9 presents total projected state funding by programmatic source. Over the 1998-2003 period, the graphic shows that jurisdictions project 40% of state funding will be derived from Transportation Improvement Board (TIB) funding, 19% from the County Road Board (CRAB), 17% from unspecified state funding sources, 14% from the Public Works Trust Fund (PWTF), 7% from Washington State Department of Transportation (WSDOT), 3% from the Centennial Clean Water Fund, and the remainder from the Community Economic Revitalization Board (CERB) and DOH.

Exhibit V-9, State Funding by Source: 1998-2003

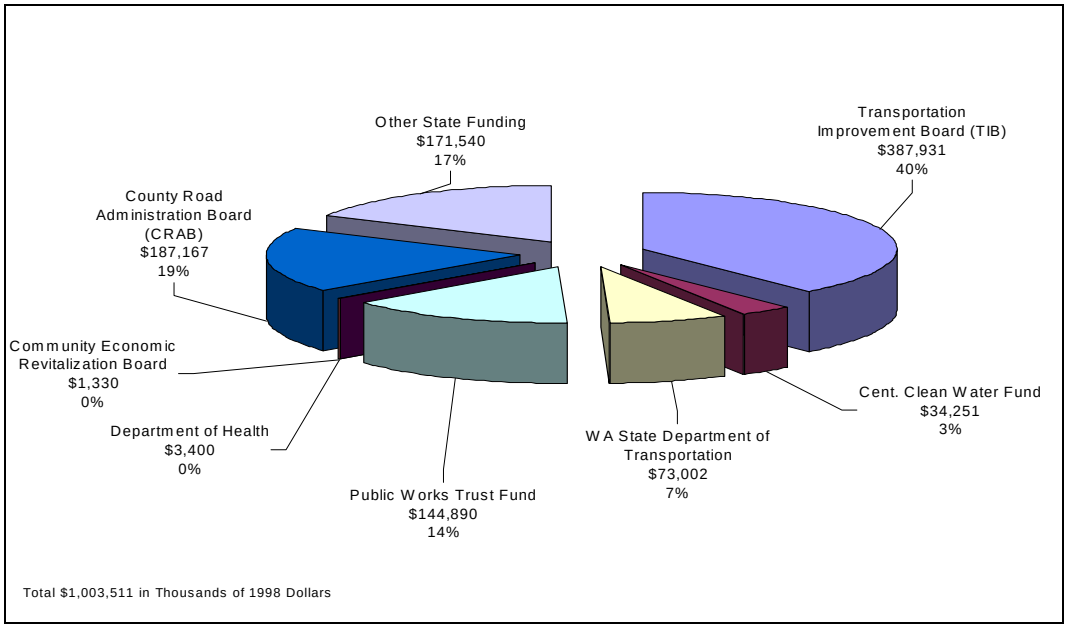
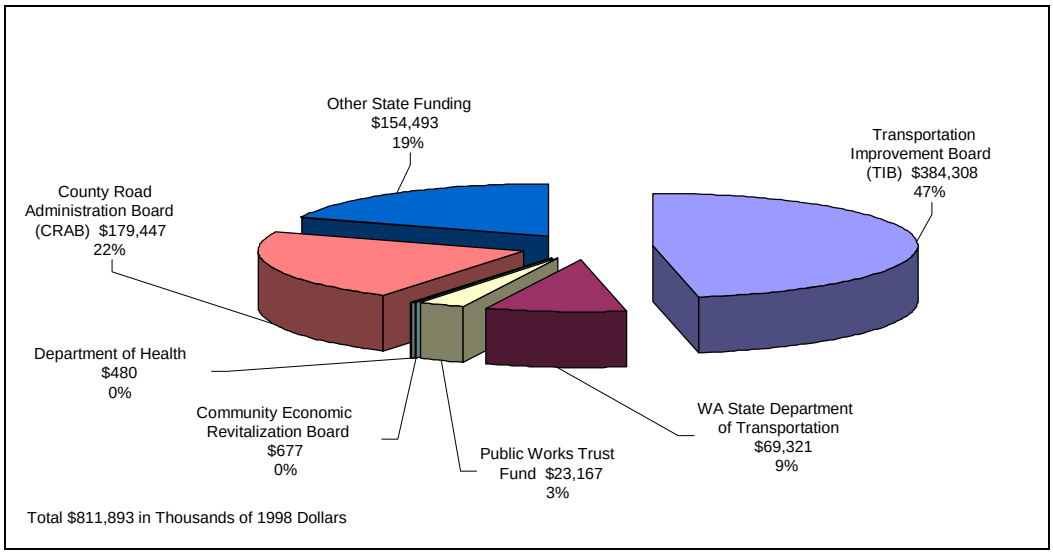


Exhibit V-10 shows projected state transportation funding by source. Of total projected state transportation funding for the study period, 47% is planned to come from the TIB, 22% from CRAB, 19% from unspecified other state sources, 9% from WSDOT and the remainder from the PWTF, DOH and CERB.

Exhibit V-10, State Transportation Funding by Source: 1998-2003



Exhibits V-11, V-12, and V-13 address projected local funding by source. Exhibit V-11 summarizes total local funding ($3.52 billion) by type of source, showing that "private sector" funding comprises 12% ($416 million) of total projected local revenues, bond funding is 18% ($626 million), road or street funding is 18% ($647 million), utility rates are also 18% ($662 million), as is "unspecified/ unknown" local funding ($635 million). Other local funding sources include general purpose revenues (8% of total), intergovernmental contributions (4%), real estate excise tax (REET) revenues (2%), local option transportation taxes (1%), and interest/reserves (1%).

Exhibit V-11, Local Funding by Source: 1998-2003

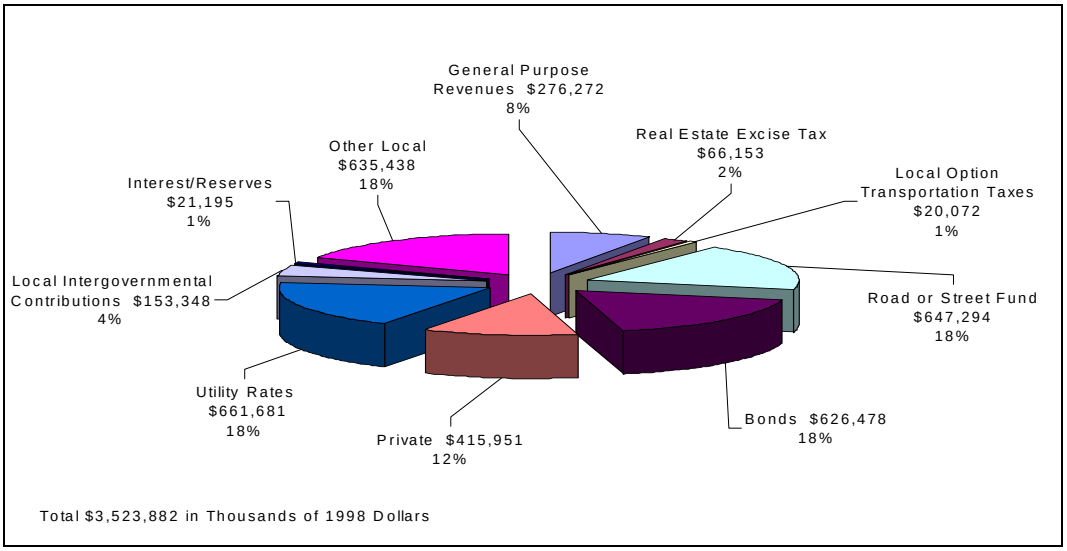


Exhibit V-12 displays local transportation funding by source for incorporated cities. As the graphic shows, cities use a multitude of funding sources to finance transportation improvements – the largest source (28%) is the street fund, followed by general purpose revenues (16%), "unknown/unspecified" revenues (13%), intergovernmental contributions (10%), developer contributions (8%), REET (7%), LIDs (7%), impact fees (4%), local option taxes (2%), and revenue bonds (2%). In addition to these sources, the analysis shows numerous funding sources that contribute 1% or less of total projected local transportation revenues: other unspecified private sources, State Environmental Protection Act (SEPA) mitigation, interest/reserves, utility rates, and general obligation (GO) bonds.

Exhibit V-12, City (Local) Transportation Funding by Source: 1998-2003

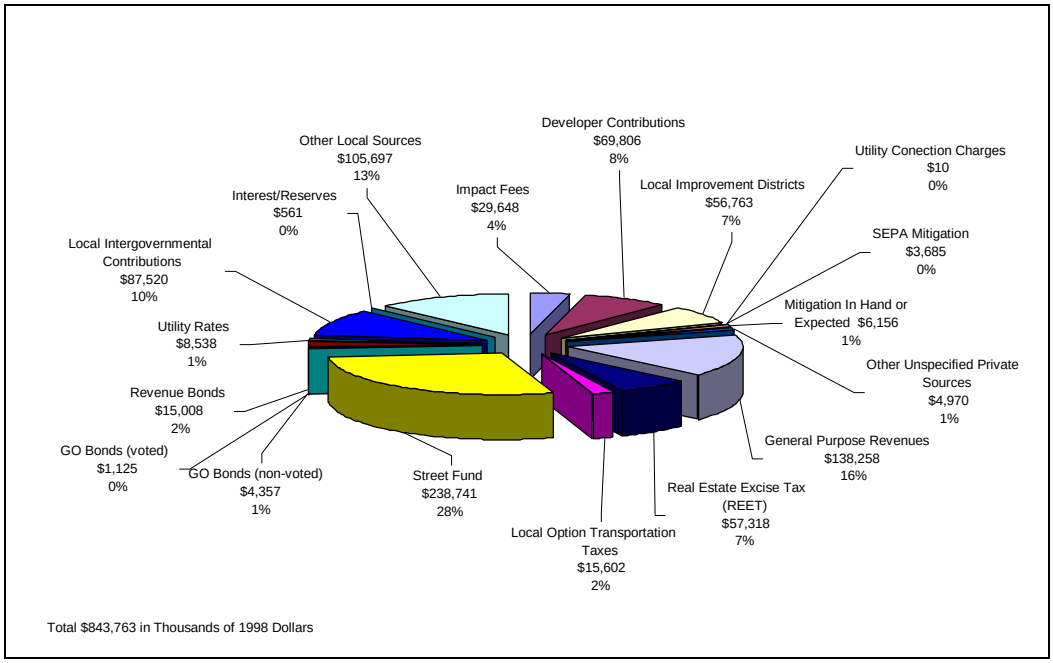
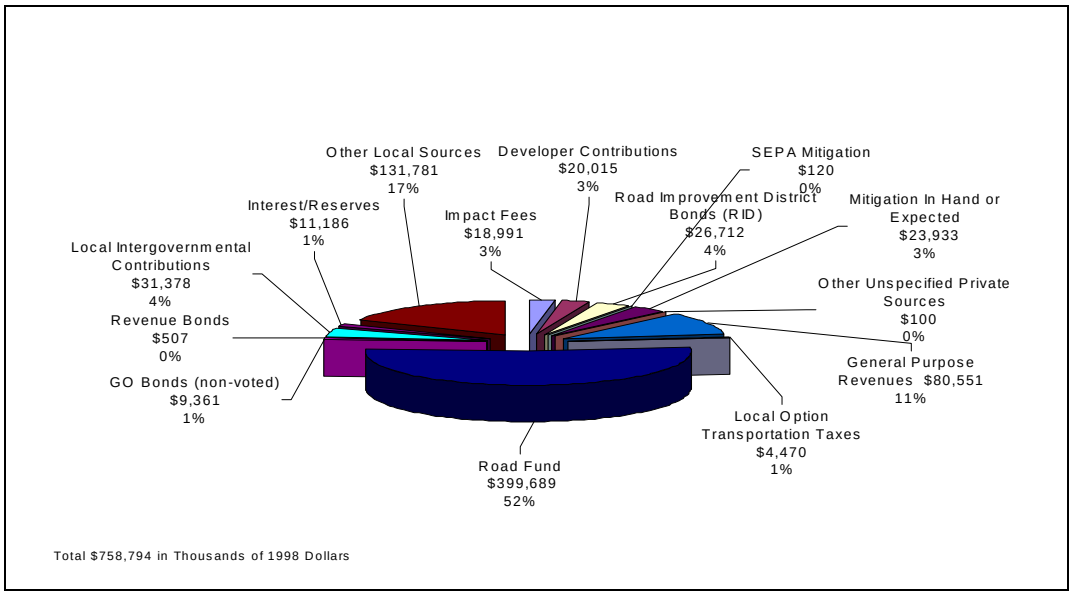


Exhibit V-13 shows local transportation funding sources projected to be used by counties. The graphic shows that road fund revenues comprise 52% of projected revenues, followed by "unknown/unspecified" funding (17%), general purpose revenues (11%), RID bonds (4%), intergovernmental contributions (4%), developer contributions (3%), impact fees (3%) and mitigation (3%). Funding sources projected to contribute 1% or less of total county transportation funding includes other unspecified private sources, SEPA mitigation, interest/reserves, revenue bonds, and non-voted GO bonds.

Exhibit V-13, County (Local) Transportation Funding by Source: 1998-2003



Exhibits V-14 through IV-16 present information on projected private sector funding. Exhibit V-14 displays projected private sector funding by source for the 6-year total of $416 million. The largest projected funding sources are shown to be LIDs (26%), developer contributions (26%), utility connection charges (17%), and impact fees (14%). Other projected sources are mitigation (7%), RID bonds (7%), other unspecified private sources (2%), and SEPA mitigation (1%). A significant amount of infrastructure improvements come from developer extensions, which are not included here, meaning that private sector contributions to infrastructure development are understated. In addition, some utility projects do not include developer extensions, which are infrastructure costs not referenced in CFPs.

Exhibit V-14, Private Funding by Source: 1998-2003

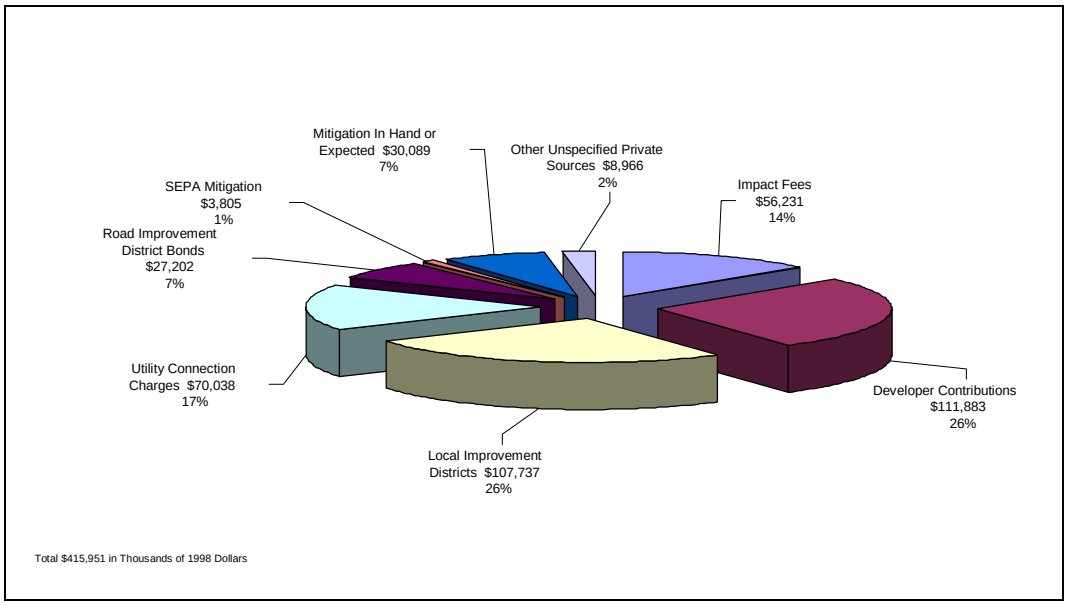


Exhibit V-15 shows total projected private sector funding by jurisdiction type. The graphic shows that 57% of projected private funding is attributable to cities, 26% to counties, 11% to water and sewer districts and 6% to PUDs.

Exhibit V-15, Private Funding by Jurisdiction: 1998-2003

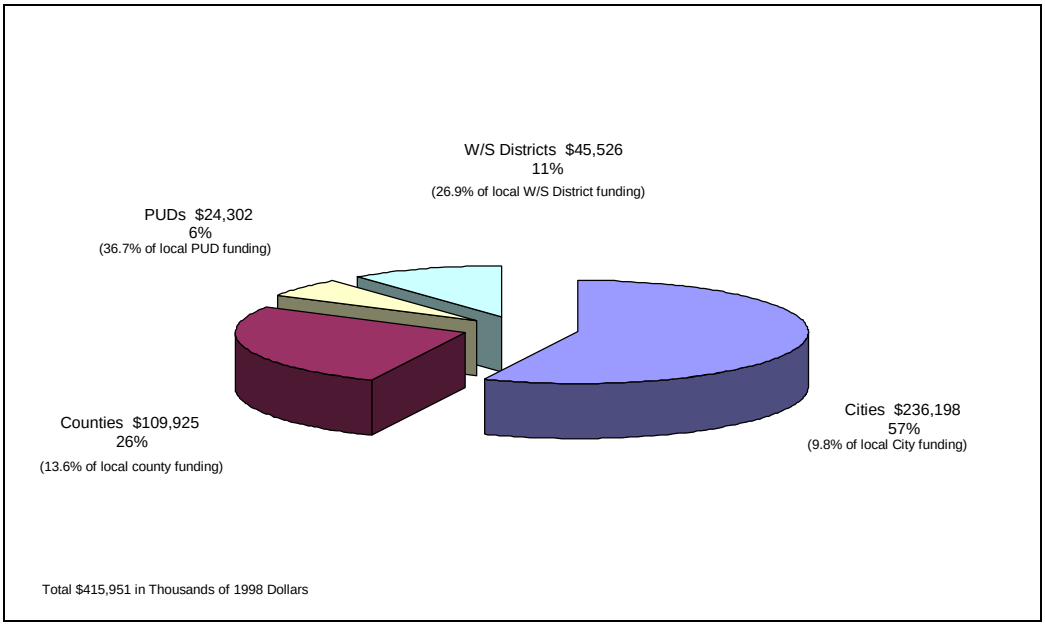
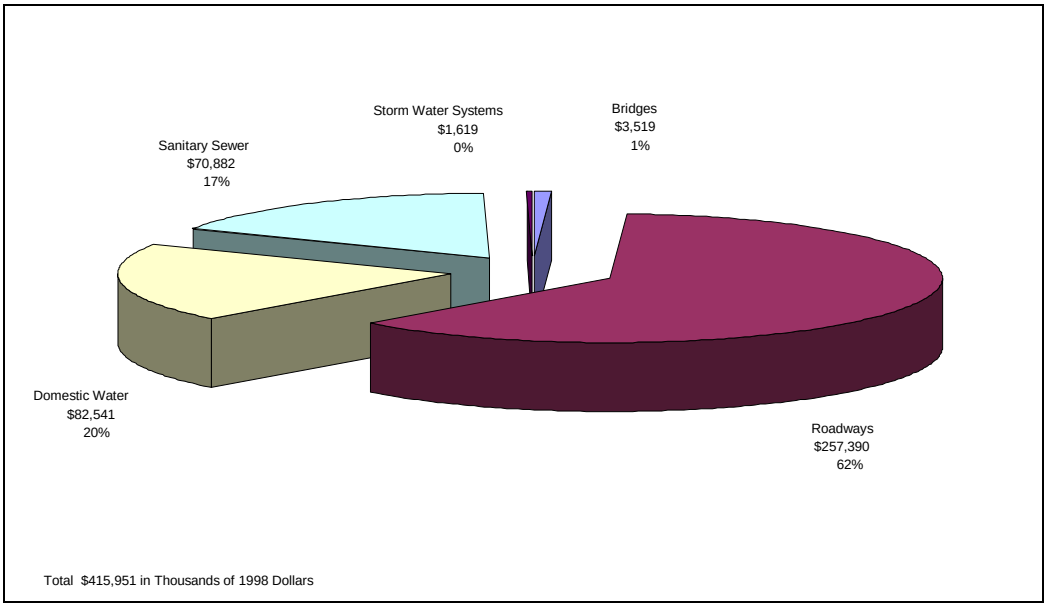


Exhibit V-16 shows projected private funding by infrastructure category: 62% for roadways, 1% for bridges, 20% for water systems, 17% for sewer systems, and less than 1% for storm water systems.

Exhibit V-16, Private Funding by Infrastructure Category: 1998-2003



C. Projected Revenues by Project Type

As a next step in analyzing projected revenues, the data was aggregated and sorted by infrastructure type to show projected revenue needs by project type. Six project types were defined in the survey provided to the jurisdictions:

Planning: Projects or portions of projects dedicated to pre-construction activities including, but not limited to, design, public participation, environmental review, and permitting.

Acquisition: Projects or portions of projects dedicated to acquiring rights-of-way or materials not included in construction costs necessary to complete the capital project.

New Construction: Capacity creating projects or portions of projects dedicated to constructing wholly new capital facilities.

Repair: Projects or portions of projects dedicated to repairing unanticipated damage to existing capital facilities.

Replacement: Projects or portions of projects dedicated to wholly replacing existing capital facilities.

Rehabilitation: Projects or portions of projects dedicated to extending the life of existing capital facilities without wholly replacing them.

Improvement: Projects or portions of projects dedicated to increasing the capacity of existing capital facilities.

To facilitate analysis and understanding of the data, the repair, rehabilitation and replacement categories were aggregated for presentation purposes, as were the planning and acquisition categories.

Exhibit V-17 summarizes total funding by project type, showing that 36% ($2.49 billion) is planned for improvement projects, 31% ($2.09 billion) is planned for new construction, and 30% ($2.01 billion) is for repair/replacement/ rehabilitation. In addition, planning projects are projected to account for 3% ($196 million) and acquisition projects are projected to account for less than 1% ($12 million). The total projected revenue in Exhibit V-17 does not equal the total funding need, because the revenues do not account for the “unfunded” and “unspecified/unknown” funding sources that were not tied to specific projects.

Exhibit V-17, Total Funding by Project Type: 1998-2003

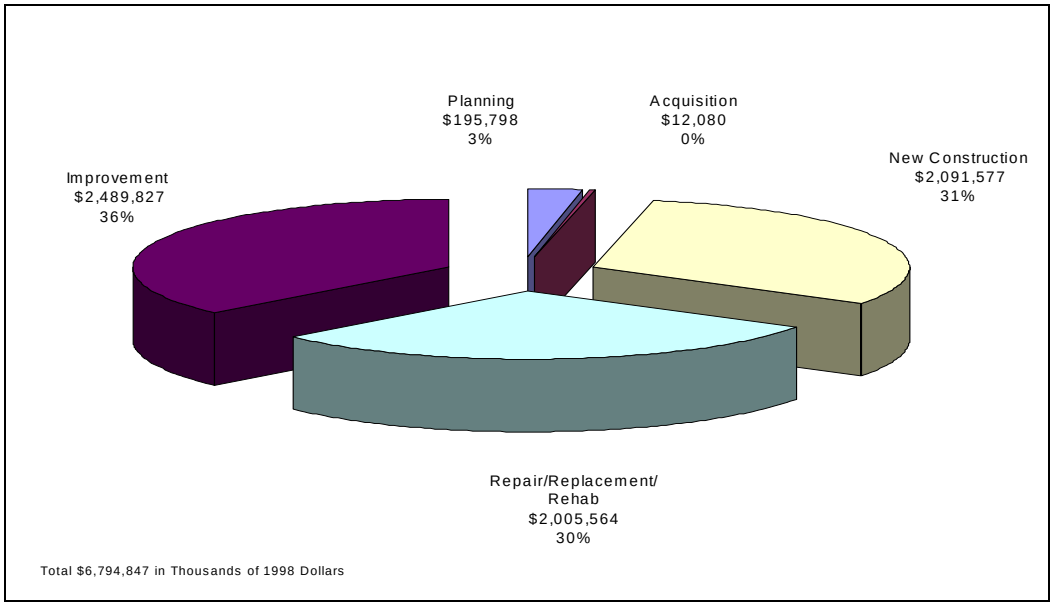


Exhibit V-18 presents projected road revenues by project type, showing that 45% ($1.59 billion) is planned for improvement projects, 23% ($805 million) is planned for new construction, 29% ($1.01 billion) is for repair/replacement/rehabilitation, 3% ($99 million) is for planning, and less than 1% ($3 million) is planned for acquisition projects. Exhibit V-19 displays revenue needs for bridges, showing that roads and bridges have different capital needs: 73% ($277 million) of projected revenues are planned for repair/replacement/rehabilitation, 19% for improvement ($74 million), 7% for new construction ($26 million), and 1% ($5 million) for planning projects.

Exhibit V-18, Road Funding by Project Type: 1998-2003

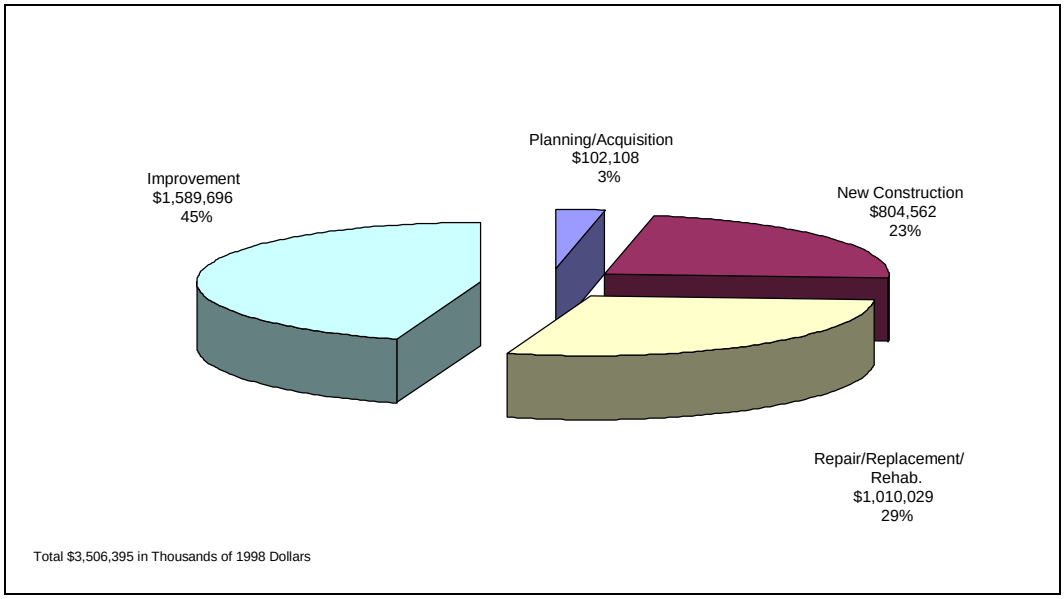
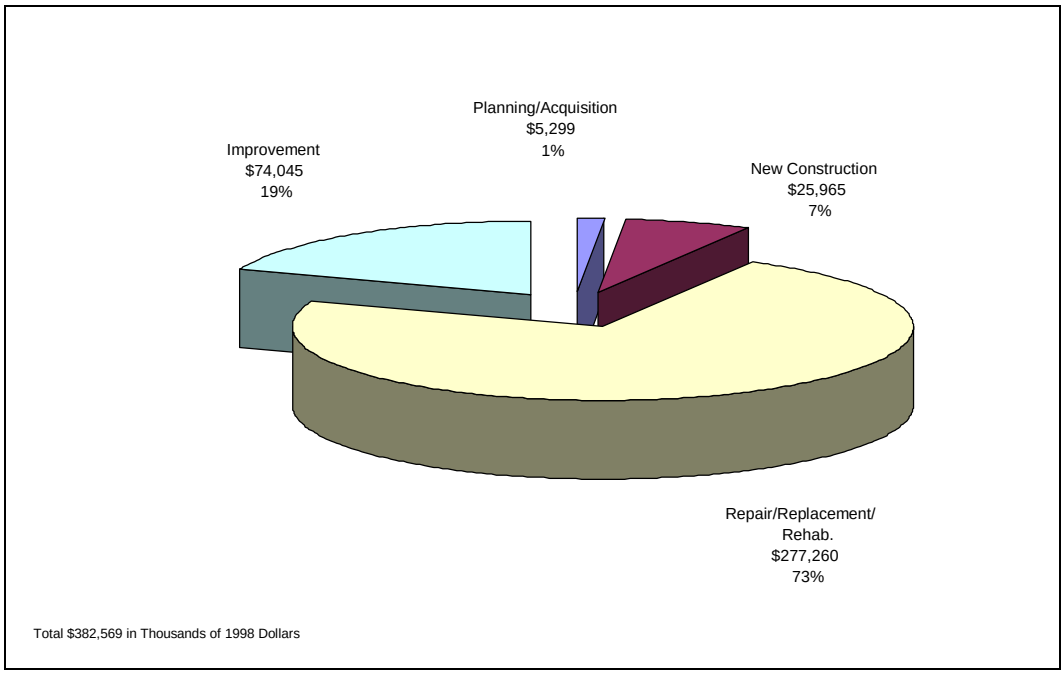
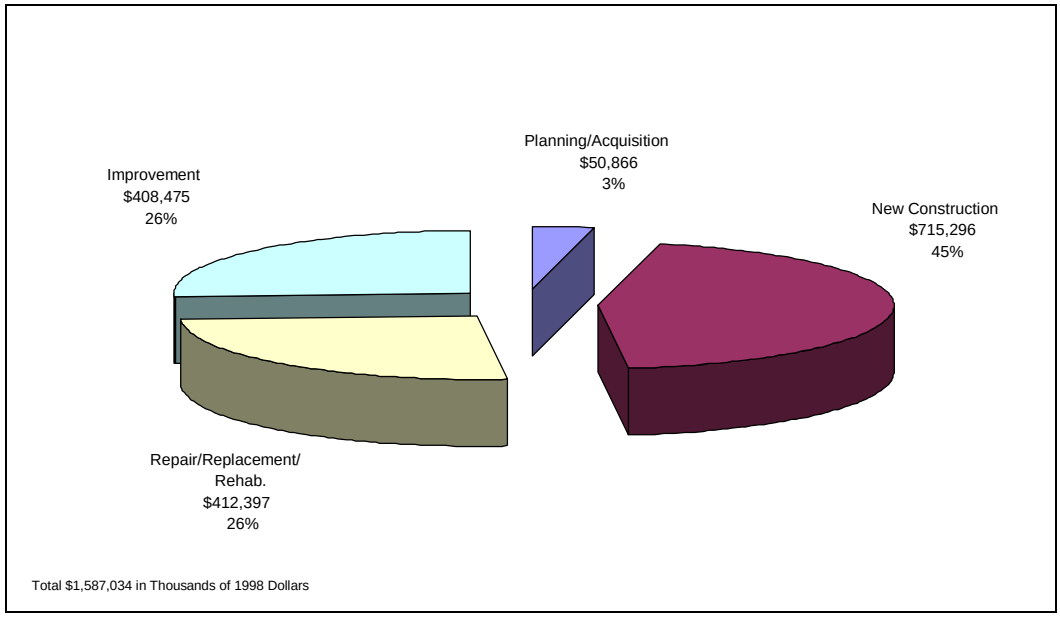


Exhibit V-19, Bridge Funding by Project Type: 1998-2003



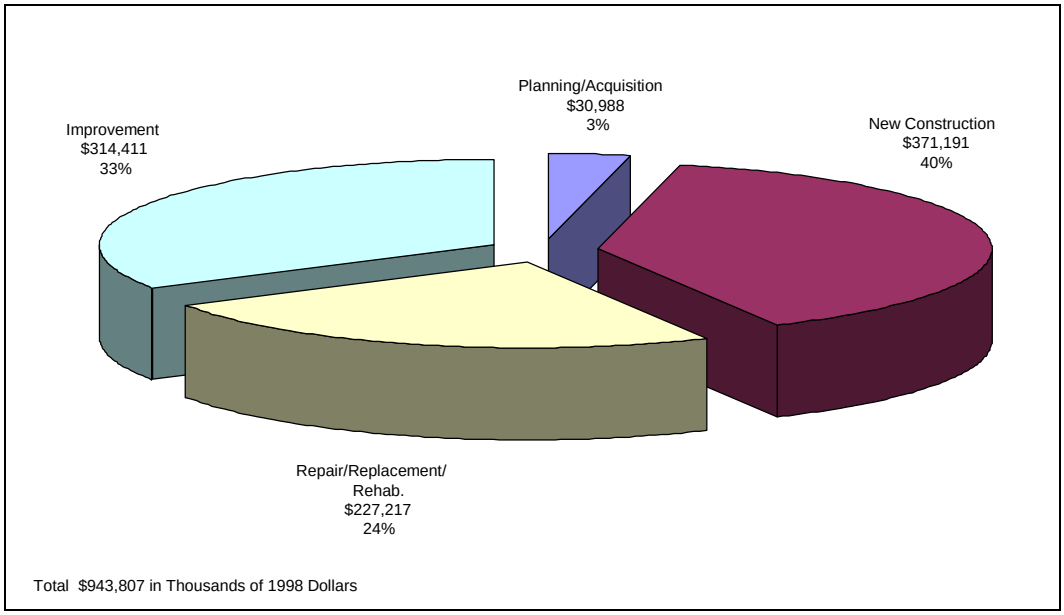
Projected water system revenues by project type are shown in Exhibit V-20. New construction comprises 45% of projected revenues ($715 million), improvement is 26% ($408 million), repair/replacement/rehabilitation is 26% ($412 million), planning is 3% ($45 million), and acquisition is less than 1% ($6 million).

Exhibit V-20, Domestic Water Funding by Project Type: 1998-2003



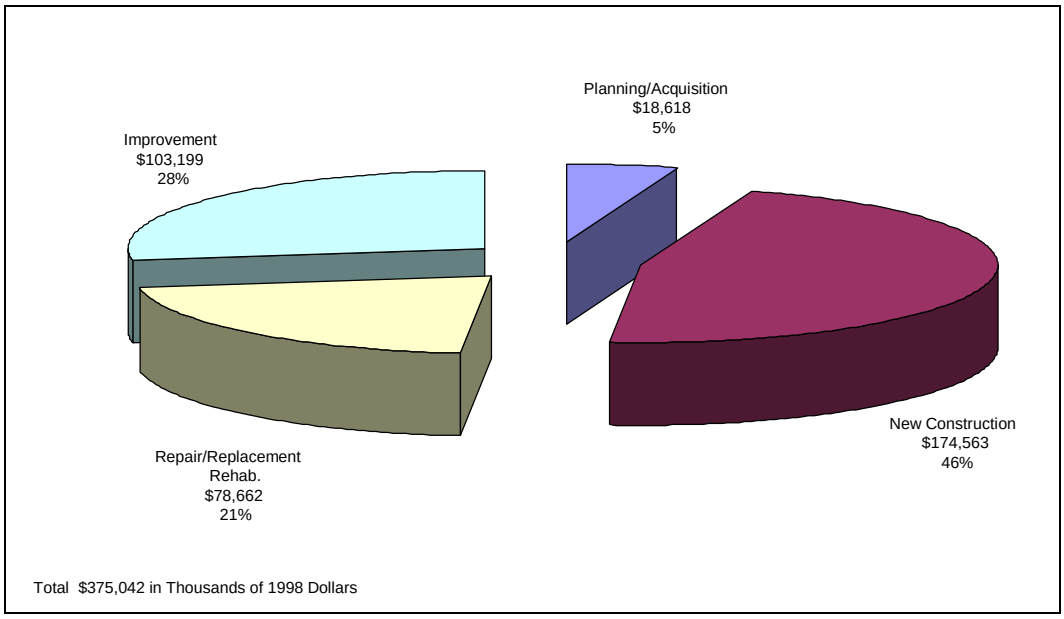
Sewer system revenues are provided in Exhibit V-21. This chart shows revenues by project type. New construction comprises 40% of projected revenues ($371 million), improvement is 33% ($314 million), repair/replacement/ rehabilitation is 24% ($227 million), planning is 3% ($30 million), acquisition is less than 1% ($1 million).

Exhibit V-21, Sanitary Sewer Funding by Project Type: 1998-2003



Projected storm water system revenues by project type are shown in Exhibit V-22. New construction comprises 46% ($175 million) of total revenues, improvement is 28% ($103 million), repair/replacement/rehabilitation is 21% ($79 million), planning is 4% ($16 million), and acquisition is 1% ($3 million).

Exhibit V-22, Storm Water System Funding by Project Type: 1998-2003



D. Summary of Findings

Jurisdictions' planned revenues for infrastructure projects are evenly divided between local sources and state and federal sources for the period 1998 through 2003. Local sources include taxes and fees plus "private" sources. A significant portion (nearly a quarter) of anticipated revenues are "unspecified" or "unknown" for the period.

Of the planned state and federal funding to finance infrastructure, 73% to 79% will go to transportation projects. Local funding is more evenly distributed across infrastructure types, with 44% of $1.78 billion to be spent on roadways, 30% on water systems, 15% on sewer systems, 8% on storm water systems, and 3% on bridges. The "unspecified" category of revenues makes up 22% of total of planned revenues, and is attributable to city roadways in large part (57%). This would indicate two possibilities: first, that significant uncertainty exists about funding sources, or that plans are published at a high level of detail. For 1998-2003, most of the reliance on federal funding will be on the TEA-21 program. Many state sources are planned to be "tapped" for the study period, chiefly Transportation Improvement Board (TIB) and County Road Administration Board (CRAB) funds. Again, "unspecified" state sources comprise a significant portion of the total with 17% of the total.

The mix of city and county sources of funding for transportation will be the most varied of any planned revenues for the study period. Private sector funding is anticipated to contribute $346 million (83%) toward roadways in cities and counties, and to a lesser extent ($69 million or 17%) toward water and sewer systems.

A significant amount of infrastructure improvements come from developer extensions, which are not included here, meaning that private sector contributions to infrastructure development are understated. Analysis of expected revenues by project type shows that a major portion of roadway revenues (68%) will go to support capacity and new construction projects. A third of funds are expected to be used for rehabilitation and repair projects, and the balance for planning and acquisition. Similarly, for water, sewer and storm drainage projects, the focus is on capacity and expansion projects (71 to 74% of planned revenues). In addition, some utility projects do not include developer extensions, which represent infrastructure costs not referenced in CFPs.

VI. Funding Availability

A. Overview

The purpose of this chapter is to comprehensively identify public and private sector funding sources available to local jurisdictions for road, bridge, sewer, water, and storm water system capital improvements. This section of the report is organized in three parts. They include (1) a compilation of state and federal funding programs, and an estimate of annual available funding for those dedicated sources; (2) a summary of local government funding sources, including both general government revenues and dedicated capital funding sources; and (3) a summary of funding mechanisms available to local governments to assess the private sector for project-specific benefits or impacts.

For purposes of this study, "public" and "private" sector funding sources are defined as indicated below. These definitions are consistent with those used by the Transportation Improvement Board.

- ***Public funding source***—general taxes, and rates and charges that are broadly imposed within the jurisdiction or service area.
- ***Private funding source***—a fee or assessment levied in connection with a special purpose and for a specific project. Some funding sources that are generally considered "public" by jurisdictions are considered "private" for this study (i.e. system development charges).

These definitions and the funding source categories within them were used for three purposes in the study:

1. To categorize and analyze the funding source data collected from the jurisdictions' capital plans;
2. To conduct the study's Level of Use analysis, i.e. to match available dedicated funding amounts with claims against that funding, in order to determine the extent that available grant and loan programs are fully (or overly) subscribed; and
3. To compile and document existing and available funding sources, which serves as a foundation for the findings and alternative options discussed in the Funding Options section.

B. State and Federal Funding

1. Introduction

This section provides a description of the key state and federal programs that are available to fund road, bridge, sewer, water, and storm water infrastructure projects. The information presented here was gathered from a variety of sources, including direct interviews with the individuals who administer these programs.

In order to characterize fully the types of financial assistance that is available through these programs, the funds available through grants and loans have been listed separately. The criteria associated with each program are reviewed briefly, as are the prospects for program funding over the next five to six years. For most state and federal sources, future funding remains uncertain, and funding levels have been reported as a range of potential values.

Exhibit VI-1 provides a summary of grant and loan funding that is available for each of the five infrastructure types studied. The funding available for community and economic development can be used to support a variety of different infrastructure projects. As highlighted here, the total amount of assistance varies significantly among infrastructure types, as does the mix of loan and grant funding. A detailed listing of state and federal funding sources is provided in Appendix N.

Exhibit VI-1, State and Federal Funding for Infrastructure Projects

	Annual State and Federal Funding	
	Grants ($ millions)	Loans ($ millions)
Transportation	$275-$300	$10-$12
Sewer/Storm Water	$34-$35	$73-$93
Drinking Water	$3-$4	$63-$70
Community/Economic Development	$64-$77	$7-$9

Source: State program managers and Berk & Associates

In the sections that follow, the sources available for each type of infrastructure are analyzed separately and individual programs are discussed in detail.

2. Transportation

State and federal support for transportation is mainly provided through grant funding rather than loans. Grants are available for a wide range of transportation projects including pavement preservation, bridge replacement, and roadway construction. Transportation improvements are the primary focus of the various grant programs, but many of them also indirectly provide funding for storm water projects. Upgrading existing roads and constructing new transportation networks frequently involves work on storm water systems designed to manage roadway runoff. Although it is impossible to quantify the amount of transportation funding that is used for storm water systems, it is worth recognizing that significant spending does occur.

As shown in Exhibit VI-2, TIB and TEA-21 are the most significant sources of grant funding for local governments. Additional support is provided by the County Road Administration Board (CRAB) and PWTF.

Exhibit VI-2, Anticipated Annual Funding for Transportation Projects: State and Federal Sources

Program	Anticipated Annual Funding		Eligible Jurisdictions
	Grants ($ million)	Loans ($ million)	
TEA-21 (Funding for Local Governments)	$180-$185	$0	Cities, Counties, Ports and Metropolitan Planning Organizations
Transportation Improvement Board	$65-$83	$0	Cities, Counties, and Transportation Agencies
County Road Administration Board	$30	$0	Counties
Public Works Trust Fund	$0	$10-$12	Cities, Counties, and Special Districts
Total Funding	$275-$300	$10-$12	

Source: Transportation Improvement Board, County Road Administration Board, WSDOT TransAid Office, and Public Works Trust Fund

The following program summaries provide more detailed information about each of the funding sources listed above. Programs that provide funding for public transit are specifically excluded from this summary.

TEA-21

During the six-year period from 1991 to 1997, ISTEA provided federal funding through an array of different programs. When the Act was reauthorized in 1997 and retitled TEA-21, the key program categories remained largely unchanged but funding levels increased. Under ISTEA, Washington received a total of $2.1 billion over six years. If the funding planned under TEA-21 is fully authorized, the State will receive $2.8 billion from 1998 to 2003.

A significant portion of the TEA-21 funds will be directed to WSDOT for state highway projects. However, local governments will compete for funds in a number of different programs:

- The Surface Transportation Program (STP) will provide funds for general transportation needs and includes special sub-programs dedicated to safety improvements and project enhancements designed for non-motorized modes of transportation;
- The Bridge Replacement Program will specifically fund the rehabilitation and restoration of deteriorating roadway bridges;
- The Congestion Mitigation and Air Quality program will support projects that help reduce congestion and transportation-related air pollution; and
- Specific high-priority projects will be funded as special demonstration projects.

The criteria used to award funding under these programs vary significantly, however all require some type of local match. Typically, federal funding is used to leverage additional support from a variety of state and federal sources.

Funding: The distribution of funding among the various TEA-21 programs has not yet been finalized, but Exhibit VI-3 provides a preliminary estimate of the potential breakdown and specifically identifies the share of funding that will be available for local governments. TEA-21 funds that are not spent through local governments will be used to directly support WSDOT's investments in the state's highway system.

Exhibit VI-3, Funding for Local Governments Available Through TEA-21

Program	Estimated Funding 1998-2003	
	TEA-21 Funding 1998-2003 ($ million)	Local Share 1998-2003 ($ million)
Surface Transportation Program (STP)		
Regional Allocations	$337	$337
Statewide Competitive	$187	$100
WSDOT	$203	$0
Enhancements	$67	$50 - $67
Safety	$67	$50 - $67
STP Total	$861	$537 - $571
Congestion Mitigation/Air Quality (CMAO)	$128	$128
Bridge Replacement	$523	$217
National Highway System	$1,011	$0
Demonstration Projects	$198	$99
Total Funding	$2,721	$981 - $1,015

Given that uncertainty still exists about future funding allocations, the results presented above provide a range of values to summarize the funding available through TEA-21. The totals presented above represent the funding that will be available for the six-year period from 1998-2003. If, as expected, the available funds are spent smoothly over the six-year period of appropriations, annual funding of $180-$185 million will be available to local governments.

Transportation Improvement Board (TIB)

Funding. The State Transportation Improvement Board (TIB) distributes grants through a series of competitive programs. Funding for these grants is primarily generated through the state gasoline tax. In total, the Board provides local governments with $65-$83 million annually for roadway projects. Exhibit VI-4 summarizes the funding available through each of the TIB's major programs. Although revenues from the program's dedicated funding sources remains relatively constant from year to year, grant distributions vary because projects generally take several years to complete.

Exhibit VI-4, Annual Funding Available Through the Transportation Improvement Board

Program	Anticipated Annual Funding		Eligible Jurisdictions
	Grants ($ million)	Loans ($ million)	
Transportation Improvement Account (TIA)	$20 - $30	$0	Cities, Counties, Ports and Transportation Benefit Districts
Urban Arterial Trust Account	$35 - $40	$0	Cities and Counties
Small City Account	$6 - $7	$0	Cities with a population less than 5,000
City Hardship Assistance Program	$0.5 - $1	$0	Cities with a population less than 20,000
Pedestrian Facility Program	$4 - $5	$0	Cities and Counties
Total Funding	$65 - $83	$0	

Source: Transportation Improvement Board

Additional TIB funding is also available through two major transit programs. However, given this study's focus on roadway improvements, these programs have not been included.

Eligibility Criteria: Each individual TIB program provides funding for different types of projects and has its own funding criteria:

- The Urban Arterial Trust Account (UATA) funds projects that are designed to improve and upgrade arterial street systems. Typical projects involve geometric upgrades, widening roads, or adding turn signals;
- The Transportation Improvement Account is intended to address economic development and growth-related congestion problems;
- The Small City Account offers financial assistance for cities with populations less than 5,000;
- The City Hardship Assistance Program provides funding to assist smaller cities in rehabilitating former state highways; and
- The Pedestrian Facility Program is specifically targeted to projects that enhance pedestrian mobility and safety.

Program funding is mainly provided to cities and counties, but projects often involve alliances with other agencies and neighboring jurisdictions. Under most programs, a minimum 20% local match is required in order to secure funding, and additional local funding can improve the chances of receiving a TIB grant.

County Road Administration Board

Funding/Eligibility Criteria: In addition to providing technical services, engineering support, and planning assistance to county governments, CRAB

administers the Rural Arterial and County Arterial Preservation programs. Although both programs provide grant funding for basic road preservation and rehabilitation, they function very differently:

- The Rural Arterial Program distributes funding on a competitive basis within five separate regions of the state. Dedicated gas tax revenues provide $17 million in program funding each year.
- Funding offered through the County Arterial Preservation Program represents a direct redistribution of gas tax dollars. Awards are made to each county based on the percentage of arterial lane miles within their jurisdiction. In order to receive funding, counties must use an approved pavement management system to prioritize preservation projects. Statewide, the Preservation Program distributes approximately $12 million per year.

Public Works Trust Fund

Funding/Eligibility Criteria: The Public Works Trust Fund (PWTF) differs from the other sources that support transportation projects in that it provides loans rather than grants. The fund was established to help local governments finance a wide variety of infrastructure projects. Although transportation improvements are eligible, they generally receive a small share of the PWTF loan allocations. For example, of the loans to be distributed in 1999, less than 10% will be directed towards transportation projects. A comparable share will likely be available in the coming years: this implies that transportation improvements will receive $10-$12 million of the $95-$115 million that will be available each year through the PWTF.

PWTF loans are generally available to counties and cities. However, in order to qualify, these jurisdictions must levy the optional one-quarter percent REET, and must conform with GMA, if it is applicable. A more detailed discussion regarding the PWTF is provided in the section of this report that deals with sewer and storm water projects.

Transportation Summary

The primary funding available for transportation projects takes the form of grants rather than loans. At the federal level, the programs authorized under TEA-21 are anticipated to provide local governments with $180-$185 million per year over the next six years. Over the same period, the State's TIB will annually distribute an additional $65-$83 million, and CRAB programs will provide an additional $30 million per year.

To take advantage of these programs, local governments must provide matching dollars from their own transportation budgets. Both state and federal programs emphasize the importance of leveraging support from other sources and maximizing the benefit possible through the limited funding that is available. Competition for state and federal grants is considerable, and most jurisdictions

recognize that only their most crucial projects are likely to be funded. In order to move up the priority list, projects that are initially rejected are often submitted for reconsideration during a subsequent funding cycle.

3. Sewer and Storm Water Systems

Public investments in upgrading sewer treatment facilities and expanding storm water systems have largely been driven by the standards established under the federal Clean Water Act. The Act was first passed in 1972 and has been amended several times in the intervening 26 years. In order to achieve the water quality standards identified as long-term goals, the Act required that both private and public entities adopt specific treatment technologies. For sewer utilities this largely involved a move toward secondary wastewater treatment.

While imposing these new standards for public treatment facilities, Congress also provided financial support to help local governments upgrade their systems. Initially, the Environmental Protection Agency's (EPA) Construction Grant Program offered grant funding to cover 75% of project costs. This share declined to 55% in 1984, and federal grant funding was eliminated in 1991. Since then, EPA has shifted to loan programs and is now helping state governments to establish revolving loan funds. As described below, Washington State's Revolving Fund for Water Pollution Control is now among the larger sources of funding for local governments.

Given the success of the Clean Water Act in improving treatment of point-source pollution, increasing focus is now being placed on ways to control non-point water pollution. Although non-point control efforts typically involve operational activities such as agricultural best management practices, the increased emphasis on these types of projects has affected the funding available for traditional sewer infrastructure. A significant share of the total funding available for sewer projects is now dedicated to non-point control programs. However, much of this funding is designed to support on going operational and education programs rather than infrastructure investments. In the discussion that follows, an effort has been made to identify funding sources that target both point and non-point pollution.

Currently, both grant and loan funding are available for sewer and storm water projects:

- Grant funding is available through the State's Centennial Clean Water Fund and USDA's Water and Waste Disposal Grant Program.
- Loans are offered through the State's Water Pollution Revolving Fund, the PWTF, and a separate component of USDA's Water and Waste Disposal Program.

Exhibit VI-5 summarizes these funding sources and their key eligibility criteria.

Exhibit VI-5, Anticipated Annual Sewer & Storm Water Project Funding: State and Federal Sources

Program	Anticipated Annual Funding		Growth Projects Funded?	Eligible Service Providers
	Grants ($ million)	Loans ($ million)		
Centennial Clean Water Fund	$27 - $30	$0 - $3	No	Cities, Counties, Special Districts and Municipal Corporations
State Revolving Fund – Water Pollution Control	$0	$15 - $20	No	Cities, Counties, Special Districts and Municipal Corporations
Public Works Trust Fund	$0	$52 - $63	No	Cities, Counties, and Special Districts
USDA Water and Waste Disposal Program	$4 - $5	$6 - $7	Yes	Public Entities and Non-Profits in Rural Areas
Total Funding	$34 - $35	$73 - $93		

Source: Fund and program managers; Berk & Associates

More detailed information regarding the funding available through each of these programs and the eligibility criteria that control the distribution of this funding are provided below.

Centennial Clean Water Fund

Funding: The Centennial Clean Water Fund receives its funding through the State's Water Quality Account. Established by the Legislature in 1986, this account is primarily supported by a dedicated portion of the retail tax on tobacco products. The Centennial Fund is expected to receive $30 million per year from this source.

Although the Centennial Fund does offer some grant funding, more than 90% of the program's annual allocations are distributed as loans. In addition to funding traditional sewer facilities, the Centennial program also supports non-point pollution projects and watershed restoration efforts. Department of Ecology (DOE) staff estimate that 25%-30% of the program's funding is directed towards non-traditional projects. Therefore, only a portion of the $30 million that is available through the Centennial Fund will be available for traditional infrastructure projects.

Eligibility Criteria: The Centennial Fund can provide financial assistance to any public agency that provides sewer service or deals directly with water quality issues. This includes counties, cities, towns, sewer districts, conservation districts, and municipal corporations. Counties, cities, and towns that are subject to the requirement of the GMA must be in compliance to receive funding. Specific restrictions also govern the types of projects that are supported and the amount of funding that is available:

- A maximum of $2.5 million is available for infrastructure projects;
- For grant funded projects, a local match of 50% is required to secure Centennial Fund support; and
- Projects that are specifically designed to address needs generated by growth are not eligible for funding.

Water Pollution Control State Revolving Fund

Funding: As part of the 1987 amendments to the Clean Water Act, Congress authorized the EPA to provide grant funding to capitalize individual state revolving loan programs. Once fully capitalized, these programs will provide a self-sustaining source of financing for local investments in water pollution control. Since 1988, Washington has participated in this program and has used funds from the Water Quality Account to meet the required 20% state match.

With the federal grant and the associated state match, annual loan funding of $35-$40 million is expected through 2003. However, in 2004 and beyond the Fund will become self-sustaining, and the revenues earned through principal and interest payments will provide $10-$15 million per year. Of the available funding total, 80% is reserved for pollution facilities and infrastructure, 10% for non-point projects, and 10% for watershed management and conservation.

Eligibility Criteria: The same set of broad eligibility criteria that govern the Centennial Fund also apply to the State Revolving Loan Program (the chief distinction is that that the Centennial Fund provides grants rather than loans):

- Cities, counties, towns, and special districts are all eligible for funding; and
- Projects that are specifically designed to address growth cannot receive funding.

Unlike the Centennial Fund, local match is not required under the Revolving Loan Program and jurisdictions can qualify for a loan equal to 100% of project costs.

Public Works Trust Fund

Funding: Established in 1985, the PWTF provides low interest loans to help local governments maintain and improve essential public works. During the period from 1999 to 2003, the PWTF will make approximately $95-$115 million per year available to support public infrastructure projects. Exhibit VI-6 highlights the funding expected to be available during the six-year study period.

Exhibit VI-6, Anticipated Loan Funds Available from the Public Works Trust Fund

Fiscal Year	Funding ($ millions)
1998	$72.9
1999	$106.7
2000	$95.8
2001	$105.6
2002	$99.5
2003	$113.9

Source: Public Works Board

The available funding will be generated from the real estate excise tax, principal and interest payments from outstanding loans, and the Public Works Trust Fund's dedicated revenue sources. However, only a portion of the total funding will be available for wastewater and storm water projects. In 1999, approximately 55% of the available funding will be provided to these types of infrastructure investments. If, as expected, this distribution continues, then the PWTF will provide $52-$63 million per year for sewer and storm water projects.

These funds will be distributed through a series of programs including the Capital Facilities Planning Program, the Pre-Construction Program, the Construction Program, and the Emergency Program. Although the Planning and Pre-Construction programs provide assistance during key phases of infrastructure development, the most significant funding is available through the Construction Program. For jurisdictions with more than 100,000 residents, the PWTF can supply loans of up to $10 million each year. A maximum of $7 million is available to jurisdictions with a population of less than 100,000. These restrictions do not apply to specific projects but rather reflect the total amount that can be loaned to each jurisdiction.

Eligibility Criteria: The PWTF can provide loans to public service providers including counties, cities, towns, and special purpose districts. In order to qualify, counties and cities must levy the optional one-quarter percent REET and must conform with GMA, if it is applicable. Special purpose districts are eligible even if the county or city within which they are located does not comply with the GMA.

The PWTF provides loans for a variety of infrastructure needs including bridges, roads, water systems, sewer and storm water, and solid waste. Funds can be used to repair, replace, rehabilitate, or improve existing infrastructure. However, two important restrictions apply to project eligibility:

- Monies are not available for routine maintenance or operational activities; and
- Funds can not be used for projects that are primarily growth-related.

This latter restriction limits the applicability of the PWTF in areas where infrastructure demands are being driven by expanding populations and commercial growth.

USDA Water and Waste Disposal Loan and Grant Program

Funding: This program, which is run by USDA's Rural Utilities Service, provides loan and grants for rural areas and towns of up to 10,000 residents (25,000 for timber-dependent communities). In past years, $25-$30 million has been available to fund both loans and grants, with approximately 40% of the total funding reserved for grants. Program staff anticipate declining appropriations and indicate that $20 million per year is more representative of the future funding that will be available in Washington State.

Recently, approximately 50% - 60% of the total funding have been available for sewer and wastewater projects. If this continues, $10-$12 million per year will be available for such projects, with roughly $6-$7 million distributed as loans and the remaining $4-$5 million awarded as grants.

Eligibility Criteria: Public entities including municipalities, special districts, tribes, and non-profit corporations are all eligible to receive funding. Loans must be secured by a pledge of tax assessments or revenues, and all grants require at least a 25% local match.

Funds are available to construct, repair, modify, expand, or otherwise improve waste collection and treatment systems, including sewer and storm drainage. Unlike the Centennial Clean Water Fund, the State Revolving Loan Fund, and the PWTF, USDA funds can be used for growth-related projects that call for expanding an existing system.

Sewer and Storm Water Systems Summary

Although some grants are available for sewer and storm water projects, most of the available funding takes the form of low-interest loans. These loans are available on favorable terms and can reduce the cost of financing large infrastructure investments. However, ratepayers ultimately face the burden of repaying these loans and thus directly bear the costs of these projects.

Increasing emphasis is being placed on non-point pollution sources and identifying ways to control polluted run-off in both urban and rural areas. This shift in policy priorities has the potential to create new demands on the financial resources of sewer and storm water utilities. Furthermore, as state and federal sources direct an increasing share of funds to these types of projects, less money is available for upgrading existing wastewater systems.

Only the USDA's rural utility service provides funds for projects that are driven by growth. The state's two largest funding sources, the PWTF and the State Revolving Fund, both specifically prohibit funding for growth-driven projects.

Therefore, the costs of expanding existing systems must be borne by the new customers or the existing rate base.

4. Drinking Water Systems

Depending on their location, Washington residents receive drinking water from a variety of different sources including both public and private purveyors. The majority of larger systems (those with over 1,000 connections) are run by a public entity such as a city or county utility, a public utility district, or a water district. Private companies are more likely to provide service in rural areas where smaller systems are more common.

The federal drinking water standards that govern drinking water systems were established as part of the Safe Drinking Water Act (SDWA) that Congress approved in 1974. These standards were substantially amended as part of the 1986 reauthorization of the SDWA. The tightened standards have had an impact on nearly all the State's water providers, because only the smallest systems (those with less than ten connections) are exempt from the federal law.

In the discussion that follows, an emphasis is placed on distinguishing those sources that provide assistance to private systems, and those that are restricted to public providers.

As steps were taken to meet the initial federal standards, significant grant funding was provided through two state bond measures and matching federal grants. Referendum 27 (which was passed in 1972), and its successor, Referendum 38 (which passed in 1980) authorized bond issues that provided an average of $10 million a year in grants for local water systems. By 1986, funding from these sources was largely committed.

Currently, there are two primary sources for funding drinking water infrastructure projects, the DWSRF and PWTF. Both these sources provide loans, rather than grants. In addition, more limited funding is also available through the USDA's Water and Waste Disposal Loan and Grant Program.

Exhibit VI-7 provides a summary of these programs and the annual funding available from each.

Exhibit VI-7, Anticipated Annual Funding for Drinking Water Projects: State and Federal Sources

Program	Anticipated Annual Funding		Growth Projects Funded?	Eligible Service Providers
	Grants ($ million)	Loans ($ million)		
Drinking Water State Revolving Fund	$0	$25	No	Public, Private, and Non-Profit Entities
Public Works Trust Fund	$0	$33 - $40	No	Cities, Counties, and Special Districts
USDA Water and Waste Disposal Program	$3 - $4	$5 - $6	Yes	Public Entities and Non-Profits in Rural Areas
Total Funding	$3 - $4	$63 - $71		

More detailed information regarding each of these programs is presented below.

Drinking Water State Revolving Fund

Washington State's DWSRF provides low interest loans to qualifying municipalities, water districts and private water systems. The fund is jointly managed by DOH, the PWTF Board, and CTED.

Funding: The revolving fund is currently being capitalized through a series of annual federal grants and matching state contributions. The state contributions, which are drawn from the Public Works Assistance Account, amount to 20% of total funding. Annual federal funding of approximately $25 million is expected through the year 2003. Staff with DOH and the Public Works Board anticipate that $20-$25 million in loans will be available each year as capitalization continues through 2003. Long-term program size depends on actual capitalization over the coming years.

Loans of $3.5 million are available for systems that serve populations of 100,000 or more, while a maximum of $1 million can be loaned to systems that serve less than 100,000 residents. Although a 10% local match is required on all projects, the terms of the loans are quite favorable. Interest rates currently are at least 1% less than that charged on "A" rated utility bonds, and program participants avoid the issuance costs associated with an independent bond issue. Rates may be lower in the future, according to program staff.

Eligibility Criteria: Loans are available to all community water systems, and all non-profit, non-community systems. Community water systems, which are those providing service to residential customers, can be operated by either public or private entities and both types of operators are eligible for loan funds. Thus, the DWSRF does provide funding for water systems that are operated by private entities. This distinguishes this funding source from the other state and federal programs.

In addition, non-profit entities that run non-community systems are also eligible. This extends the program's reach to include non-residential customers such as schools and churches, which frequently operate on small independent water systems.

Regardless of whether the system is publicly or privately operated, restrictions have also been placed on the types of projects that can be funded through the DWSRF:

- Eligible projects must be needed to meet new SDWA requirements or to replace aging infrastructure that is needed to ensure on-going compliance with SDWA standards;
- Projects to be completed solely to address growth or to improve fire protection are not eligible under the DWSRF.

Public Works Trust Fund

Funding: As described above and highlighted in Table 8, the PWTF will make between $95 million and $115 million available each year over the period 1999-2003. In recent years, approximately 35% of this total have gone to drinking water projects. This suggests that $33-$40 million per year will be available for these types of infrastructure investments.

Eligibility Criteria: As previously discussed, two key restrictions define the jurisdiction eligible for funding under the PWTF:

- Loans are available to public service providers (including counties, cities, towns, and special districts), not private utilities; and
- Counties and cities must levy the optional one-quarter percent REET and must conform with GMA, if it is applicable.

Within these jurisdictions, restrictions are also in place that limit the types of projects that can receive funding:

- PWTF loans can not be used for projects that are primarily driven by growth; and
- Funds are not available for routine maintenance or operational activities.

USDA Water and Waste Disposal Loan and Grant Program

In addition to the funding provided for sewer and storm water projects, the USDA's Loan and Grant Program also provides financial assistance for drinking water systems. As described previously, the program is specifically targeted at rural communities that are in economic distress.

Funding: In the near term, $20 million per year is expected to be available through Water and Waste Disposal. If recent trends continue, then approximately 40% to 50% of this total ($8-$10 million) will be available for drinking water projects. With loans accounting for roughly 60% of total funding, $5-$6 million per year will be distributed as loans. The remaining $3-$4 million will be offered as grants.

Eligibility Criteria: The primary restriction on USDA funding is that only rural areas and communities with fewer than 10,000 residents qualify for the program. Within these communities, public entities including municipalities, special districts, tribes, and non-profit corporations are all eligible to receive funding. Unlike other programs, the USDA's Water and Waste Disposal Program does provide loans and grants for projects that are driven by growth and focus on system expansion.

Drinking Water Systems Summary

The major sources of funding for drinking water projects provide loans, rather than grants. The low interest loans offered through the DWSRF, the PWTF, and the USDA's program can help secure project financing, but the loans must be repaid through local revenues. As a result, the ultimate costs of most infrastructure costs are borne directly by rate payers.

Although the structure of the DWSRF and PWTF are comparable, the availability of financing for private service providers distinguishes the DWSRF. In many areas, drinking water is provided by private entities that operate on a relatively small scale. Many of these systems are in financial distress and find it difficult to secure project financing. The DWSRF is the only source of public support for infrastructure investments within these systems.

The available state sources (DWSRF and PWTF) preclude the use of funding for growth-driven projects. Although the USDA will fund such projects, only rural areas are eligible. Thus, there are no state or federal programs that provide support for the infrastructure projects necessitated by urban growth.

5. Community and Economic Development Funding

In addition to the funding that is targeted for specific types of infrastructure projects, more general financial assistance is available through a series of state and federal programs that are designed to enhance community and economic elements. To the extent that infrastructure projects help local communities retain and attract new business or improve local economic conditions, these sources do have a role in funding these types of investments. A typical project involves the construction of a road or the extension of utility services to a site that has been selected for private commercial development.

Most of the programs place a strong emphasis on job creation and are targeted at areas in economic distress. In addition, some programs are specifically focused on rural areas and communities that traditionally have been dependent on the

timber industry. As part of the federal government's Northwest Economic Adjustment Initiative, attempts have been made to enhance the funding available to timber-dependent areas and to better coordinate the resources that are available. For example, the Washington Community Economic Revitalization Team (WA-CERT) has been created to help streamline the process involved in applying to multiple state and federal programs. This section provides detailed descriptions of many such programs and specifically identifies those that are targeted towards timber-dependent areas.

Funding for economic and community development is available from a variety of sources, as identified in Exhibit VI-8.

Exhibit VI-8, Community and Economic Development Programs

Program	Anticipated Annual Funding		Eligible Service Providers
	Grants ($ million)	Loans ($ million)	
Community Block Grants – Non-Entitlement Areas	$11 - $12	$0	Cities with a population less than 50,000 Counties with a population less than 200,000
Community Block Grants – Entitlement Areas	$45 - $55	$0	Cities and Counties
Economic Development Administration	$5 - $6	$0	Cities, Counties, Towns, Ports, Tribes
USDA – Rural Development and Forest Service Programs	$1 - $2	$3	Cities, Counties, Towns, Special Purpose Districts, Tribes, and Non-Profit Groups
Community Economic Revitalization Board	$0	$4 - $6	Cities, Counties, Ports, Special Purpose Districts, Municipal Corp.
Total Funding	$64 - $77	$7 - $9	

As highlighted in Exhibit VI-8 and described below, most of the support available for economic and community development is available in the form of grants, rather than loans.

Community Development Block Grants

Unlike many of the other economic development programs, the goals of the Block Grant Program extend beyond economic development to include more general investments in housing and community facilities. However, Block Grants are used to fund infrastructure projects such as road improvements, sewer upgrades, and water system facilities.

Funding: Program funding is distributed through a series of grants that are targeted to specific purposes. The available federal dollars are administered separately for entitlement and non-entitlement areas:

- The state's larger and more populated cities and counties participate as entitlement areas and receive direct grant support. Although each jurisdiction determines which specific projects to fund, these decisions must match the federal criteria and are reviewed by HUD staff. In total, these cities and counties receive $45-$55 million per year through the Block Grant Program.
- Smaller cities and counties compete for the financial support available to non-entitlement areas. General Purpose Grants and the Comprehensive Investment Fund, which are the major sources of infrastructure funding, receive annual appropriations of $11-$12 million per year. The $3 to $4 million available through the Comprehensive Investment Fund is targeted to rural, natural resource-dependent areas. The General Purpose Grants provide roughly $8 million for projects in other areas.

The funding available through the Comprehensive Investment Fund is among the resources that WA-CERT helps natural resource dependent communities access more effectively.

Eligibility Criteria: Under the Block Grant Program, eligible projects must principally benefit low- and moderate-income residents. Under the eligibility requirements, low- and moderate-income is defined to include families who earn less than 80% of the county median income. Neither the General Purpose Grants nor the Comprehensive Investment Fund are directly targeted to specific types of infrastructure, and funding is provided for a variety of projects including housing and community facilities. Thus, within a given year, only a portion of the funding totals summarized in Exhibit VI-8 will be awarded to transportation, sewer, or drinking water projects.

Economic Development Administration

Funding/Eligibility Criteria: The Economic Development Administration (EDA) provides grant support for a range of different infrastructure projects, including water and sewer facilities, road improvements, and port facilities. EDA's grants are provided through two major programs:

- The Public Works and Development Facilities Program is specifically designed to help fund infrastructure projects that help create or retain private sector jobs. Funding is targeted at communities with high levels of unemployment and low rates of economic growth. In practice, this has meant that the majority of program funding has been provided in rural areas of the state. A total $6 million was awarded to Washington communities during 1998, and funding is expected to continue at these levels into the near future.

- EDA's Economic Adjustment Program provides funding for both planning and implementing strategies that are designed to improve economic development opportunities. In 1998, $600,000 was awarded in Washington under the standard program. However, an additional $700,000 was made available under a special appropriation for timber-dependent communities. This funding can be secured directly through the EDA or as part of WA-CERT's coordinated application process.

USDA Rural Development and Forest Service Programs

Funding/Eligibility Criteria: The USDA administers several programs that are designed to promote economic development within rural and timber-dependent communities. USDA's Rural Development Office provides funding through the Rural Business Enterprise Grant program and the Community Facilities Loan Program.

- The Business Grant program is designed to facilitate development of small and emerging businesses located in communities with populations of less than 50,000. Local governments and public agencies can use the grants to fund a broad range of activities, including infrastructure projects such as road improvements and utility extensions. Although $1.3 million was available under this program in 1998, annual funding of $300,000 to $400,000 is more typical for Washington State.
- The Community Facilities Loan Program provides financing for a broad range of projects, including hospitals, community centers, libraries, etc. However, road improvements and utility projects can qualify under this program. Roughly $3 million per year is available for rural areas with populations of less than 50,000.

The Forest Service provides funding through a general program aimed at rural areas and a special initiative that targets timber-dependent communities:

- The Rural Community Assistance Program provides grant funding to both develop and implement economic development strategies in rural communities. Although $3-$4 million was available during 1997 and 1998, funding may drop to $750,000 in 1999.
- Additional funding is available through appropriations designed to assist areas that have historically relied on old-growth timber. During 1998 and 1999, approximately $1 million per year was available through this special program. However, only $300,000 to $500,000 was targeted for infrastructure projects.

Community Economic Revitalization Program

Created by the Legislature in 1982, CERB is specifically charged with helping businesses and industry create and retain jobs by working in partnership with local communities. CERB encourages these partnerships by helping to fund public infrastructure that will result in specific private development or business expansion. CERB primarily offers low-interest loans, but grants are available in special circumstances. Funding is available through the Traditional Program and the Rural Natural Resources Program. The latter program is targeted to rural areas that are dependent on either the timber industry or commercial salmon harvesting.

Funding: Until the recent passage of Referendum 49, CERB did not have a dedicated funding source and biennial appropriations were not consistent. However, under Referendum 49, CERB will receive dedicated revenues from the state Motor Vehicle Excise Tax (MVET). Staff expect that $4.5 to $5.5 million will be available on an annual basis. CERB will use this dedicated funding source to establish a revolving loan fund, following the model established by the PWTF and the DWSRF.

Eligibility Criteria*:* CERB funding is available to counties, cities, towns, ports, special districts, and municipal corporations. The list of eligible projects includes bridges, roads, water and sewer systems, railroad spurs, buildings, and port facilities. For the Traditional Program, the chief restriction on funding is that applicants must demonstrate that the specified private development or expansion is ready to occur and that it will only occur if CERB funds are provided. Loans are not available for more than $1 million and grants are capped at $300,000.

Under the Natural Resources Program, applicants must demonstrate that projects will provide long-term economic benefits to the community. Projects designed to promote industrial development can qualify for loans of up to $500,000, while tourism projects can qualify for as much as $250,000. Both the Traditional Program and the Natural Resources Program require a 10% local match.

Community and Economic Development Funding Summary

Although most of the community and economic development programs are not specifically aimed at funding public infrastructure projects, their more general goals of job creation and economic expansion often justify support of such projects. In particular, funding is provided for infrastructure projects that will improve the development potential of particular sites and secure private investment in commercial or industrial facilities.

These programs are generally targeted at economically distressed areas, so only certain communities are eligible for the available funding. In recent years, a strong emphasis has been placed on providing assistance to rural communities that have been dependent on declining natural resource industries such as timber and commercial fishing.

C. Local Public Sector Funding Sources

This section presents a brief overview of public-sector funding sources available to local governments from local sources to fund infrastructure improvements, organized by type of jurisdiction. The list includes local revenue options that are available, but are currently not widely used, or not used at all. This list is not intended to document unavailable sources – more discussion about the extent of underutilized sources is covered in the Funding Options section of this report. Further, some sources are available to some jurisdictions but not to others (such as property taxes, which are available to cities, counties, and PUDs, but not to water and sewer districts).

1. Cities and Counties

Cities and counties have access to many of the same funding sources for infrastructure. Two key differences between the two jurisdiction types are that counties have the road levy (property tax) available for transportation, while cities are authorized to levy utility taxes. This generally means that counties have a dedicated source to finance transportation needs, while cities have revenue available from utility taxes for infrastructure or other general fund needs. The list of funding sources available to cities and counties is summarized below.

General Fund Revenues

A local government's most reliable source of capital funding is its own capital improvement budget. General fund revenues may be used to augment dedicated capital funding sources, particularly in the case of transportation. For cities, primary general fund sources include property taxes and sales and use taxes. While these revenues are within the direct control of local government and are generally predictable, there is often fierce competition among the jurisdiction's many competing priorities, including the infrastructure categories included in this study, plus jails, parks, solid waste systems, and transit. In most communities, the needs for capital funding far exceed expected resources. Thus, the challenge for funding infrastructure using general funds is generally one of raising the priority within the overall list of needs.

The principal sources of general fund revenues for local governments include property taxes, retail sales and use taxes, state-shared revenues, and (in the case of cities) municipal business, utility taxes, and fees (such as franchise fees, which counties also impose). Most taxing districts are authorized to levy a certain property tax rate each year without approval by the voters ("regular levies") and may impose, with voter approval, special levies for multi-year capital purposes or single-year maintenance and operations needs.

In addition to the property tax, the sales and use tax is a major source of local general fund revenues. This tax is applied to the selling price of tangible personal property and certain services. Only a single city/county rate applies in any particular location and the revenues are shared among the jurisdictions. The first half of 1.0 percent is known as the basic tax and is levied by all cities and counties in the state. The second half of 1.0 percent is referred to as an optional tax. It is imposed by all but 13 cities and four counties.

State-shared Revenues: Two categories of state-collected taxes are shared with local governments: MVET and the motor vehicle fuel tax (MVFT). These funds overall are restricted in their usage -- the motor vehicle excise tax proceeds are earmarked for criminal justice and public safety purposes and the gas tax proceeds must be used for roads.

Motor Vehicle Excise Tax: This tax can be levied at both the state and local level, and the state potion is a shared revenue to local governments. However, only one local-option portion can be specifically dedicated to transportation in King, Pierce, and Snohomish Counties with local approval for the development of high occupancy vehicle (HOV) lanes. Otherwise, the state, state-shared, and local option taxes are dedicated to other uses than infrastructure and are outside the study's scope.

Motor Vehicle Fuel Tax: At the state level, 0.23 cents per gallon is collected. The distribution of MVFT receipts is based on a complex formula. Counties and cities each receive a portion of the tax.

Bonds and Debt Financing

Local government debt issuance can take several forms, outlined below. The key issue for the purposes of the study is that bonds represent debt for a local jurisdiction, which must be repaid. Also, there are costs associated with issuing bonds, including administrative, legal and underwriting costs, and sometimes, insurance. Two less traditional debt financing options, "63-20" financing and Section 108 financing, are also discussed below.

General Obligation (GO) Bonds: This type of bond can be issued, backed by the "full faith and credit" of the local government. This represents the most secure form of governmental backing, generally resulting in the lowest interest rates of all debt types. Two types of GO bonds are authorized: voted and non-voted. Voted GO bonds require 60% voter approval and create a new source of funds (i.e. "new money"). Non-voted, or councilmanic, bonds do not require voter approval, but funds must be made available from existing sources.

Revenue Bonds: These bonds are backed by a specified stream of revenue or income and are used where it can be demonstrated that an adequate revenue stream exists from a dedicated source. Therefore, revenue bonds are a primary financing tool for enterprise funds.

Other Bonds—"63-20" Financing: This alternative method of obtaining tax-exempt financing, available under the Internal Revenue Code, allows public bonds to be used if secured by a lease agreement. The 63-20 financing technique was recently used by the Weyerhaeuser Real Estate Company to finance the I-5 interchange at Northwest Landing in Dupont. That project is considered a major success, and the 63-20 mechanism has subsequently been received with significant interest by the private-sector development community as a promising innovative financing mechanism.

This mechanism can be used for all infrastructure projects, with some exceptions. Generally, it requires a credit-worthy private developer willing to enter into a lease to support the bond offering. A qualified nonprofit corporation is required to issue tax-exempt debt on behalf of a political subdivision for the purpose of financing facilities. To qualify for 63-20 financing, certain requirements must be met, including the transfer of the facility's title to the government entity once the debt is retired. Another requirement that must be met is compliance with "private use" regulations to limit the volume of tax-exempt bonds that finance private activities.

Other Federal/Local Debt—Section 108 Loan Guarantee Program: The Section 108 program works in conjunction with the Community Development Block Grant (CDBG) program, providing federally guaranteed loans to support large economic development projects. Section 108 allows local governments access to larger pools of capital by allowing them to pledge future CDBG grants as support for the loans. The loan must be used for projects that eliminate urban blight; create or retain jobs for low- and moderate-income residents; and meet urgent community development needs. Generally, the project would generate sufficient cash flow to meet the debt service requirements of the loan, leaving the CDBG funds available for other local programs. However, the statute was revised in 1994 to allow funds to be used for facilities that do not generate cash flow, if an alternate source of funds is identified to repay the loan.

The Section 108 program was recently used to augment the project financing for large-scale retail developments in Seattle and Spokane. In both cases, the projects were regarded as cornerstones of downtown revitalization and important to retain and expand the retail job base. Further, the Federal Economic Development Initiative Program offers local governments that use Section 108 loan guarantees a mechanism to reduce the level of risk to their CDBG funds by offering grants that can be used to provide additional security for a Section 108 loan (thereby reducing the grantees CDBG exposure in the event of a loan default).

Dedicated Funding Sources for Public Facilities

Public sources of dedicated infrastructure funding originating at the local level are derived from taxes, user charges, or bonds. A distinction is made between dedicated taxes and fees for transportation purposes versus other infrastructure improvements.

Real Estate Excise Tax: The main local-option source of dedicated funding available to cities and counties for capital improvements and facilities, not limited to transportation, is REET. The real estate excise tax is levied on the sale of real property. There are several local options available to cities and counties. A tax of up to 0.25 percent may be levied and used for either capital improvement plan projects, or for projects specified in the capital facilities plan element of a comprehensive plan for those communities planning under GMA. Cities and counties planning under GMA also have the authority to levy an additional 0.25 percent, or portion thereof, for capital facility plan projects.

A local levy of up to 0.5 percent may also be imposed in lieu of the optional 0.5 percent local sales tax for general purposes. Only one city currently implements this option.

Distressed Counties Sales and Use Tax: Authorized in 1998, distressed counties have another source of dedicated funding available for financing public facilities: the ability to levy a sales and use tax of up to 0.04 percent to be deducted from the state's portion of the sales and use tax. The most recently approved state budget includes increasing the eligible amount to 0.08 percent and clarifies language tying the eligibility to public facilities in support of economic development. More jurisdictions will be eligible with the authorization of the new option.

Dedicated Transportation Funding Sources

A mix of funding options is available to cities and counties dedicated to transportation purposes:

County Road Levy: Under RCW 84.52.043, counties may assess regular property tax levies of up to $2.25 per $1,000 of assessed valuation in the unincorporated areas, which typically is deposited in an enterprise fund dedicated to roads.

Border Cities Gas Tax: This option of the MVFT, authorized by RCW 82.47 in 1991, is available to cities within 10 miles of an international border. Voter approval is required for a tax of $0.01 per gallon of gasoline. Three cities and one transportation benefit district have imposed the tax.

Local Option Gas Tax: This tax requires county authorization and voter approval and is distributed to cities and unincorporated areas on a per capita basis. No counties have imposed the tax since authorization in 1990. (The maximum rate is of 10% of the state tax.)

Employer Tax: Authorized in 1990, state law permits a $2.00 per full-time equivalent per month fee to be charged all employers in King, Snohomish, and Pierce counties with voter approval for HOV lanes, or in cities and counties for commuter rail purposes (outside this study's scope).

Vehicle License Fee: This fee, which requires voter approval, may be imposed by counties to obtain a vehicle license surcharge of up to $15 per vehicle. The fee is imposed in King, Snohomish, Pierce, and Douglas Counties and distributed to cities on a per capita basis. Unincorporated areas are given a 1.5 per-capita weighting.

Parking Tax: The tax is levied on parking businesses or the customers who use parking areas. No limit on rates is specified in statute; voter approval is required. Sea Tac and Bainbridge Island impose this fee.

Transportation Benefit Districts: The intent of the 1987 legislation authorizing the creation of transportation benefit districts (TBDs) is to allow for "cities, towns and counties to make and fund transportation improvements necessitated by economic development." (RCW 36.73.010) Constitutional issues regarding uniformity of taxation have proven challenging to communities that have worked to create a TBD to assist in financing transportation projects.

Specifically, the uniformity clause of the Washington State Constitution mandates that all property within a given "independent taxing authority" must be assessed at the same rate. Therefore, unless a TBD can establish its independence from authorizing governments, separate tax rates among a TBD and authorizing entities may face legal challenges. One TBD exists in Point Roberts.

Funding Sources for Water, Sewer and Storm Water

As outlined above, city and county water, sewer, and storm water utilities are often managed through enterprise funds and supported by user rates and charges. Cities and counties that do not have a separate storm water utility tend to fund storm water projects with general-purpose government sources, and they may include storm drainage as part of transportation improvement projects.

2. Water and Sewer Districts and Public Utility Districts

These two types of special purpose districts have three primary funding mechanisms available to fund infrastructure projects.

Rates and Charges: Operations and capital improvements are typically funded through user rates and charges. Reserves from these funds are usually set aside to finance capital projects.

Property Taxes: PUDs have the authority, with voter approval, to levy property taxes for capital improvements. In addition to cities and counties, a number of special purpose districts, including those charged with managing water and sewer infrastructure, have statutory authority to impose property taxes. Public Utility Districts have regular taxing authority of up to $0.45 per $1,000 of assessed valuation. Water and sewer districts have the ability to impose special property assessments with voter approval to support one-time capital improvements with the creation of the district. However, unlike cities and counties, property taxes are rarely a primary source of funding for PUDs. Special assessments are extremely difficult to implement after the district's creation.

Bonds: The same overview comments related to city and county bond issuance also apply to water and sewer districts. Districts have the option of issuing general obligation bonds supported by voter-approved excess levies.

D. Private Sector Funding Sources

As discussed above, this study defines "private sector" funding sources as fees or assessments levied in connection with a special purpose and assessed for specific projects. Private sector funding sources available to jurisdictions to finance project-related infrastructure improvements are presented below, organized by type of infrastructure and jurisdiction.

1. Transportation—Cities

All cities have three private sector mechanisms available to fund project-related capital needs – SEPA mitigation, LIDs, and developer contributions. "Developer contributions" in this context are defined as cash contributions to mitigate project impacts.

The following data is a mix of information available from the Municipal Research Service Center, plus an independent survey by Berk & Associates. Cities planning under GMA may impose transportation impact fees. To date, 36 cities in Washington have enacted impact fee legislation relating to development or transportation. Some jurisdictions assess impact fees for parks or schools, but these instances are not included here. These jurisdictions generally have experienced relatively high population growth and development within the last decade. The 36 cities are listed below, by county:

- Clark County—Battle Ground, Camas, La Center, Ridgefield, Vancouver, and Washougal
- Douglas County—Bridgeport
- Island County—Oak Harbor
- King County—Bellevue, Bothell and Woodinville (straddle King and Snohomish Counties), Duvall, Enumclaw, Issaquah, Maple Valley, Redmond, Renton, and SeaTac
- Kitsap County—Poulsbo
- Kittitas County—Ellensburg
- Skagit County—Anacortes, Burlington, Mount Vernon, and Sedro-Woolley
- Snohomish County—Everett, Mill Creek, Marysville, and Stanwood
- Spokane County—Spokane
- Thurston County—Lacey, Olympia, Tumwater, and Yelm
- Whatcom County—Bellingham and Ferndale

2. Transportation—Counties

As with cities, all counties have three primary private sector mechanisms available. They include SEPA mitigation, road improvement districts (RIDs), and developer contributions. In addition, seven counties (Clark, King, Kitsap, Pierce, Skagit, Snohomish, and Spokane) also have imposed transportation impact fees.

3. Sewer Systems

Cities, counties, and special districts own and operate sewer systems, and all have the authority to impose and use four primary private sector funding mechanisms. They include utility local improvement districts (ULIDs), SEPA mitigation, developer contributions, and system development charges (also called capacity charges, capital facility charges, general facility charges, reserve capacity charge, plant investment fee, in lieu of investment fee, etc).

4. Water Systems

Cities, PUDs, and special districts that own and operate water systems have the same four private sector funding mechanisms as sewer system operators: ULIDs, SEPA mitigation, developer contributions, and system development charges.

5. Storm Water Systems

Cities and counties have four private sector funding mechanisms available: ULIDs, SEPA mitigation, developer contributions, and system development charges.

E. Summary of Findings

For all infrastructure funding sources, particularly for transportation projects, the challenge for local governments is (1) securing financing, regardless of grant, loan, private, or public source; and (2) assembling a financing "package" for projects. Many sources are available, but successful jurisdictions find that a certain level of effort, experience and resources to devote to planning and assembling the "funding package" is required.

State and Federal Funds. A range of different state and federal programs are available to fund local infrastructure needs. In general, the financial assistance offered through these programs is limited and the competition for funding is strong. As the emphasis in funding has shifted from grants to loans, local communities have become more directly responsible for the costs of infrastructure investments. Loans can help reduce the cost of project financing, but the revenues needed to meet interest and principal payments must come from local sources.

Although transportation projects stand as an important exception, state and federal funding is generally not available for infrastructure needs that are driven by growth. For basic services such as sewer and drinking water, the costs of such projects must be borne directly by new customers, or shared across the existing rate base.

In reviewing potential future funding, no clear trend is apparent. Federal transportation funding has increased under TEA-21, but state funding is not projected to grow. Funding through the PWTF will generally be increasing, but the loans offered through the state's other revolving funds may diminish as federal capitalization grants dry up.

The following potential funding ranges are anticipated to be available each year by infrastructure type: $275-$300 million in transportation grants, and $10-$12 million in loans; $34-$35 million in grant funding for sewer and storm water and $73-$93 million in loan funding; $3-$4 million in grant funding for drinking water projects and $63-$73 million in loan funding; and $64-$77 million in grants for economic development programs, some tailored to specific needs, and $7-$9 million in loans.

The SDWA regulations have proven particularly challenging for smaller private providers, because many of these operations have not proven to be financially viable, and the costs required to meet new standards have exacerbated their difficulties. Although many of these systems have either been taken over by public providers or have consolidated with neighboring systems, the availability of financial assistance is important for those that remain.

Local Funds. Options for funding infrastructure with local revenues can take many forms, and jurisdictions "piece together" these available sources. City and county general funds represent a potential source, but competition exists with general government services, meaning that local governments must balance operating and capital needs. Bonds represent debt to a jurisdiction and are available in several forms, the most common being voted or non-voted general obligation bonds and revenue bonds. Alternative bond financing such as "63-20" and Section 108 financing also expand the available debt options for local governments.

Dedicated sources for infrastructure include REET and dedicated sales and use tax for distressed counties. There exist a host of sources that can be dedicated for transportation projects at the local level (road levy for counties, one portion of local-option MVET, motor vehicle fuel tax, local option of the gas tax, employer tax, license fees, parking tax, and transportation benefit districts).

Utilities, whether as special purpose districts or within cities and counties, are usually managed through enterprise funds that have rates, charges, and bonds as available sources. PUDs also have the ability to levy property taxes.

Private sources of funding for transportation projects include SEPA mitigation (a declining source), impact fees, LIDs and RIDs, and developer contributions. Areas planning under GMA may impose impact fees (36 cities and 7 counties in Washington have used this authority). For utilities, private sources include the same three sources as noted for transportation, plus the ability to assess system development charges.

Exhibit VI-9 describes local revenue sources, both public and private, that can be used by local governments to fund infrastructure projects. This information is covered in summary form for quick reference, and to give an overall picture of the menu of local sources available to jurisdictions for infrastructure projects. The table shows the authorizing statute, the jurisdiction eligible to levy the tax or fee, the current rate, and other information as available. The table is not intended to be a comprehensive list of all funding sources available to local governments for every purpose, but is limited to those sources that are referenced in state statute and currently dedicated for, or are in practice, being utilized for infrastructure projects.

Exhibit VI-9, Overview of Available Funding Sources

Revenue Source	Authorized by RCW	Eligible Jurisdictions	Rate	Other Available Information
Public Sources				
Gas Tax	82.36	State	23 cents per gallon	
Local Option Gas Tax	82.80.010	Counties	10% of state tax	None levy
Border Cities Gas Tax	82.47	Border Area Cities/Transit Districts	Maximum 1 cent per gallon	Three cities, one transit district levies
Sales Tax				
State Portion	82.08, 82.12	State		
Local Portion	82.14	Cities	0.5% Basic, 0.1-0.5% Optional	278 Cities levy basic, 10 Cities do not levy optional
	82.14	Counties	0.5% Basic, 0.1-0.5% Optional	35 Counties levy basic, 3 counties do not levy optional; one levies 0.3% optional
	81.104.170, 82.14.340, 82.14.048, 82.14.350, 82.14.0485	Cities, Counties, Public Transportation Benefit Areas	0.1-0.6% Transit, 1.0% High Capacity Transit, 0.1% Criminal Justice (Counties), Public Facilities, Stadium (PFD only), Corrections (Counties excluding King)	Levied by ordinance of local government; jurisdictions may dedicate to particular programs. Transit and PFD taxes are outside study scope.
Distressed County Sales & Use Tax	82.14.370	Counties with Average Unemployment Rate of 120% of Statewide Average	.04% (.08% effective 8/1/99)	New option expands the eligible counties in the year 2000. Deducted from state portion of tax. 23 counties levy.
Municipal Business Tax – Utilities	35.21.870	Cities	6.0% on electricity, natural gas, steam, phone. No limit on garbage, water or sewer services.	Higher rate with voter approval. Rate must be uniform across the jurisdiction.
Cable TV Franchise Fees	36.55	Counties and Cities	5% of gross revenues	
Motor Vehicle Excise Tax	82.44.020	State	2.2% and $2 clean air fee	2.0% for Department of Licensing, Ferry System; other distributions for local police, fire, state equalization, county criminal justice, public health; outside study scope
	35.58.273	Cities	0.725% Mass Transit	None as of 1997; outside study scope
	81.104.160	Cities, Counties, Metropolitan Municipal Corporations, Public Transportation Benefit Areas	0.8% High Capacity Transit	With voter approval; outside study scope
	81.100.060	King, Pierce, Snohomish Counties	0.3% HOV Lanes	With voter approval

Revenue Source	Authorized by RCW	Eligible Jurisdictions	Rate	Other Available Information
Real Estate Excise Tax	82.45.060	State	1.28%	Dedicated: K-12 Education and Public Works Assistance
	82.46.010 (1)	Cities and Counties	0.25%	Dedicated: Capital Improvements only
	82.46.010 (2)	Cities and Counties	0.50%	Only if second 0.5% local portion of sales tax not levied (Clarkston only)
	82.46.070	Counties	1.00%	Dedicated: Acquisition/maintenance of Conservation Areas (San Juan only)
	82.46.035	Cities and Counties	0.25%	Dedicated: Capital Improvements in CFPs
Local Options for Streets and Roads				
Parking Tax	82.80.030	Counties and Cities	Not Specified in Statute	
Street Utility Tax	82.80.050	Cities	$2 per Employee or Residential Housing Unit	
Local Employee Tax				
HOV	81.100.030	King, Pierce, Snohomish County	$2 per FTE per Month	Dedicated: Carpool and HOV Lanes Only
High Capacity Transportation	81.104.150	Cities, Counties, Metropolitan Municipal Corporations, Public Transportation Benefit Areas, Regional Transit Authorities	$2 per FTE per Month	Dedicated: Commuter Rail Only -- outside study scope
Property Taxes				
General Government	Title 84	Cities, Counties, Public Utility Districts		
Roads	84.52.043	County (Road Levy)	$2.25 Maximum Regular Levy	39 Counties levy
Sewers	56.04	Sewer Districts	$1.25 Maximum Special Assessment	3 Districts levy (Formation only)
Rates and Connection Charges				
Public Utility Districts	Title 54	Public Utility Districts	Not Specified in Statute	
Water and Sewer Districts	Title 57	Water and Sewer Districts	Not Specified in Statute	
General Obligation and Revenue Bonds				
	Title 35, 39	Cities		
	Title 36, 39	Counties		
	Title 54	Public Utility Districts		
	Title 57	Water and Sewer Districts		
Private Sources				
Local Improvement Districts				
	Titles 35, 36, 54, 56, 57	Cities		
	Chapters 35.43, 35.44, 35.45, 35.49, 35.54	Counties		
		Public Utility Districts		
		Water and Sewer Districts		
Transportation Benefit Districts	35.21.225, 36.73.030	Cities		
	36.73.020	Counties		
Impact Fees	82.02	GMA Cities and Counties	Proportionate to New Development Costs	
SEPA Mitigation Fees	43.21C	Local Governments		Exempted if paying fees under RCW 82.02

VII. Funding Gap and Level of Use

A. Funding Gap Analysis

Since many of the jurisdictions participating in this study are planning under GMA, and GMA requires CFPs to be fiscally constrained, in concept, it would be expected that the study results would show a minimal funding gap. However, a key finding of the study is that analysis of the plans does show a significant funding gap. Three categories of funding sources comprise the funding gap. They include:

- ***"Unfunded"***—projects that the plans specifically show as "unfunded."
- ***"Unspecified" or "Unknown"***—projects that the plans (1) show as being funded by a non-specific "grant" or "loan;" (2) indicate no funding source information; (3) provide vague information, such as "city, state, and federal funding:" or (4) list the universe of sources available to the project without identifying the level of government from which the sources would come or specifying which sources would be use.
- ***"Unspecified" local, state, and federal funding***—projects for which unspecified "local funding," "state funding," or "federal funding" were denoted. This indicates the intent to apply for a grant or loan, without specifying the source beyond the level of government.

In order to accurately characterize the funding gap, "unspecified local," "unspecified state," and "unspecified federal" sources are grouped differently than in the Funding Utilization section of the report. These "unspecified" sources are include in the funding gap calculation, because the source of funding is not known beyond the level of government (local, state, or federal). Including these "unspecified" amounts in the funding gap calculation appropriately reflects the relative lack of certainty or reliability regarding how jurisdictions will actually finance infrastructure projects.

Exhibits VII-1 and VII-2 present a summary "balance sheet" showing funding needs, funding utilization, and funding gap, as reported by the 324 jurisdictions for the six-year study period. These tables identify total funding needs of $8.16 billion, total funding utilization of %5.11 billion, and potential total funding gap of $3.05 billion. All figures are in 1998 dollars.

Exhibit VII-1 presents funding information by infrastructure type. It indicates a potential funding gap of 41% of road needs, 35% of bridge needs, 35% of domestic water system needs, 26% of sanitary sewer system needs and 52% of storm water needs. Exhibit VII-2 presents funding information by jurisdiction type.

Exhibit VII-2 shows that cities have the largest potential funding gap at 47% of total city needs. In addition, a potential funding gap is reported in the amount of 22% of county needs, 31% of water and sewer district needs, and 16% of PUD needs.

Exhibit VII-1, Summary Funding "Balance Sheet" By Infrastructure Category

	Infrastructure Category (in thousands of dollars)					
	Roadways	**Bridges**	**Domestic Water**	**Sanitary Sewer**	**Storm Water**	**Total**
Total Funding Needs	$3,695,770	$393,915	$1,681,644	$1,820,026	$568,428	$8,159,783
Funding Utilization						
Local (including Private) Funding	$1,193,981	$15,704	$948,690	$722,035	$238,172	$3,118,582
State Funding	$633,618	$45,466	$97,275	$138,830	$24,500	$939,689
Federal Funding	$316,081	$163,145	$23,329	$232,871	$6,734	$742,160
Combined Funding *	$1,582	$30,085	$24,108	$250,098	$2,980	$308,853
Total Funding Utilization	$2,145,262	$254,400	$1,093,402	$1,343,834	$272,386	$5,109,284
Percent of Total Needs	59%	65%	65%	74%	48%	62%
Funding Gap						
"Unfunded"	$6,355	$75,313	$16,591	$13,299	$174,104	$285,662
Unspecified/Unknown Sources	$1,060,418	$27,030	$418,335	$209,650	$68,424	$1,783,857
Unspecified local, State, & Federal Funding						
Unspecified Local Funding	$398,789	$16,616	$149,545	$216,010	$49,848	$830,808
Unspecified State grant/loan	$49,126	$10,265	$1,466	$8,799	$3,666	$73,322
Unspecified Federal grant/loan	$35,820	$10,291	$2,305	$28,434	$0	$76,850
Total Funding Gap	$1,550,508	$139,515	$588,242	$476,192	$296,042	$3,050,499
Percent of Total Needs	**41%**	**35%**	**35%**	**26%**	**52%**	**38%**

* Projects having combined funding sources that could not be disaggregated.

Exhibit VII-2, Summary Funding "Balance Sheet" By Jurisdiction Type

	Jurisdiction Type (in thousands of dollars)				
	City	**County**	**Water/Sewer District**	**PUD**	**Total**
Total Funding Needs	**$4,810,091**	**$2,893,120**	**$368,590**	**$87,982**	**$8,159,783**
Funding Utilization					
Local (including Private) Funding	$1,874,299	$1,005,232	$178,788	$60,263	$3,118,582
State Funding	$377,065	$491,875	$65,133	$5,616	$939,689
Federal Funding	$214,662	$515,475	$4,154	$7,869	$742,160
Combined Funding Sources*	$72,801	$227,821	$7,750	$481	$308,853
Total Funding Utilization	**$2,538,827**	**$2,240,403**	**$255,825**	**$74,229**	**$5,109,284**
Percent of Total Needs	**53%**	**78%**	**69%**	**84%**	**62%**
Funding Gap					
"Unfunded"	$112,327	$173,271	$64	$0	$285,662
Unspecified/Unknown Sources	$1,485,228	$190,325	$101,532	$6,772	$1,783,857
Unspecified Local, State, & Federal Funding					
Unspecified Local Funding	$581,674	$235,539	$6,614	$6,981	$830,808
Unspecified State grant/loan	$56,398	$12,369	$4,555	$0	$73,322
Unspecified Federal grant/loan	$35,637	$41,213	$0	$0	$76,850
Total Funding Gap	**$2,271,264**	**$652,717**	**$112,765**	**$13,753**	**$3,050,499**
Percent of Total Needs	**47%**	**22%**	**31%**	**16%**	**38%**

* Projects having combined funding sources that could not be disaggregated.

In addition to the funding gap described above, the jurisdictional sampling interviews showed that there is another, less visible and quantifiable funding gap. This secondary funding gap is revealed by the strategies jurisdictions use to maintain fiscally constrained plans. These strategies include phasing projects over time; not including projects in plans until funding is determined; prioritizing projects, with some not "making the cut" onto the CFP; and in a few cases, using "placeholders" of small amounts (i.e. $1,000) to "fund" specific projects. Interviews with the sampled jurisdictions showed that these strategies were used with significant frequency. In addition, some utility projects do not include developer extensions which represent an infrastructure cost but are not referenced in CFPs.

B. Assessing Level of Use of State and Federal Funding Sources

1. Initial Approach

The purpose of the level of use analysis is to determine the extent to which dedicated state and federal funding sources are expected to be utilized by the jurisdictions, and to use the database analysis results to determine whether such sources are expected to be fully subscribed, or under- or over-subscribed. To conduct this task, the initial approach taken was to compare available funding, by source and program, with the anticipated revenues identified by jurisdictions in the capital improvement plans for 1998-2003. The analysis involved summing projected requests for each funding source, by year, and comparing these totals with the annual amount of available state and federal program revenues, as provided by the various program managers. The expected result was a picture of the relative demand for each funding source and program, and conclusions as to the extent to which the projected revenue supply can be expected to meet the demand.

However, comparing projected revenues in the plans to available state and federal funding did not provide meaningful results for several reasons. First, as discussed in the Funding Gap section, a total of $3.05 billion (or 38%) of all funding sources in the plans are labeled as "unfunded, unspecified or unknown." Much of these funds represent claims on state and federal resources. Second, although the database encompasses 91% of the state's population, it is missing information from 163 jurisdictions, many or all of which could make claims on state and federal programs. Taken together, these shortcomings in the database translate into an inability to develop a full and complete snapshot of the demand for dedicated funding sources, and an inability to conduct an adequate comparative analysis between the availability of funds and projected demand for them.

2. Revised Approach

Given the difficulties associated with the initial approach, a revised approach was undertaken. This approach uses information from state and federal grant and loan program managers to determine the annual amount of federal or state grant or loan funding available, compared with the amount requested from each source. Even with this simplified approach, several caveats should be noted. First, the request data does not represent the total resource need, since jurisdictions know that limited funds are available from state and federal programs, and therefore limit their submittals to priority projects. On the other hand, jurisdictions may submit the same project to several potential funding sources if the project is a priority request, and have the ability within these programs to request grants first and opt for loans if grants are not available. Thus, a single project may surface on multiple request lists.

Exhibit VII-3 shows the findings from this analysis. As the Table shows, all programs were found to be either fully-subscribed or over-subscribed for the latest funding cycle, with some programs significantly over-subscribed. Two exceptions to this finding – the Drinking Water State Revolving Fund (DWSRF) and CERB programs - are discussed below.

Exhibit VII-3, Level of Use State and Federal Grant and Loan Comparison of Applications

Program	FY Funding Cycle	Amount Available (in millions)	Amount Requested (in millions)	Percent Utilized
Community Development Block Grant	1998	$ 7.9	$ 19.2	242%
Economic Development Authority	1998	$ 7.4	$ 7.4	100%
Transportation Improvement Board	2000	$ 80.7	$ 478.7	593%
Department of Ecology Water				
Centennial Clean Water Fund	1999	$ 9.7	$ 21.4	220%
State Revolving Fund – Water Pollution Control	1999	$ 45.0	$ 57.3	127%
Section 38 Funds	1999	$ 0.7	$ 0.9	127%
Referendum 26	1999	$ 1.0	$ 4.4	427%
State Revolving Fund – Drinking Water	1999	$ 27.1	$ 19.7	73%
Public Works Trust Fund	1999	$ 76.1	$ 145.4	191%
TEA-21 – Statewide Competitive Program	1999	$ 60.0	$ 244.0	407%
Community Economic Revitalization Board	1999	$ 10.0	$ 7.7	77%
County Road Administrative Board				
Rural Arterial Program	1999	$ 18.5	$ 57.5	311%
County Arterial Program	1998	$ 13.4	$ 13.4	100%

Source: Interviews with program managers, fall 1998 and spring 1999, and final offer/award lists by program.

First, the DWSRF had more loan funding available than was requested during the last funding cycle, and the remaining funding was carried over within the fund for the current biennium. However, it should be noted that the under-subscription situation reported here is currently changing, due to modifications in the program (in loan rates, for example). The fund manager reports that all funds in the 1999-2001 biennium will be fully utilized.

The second exception to the finding of full or over-subscription is the CERB program, which had approximately $10 million available for the 1997-1999 biennium, and expects at the close of the state fiscal year to have approximately $2.3 million remaining. This funding is planned to be carried over, within the program, into the next biennium. This program has a rolling application process which occurs six times per year, and is tailored to meet communities' emergent needs. The 1997-1999 total is higher than past or future allocations. Generally, available funding in the past has been fully obligated, although the program has changed in terms of project scope and original funding sources each biennium since its creation. See the state and federal funding sources section in the Funding Availability chapter for more details about the CERB program.

Finally, the information about TEA-21 is limited only to the Statewide Competitive Program, since DOT's purview over the request and award process and allocation of other funds occurs at regional levels.

C. Summary of Findings

Although no funding "gap" between needs and resources was anticipated because of fiscal constraint requirements under GMA, a significant funding gap is evident in capital facility plans. This reflects both the uncertainty of future funding sources and a jurisdiction's capacity to fund projects. Specifically, the gap is made up of projects that local governments actually note as "unfunded;" the "unknown" or "unspecified" categories reflected in the Funding Utilization chapter, and "unspecified" local, state or federal funds. The total potential funding gap identified is $3.05 billion, or 38% of all revenues required for the period 1998 through 2003. Another funding gap that cannot be fully quantified includes the strategies that jurisdictions frequently use to ensure plans are fiscally constrained, such as project phasing or funding "placeholders."

Determining how over- or under-subscribed "dedicated" (state and federal grant and loan) sources was not possible using the capital facility plans, due to the sizable total of "unknown" and "unspecified" sources, as well as the jurisdictions that did not submit plans. Therefore, a revised approach using interviews with federal and state grant and loan program managers was undertaken, which shows that jurisdictions' level of use of these programs is extensive. All programs but two are fully- or over-subscribed for the latest funding cycle, indicating high demand for federal and state grant and loan programs.

VIII. Funding Options

A. Introduction

This chapter presents an analysis of current infrastructure funding issues and approaches, and an assessment of future options. The chapter builds on the menu of local government infrastructure funding options detailed in Chapter V, Funding Availability. It uses the findings of the jurisdictional sampling and focus groups, infrastructure funding practices in other states, and other information and policy options derived from various sources to develop a comprehensive assessment of current and potential future infrastructure funding options.

The chapter is organized in six parts: Section B discusses the current infrastructure funding environment and identifies some of the key issues that influence local governments' funding strategies. Section C discusses the strategies local governments employ in financing infrastructure projects, including an assessment of comparatively less utilized and unutilized funding sources.

The intent of this Section is to review what funding mechanisms are now in place—"what's working and what's not." Section D presents and discusses potential new or expanded funding options, and Section E summarizes experience in other states and potential policy options to increase infrastructure investment. Section F summarizes the key findings and options discussed in this section of the report.

B. Overview of the Infrastructure Environment

This study encompassed more than 300 jurisdictions, ranging from very small cities and water/sewer districts, to the state's largest cities and counties. Given the range and scope of the jurisdictions encompassed by the study, it is important to note that infrastructure needs and funding mechanisms vary significantly by type of infrastructure and jurisdiction – "one size does not fit all." Different jurisdictions face different challenges, and have different tools at their disposal to address their needs. What all jurisdictions have in common is a very complex challenge in determining how to fund their infrastructure needs. Each agency must piece together a workable capital improvement plan, given a mix of funding options and tools, legal, political and administrative realities, shifting regulatory mandates, and competing priorities and community needs.

Factors that may influence a jurisdiction's approach to financing projects include the age and condition of the physical plant across all infrastructure types, their history and experience using various financing tools, available funding, the community's growth rate, level of service standards, economic development objectives and policies, and the extent of annexations and incorporations. For example, some jurisdictions have economic development strategies that drive how projects are financed (including projects that foster industrial development, provide recreation opportunities, and employment opportunities). Almost every jurisdiction is aware of the effect of annexations and incorporations because of potential shifts in revenue that may (or may not) occur.

Internal influences on funding strategy can include internal competition for limited jurisdictional resources, since general government needs (parks, public facilities, information technology) compete for general fund capital dollars with transportation infrastructure projects. For cities and counties, a key issue is that general funds must be prioritized to meet many needs besides infrastructure development. Therefore, investments in capital projects from the general fund may be only a small proportion of the overall capital facility plan, but may represent a large contribution from the jurisdiction's general fund.

Other important issues facing local governments as they work to fund infrastructure projects are summarized below:

Regulations are a Significant Force in Infrastructure Investment Decisions. Since the mid-1970's, a variety of state and federal regulations have played a key role in infrastructure planning and funding. All jurisdictions identified state and federal regulations as the key driver or influence on infrastructure financing strategies. Some cited specific examples, such as requirements to comply with National Pollutant Discharge Elimination System (NPDES) standards, and changes to Safe Drinking Water Act standards. The Endangered Species Act (ESA) was cited numerous times as being a key driver of infrastructure project cost. Most jurisdictions have not yet quantified the ESA's potential impact on project cost, but there is a widespread understanding that is likely to add an additional "layer" of project cost and complexity. Where the ESA will slow or stop development, this will also impact revenues flowing to the jurisdictions.

Utility Needs. In the future, the focus of utility projects will generally be away from expansion of capacity and toward system replacement. In addition, environmental regulations lead jurisdictions to a "dig up the ground once" approach (to expand capacity). The effect of this on jurisdictions is to front-load costs to the current period. As referenced in this section, storm water needs represent an increasing infrastructure need. Those jurisdictions without a separate storm water utility may not be able to fully address their needs.

Failing Private Water Systems. The state has an estimated 16,000 small private water systems, many of which are reported to be failing or near failure. (There are also some small public water systems facing similar financial conditions.) These systems represent a large unfunded liability that will have to be assumed by the jurisdictions, including water and sewer districts, PUDs, some cities, or as a last resort, the counties.

Transportation Priorities – Balancing Capacity and Growth with Maintenance and Preservation Needs. Most transportation projects are focused on maintaining concurrency and capacity, which is an outcome of growth and development in communities. This focus pulls jurisdictions away from maintenance and preservation efforts. In addition, the majority of available state and federal transportation grant and loan funding for has been for capacity planning and projects. Communities that must resurface and upgrade major arterials, but are not in need of increased capacity, have fewer funding alternatives available to meet these needs.

Regional Transportation Projects. Large-scale transportation improvement projects can only be financed by leveraging a variety of funding sources. Local public financing is often used as match to secure state and federal dollars, and private funds can also be an important part of the equation, but generally account for a smaller portion of the funding package. Large jurisdictions can sometimes fund large-scale and costly improvements through the packaging of multiple funding sources and through phasing. For multi-jurisdictional agreements, a lead agency is usually established, cost sharing is determined, and a contract or intergovernmental agreement is signed. When such multi-jurisdictional, multi-source funding packages cannot be assembled, projects cannot be implemented. Smaller jurisdictions are often less able to assemble a complex funding package, and so tend to put off large-scale costly or multi-jurisdictional projects unless outside funding sources are available.

C. Assessment of Existing Funding Sources

1. Available and Utilized Funding Sources

Use of Dedicated and General Fund Sources for Infrastructure

Infrastructure projects in cities and counties are generally financed using dedicated funds, and to a lesser extent, general fund sources. As discussed in the Funding Availability section, a local government's most reliable source of capital funding is its own capital improvement budget, in which general fund revenues can be used to augment dedicated capital funding sources, particularly in the case of transportation. The revenues are within the direct control of local government and are generally predictable, but there is often fierce competition among the jurisdiction's many competing priorities: in most communities, the needs for capital funding far exceed expected resources. Thus, one challenge for funding infrastructure using general funds is for the jurisdiction to consider a project's priority within the jurisdiction's overall list of needs, including both general government and infrastructure needs.

Some jurisdictions transfer general funds for transportation-related infrastructure improvements, some do not. Several cities with a strong retail sales tax base reported using some portion of the city's sales tax receipts to fund transportation capital improvement projects. However, this practice is the exception rather than the rule, since other general government services also make claim to general fund revenues. One community indicated that when transfers from the general fund do occur, they are used to handle costs associated with expansion (e.g., annexation cost).

Rates and User Charges

Cities and counties with utilities and water, sewer, and public utility districts utilize user rates as the primary funding source for infrastructure improvements (both as a source for reserves and as a debt service source).

Storm Drainage. Communities have several approaches to financing storm water projects, an area that has represented an increasing infrastructure need in recent years. Some jurisdictions have created a storm water or surface water utility to finance an enterprise fund through user fees, and use the utility and (sometimes) general fund sources to fund projects. These utilities perform long-term drainage basin planning. Since many of these utilities are relatively new, some communities have faced challenges identifying adequate funding sources for drainage improvements.

Those jurisdictions that do not have a specific fund structure to deal with storm water or surface drainage do so using transportation funds in conjunction with transportation-related projects on a case-by-case basis. An illustration of this would be a road program with projects for the repair of a stream bank, restabilization of hillsides, studies for historical flood areas, surface and subsurface drainage, and cleaning drains on bridges.

Counties with drainage utilities finance projects with user fees, bond sales, and private contributions when the benefit is shared. Annexations and incorporations have affected capital financing for drainage, since newly created jurisdictions may find other means for providing these services and the shift may represent a revenue loss to the county.

As a single, isolated example of how drainage improvements are funded, one county's storm water utility makes a pay-as-you-go contribution for capital projects, which comprises about 30% of funding for infrastructure projects. A small amount is also financed through revenue bond issues, but for the remainder of projects, no specific plans are identified to address 70% of unfunded projects. Another county requires that all capital projects provide links to a drainage system; only user fees are available for drainage utility funding (no debt or system development charges).

System Development Charges. Water, sewer, and public utility districts all utilize hookup fees, or system development charges, for development. Jurisdictions vary in their use of this source based on the level of growth in the district. High-growth districts show that at least 10% of total projects are financed using system development charges; other (lower-growth) districts said charges were not used at all to finance projects. Latecomer agreements, in which the developer recoups the cost of system development as residents connect to an improved system, were referenced as a minor source of funding for infrastructure improvements. One possible explanation for this is that latecomer agreements can have high administrative costs for the jurisdiction.

State and Federal Funding Sources: Loans and Grants

The following observations about state and federal grant and loan programs were derived from the evaluation of capital facility plans, the detailed interviews with sample jurisdictions, and the focus group meetings:

- Cities and counties find state and federal grant funding progressively harder to apply for and receive each year.
- Jurisdictions characterize water, sewer, and storm water loan and grant sources as less available than transportation sources, and generally decreasing in availability. Funding for drainage projects is perceived to be available only from local sources.
- Jurisdictions are increasingly aware of grant programs they can apply for, and are increasingly aggressive in applying. Many observe that the matching requirement is increasing, requiring more creativity (public-private partnerships and regional coordination) to apply and qualify for grants. This further supports these communities' contention that the grant environment is more competitive than ever.
- Grant funds are generally used for repair and replacement. One jurisdiction noted that sometimes regulatory compliance is a requirement of grant award, but compliance often represents only a small portion of an entire project (for example, in a water quality project), making a grant application less attractive.
- Smaller utility districts outlined three funding options available to them, including revenue from rates, cash, and debt, but not federal, state, or private sources (meaning that districts must build reserves to finance capital projects), and that, generally, water and sewer districts do not consider grants to be a future funding source.
- Most jurisdictions perform a cost-benefit analysis to decide whether to bond, or apply for a loan or grant program, and do not consider debt in any form without favorable financial terms. With interest rates currently so low, private-lending rates are often comparable to municipal debt financing costs.
- Jurisdictions prefer loan programs with the following characteristics: low entry and application costs; simple to administer; rates competitive with private lending instruments and bond issuance costs; criteria that are flexible enough for jurisdictions with special circumstances to be included; and programs that are willing to accept junior lien-holder status.
- In practice, cities and counties also use inter-fund loans to finance capital improvements before seeking outside funding. Some capital facility plans show road and bridge projects partially financed through short-term borrowing in the middle years of the six-year plan (2001-2002), with some projects accelerated to the first three years of the plan.

2. Available and Comparatively Less Utilized Funding Sources

The following funding sources are characterized as "comparatively less utilized" because of the existent authority but relative lack of implementation by some local governments. There are many reasons why local governments may opt not to use the full tax, debt, or private financing capacity available. These reasons are as varied as the numbers of local governments. Influences include local political and tax climate, the need for revenue, voter approval requirements, and cost-benefit calculation (i.e. political challenge versus potential revenue yield).

Utility Taxes

Many cities impose utility taxes; some do not. Rates vary widely by jurisdiction; rates in effect in 1997 ranged from 2% to 17%. In 1998, the Association of Washington Cities conducted a survey of its members, who make up over 97% of all cities in the state (all cities with a population over 10,000 are members). Although the data represents only a partial picture, the study found the following about 1997 utility tax levies. First, the AWC identified 278 cities authorized to levy utility taxes. Of the 229 cities (83%) that responded to the survey, 101 (44%) did not levy utility taxes at all. Of those that did levy such a tax, 121 (53%) levied a water utility tax, 116 (51%) taxed sewer utilities, and 28 (12%) cities charged storm water utility fees.

Many cities charge identical rates for water, sewer, and storm water utilities. Although there is no statutory limit to the rate cities may charge and the range is as noted above, rates fall between 4% and 10%. Finally, more cities were charging utility taxes and storm water fees in 1997 than in 1990 (also, 27% more charged water utility taxes, 30% more charged sewer taxes). The capacity to increase rates to fund capital improvements also varies by jurisdiction. Cities could choose to increase rates and target the funds to transportation or utility improvements, but these are general fund sources that may not reasonably be expected to finance only infrastructure improvements.

Real Estate Excise Tax

A dedicated local-option tax source for capital projects is the REET, used in almost all cities and counties to fund general government or parks capital improvements, and to a lesser extent to fund basic infrastructure. When REET is used for the infrastructure components within this study's scope, the tax is usually used to fund transportation improvements. As discussed in the Funding Availability chapter, the first 0.25% of REET may only be used for capital improvements. Where a city or county does not levy the second 0.5% local sales tax option, the REET rate limit is 0.5%. A second 0.25% option is available and can only be used for capital projects specified in a comprehensive plan. In high growth areas, the second 0.25% can be enacted by the local legislative body, but must be approved by voters elsewhere.

A 1998 Association of Washington Cities survey of 278 cities found that 61% of cities tax at the rate of 0.25%, 31% tax at the rate of 0.50% (generally urban areas), and 8% do not levy either portion. Under current statute, the maximum combined state and local rate possible is 3.28 percent. Statewide, the highest actual rate imposed is 2.78%. Tax collections are not particularly stable, as they tend to mirror changes in the housing market.

Local Option Transportation Taxes

Cities and counties have attempted, with limited success, to implement a range of available local option taxes, including vehicle excise taxes; licensing fees; parking taxes; and, in some cases, to create street utilities. As shown in the Funding Utilization section of this report, local option transportation taxes are expected to comprise 1% of county transportation funding and 2% of city transportation funding for the 6-year period. As noted in the introduction, many influences on the success of these measures exist, and most local option tax votes have failed on Election Day. Examples of unsuccessful efforts to impose these taxes include the imposition of local option license fees, repealed under threat of referendum; a local option gas tax approved in the county but failed on a public vote; and street bond issues voted down by the community. Most jurisdictions are aware of these options, but taxpayer opposition, regional government opposition, or economic development strategies run counter to the jurisdiction's plan to put them in place. In small communities, the revenue from the imposition of a local-option tax may not be enough to warrant implementing it (to cover capital costs in particular).

Local-option taxes for streets and roads permitted in RCW 82.80 include both the commercial parking tax and street utility tax; proceeds are to be used for local transportation purposes. Two cities utilize the parking tax, Bainbridge Island and Sea Tac. Case law is a deterrent to the creation of street utilities. In 1996, an appellate court ruling (Libby Covell et al v. the City of Seattle) deemed the street utility tax on households was improperly assessed since the tax rate was not uniform for all types of property.

Local Option Motor Vehicle Excise Tax

City and county local-option motor vehicle excise taxes are dedicated to purposes outside the study's scope (as is the state MVET), except for the 0.3% tax which is dedicated to the HOV lane development. This option is available only in King, Pierce, and Snohomish County, and none have levied this option to date. Some of the disadvantages of this tax include the regional requirement and the perception of the linkage between the local MVET and the state vehicle license tax.

Debt Financing

For most jurisdictions, debt capacity (or "bumping up against the debt ceiling") is not a serious constraint in deciding how to finance projects. There are a few exceptions to this situation among cities. As noted above, local governments'

approach to debt is to finance capital projects on a pay-as-you-go basis before utilizing debt. Most jurisdictions identify specific criteria for revenue bond financing, including a project of sufficient scale, a revenue stream that is well defined, and a clear project goal. Some jurisdictions try to issue bonds such that the associated increase in utility rates will not exceed the growth rate for personal income. Transportation improvements are generally not debt-financed, while public utility improvements do tend to be partially funded through loans and bonds. Most often, revenue bonds or voter-approved bonds are used for infrastructure improvements. Some jurisdictions issue councilmanic bonds, but usually for non-infrastructure improvements.

Private Sector Funding Mechanisms

Local Improvement Districts. LIDs and RIDs are two of the major "tools in the toolbox". In recent years, many jurisdictions have been reluctant to initiate LIDs and RIDs because of their administrative complexity and because of property owner protests. Additionally, in some cases, collections for "developer LIDs" (LIDs formed to finance infrastructure improvements on undeveloped land) have proven unreliable, causing jurisdictions to be even more cautious about using this mechanism. Nonetheless, given the menu of infrastructure financing mechanisms, some jurisdictions are now reemphasizing LID formation as a funding tool. The study database shows that 7% of city transportation funding is expected to be derived from LIDs, and 4% of county transportation funding is expected to come from RIDs within the 6-year study period.

SEPA Mitigation. The use of SEPA mitigation, which was fairly widely used prior to the implementation of GMA, has declined significantly in recent years, as communities have instead opted to implement impact fees. Currently, cities and counties report that this source is a proportionately very small share (about 1%) of overall sources to fund infrastructure projects, and that it is primarily used to fund transportation projects. Some local government officials expect wider use of SEPA mitigation due to the recent salmon listing under the ESA.

Developer Contributions. All jurisdictions use developer contributions to the extent possible for development, but this source does not comprise a large percentage of overall financing sources for capital projects. Unless the area is experiencing growth, developer contributions are not available to fund projects. Almost all cities, counties, and utility districts report developer contributions as a small percentage of total revenues. The database shows, for example, that developer contributions are expected to be 8% and 3% of funding sources for city and county projects, respectively, over the six-year study period. In the jurisdictional interviews, the expected percentage was reported to be between 1% and 4% of overall funding for capital projects. As an upper bound, one city's roadway program includes up to 15% of funding from developer contributions, the highest percentage of any jurisdiction surveyed.

Public-Private Partnerships. Most jurisdictions have limited experience with full privatization. There are few examples of true public-private partnerships; these include jurisdictions with plans underway for major retail development,

jointly funded by the state, city, and developer through an inter-local agreement (including improvements to the highway, arterial, signal improvements, and private land). Most jurisdictions that have experience with public-private partnerships expect them to continue in the future. Most utility districts' examples of public-private partnerships were developer extensions, installed or paid for by private parties, and then donated to the district. Small jurisdictions say they don't have the resources for complex agreements, which represents a barrier to their formation in rural or less-populated areas.

Examples of partnerships at the county level include the use of pledged private funds to leverage public funding or to use pledged private funds as the match for loan programs. Another county has tried to give private developers credit on fees for project work that private parties construct in advance. An unsuccessful development between a county and developer in which the private financing was rescinded very late in the process reportedly dampened the enthusiasm for these arrangements in one jurisdiction.

As mentioned in the Funding Availability chapter, "63-20" financing is a funding source available for large development-related projects. This alternative method of obtaining tax-exempt financing, available under the Internal Revenue Code, allows public bonds to be used if secured by a lease agreement. It can be used for all infrastructure projects, with some exceptions. Generally, it requires a credit-worthy private developer willing to enter into a lease to support the bond offering. A qualified nonprofit corporation is required to issue tax-exempt debt on behalf of a political subdivision for the purpose of financing facilities.

3. Available Funding Sources Not Utilized

Transportation Benefit Districts

In 1987, the Legislature authorized the creation of transportation benefit districts (TBDs) to allow "cities, towns and counties to make and fund transportation improvements necessitated by economic development" (RCW 36.73.010). TBDs were designed to address some of the perceived drawbacks of LIDs, for example, with a TBD there is no requirement to link specific benefits to particular properties or to make assessments proportional to estimated project benefits. Further, a newly created district has authority to issue debt, assess voter-approved excess property tax levies, and collect impact fees. Also, a district may fund multiple projects, which fits with the multi-phase, multi-jurisdictional nature of many transportation improvement needs.

Since 1987, TBDs have encountered prohibitive implementation problems. Specifically, constitutional requirements for uniform taxation have proven challenging to communities that have worked to create TBDs. The uniformity clause of the Washington State Constitution requires all property within a given "independent taxing authority" to be assessed at the same rate. Therefore, unless a TBD can establish its independence from authorizing governments, separate tax rates within a TBD and its authorizing entities face legal challenges. Because of these legal limitations, TBDs have not been used as funding mechanisms,

although several groups of jurisdictions have tried to make this mechanism workable. Point Roberts TBD levies the border areas gas tax.

Local Option Gas Tax

Counties are authorized under 1990 legislation to levy a voter-approved local option fuel tax of 10% of the state tax, with proceeds distributed on a modified per capita allocation to cities and the unincorporated area of the county. To date, two counties have tried to implement this local option, but the measures have each failed to obtain voter approval. Jurisdictions must weigh a variety of factors in pursuing this option: anti-tax sentiment, lack of consensus among regional entities, and economic development impacts. There have been issues identified with the ability to collect a local option gas tax, now that the state collects the state tax at the refinery level.

Employee Tax

This option, authorized in 1990, allows King, Pierce, and Snohomish counties to levy a $2.00-per-FTE-per-month tax on employers with voter approval. The proceeds would benefit HOV systems, such as dedicated lanes and carpool and vanpool programs. To date, none of these jurisdictions have exercised this option. The structure of the tax exemption is one possible reason this has not been implemented. The tax does not apply to employers that pay at least half of a transit pass issued by the jurisdiction, or that are part of the transportation demand management programs designed to reduce single-occupant drivers to the workplace. In many cases, major employers are already providing this benefit to employees or participating in these programs, thereby decreasing the tax base for this source.

D. Potential Funding Options and Strategies

Analysis of the study's database and interviews with the jurisdictions show that the most significant funding problems and shortfalls are in the area of transportation. Utility system funding challenges faced by very small cities, water and sewer districts, and PUDs are a distant second. These systems do not have an adequate rate base to cover needed improvements, especially where the physical plant is aging and there is low growth.

Regarding transportation, cities and counties face a structural financing problem. Unlike most utilities, which have stable and dedicated enterprise funding, the local transportation sector does not have enterprise funding options. An associated challenge is that loans, as a funding mechanism, do not work for transportation projects, because the related cost cannot be easily recouped by user fees and rates. In addition, local governments have three major transportation funding problems:

- Funding shortfalls for capacity are most apparent in areas affected by growth, with older infrastructure, or facing freight mobility needs and constraints. (The most significant problems are in communities with all or a combination of these factors).

- Maintenance and preservation needs are underfunded, particularly in areas with older infrastructure, and most especially in jurisdictions that have both aging infrastructure and growth and capacity-related improvements.
- Large, multi-jurisdictional projects are difficult to fund, requiring "piecing together" multiple funding sources, often in multiple phases. Many of these projects are simply not showing up in jurisdictions' plans, because they are too difficult to fund.

This section presents potential funding options and strategies to address these infrastructure needs. The section is organized in two parts: (1) modifications to existing funding sources and (2) potential new funding sources. This list of options is not a comprehensive list, but pulls from the list available sources listed in the Funding Availability section of the report, specific suggestions from jurisdictions, and the judgement of the study team.

1. Modifications to Existing Funding Sources

Charges That Apply Generally

Streamlined Application Process. Most jurisdictions agreed that a consolidated grant and loan application process to eliminate duplication would decrease the time and effort local governments now spend applying for federal and state grant and loan programs.

Increased Loan Funding for Emergency Funds. While most jurisdictions do not require or use emergency loan funding, those who do generally have critical (and unforeseen) needs and few other resources to draw upon. Currently, available emergency funds for capital projects are limited, and often inadequate to respond to local governments needs.

Voter Approval of Bond Issues. Some jurisdictions have suggested that the requirement that voted GO bonds receive 60% of voter approval be reduced to a simple majority. There are advantages and disadvantages to this proposal. Positive aspects include making funding more easily available to fund critical local needs. However, the higher threshold reflects the need for a higher standard or level of demonstrated public support for particular projects.

Changes to Transportation Funding Options

Changes to Motor Vehicle Fuel Tax Allocations. An increase to the 23-cent gas tax collected at the state level dedicated for infrastructure is one potential modification. The gas tax has not been increased since 1990 and is not indexed to inflation, resulting in a loss of purchasing power. Some cities and counties suggest changes in state motor vehicle fuel tax from a per capita allocation to some other methodology. This would correct perceived inequities and loss of regional funding connected with annexations and incorporations.

Two alternative approaches might include (a) distributions based on tax collections (which is very difficult to identify), or (b) instituting inflation indexing at the state level as well as indexing distributions to jurisdictions, to prevent loss of purchasing power.

Increased Emphasis on Maintenance and Preservation Funding. Many local governments expressed a need for more loans and grants for preservation of infrastructure, balancing the focus on capacity issues.

Increased Funding for Rural Roads in Urban Areas. Jurisdictions suggested that funding for above-grade improvements on rural roads in urban areas was needed (such as pedestrian and path improvements on rural arterials). Eligibility criteria for some grant and loan programs currently preclude urban areas for applying for some transportation funding sources.

2. Potential New Funding Sources and Strategies

Extensive debates occurred in nearly every study forum regarding whether funding options that are not currently available to local governments truly created "new" financing mechanisms or simply redistributed existing sources. The possible "new" sources listed below are a combination of the two, and have political, legal, and other implications that are also discussed briefly below.

Changes That Apply Generally

Extension of Local Utility Tax Authority. A range of possibilities exists to modify local utility tax authority. Currently, cities have authority to assess utility taxes on municipal and private utilities in their jurisdictions (RCW 35.21); these are local option gross receipts or business and occupation (B&O) taxes for these enterprises. Cities can assess the utility tax on their own sewer and water utilities as well as private utilities operating within city limits. Proceeds from utility taxes are often used for general government operations. However, cities do not have authority to assess the tax on water/sewer districts and PUDs operating within their boundaries.

One option would be to grant cities authority to also assess those districts, to "level the playing field." Another option is to extend utility tax levy authority to the counties for unincorporated areas. This would allow counties to make revenue available to urban growth areas for infrastructure purposes. The extension of this authority has been controversial in the past and represents a potential implementation barrier.

Extension of Business & Occupation Tax Authority. Similar in concept to the extension of utility tax authority for cities and counties, another option would be extension to the counties of local B&O taxing authority on general business activities (retail, manufacturing, and wholesale service firms.)

Redistribution of Construction Sales Tax. One redistribution option which offers some logical connection with (particularly growth-related) local government infrastructure is to return a portion of the sales tax on construction to local governments to pay for infrastructure improvements. A distribution formula might be structured to make the growth component of sales tax revenue from new construction available to local governments to address needs in high-growth areas.

Financial Viability Review for Small Utility Systems. Small private and public utility systems without the means to upgrade or maintain systems might benefit from annual reviews of financial capacity to maintain systems, conducted by state agencies. The reviews would be geared toward identifying long-term infrastructure financing needs and gaps, and signaling the need for regionalizing these systems if the failure of the system or district was imminent. An "early warning system" to identify these financial capacity issues warrants study by the state. As referenced in the Funding Availability section if this report, Referenda 27 and 38 were bond (and grant) programs specifically designed to assist small systems in meeting federal and state standards and provide a potential model.

Exempt Infrastructure Projects from Sales Tax. The materials used to build infrastructure are subject to the sales tax. Providing tax credits or exemptions for infrastructure projects could reduce project costs.

Create the Growth Management Infrastructure Account. Create a specific account to provide funds for infrastructure needed to accommodate growth. The Fund could be set up similar to the Public Works Trust Fund, and have a dedicated revenue source.

Forward Thrust for Infrastructure 2000. Similar to the King County Forward Thrust Initiative in the late 1960s, the state could send a proposal to a vote of the people to authorize the sale of bonds to finance infrastructure projects.

Change Eligibility Requirements for Specific Funds to Allow Funding for Growth. Several state loans and grants do not currently fund growth-related infrastructure projects. These eligibility requirements could be changed to allow funding to be used to help accommodate growth.

Raise Private-Use Bond Caps. While private-use bonds do not use public dollars, government sets a cap on the amount of debt to be incurred for private projects (i.e.: housing, economic development, etc.). Government could raise the cap to allow more private dollars to be utilized for infrastructure projects through the use of such bonds.

Dedicate State Tax Revenue Sources to Infrastructure. The state could dedicate a portion of state general fund tax revenues collected from growth-related projects to form a funding pool for bonding for infrastructure projects. For instance, the state could dedicate a portion of the real estate excise tax or the amount of property tax increased for new construction to be used specifically to finance infrastructure to accommodate growth.

User Fees. Establish fees paid by the users of facilities and services, such as toll roads and park entrance fees, to be dedicated for paying for the development, construction, and maintenance of these facilities.

Changes to Transportation Funding Options

Expansion/Revision of Local Option Tax Authority. Several variations on this theme are possible, including eliminating county authorization for local-option taxes, thereby creating a new revenue stream for city-level needs that do not rely on county approval. Another option would be council-approved local option taxes that can be implemented without voter approval (similar to the difference between voted and non-voted general obligation bonds). For special purpose districts, local option taxes could take the form of user fees (such as a boat tax) to create an additional source of funding for infrastructure. A potential drawback of these approaches may be obtaining local funding flexibility at the expense of regional (countywide) cooperation for infrastructure funding.

Enterprise Funding for Transportation. Although the legal feasibility of street utilities was successfully challenged, a stable, "enterprise fund" source (as utilities have) would greatly benefit the state's transportation system and local governments charged with its operation. With enterprise-type funding, some of the "patchwork quilt" of funding sources for transportation now in place could be replaced by a dedicated funding source.

Tax Increment Financing. Tax increment financing (TIF) is a mechanism to use growth-related revenues within a jurisdiction to pay for growth-related infrastructure. In simplest terms, it works by "freezing" the existing tax base within the community, and directing incremental growth over that base (the "increment" in tax increment financing) to repay TIF bonds sold to finance infrastructure constructed within the jurisdiction. Conceptually, there is a circularity to the mechanism – infrastructure investment promotes growth which promotes increased revenues, a portion of which are used to repay the infrastructure investment.

TIF is widely used in other communities across the country. In Washington, the Legislature enacted the Community Redevelopment Financing Act of 1982, the state TIF statute. This statute was challenged in the courts and subsequently ruled unconstitutional. Two subsequent attempts to amend the state's constitution failed at the ballot, and proponents then opted for a "test case" in the courts. However, the test (Leonard v. Spokane, 1995) resulted in a ruling that TIF was unconstitutional on the grounds that it violated the uniformity provisions of the State Constitution. Thus TIF is not, at this time, considered a viable funding mechanism in Washington.

E. Policy Alternatives and Experience in Other States to Increase Infrastructure Investment

1. Background and Context

In addition to the foregoing analysis of potential funding options, the study's scope of work calls for a review of infrastructure investment experiences in other states and presentation of "policy alternatives" that may increase infrastructure investment by decreasing project costs and/or encouraging private sector funding. It is appropriate to discuss potential policy alternatives in the context of other states' experiences, since a state's political and legal environment is extricably linked to the infrastructure funding approaches and techniques at its disposal.

A critical starting point for this discussion is an understanding of Washington's relatively restrictive infrastructure environment. Relative to other states, Washington's local jurisdictions have few "tools in the funding toolbox" with which to work. This is primarily due to legal constraints, but history, social, and cultural considerations also have an influence.

The State Constitution (Article 8, sections 5 and 7) prohibits the state and local governments from lending public credit, and a related provision of the Article prohibits "gifting" of public funds to a private party. Additionally, the Constitution's uniformity clause requires uniform taxation rates within a given jurisdiction, or "independent taxing authority." These constitutional clauses have also been narrowly interpreted by the courts and state attorneys general. One result of these legal provisions and interpretations is to limit the menu of implementable funding options in the state.

Another important contextual element within the state's infrastructure policy environment is that public-private agreements are not popular with the public and their elected officials. Thus, many of the more creative infrastructure funding approaches used in other states, which involve cost sharing and cost shifting formalized through public-private agreements, have proven to be politically unacceptable in Washington. Taken together, both legal (constitutional and case law) and political constraints have served to significantly limit opportunities for private sector-based infrastructure investment in the state. It is against this backdrop that experiences in other states should be considered.

2. Infrastructure Investment in Other States: Terminology and Definitions

States around the country have used a variety of non-traditional "off-balance-sheet" financing approaches to fund infrastructure. What all of these approaches have in common is an effort to fund infrastructure improvements through non-governmental sources -- to instead take advantage of the private sector's financial resources. There are two broad categories of such financing approaches:

- "**Value capture" techniques** are approaches used by governments to "recapture" a portion of the incremental value flowing to the private sector as a result of a public improvement project. The primary goal of value capture strategies is to return income to the sponsoring agency. Examples include land and air rights leasing, impact fees, local improvement districts (LIDs), and tax increment financing.
- **"Public-private agreements"** are agreements in which a government and private entity agree to share the respective cost and effort of an improvement project, for their mutual benefit. Examples include joint development agreements, sale-leaseback agreements, turnkey procurement agreements, franchises (toll roads), and incentive agreements.

Of these mechanisms, LIDs, impact fees, and TIF have been discussed in preceding sections of this chapter. Definitions for the less familiar financing approaches are as follows:

- **Land or air rights leasing** consists of long-term lease agreements for public land or airspace above publicly owned facilities (such as highways).
- In **joint development agreements**, public facilities (e.g., a road or transit facility) are developed simultaneously with private facilities (e.g., an office building or commercial activity center), with the private sector paying for a portion of the public improvement. Joint development strategies are usually intended to enhance economic development in general.
- **Turnkey procurement agreements** are contracts for the design, construction, operations, and/or financing of an infrastructure system by a single vendor, often a consortium of firms. Turnkey agreements can take several forms, including public ownership options (design-build; design-build-transfer) and public-private options (design-build-operate; design-build-finance; and design-build-operate-transfer).
- **Franchises** involve a public entity engaging a private company in a turnkey agreement to develop an entire project, and further granting a long-term right to operate the facility for profit (e.g. a toll road or rail system).
- **Incentive agreements** involve government providing an incentive to a private entity to locate or develop a facility by agreeing to serve it with an access road or other infrastructure.

3. Implementation Experience in Other States

This section presents summary-level descriptions of key infrastructure techniques used in other states.

Tax Increment Financing. The most-often used value-capture technique in other states is tax increment financing (TIF), a mechanism that is currently unavailable to Washington jurisdictions, which was discussed earlier in the section on "available sources not utilized." The majority of states around the country (approximately 40 states) have statutory authority to use TIF, and many states do take advantage of the public financing power of the mechanism. Nationally, infrastructure study after study has pointed out the benefits of TIF, especially as a means of encouraging redevelopment in urban areas. Likewise, in the jurisdictional interviews in this study, a number of local government staff expressed a desire to access TIF (Note: not all interviewees seemed to understand the constraints on TIF utilization in Washington).

Regionally, TIF is available and is used frequently in Oregon and California. It has also been used to fund major transportation improvement projects in Iowa, Minnesota, North Dakota, and numerous other states.

Benefit Assessment Districts. The use of assessment districts to finance development-related infrastructure has a long and widespread history. It has been used extensively in other states to help fund infrastructure needs associated with large-scale projects (particularly those located in formerly rural areas) to lower the effective cost of financing required infrastructure. In the western states, assessment districts have been used to finance infrastructure improvements for major projects in California (Incline Village at Lake Tahoe, for example), Idaho (development in the Priest Lake area), and Arizona (Lake Havasu developments as well as others).

Elsewhere in the country, several states that have experienced significant growth have used assessment districts effectively. These states include Texas, where municipal utility districts (MUDs) are widely used in rapidly growing cities to finance sewer and water services. MUDs are applicable for water supply, wastewater treatment, and drainage systems only, and are used primarily to enable developers to finance the installation of such utilities in new subdivisions using tax-exempt bonds. Although the MUD approach has been widely used by Texas developers, in many ways it is considerably less attractive than the ULID mechanism available to property owners in Washington. This is due to Texas regulations requiring MUDs to be initially approved by a vote of the electorate within district boundaries, the relevant county commission, and state Water Rights Commission. MUDs must finance or securitize the construction of streets. District bonds must be backed by property taxes rather than land-based assessments. There is also a requirement for developers to pay 30% of "non-central" water and wastewater improvements in cash.

The states of Colorado and Florida have also made extensive use of benefit district financing. In Colorado, metropolitan districts function as traditional special districts, except that in addition to water and sewer facilities, the districts can also fund road improvements, parks, public transportation, and other public services. Major development projects in Colorado have used metropolitan district assessment financing for water, sewer, drainage, roadway, landscaping, and other related infrastructure projects. The state of Florida has likewise created

community development districts that can provide infrastructure financing, including water supply, wastewater management, streets, and street lighting. With the consent of the governing municipality, the district may also provide recreational facilities, fire protection, school buildings, solid waste management, mosquito control, and other services.

Impact Fees. While an exhaustive survey of the use of impact fees was not conducted, it is known that in some states (Florida, California, and Maryland), impact fees may be collected by the local jurisdictions to spend on improvements to state facilities. In at least one state – Oregon – impact fees may be imposed by the state to mitigate impacts to state facilities.

Air and Land Rights Leasing. This value-capture technique (which was used in Washington in connection with construction of the Gateway Tower, partially built over I-5 in Seattle) provides an opportunity to make effective use of otherwise "unusable" air space and state-owned property. It has been used in numerous states, most notably in Massachusetts in connection with development atop the Massachusetts Turnpike, and in California, where CalTrans has entered into agreements with private entities for land uses beneath freeway exit ramps and adjacent to state highway interchanges.

Turnkey Procurement Agreements. As identified above, there are several variations of turnkey programs, some of which are in use in Washington (Seattle's Tolt Filtration project is a notable example of this). A number of other states make more extensive use of this technique, using it to finance new municipal water and wastewater systems or system expansions. These arrangements (design-build-finance and design-build-operate-finance) provide jurisdictions with increased access to capital and the potential to share project risk with private entities.

4. Issues for Further Study

In guiding the study, members of the Assessment Committee and Technical Advisory Group met to discuss key issues to be analyzed within the study. The group discussed the fact that there are many issues external to local government operations (e.g., regulatory, environmental, economic, and political) that serve to increase local government infrastructure project costs.

The members agreed that while the scope of this study should be confined to the analysis of local government infrastructure needs and planning and funding options, there is a range of important issues that should be reserved for future study. These topics include a review of the cost components of infrastructure development, and analysis of approaches to reduce these costs. These approaches could include:

- Liability reform;
- Regulatory reform;
- Privatization and contracting;

- Reduced levels-of-service;
- Process efficiencies;
- Project prioritization processes;
- Review of prevailing wage laws;
- Exemption of capital facility projects from sales taxes; and
- Capping transit distributions based on specified limits.

A final issue considered during the study process was the development of state standards or criteria to guide infrastructure project planning and funding. The current approach is to provide broad guidelines and allow jurisdictions to make decisions at the local level. Concepts proposed early in the study called for the development of state mandates or guidelines to direct the planning and funding of infrastructure projects, including designating guidelines to influence what project types or components would qualify for state grant and loan programs and which could not. The Committee concluded that two issues were important regarding standards: first, whether there was an impact or discrepancy among the standards and how that might affect project cost; and second, what role standards may have in the funding strategy of a local government. The Committee determined that these issues should be carried forward for further study.

F. Summary of Findings – Funding Options

One size does not fit all when assessing local government funding needs and mechanisms. A rich variety of internal and external influences shape how infrastructure projects are prioritized and funded, which depend entirely on the individual jurisdiction. A community's rate of population growth, level of service standards, annexations and incorporations, and internal competition for resources are influences that lead to variations in funding strategies. Regulatory changes (for example, the Endangered Species Act), utility repair and replacement needs, capacity and congestion issues, and regional coordination are major influences on the current infrastructure environment in Washington. All jurisdictions identified state and federal regulations as the key driver or influence on infrastructure finding strategies. Storm water and drainage needs are also an emerging influence.

Use of Funding Sources. Funding sources that are available and being utilized by local governments include general fund sources; rates and user charges; storm drainage fees; system development charges; and loan and grant programs. Sources available but comparatively less utilized include utility taxes; local option taxes (including real estate excise tax and parking taxes); bond financing; and private sources (such as LIDs, SEPA mitigation, developer contributions, and public-private partnerships). Possible reasons for comparatively lower levels of utilization vary widely from jurisdiction to jurisdiction. Finally, sources available but not currently utilized include transportation benefit districts, local option gas tax, and the employee tax.

Major Funding Needs. The study finds that transportation has the most significant funding problem among the infrastructure types studied. Transportation suffers from a

structural problem – there are multiple funding sources, many with different requirements and different yields. Putting together a transportation capital plan is like piecing together a patchwork quilt – lots of different pieces, in different sizes and shapes are required, and within cities and counties transportation needs compete with other needs for limited resources. The most significant transportation funding shortfalls are for (1) capacity improvements in growth areas, particularly those with older infrastructure or facing freight mobility challenges; (2) maintenance and preservation projects; and (3) funding for large, multi-jurisdictional projects.

A secondary problem is the financial viability of smaller sewer and water utilities, particularly those in rural or low growth areas. Some of these entities have a limited rate base and critical needs. State funding programs are used to fund needed improvements, but the need exceeds available funding, and public entities (cities, counties, water and sewer districts and PUDs) will increasingly be looked to for financial and management support of private and community systems. Funding mechanisms modeled after Referendum 38 grant programs have been suggested as models to provide funding to help these systems.

Funding Options. Funding options are presented in two categories: modifications to existing sources and potential new funding sources and strategies. Modifications to existing funding sources that could address current problems and are applicable to infrastructure generally include streamlining application processes to reduce duplication and the time- and labor-intensive nature of grant and loan applications. Further, increasing the availability of emergency loan funding and possibly reducing the 60% threshold for voted GO bonds are two other options to broaden access to voter-approved infrastructure funding.

Possible changes to existing transportation funding sources to address major funding challenges could include increases in the state gas tax and the indexing of that tax, revisions to motor vehicle fuel tax allocations, placing increased emphasis on maintenance and preservation funding; and making funds available for rural road improvements in urban areas.

Beyond modifying existing sources, new sources and strategies could be considered to give local governments additional funding tools to finance infrastructure. Those generally applicable to infrastructure include extension of utility tax authority and/or B&O tax authority to counties. Another option might include a shift of construction sales tax from state collections to local government to pay for growth-related improvements. A financial viability review or "audit" may assist small utility districts, acting as an "early warning" of emergent needs. Sources tailored for transportation needs could include expansion or revision to local option taxes to address road and bridge needs, and/or the creation of enterprise funding mechanisms for transportation.

Policy Alternatives and Experience in Other States. Experience in other states suggests two mechanisms which could be used more extensively in Washington: "value capture" mechanisms (to return income to the local government supporting an improvement) and "public-private agreements" (cost- and effort-sharing agreements between government and private entities). These categories include public-private partnerships, LIDs, tax increment financing, and impact fees (which are currently in use

in Washington). However, other financing mechanisms are widely used in other states, but not in Washington, including land or air rights leasing; joint development agreements; turnkey procurement agreements; franchises; and incentive agreements.

Finally, several key policy alternatives, which may reduce the cost of infrastructure development, were identified that warrant further study. Some of these policy alternatives include privatization and contracting, the use of criteria to evaluate project prioritization, regulatory reform, liability reform, reviewing prevailing wage laws, tightening the definition of infrastructure, and policy alternatives that support efficiency efforts in government.

IX. Planning Assessment and Suggested Improvements

A core element of this study focused on analyzing capital plans and identifying suggestions for improving those plans. Capital plans submitted by jurisdictions participating in the study were assessed in a variety of ways. Based on what was learned from the assessment process, a series of findings were formulated regarding capital plan content, format, and utility and capital planning processes. Based on the findings, suggestions for strengthening capital plans and the capital planning process were prepared. These findings and suggestions are described below.

A. Context for Planning Assessment

Although the Growth Management Act requires some standardization of capital facilities planning for GMA jurisdictions, there is neither statewide, standardized terminology for capital facilities planning, nor statewide requirements for capital facilities plans. The plans collected for this study reflect both local variations in capital facilities planning and the variation between system plans (i.e., between transportation, water, sewer, and drainage system plans). These variations are evidenced in the summary of plans provided in the Funding Needs section of this report.

An initial finding of this study was that while all jurisdictions plan for infrastructure needs, the terminology and titles of their planning documents, the time frame of the plans, and the level of detail contained in these published documents differ. Also, as an important note to this study, some plans are considered "financially constrained" in that they reflect only what can be funded, rather than all local "needs;" other plans are unconstrained. A brief explanation of the current context in which capital facility planning occurs is provided below.

1. Terminology

Terms and titles that are used for individual system plans are derived from statutory requirements, past usage and requirements of funding sources. Local transportation system plans are generally known as "Transportation Improvement Programs," which are required by the Washington State Department of Transportation. From past usage and DOH and Department of Ecology (DOE) requirements, individual water and sewer system plans are usually referred to as "Comprehensive Plans."

The term "Capital Facilities Plan" can refer to short-term facilities plans for individual transportation, drainage, water and/or sewer systems, or for jurisdiction-wide plans such as those required under the Growth Management Act. For GMA jurisdictions, the term "Capital Facility Plan" was superimposed over previous infrastructure planning, and represents a specific planning requirement (see below). The GMA requires that Capital Facilities Plans address both long (20-year) and short (six-year) range time frames. The short-range, six-year CFP (sometimes termed the "Six Year Plan") is required to be "financially constrained", an important requirement. For many jurisdictions, that portion of the CFP that coincides with the budget cycle (i.e., the first one or two years), becomes the "Capital Improvement Program" (CIP). The terms CFP/CIP are not

exact, and are not used consistently by all jurisdictions. These terms were used for many years prior to the GMA, and have evolved over time to reflect local needs, requirements of specific funding sources, and newer statutory requirements. In some jurisdictions, the term CIP may be used to describe a Capital Facility Plan. In some cases, the CFP is an outgrowth of a CIP or 6-year capital plan that jurisdictions developed prior to GMA requirements.

2. Transportation Improvement Planning Requirements

Local transportation planning must meet requirements set forth by WSDOT, federal and state funding sources, and where applicable, the Growth Management Act. WSDOT requires jurisdictions seeking State transportation funds to file a local six-year "Transportation Improvement Plan" by July 1 of every year. The TIP must be updated annually.

Some jurisdictions maintain both a six-year and longer-term TIP. For some jurisdictions, projects in the TIP are taken from a larger "Transportation Needs Report" (TNR). For GMA jurisdictions, some or all of the TIP is moved into the CFP and annual/biannual CIP depending on the availability of funding and jurisdictional priorities.

3. Water and Sewer System Requirements

Cities and counties that provide water and/or sewer service are required to have "Comprehensive Plans" for those capital facilities. Water plans must be approved by DOH and must be updated at least every six years. Sewer/wastewater plans must be approved by DOE and the local Department of Health, and coordinated with the respective county; these plans must also be updated at least every six years. The time frame of these plans varies. Water system plans are now required to include both a project-specific six-year component (a CIP) and a more general 20-year general plan. In addition, some larger jurisdictions have a "Build-Out" Plan; these longer-range plans are very general, however, and do not identify specific projects.

All local water and sewer districts are required by RCW 57.16.010 to adopt a general "Comprehensive Plan" for their facilities. These plans must contain a long-term plan for financing the planned projects and the method of distributing the cost and expense of the project. In most jurisdictions, projects from the first five or six years of these Plans are placed in a short-range CFP/CIP.

Approximately 550 water systems in Washington - generally the largest systems and those involved in regional water supply planning - prepare and submit to DOH a Water System Plan (WSP) that is updated every six years. Each WSP includes a section on proposed capital improvements (a CIP). The DOH's Water System Planning Handbook provides information about how to prioritize and select water system plan improvements and how to set an annual schedule of improvements that extends at least six years into the future, in order to correspond with six-year Water System Plan update requirements and capital facilities planning required by GMA.

4. Public Utility Districts

There are no statutory requirements for preparing a Comprehensive Plan for Public Utility Districts. For those that provide water service, they must meet state requirements for these systems and prepare Comprehensive Plans for their systems. These plans are also required to be updated at least every six years. Some PUDs also have longer range plans as well.

5. Capital Facilities Plans and GMA

All GMA planning jurisdictions are required to include a Capital Facilities Element in their 20-year Comprehensive Plan (RCW 36.70A.070(3). The CFP is one of six required elements of a Comprehensive Plan. The purpose is to relate level of service standards identified in the Comprehensive Plan to provide capital facilities. The CFP must consist of:

(a) An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the public 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.

Item (d), the requirement for a "financially constrained" six-year plan, is the main focus of most CFPs, although items (a) through (e) are also addressed. It should be noted that the GMA requirements are for capital facilities that go beyond the transportation, water, sewer, and drainage components of this study. They include parks, criminal justice facilities, administrative facilities, and others.

Even with this newer statutory requirement, there is variation in local CFPs. Some CFPs are very policy oriented, with very general facility plans for the 20-year period and very detailed plans for the required six-year period. Other jurisdictions have few policies in their documents. The extent to which all years of the CFP are "financially constrained" is not fully uniform. The level of detail contained in the published plan document varies among jurisdictions, as does the content of supporting information and project documentation that is not presented in the CFP.

6. Planning Guidance

In 1993, CTED published "Making Your Comprehensive Plan a Reality: A Capital Facilities Plan Preparation Guide." It was prepared to assist communities in developing a Capital Facility Plan that was consistent with the requirements of the Growth Management Act. It identifies GMA statutory requirements, outlines the steps in developing a CFP, identifies who should be involved in developing a CFP, and presents methods for setting level of service standards for forecasting capital facilities needs.

B. Assessment Methodology

Three strategies were used to assess local government capital plans. They included input from initial observations, detailed evaluations and interviews, and focus groups.

First, observations were made regarding capital plans as part of the data collection element of the study. This "assess-as-you-go" approach yielded a baseline evaluation of the strengths and weaknesses of the various capital plans. These initial observations used to categorize the plans into plan type groupings and served as a guide for what aspects of the plans to focus on during a more detailed assessment.

Second, using a carefully derived sample of 50 jurisdictions from across the state, the consistency and utility of the plans were evaluated in detail. This evaluation included interviews with representatives of the jurisdictions involved. Participants included planning, finance, and public works directors. Interviews were conducted to clarify areas of uncertainty and ambiguity in the plans, and to obtain their perspectives on the plan and the plan development process.

Third, two focus groups were conducted with staff from a cross-section of jurisdictions, to query them about their perspectives on plan content, format, consistency, and utility, and to gain suggestions on areas for improvement and alternative approaches. The participants shared ideas and experiences, and the resulting discussion proved to be extremely useful in identifying areas for improvement and alternative approaches.

C. Summary of Plans

A plan typology evolved based upon the information contained in the tracking system. Four general types of capital facilities plans emerged from the review of the capital plans. These four types and the characteristics of each are described as follows:

Type 1—Detailed Plans

- Individual project narratives
- Cost differentiation by phase
- Cost differentiation by project
- Cost allocation by year
- Funding source and amount differentiation by project

Type 2—Study Matrix Information (filled out matrix sent by study team)

- Cost differentiation by project
- Cost allocation by year
- Funding source and amount differentiation by project

Type 3—Cash Flow Analysis

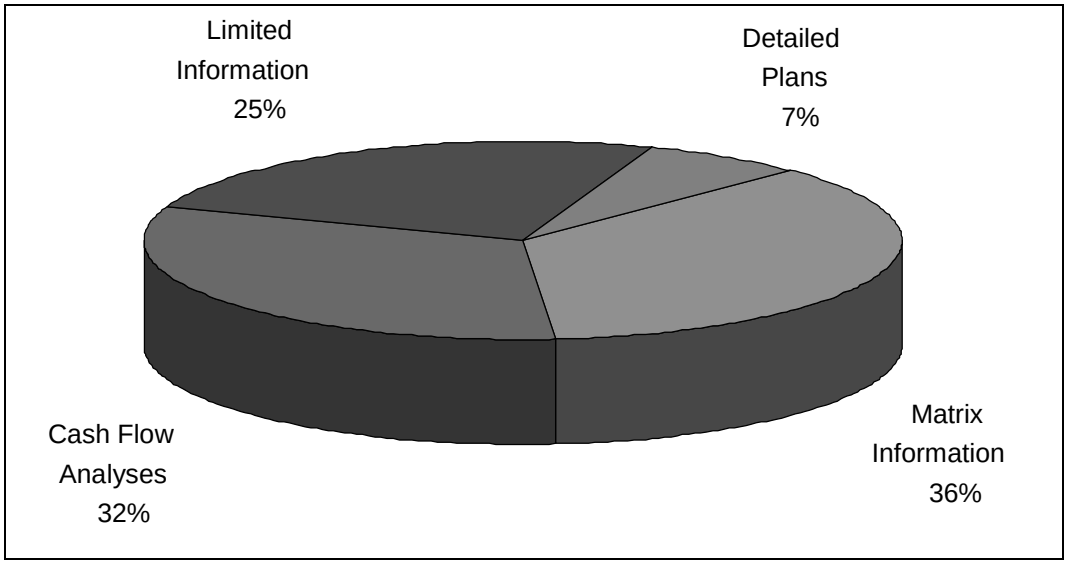
- Cost differentiation by project
- Cost allocation by year
- Funding source and amount listed, but not differentiated by project

Type 4—Limited Information

- Plans missing one or more key components such as cost, year, or funding source
- Jurisdictions who declined to respond
- Jurisdictions with irregularities

A fifth category of plans (Type 5) included all plans that either contained no projects or contained no plan information. A breakdown of the four plan types is shown in Exhibit IX-1. Examples of the four plan types are shown in Appendix M.

Exhibit IX-1, Plan Types



D. Findings and Suggestions for Improvement

This work task involved the evaluation and analysis of the Capital Facilities Plans of cities, counties, water/sewer districts, and PUDs. Findings and suggestions for improvement address both the planning process (that is, the way in which jurisdictions prepare their plans), and the content and format of the plans. Information supporting this assessment process was drawn from three sources. They included:

- ***Collection and analysis of plans.*** As part of the data collection and database development activities, plans were categorized into one of four "plan types," reflecting the level of detail presented in the plan document. These categorizations were developed in the context of the needs of a standardized database and reporting system.
- ***Jurisdictional sampling process.*** Anecdotal evidence was gleaned from interviews with planning, public works, and finance staff from the local governments. This information was most helpful in addressing the planning process and how it results in the format and content of plans.
- ***Focus groups.*** The focus groups provided additional suggestions about important issues surrounding the ways in which capital facilities plans are prepared and ways to improve the planning process and the resulting documents.

1. Planning Process Findings

- GMA jurisdictions are required to develop a 20-year comprehensive plan and six-year fiscally constrained capital facilities plans. The CFP is suggested to be updated annually. In practice, jurisdictions vary in how often and when they update the CIP/CFP, and the way that amendments are integrated into the Comprehensive Plan.

- The lead department for the CIP/CFP varies among jurisdictions and in many cases varies within jurisdictions for different infrastructure types. This impacts the way in which plans are prepared, projects are prioritized, and information is presented in the document. Most jurisdictions indicate that the prioritization and identification of projects comes largely from the public works/engineering department.

- For cities and counties, state and federal grant funding are a major way in which transportation projects are funded. Thus, the availability of grant funding influences project prioritization.

- Jurisdictions approach the preparation of fiscally constrained CFPs in different ways. Some include projects in the CFP so that they may apply for funding, some include partially funded projects, and others only include projects that are fully funded.

- For some jurisdictions, a lack of funding may force a reduction in level of service (LOS) standards in order to meet concurrency requirements, and this may give the appearance of projects not being needed.

- Jurisdictions indicate that they coordinate with other jurisdictions on capital projects that cross city-county boundaries. However, they report that in potential future annexation areas, there is a lack of coordination on issues related to authority for long-range land use decisions, planning, and funding of capital projects.

2. Plan Content and Format Findings

- There is wide variation in the level of detail found in CIP/CFP documents. This includes types of projects, identification of funding sources and amounts, and project phasing. Some jurisdictions report that there is also a great deal of "background information" and other reports or documents that support the CIP/CFP document.

- Communities have specific criteria to determine which projects become part of a funded CIP/CFP, but these criteria vary among jurisdictions and infrastructure categories. Of particular note are differences related to maintaining existing system capacity versus system expansion. Criteria do not always show up in the CIP/CFP document.

- Many jurisdictions have conceptual, long-range infrastructure plans (projects but not funding) that are used in developing the six-year CIP/CFP. These projects are not reflected in the document.

- Jurisdictions report a varying philosophy and approach to including unfunded projects on the CIP/CFP.

3. Suggestions for Improvement

These suggestions are designed to address the findings and issues that have been identified regarding the process by which capital facilities plans are prepared and the resulting plan document. To implement these suggestions, cities, counties, water and sewer districts, and PUDs will be asked to become more stringent in the way they prepare, present, and report capital facilities plan information. However, both local jurisdictions and the state will benefit from these enhancements. Local jurisdictions will be able to more effectively communicate information about infrastructure needs and funding strategies, and they will be able to assess their needs in a comparable manner with other jurisdictions. State agencies and the Legislature will have a clearer understanding of infrastructure

needs and funding requirements, which would support better informed policy decision making.

In many cases, implementation of these suggested changes may strain local jurisdiction staff and financial resources. Thus, there is recognition that there may be a need for technical assistance and financial support to ease the burden of these suggestions. In addition, implementation of these changes should be phased in over several years. The state should undertake an active role in providing needed assistance. It is difficult at this point to fully assess the costs to both local jurisdictions and the state of responding to these suggestions. The state and local jurisdictions should work together to identify implementation support needs and efficient and effective ways to address those needs.

Currently, CTED provides local government programs in several areas, including community development, growth management, local capital facilities, and the Public Works Board and Public Works Trust Fund. Through the Growth Management Program, CTED has the authority for administering GMA compliance. Additionally, the agency publishes reports and documents related to growth management issues. These include the "About Growth Newsletter," guidelines for preparing comprehensive plans, and the capital facility plan guideline, "Making Your Comprehensive Plan a Reality: A Guide to a Capital Facilities Plan." Many of the suggestions that have been developed in this study could fall within the responsibility of CTED. Therefore, it is suggested that CTED assume the lead role and responsibility for facilitating the implementation of these actions.

The CFP Document—A Standardized Template of Information

- ***A standardized template, with common terminology, should be developed for CFPs.*** Currently, there is not a state standard for what level of detail must be contained in capital facilities plans. This template, which would include projects, costs, funding, and project phasing, would bring consistency to the manner in which capital facilities plans are presented. A standardized template would provide a consistent structure, and would play an important role in supporting state and local policy development and the identification of the costs and fiscal impacts of funding capital projects.

- ***At a minimum, for each year, the CFP document should include individual projects and project costs, with anticipated funding sources indicated by type of project.*** These project types would encompass categories such as planning/acquisition, new construction and improvement (i.e., capacity expansion), and repair/replacement/ rehabilitation (i.e., maintenance, and preservation).

- ***For each year, all funding sources and amounts should be shown, and named in a program-specific way (e.g., TIB, PWTF, and TEA-21).*** If more than one funding source is to be used, the amounts from each source should be shown.

- ***Common terminology and definitions should be developed to guide CFP preparation.*** Terminology and definitions should address elements such as project types and funding sources.

- ***The plan document should show the responsibility of other jurisdictions in helping to finance projects.*** If a project is being jointly funded by multiple jurisdictions, then the amount being contributed from other jurisdictions should be identified at least in total and preferably by jurisdiction.

- ***The CIP/CFP should indicate where projects extend beyond the six-year time frame of the plan, and for how many years.*** When a project is only one phase of a multi-phase larger project, the total extent in both schedule and cost of the full project should be shown.

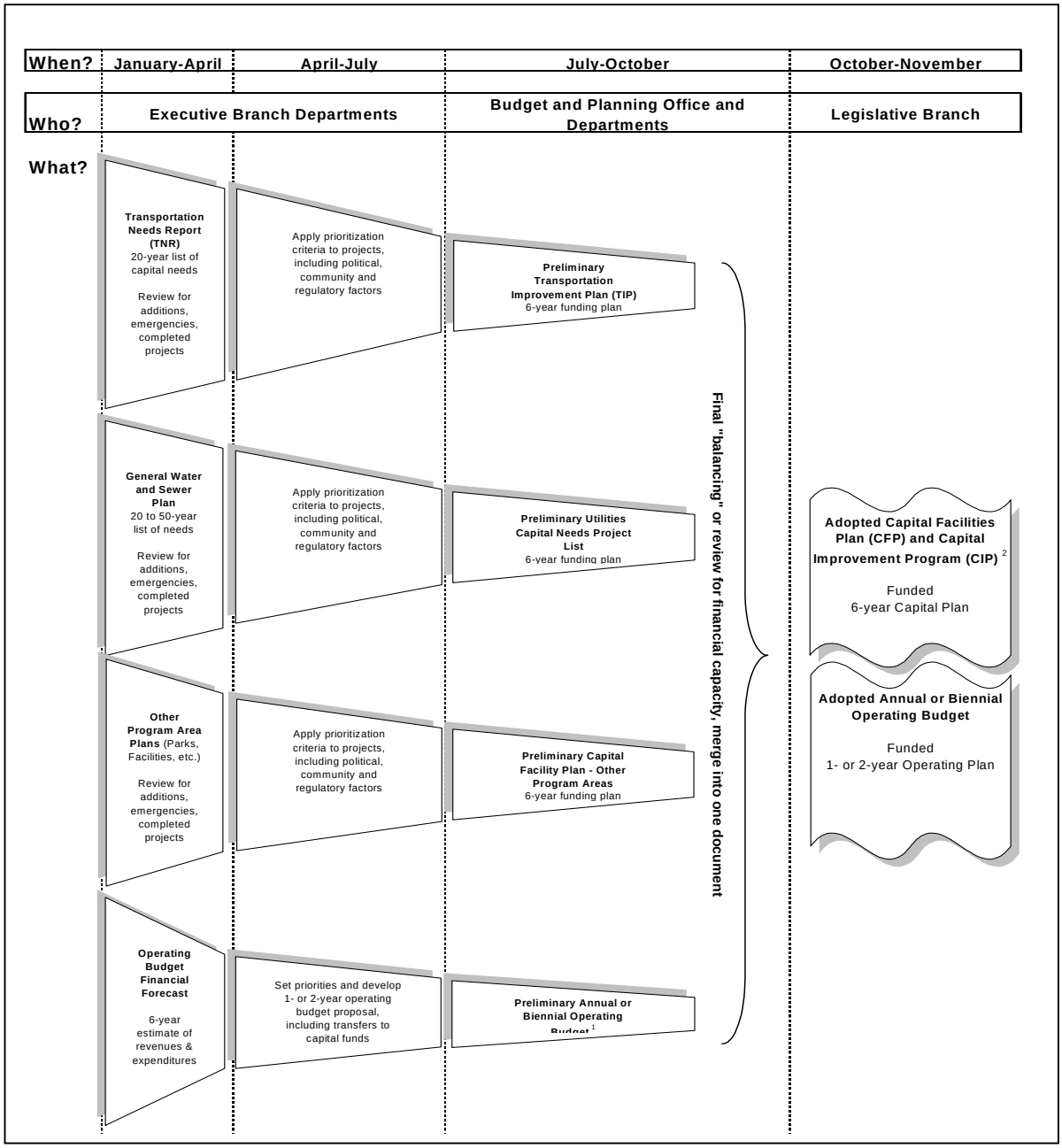
- ***The plan document should describe the jurisdiction's project selection and prioritization process within each infrastructure type***.

The CFP Document—Total Needs

- ***In order for jurisdictions to convey information about their total infrastructure needs, CFPs should allow for information about all of the potential projects for the six-year period to be presented.*** Most plans are unclear about unfunded projects and those for which funding is not secured. However, jurisdictions are responding to the requirements of the Growth Management Act for fiscally constrained plans. Thus, they have determined that it is not possible to include these projects in the CFP document. Plans should explain these projects in a way that meets GMA requirements. Refer to Exhibit IX-2 for an illustration of the typical capital planning and budget process for cities and counties planning under GMA.

- ***CTED should take the lead in responding to the issue of depicting total needs in the CFP document.*** They should provide the research necessary to develop a mechanism for jurisdictions to formally identify all of their needs, as well as publishing their adopted, funded, six-year CFP. Compliance with the Growth Management Act must be assured while minimizing the legal risks on the part of the jurisdictions. One approach might be to include all projects in a draft CFP and only fiscally constrained projects in final (adopted) CFP.

Exhibit IX-2, Typical Capital Planning and Budget Process for Cities or Counties



Notes:

(1) Jurisdictions with a biennial budget process attempt to make year two a "minor" update.

(2) Amending the CFP is also an element of the annual comprehensive plan amendment process, so the legislative branch would adopt CFP amendments by reference with the passage of the budget, and other comprehensive plan amendments by separate ordinance.

The CFP Document—Annual Updates

- ***Not all jurisdictions are updating their six-year CIP/CFP on an annual basis. Annual plan updates should be required.*** The lack of consistency on the part of different jurisdictions in their schedule for publishing and updating the CFP results in difficulty performing a complete analysis of funding availability and utilization for a given period of time.

The CFP Planning Process—Coordination

- ***A centralized process and coordination strategy should be defined by each jurisdiction for their capital facility planning, with a CFP "lead person" identified.*** This person would be a single point of contact for agencies and individuals that are dealing with the jurisdiction's CFP. Ideally, this would be a person knowledgeable in all aspects of the plan, who would be able to answer questions on such items as project descriptions, costs, funding, and inter-jurisdictional coordination.

  This suggestion is not intended to direct how jurisdictions conduct their planning process for project identification, prioritization, or fund allocation. Rather, it is intended to simplify the process for accessing CFP information.

The CFP Planning Process—Consistency Among Jurisdictions

- ***Water and Sewer districts, PUDs, and non-GMA cities and counties should prepare an annually updated capital facilities plan.*** These CFP documents should be in a format consistent with those of GMA jurisdictions. Plans submitted to all of the regulatory agencies (CTED, DOH, DOE) should have the same framework for their compliance requirements. Thus, CTED should work with DOH and DOE to establish uniform planning guidelines and requirements.

Coordinated Planning—Potential Annexation Areas

- ***Coordinated planning should be required for identified potential annexation areas.*** This should address the need to provide capital investments in these areas by cities, counties, and special purpose districts; the local jurisdiction's desire to establish uniform standards for these areas; and a financing mechanism that equitably responds to the concerns of shared revenues and the "pay-back" for investment. Several models have been utilized across the state that can be drawn from to address financial issues related to annexations.

The CFP Planning Process—Funding Source Requirements

- ***State funding sources should require a CFP in order to apply for funding, as is the case for the TIB and PWTF.*** Funding agencies should adopt a uniform application form by infrastructure category, and a process for fund application, which should take place on a common time table. State funding agencies should phase in the requirement for the CFP. Adequate time will be required, especially for smaller jurisdictions and those that do not currently prepare a CFP, so that they are not precluded from applying for funds because of this suggested requirement.

State Support for Changes to CFP Requirements

- ***Update the CTED guidebook, "Making Your Comprehensive Plan A Reality: A Capital Facilities Plan Preparation Guide".*** A revised guidebook should respond to the lessons learned as jurisdictions prepare CFPs under Growth Management Act requirements, changes in funding sources and requirements, and reflect the suggestions of this study.

- ***The State should provide technical and financial assistance for local governments and special purpose districts to respond to these suggested changes in CFP requirements.*** Input should be sought from associations representing cities, counties, water and sewer districts, and PUDs in order to determine appropriate technical and financial assistance strategies and levels.

E. Summary of Findings and Suggestions for Improvement

The evaluation and analysis of the capital plans of cities, counties, water/sewer districts, and PUDs led to key findings about both the process by which the plans are developed and the resulting format and content of the capital facilities plans. From these findings, suggestions for improving capital facilities plans were developed.

Summary of Planning Process Findings

With respect to the planning process, cities and counties planning under GMA requirements are preparing 20-year comprehensive plans and six-year fiscally constrained capital facilities plans. However, jurisdictions approach these requirements with different philosophies of whether projects may be included in the plans if funding is not fully secured. This results in a lack of consistency among the plans. There is variation among jurisdictions for which departments have the lead responsibility for project selection and prioritization, which influences the selection process; also, the availability of grant funding influences project prioritization. For some jurisdictions, a lack of funding may force a reduction in level-of-service requirements in order to meet concurrency requirements.

Summary of Plan Content and Format Findings

The format and content of capital facilities plans varies widely among jurisdictions. There are great differences in the amount of information contained in the plans, and in the level of detail that is presented regarding the infrastructure categories of projects, sources and amounts of funds, and project phasing. Additionally, while jurisdictions usually have specific criteria for selecting the projects that are included in a CIP/CFP, often times that information is not presented in the document. There also is a wide variation in how jurisdictions approach including partially funded and/or phased projects in the CIP/CFP document.

Suggestions for Improving Capital Facilities Plans

Suggestions for improving capital facilities plans were developed to respond to the issues that were identified through the analysis of capital facilities plans and through the in-depth sampling of a representative group of jurisdictions. They address the CFP document, the process through which capital facilities plans are developed, and the role of the State in supporting the recommended changes.

The Plan Document

A standardized template, which would include projects, costs, funding information, and project phasing is suggested in order to bring consistency to the way in which capital facilities plans are presented. This would support a consistent data structure for the information contained in local government CFPs, and would play an important role in supporting state and local policy development and the identification of the costs and fiscal impacts of funding capital projects. Further, there should be a methodology established, with the assistance of the State, to allow jurisdictions to convey information about their total, unconstrained needs, while still complying with the requirements of the Growth Management Act.

The CFP Planning Process

Key issues in the CFP planning process are a lack of consistency among jurisdictions and the need for greater coordination. All jurisdictions, including cities, counties, water/sewer districts, and PUDs should prepare annually updated capital facilities plans in a consistent format to comply with each regulatory agency (CTED, DOH, DOE). This will require the State to work with these agencies to establish uniform planning guidelines and requirements. Also, several state funding sources such as the TIB and PWTF require a CFP in order to apply for funds. Expanding these requirements to all state funding sources would bring further consistency to the CIP/CFP planning process. Finally, coordinated planning should be required for identified potential annexation areas. There is a need to provide capital investments in these areas in a way that responds to both county and city standards and that addresses financial equity issues of annexations.

The Role of the State

Many of the suggestions for improving capital facilities plans may have an impact on jurisdiction's staff time and financial resources. Therefore, the State should be expected to undertake an active role in assisting jurisdictions to respond to these suggestions. Currently, CTED provides local government programs in several areas, including Growth Management Act compliance. CTED should assume the lead role and responsibility for facilitating the implementation of these actions. An update to the CTED guidebook, "Making Your Comprehensive Plan A Reality: A Capital Facilities Plan Preparation Guide" could include recommended approaches to responding to the suggestions of this study. Further, through CTED, the State should provide technical and financial assistance to local governments and special purpose districts to respond to the suggested changes in CFP requirements.

X. Decision Support System

A. Background

As noted in previous sections of this report, decision-makers throughout the state of Washington currently do not have the ability to accurately identify, track, and analyze critical infrastructure planning and funding information on a statewide basis. The causes are many, including data lacks consistent definition and quality; data is missing entirely; data is not updated annually; data covers different time periods; data is not stored centrally; and data is not stored electronically.

Looking toward the future, the state of Washington faces infrastructure policy issues that are becomingly increasingly complicated and will require access to more information than is currently available to make accurate and comprehensive policy decisions. Future infrastructure policy issues include:

- The impact of environmental mitigation, such as the Endangered Species Act, on infrastructure costs, prioritization, and accomplishment rate.
- The costs and future maintenance impact of capacity expansion.
- The impact of safety mitigation on project costs and prioritization.
- The impact of amenities versus core requirements on cost, prioritization, and accomplishment rate.

What is needed is a decision support system: a computer system that collects the necessary data within the existing infrastructure planning and reporting process, and stores the data centrally to allow ad hoc query and statewide reporting. Since trend analysis is a key decision support tool for answering policy questions, this system needs to be able to link historical and projected information to support analysis of data over varying periods of time.

The system needs to provide a common framework that ensures that collected financial data has common meaning and is comparable, both locally between jurisdictions and aggregated statewide. In addition, contextual data is needed to convey distinctive local characteristics, priorities, and decisions, which are integral to proper jurisdictional comparisons.

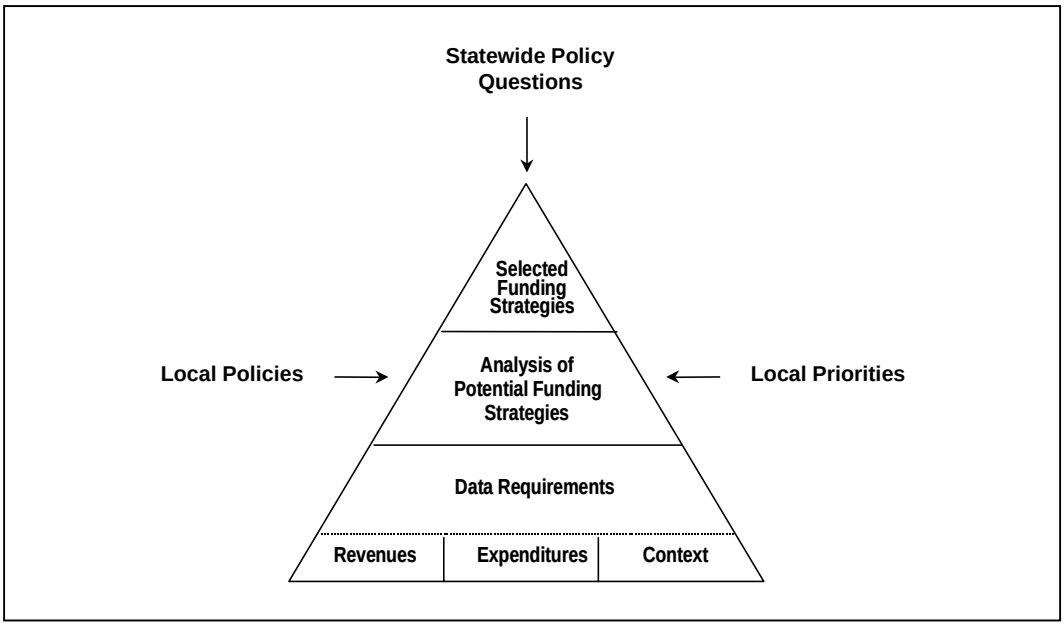
B. Objectives

There are two primary decision support system objectives. They are to (1) provide state policy makers a sense of what is happening across the state at a high level, and (2) enable local governments to compare what is happening in their jurisdiction to peers of their own choosing. It is important to emphasize that local government comparisons are intended to support identification of trends that allow local jurisdictions to learn from their peers and, ultimately, develop best practices for infrastructure planning and funding.

C. Framework

Both objectives of the decision support system can be met by utilizing a single framework. The framework is depicted in Exhibit X-1, with jurisdictional data at the base supplying information to both state and local policy makers. The data requirements to support funding strategy analysis include revenue, expenditures, and context. Local policies and priorities should supplement this information. Ultimately, state and local funding strategies will be able to be established through the analysis of potential funding strategies.

Exhibit X-1, Decision Support Framework



The system should support analysis at two levels. At one level, aggregated statewide totals, both current and over time, will give policy makers a powerful tool to analyze funding strategies and outcomes. At a more detailed level, individual jurisdiction information will support peer review among similar entities. This will enable local governments to identify possible best practices from among their peers and interject reasonable comparison information to their decision making process. Both levels of analysis use the same data source, which provides consistency in data definitions, accuracy, and coverage.

D. Potential Content

The framework will be grounded in infrastructure revenues, expenditures, and contextual data reported by jurisdiction, infrastructure type, and expenditure category. This data will be collected, stored, organized, analyzed, and reported within the framework. Over time, these data requirements will be expanded beyond those defining the parameters of this study to include a more comprehensive set of jurisdictions, infrastructure categories, and project types, as defined below.

- ***Jurisdictions***—cities, counties, water and sewer districts, PUDs, ports, school districts, transit systems, parks and recreation districts, fire districts, public facilities districts, library districts, and the state of Washington.
- ***Infrastructure types***—roads, bridges, water systems, sewer systems, storm water systems, transit, parks, jails, solid waste systems, schools, fire/emergency, libraries, and community facilities such as convention centers.
- ***Project***—maintenance and preservation (i.e., repair, replacement, and rehabilitation), operations and administration, and improvement (i.e., capacity expansion).

In addition, contextual information should be added to help communicate the distinctive nature of each jurisdiction. Potential contextual elements include:

- Population
- Square miles
- Population density
- Infrastructure condition and safety
- Expenditures and revenues per capita
- Expenditures and revenues per infrastructure unit of measure
- Capital/operating expenditure ratios
- Maintenance and preservation versus expansion expenditure ratios
- Project delivery indicators
- Outcome indicators

E. Business Case

The business case for an infrastructure decision support system is strong relative to both current and future information needs. Information needed to address infrastructure policies of today and tomorrow are too complex to efficiently and effectively manage without the assistance of a decision support tool. Such a tool is needed because it will:

- Support investment strategies that are coordinated between state and local governments;
- Support the analysis and prioritization of alternative funding strategies;
- Streamline reporting, thereby eliminating redundant data collection and reporting efforts;
- Connect critical data elements for planning, budgeting, accounting, and results;
- Enhance the consistency, integrity, and utility of data; and

- Enhance the ability to answer policy questions on an ongoing basis, without having to conduct a costly and time-consuming study.

An important element of the business case is the maturation of Internet and decision support technology. Decision support technology and implementation best practices have evolved from leading edge demonstration projects to mature mission-critical production systems over the past ten years. We can now leverage this powerful technology to provide cost effective statewide data collection, processing, and analysis. In addition, a decision support system will provide the data accessibility, consistency, quality, and utility needed to support critical state and local infrastructure planning and funding deliberations. An infrastructure decision support system for the state of Washington should:

- Leverage the Local Government Infrastructure Study and Local Government Financial Reporting System by developing, testing, and implementing a pilot infrastructure management system;
- Use rigorous data standards, methods, processes, and state-of-the-art technologies; and
- Provide the flexibility needed to support future expansion to accommodate additional data.

F. Data Collection

A goal of the decision support system is to utilize existing data sources and collection processes to the greatest extent possible. Planned needs and revenue sources and amounts could come from the six-year capital facilities plans or equivalent documents like local jurisdiction TIPs. Actual revenues and expenditures could be collected from BARS. This structure is depicted in Exhibit X-2.

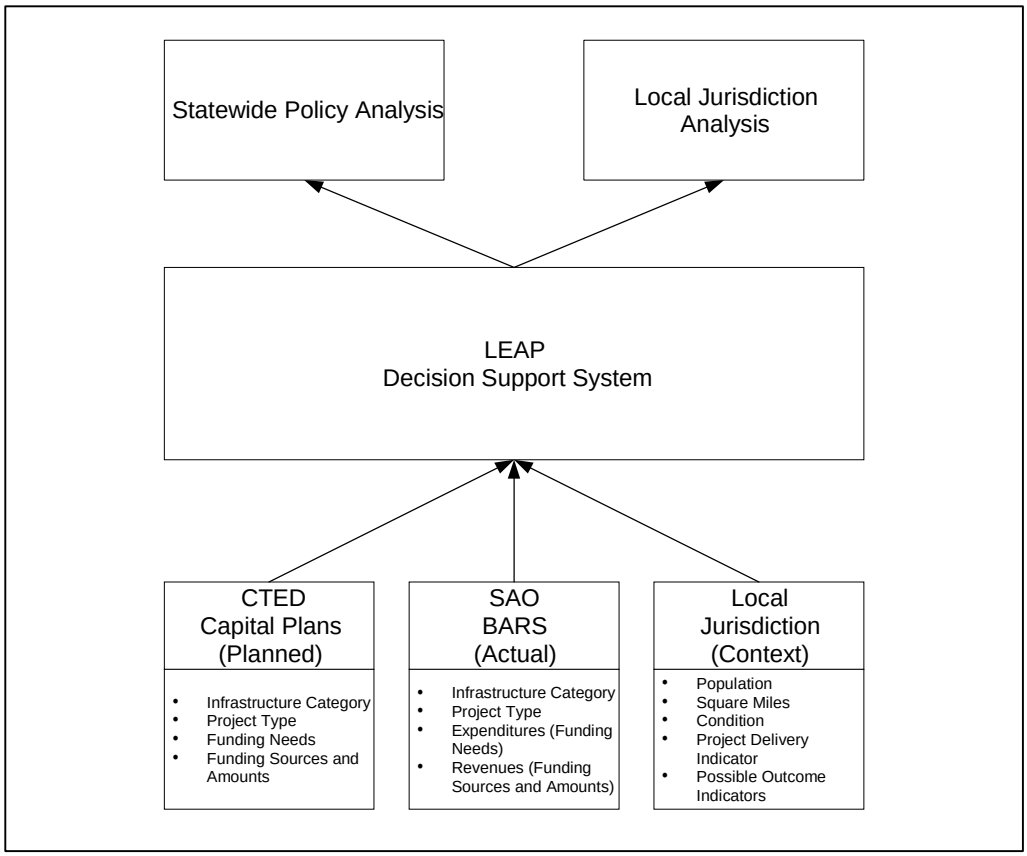
There are some necessary changes to existing data sources and collection processes to implement a comprehensive system. Needed changes include:

- Standardizing data elements, data terminology and definitions, planning timeframes, level of detail, and frequency of updates for the local capital plans;
- Expanding infrastructure categories and adding project types within BARS;
- Introducing contextual information for local jurisdictions;
- Eliminating redundant data collection by streamlining and consolidating local jurisdiction reporting; and
- Improving data validation closer to the data source.

Collaboration between CTED, the Public Works, LEAP, and the SAO will be essential to meeting the objectives of the decision support system. For example, CTED and the SAO are key stakeholders for developing creative and cost effective data collection and validation processes. In addition, potential changes to BARS require action by the SAO.

Finally, the participation of other state agencies and local jurisdictions will be critical to developing a system that provides value to decision-makers at both the state and local levels.

Exhibit X-2, Data Collection Structure



G. Technology

During the past ten years, a new database technology and architecture has emerged known as decision support systems. These systems are used to bring timely, up-to-date information to managers, analysts, and policy makers with the goal of enabling them to make better, faster decisions. A properly developed and implemented decision supporting system is the best approach to meet the information needs of decision-makers. The optimal decision support architecture would include the following technologies:

- ***Data Warehouse***—stores the jurisdictional data centrally, provide standard reporting, and feeds data to other systems;
- ***Data Mart***—stores data for ad hoc query analysis. The data is stored differently than in the data warehouse to improve performance and usability. In addition, the data mart will aggregate and present data for local jurisdictional comparisons differently than it does for state policy makers;

- ***Online Analytical Processing (OLAP) Services***—provides multidimensional access to the data. OLAP provides a more user friendly interface to the data and improves the performance of ad hoc queries;
- ***Internet Application Server***—provides Internet connectivity for the collection, reporting, and analysis of the data to all stakeholders statewide. The Internet has become the most cost effective way to collect and report data statewide; and
- ***Geographic Information Systems (GIS)***—provides a visual, spatial interface to the data.

Because most of the above terms and concepts are not commonly understood, we have included background information on the characteristics and history of decision support systems, and definitions of its technology components, in Appendix N.

H. Conclusions

Technology is a critical element of the future ability of state and local decision-makers to answer infrastructure policy questions. The business case is strong for moving forward to determine the feasibility of implementing a decision support system. There are many decisions to be made with regard to both process and technology. Collaboration between variety of state and local stakeholders will be a key ingredient for success. In addition, the process should include one or more technology pilots and associated cost/benefit analysis.

A parallel but related effort to the Local Government Infrastructure Study is the work of the Policy Working Group, which was convened by the Legislature in the spring of 1999 to continue deliberations on the 1999-2001 Local Government Finance Study recommendations. Local Government Finance Study recommendations relevant to an infrastructure decision support system include the following:

- Continue to improve the Local Government Financial Reporting System (LGFRS) by adding capital project information, fund balances, and other critical data currently reported in BARS;
- Address the need to incorporate planning and outcome data along with BARS data in a system for state and local policy makers; and
- Conduct a pilot project to test proof of concept;

The Policy Working Group is focused on the data and technology infrastructure necessary to answer the policy questions raised in the Local Government Finance Study which are almost identical to the data and technology infrastructure needs of the Local Government Infrastructure Study. Because of the similarities, the Policy Working Group provides a logical conduit for conducting a technology pilot and feasibility analysis for an infrastructure decision support system. The following next steps are suggested:

1. Conduct a Decision Support System Pilot Project through the Policy Working Group

Continue efforts to conduct a pilot feasibility study of a decision support system, including the potential use of geographic information systems (GIS). Recognizing the linkages between the Local Government Infrastructure Study and the objectives of the Policy Working Group, LEAP was asked by the Legislature to lead these efforts. Transportation and criminal justice have been selected as two subject areas for developing a pilot planning and decision-making support system.

2. Develop Decision Support Architecture

Develop a pilot decision support system architecture by November 1999, in time for the 2000 legislative session. As part of the pilot, establish data requirements for enhancing planning and funding decision making at both the state and local levels.

3. Provide Recommendations to the Legislature for 2000 Session

Present results of the pilot to the Legislature in the form of lessons, recommended decision support system architecture, and a business case for proceeding. Develop cost estimates for a statewide production system, which would include pilot system final design, development, testing, and implementation. Use the cost estimates to perform cost/benefit analysis for the system.