

Section Two:

Planning Context

The Strategic Plan for Public Transportation, 2007-2016 identifies King County Metro's strategies for providing reliable, convenient and safe public transportation services throughout the region. It builds on the goals, objectives and strategies of prior plans while also recognizing new challenges and changing conditions King County faces over the next decade. This section discusses the many factors that affect King County Metro's priorities and constraints, divided into the following topics:

- Policies affecting Metro Transit services and facilities
- Transit system trends
- Projected changes in the transit operating environment
- Emerging trends that will receive more attention in the 2008 update to this plan

Policies Affecting King County Metro Services and Facilities

The Strategic Plan is founded upon the King County Comprehensive Plan for Public Transportation which establishes the long-range policy framework for transit, discussed further in Section 3.

Metro Transit service is also governed by a body of state, regional and county policies and legislation that affect the services and facilities offered and the methods used to deliver them. The strategies contained in this Strategic Plan have been developed to respond to the legislative framework and are consistent with state and federal law. Key legislation and policies are identified below.

- **Growth Management Act:** The Growth Management Act (GMA) requires state and local governments to manage growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, preparing comprehensive plans and implementing them through capital investments and development regulations. Higher levels of transit service are central to the region's growth strategy to support the continued development within King County's Designated Urban Growth Area.

- **Commute Trip Reduction Act:** Enacted in 1991 as part of Washington's Clean Air Act, the Commute Trip Reduction (CTR) law requires major employers to provide employee transportation programs that encourage more employees to not drive alone to work every day. In 2006, the legislature created the concept of Growth and Transportation Efficiency Centers (GTEC) as part of the CTR Act extending CTR programs to a broader range of employers in designated corridors and activity centers. GTEC designation is an ongoing process and King County Metro will further address the impact of these designations in the 2008 strategic plan.
- **King County County-wide Planning Policies:** The King County Countywide Planning Policies were developed by the Growth Management Planning Council to serve as the framework for jurisdiction comprehensive plans. They guide implementation of the Growth Management Act and address a range of issues, including transportation, land use development, affordable housing and economic development. The transportation policies promote a coordinated multi-modal transportation system, with an aggressive transit component.
- **Vision 2020:** This plan establishes the long-range growth management strategy for the region, produced by the Puget Sound Regional Council. The vision promotes the development of compact urban areas connected by high-capacity transportation. The Vision 2020 plan is currently being revised and updated to extend the planning horizon to 2040.
- **Destination 2030:** The four-county regional plan addresses growth management and transportation coordination. It promotes compact urban areas supported by high-capacity transportation; and the development of integrated, multi-modal transportation systems. It places priority on preservation and the development of a balanced transportation system.

In addition to existing legislation, King County has developed a Climate Change Plan. The King County Climate Change Plan identifies goals and actions in strategic focus areas including Climate-Friendly Transportation Choices; Clean Fuels, Clean Energy and Energy Efficiency; and Land Use, Building Design and Materials. Many of King County Metro's current practices support and promote goals in these areas. The 2008 update to this strategic plan will allow further opportunity to explore additional measures to support goals related to climate change.

Transit System Trends

King County Metro's previous plan, the 2002-2007 Six-Year Transit Development Plan, was developed in the context of rapid change for transit. When the plan was under development, both transit ridership and new transit service were increasing rapidly due to a strong economy, and a significant expansion was envisioned over the six-year planning period. An unexpected economic downturn, along with employment and investment decreases, brought about a decline in transit ridership and transit revenue. Transit revenues were further reduced due to repeal of the state motor vehicle excise tax, which provided state funding for transit service. An increase in the King County transit sales tax partially offset this loss in revenues.

With the limited resources available, service expansions focused on improvements to peak express service from newly developed park-and-ride lots in the east and south county areas, and on the network of core service routes discussed further in Section 4 of this plan. Service changes during this period focused on improving service reliability and efficiency through service restructures as well as integration with Sound Transit services.

These improvements continue to produce positive results. Ridership levels, which slowed early in the 2002-2007 period, have continued to grow since 2004, reaching a record-setting 103 million riders in 2006. A recovering economy and increasing gas prices have contributed to this ridership increase. Operational efficiencies gained through service restructures and consolidations also helped spark ridership growth. Access to the system was increased by the addition of more than 5,000 spaces to the park-and-ride system through new construction and expansion.

New Challenges, New Opportunities

Amidst continued successes, new challenges are also emerging. Ridership is at a high, but there are also more riders standing and on-time performance is down. With the county poised to gain more than 250,000 new jobs and add more than 150,000 additional residents over the next decade, more transit will be needed to maintain and increase the current percentage of residents riding Metro Transit. To achieve the region's goals for land use, employment, and environmental, King County Metro needs to carry a growing proportion of trips to support the county's mobility, economy, and quality of life.

To boost its ability to respond to increasing demand, King County Metro developed the *Transit Now* program to expand transit service by 15 to 20 percent over the next decade. Approved by voters, *Transit Now* provides new revenue for transit and creates an opportunity to make significant investment in King County Metro services. Funded by a one-tenth of one percent sales-tax increase, *Transit Now* identifies a program of transit investments to be implemented over 10 years. It includes major bus, paratransit and vanpool improvements, including implementation of RapidRide bus rapid transit; more frequent service in high-demand corridors; new service for rapidly developing areas; and service partnerships with other agencies. The implementation of the *Transit Now* program will be the primary focus of this Strategic Plan, along with continued delivery of King County Metro's existing services. The shift from a six-year transit plan to a ten-year plan coincides with the ten-year investment plan identified by *Transit Now*.

In the coming decade, one of the most significant challenges may be related to freeway construction. Major freeway construction projects in the core of the region have potential to create significant traffic congestion during the construction period, creating both challenges and opportunities for transit. The challenge will be to maintain transit speeds and reliability in the face of increased congestion, but if that challenge can be met, the opportunity is to expand the transit market by providing a competitive alternative to waiting in construction-related traffic. Additional transit fleet and service hours will be required for this opportunity to be realized.

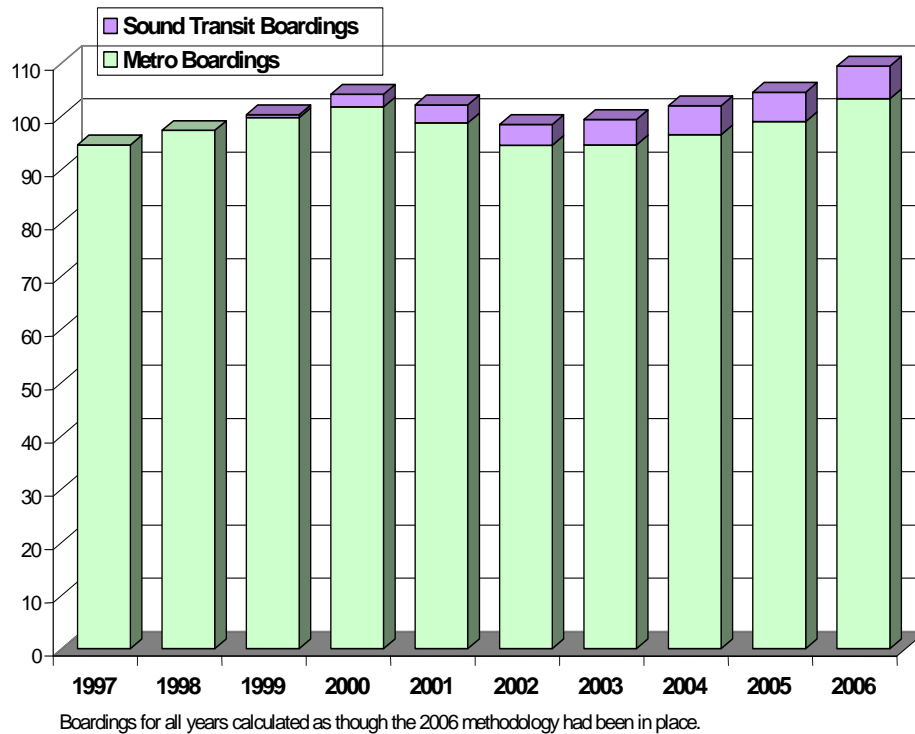
Transit Successes

- **Transit Ridership:** Metro Transit ridership continues to grow steadily with over 103 million riders in 2006. Combined Metro Transit and Metro-operated Sound Transit boardings were 109.4 million. Ridership trends over the past ten years are shown in Exhibit 2-1. Metro Transit ridership increased by 4.3 percent in 2006, compared with the average increase of 1.9 percent among large transit agencies reporting to the American Public Transit Association.

Many factors have contributed to recent ridership increases including:

- Higher gasoline prices
- Healthy employment growth
- Changes to service
- Route promotion activities

Exhibit 2-1
Transit Boardings on King County Metro and
King County-operated Sound Transit Routes
(in Millions of annual boardings)



¹ Total Transit Boardings for Metro Transit and Sound Transit service provided by MetroTransit, including ride free area boarding.

- **Vanpool ridership.** Vanpool use has increased at a rate even faster than fixed-route service in the past two years. Ridership on vanpools jumped 9 percent in 2006, to about 1.96 million annual riders. At year-end there were 801 vanpool groups and 133 vanshare groups for a total of 934 commuter vans in service.
- **Transit Use Per Capita.** The number of boardings per capita and the number of households using transit has remained mostly steady since 2000. The total percentage of households with residents reporting to have used transit is 26 percent. Overall usage of the system, measured by boardings per capita was 56.3 in 2006¹.

¹ King County Metro data- 2006 Rider/Nonrider Survey

- Commuting and Mode Split.** Transit is drawing an increasing share of commuters, while the share of those driving alone is decreasing. Exhibit 2.2 identifies the share of commuters driving alone, carpooling and taking transit to key employment centers in King County. All the business districts have seen a growth in transit market share since 1990. Nearly 37 percent of work trips being made by transit into the Seattle Central Business District (CBD) are made by transit. The Bellevue CBD draws the biggest transit share of the east King County business districts with 8.0 percent of work trips made by transit². According to the 2000 U.S. Census Journey to Work data, Seattle residents report the highest transit usage, with 17 percent of residents commuting to work by transit. 6.6 percent of Bellevue residents take public transportation to work.

Exhibit 2-2: Year 2000 Commute to Work by Destination³

Destination	Drove Alone		Carpool		Transit	
	1990 Share	2000 Share	1990 Share	2000 Share	1990 Share	2000 Share
Seattle CBD	46%	41%	13%	13%	34%	37%
Bellevue CBD	82%	77%	12%	13%	5%	8%
Denny Regrade	56%	50%	16%	14%	21%	25%
Overlake CBD	84%	78%	11%	14%	2%	4%
Redmond CBD	86%	81%	8%	12%	1%	2%

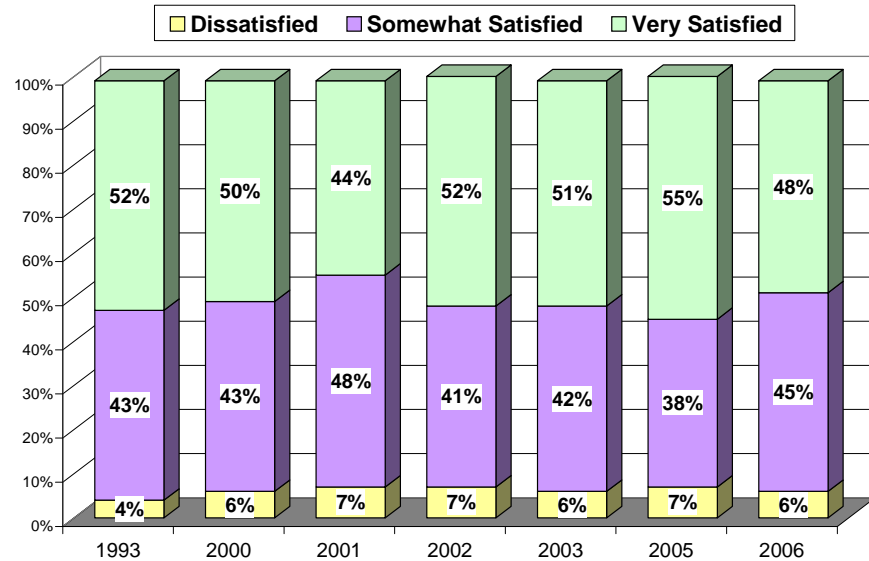
Note: not all travel mode categories shown

- Customer Satisfaction.** King County Metro samples rider and non-rider perceptions about transit annually. Customer satisfaction remains high, with 93 percent of riders expressing satisfaction with Metro Transit services. Exhibit 2-3 shows the portion of riders who report being very satisfied, satisfied, or dissatisfied over the past ten-year period.

² Puget Sound Regional Council. *Puget Sound Trends*. March 2004.

³ Puget Sound Regional Council. *Puget Sound Trends*. March 2004

**Exhibit 2-3
Rider Satisfaction between 1998 and 2006**



Challenges

Base: Regular and Infrequent Riders 2006 (n=1,373, n_w=714); 2005 (n=1,381, n_w=692); 2003 (n=1,355, n_w=762); 2002 (n=1,368, n_w=735); 2001 (n=1,418, n_w=765)

- **Operating Costs:** Transit operating costs have grown at rates higher than revenues. Since 2001, diesel fuel prices have more than tripled. Employee benefits have been growing at annual rates in excess of 10 percent. Since 2003, costs per platform hour have risen more than 14 percent.
- **On-time Performance.** The improving economy is a double edged sword –it is also resulting in increasing traffic congestion, which is moving King County Metro’s on-time performance and accident rates back towards levels experienced in the late 1990s. During the 2006 fall service change, on-time performance decreased slightly, showing 74.8 percent of all trips operating no more than one minute early and no more than five minutes late. Overall speed of service is also decreasing, making it necessary to adjust schedules to keep service on time. Since 2004, the average speed of service has dropped from 13.2 miles per hour to 12.8 miles per hour. Prior to that, the average speed of service held steady at roughly 13.2 miles per hour between 2000 and 2004. Exhibit 2-4 shows trends in on-time performance between 2002 and 2006. Each bar shows performance during the four-month period between September and January.

**Exhibit 2-4
On-time Performance between 2002-2006 for Fall Service Change
(On-time = no more than one minute early or five minutes late)**

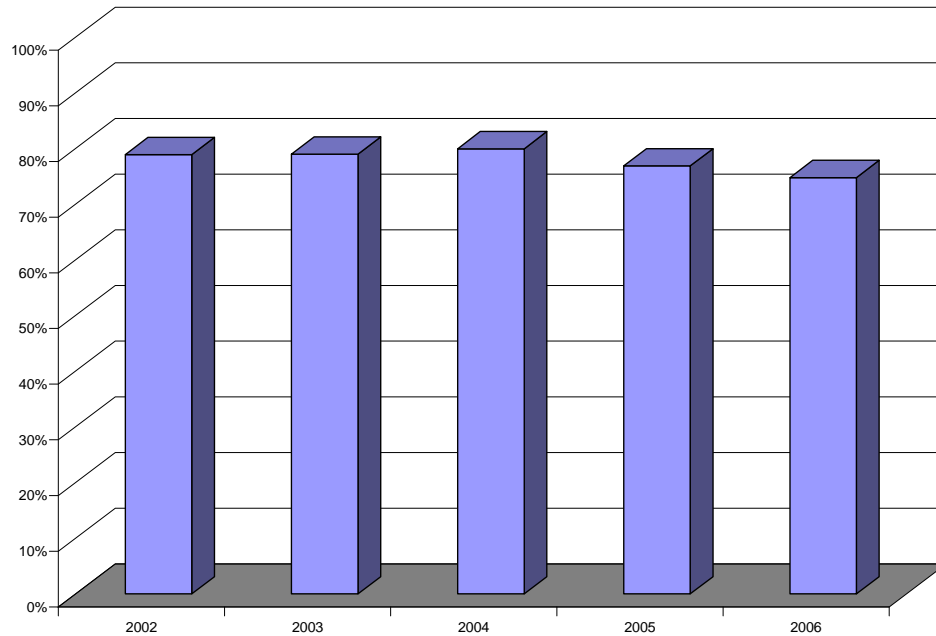
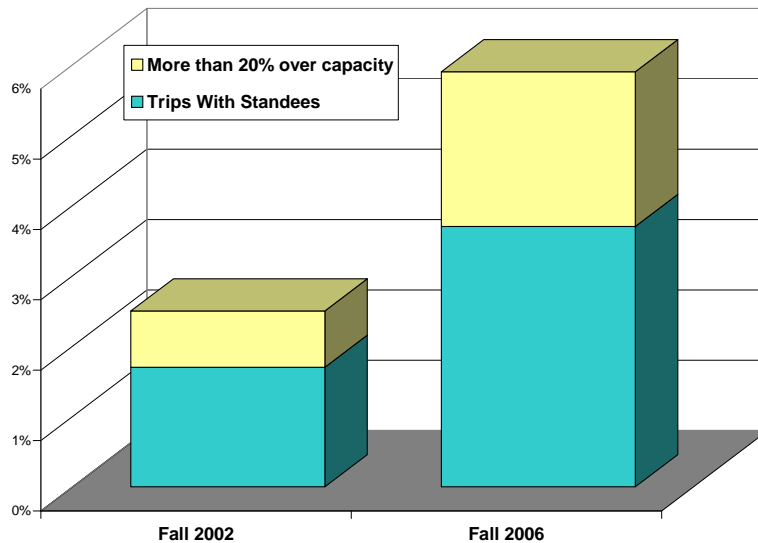


Exhibit 2-5
Percentage of Bus Trips that are Overloaded or have Standing Passengers



- **System Constraints.** Service capacity is currently limited by the number of operators and transit vehicles available for service. This issue is discussed further in Section 5. Base capacity could potentially impact service if there is growth in bus fleet beyond what is identified by *Transit Now*.
- **Overloads.** With rapid ridership increases due primarily to employment and gas price increases, the number of bus trips experiencing standing passengers has

been an increasing problem. Exhibit 2-5 shows the number of bus trips with loads more than 20 percent over seated capacity and standees between 2002 and 2006.

Projected Changes in the Transit Operating Environment

External factors impact Metro Transit service and affect King County Metro’s strategic planning process, including demographics, traffic, transit financing, and proposals and plans to change the region’s transportation system.

Economics and Demographics

- Population and Urban Growth Trends.** King County’s population is expected to grow to over 2 million by 2022, a 13 percent increase over 2004, as shown in Exhibit 2-6. According to these projections, the West subarea will add the greatest number of people - 89,800 - while the East subarea will grow by the highest percentage, (16 percent). As a result of the growth patterns, the proportion of people living in the South will dip slightly.

Exhibit 2-6⁴

Projected Population Growth

Subarea	2005		2022		Growth	
	Persons	% of Total	Persons	% of Total	Persons	% of Total
West	638,200	35%	728,000	36%	89,800	37%
East	501,700	28%	584,000	29%	82,300	34%
South	668,300	37%	736,000	36%	67,700	28%
King County	1,808,200	100%	2,048,00	100%	239,800	100%

⁴ Population and employment data source: Countywide Planning Policies, Puget Sound Regional Council and King County Office of Management and Budget; latest official forecasts available

- **Employment Growth.** Employment is also projected to grow to 1.4 million in King County by 2022, a 26 percent increase over 2004, with 250,000 of the total added over the next ten years. King County has already seen a 3 percent increase in employment from 2005 to 2006, one of the largest increases in the nation⁵. Exhibit 2-7 shows employment growth between 2004 and 2022 by subarea.

**Exhibit 2-7
Projected Employment Growth**

Subarea	2004		2022		Growth	
	Jobs	% of Total	Jobs	% of Total	Jobs	% of Total
West	476,000	45%	614,000	43%	138,000	37%
East	295,000	28%	410,000	28%	115,000	31%
South	298,000	28%	419,000	29%	121,000	32%
King County	1069,000	100%	1,443,00	100%	374,000	100%

- **Other Demographic Changes.** The average age of King County’s population is projected to increase over the coming decades. As of 2006, 10 percent of the King County population was age 65 and older⁶. As this percentage grows, the aging population will likely demand more transit services and an increasing share of specialized services.

Regional Freeway and Arterial Congestion

As population and employment grow, traffic congestion is projected to increase. Operating conditions for transit deteriorate as congestion grows. Traffic congestion is reported to cost the average Seattle-Everett area commuter 46 hours of delay per year, which translates to a cost of \$792 annually in excess fuel and lost time.⁷

The amount that people drive, measured as vehicle miles traveled (VMTs) has increased significantly. During the 1980’s, there was a dramatic rise in total VMT in King County

⁵ United States Department of Labor, Bureau of Labor Statistics, July 2007.

⁶ State of Washington, Office of Financial Management. State and County Population Age 65 and older: 1980-2006.

⁷ The 2005 Urban Mobility Report, Texas Transportation Institute, May 2005; <http://mobility.tamu.edu/ums/>

due to more dispersed work site locations and the increase of 2-worker households. Between 1980 and 1992, vehicle miles traveled increased 78.5 percent in the region while population increased by 28.9 percent and employment increased 39.4 percent. Since 1990, the rate of increase in VMTs has leveled off to a rate comparable to the increase in population and employment. From 1992 to 2005, vehicle miles traveled increased 24.1 percent, more closely aligned with the population increase of 19.8 percent and employment increase of 22.5 percent.⁸

While total VMT continues to increase, in part because more people are driving as population increases, the average VMT per person has recently declined. In 2003, the reported VMT per capita was 9,124 miles per year, the lowest miles traveled per capita reported since 1995. This decline may be related to a rise of the cost of gasoline.

Changes to the Region's Transportation System

There are many plans and proposals for improvements and expansions to the transportation system. King County Metro actively participates in regional transportation planning and the development of transportation system changes to ensure coordinated efforts that include transit-supportive elements. King County Metro also participates in regional planning efforts to make certain that transit service implications of regional transportation projects are integrated into King County Metro's strategic plan.

Changes to the transportation system prompt King County Metro to make adjustments in order to take advantage of new opportunities and avoid negative impacts. Responding to these changes can be a challenge, since King County Metro has a fixed revenue stream and requires a lead time to add new fleet or base capacity. Changes can also create new opportunities however, as some changes such as expanded Sound Transit services enable redeployment of service hours.

King County Metro's *Transit Now* measure, passed in 2006, funds a defined investment plan for the next ten years. It authorized an additional sales and use tax of one-tenth of one percent for operations, maintenance and capital needs of King County Metro. *Transit Now* will provide funding for transit improvements defined for an initial ten-year period through 2016. *Transit Now* creates an opportunity to make significant investment in Metro Transit services to allow the system to expand by 15-20 percent.

⁸ PSRC Trends: no. T2, September 2006

Other funded projects that will impact Metro Transit service include:

- **Sound Transit (ST) Services.** As Sound Transit begins to operate light rail service in King County, Metro Transit services will be adjusted to reduce parallel services and to provide better feeder connections to the light rail line. ST will open a Link light rail line between downtown Seattle and Sea-Tac Airport in 2009, and from downtown Seattle to the University District in 2016. ST will also implement its full service levels on Sounder commuter lines to Tacoma and Everett, and will continue to complete new bus facilities.
- **Joint Bus-Rail Use of Downtown Seattle Transit Tunnel.** The retrofitted Downtown Seattle Transit Tunnel reopens for bus service September 2007. Although only buses will operate in the tunnel until Link LRT start-up in 2009, buses will run under joint bus/LRT operating rules. Joint operation limits the peak number of buses per hour to sixty per direction, and King County Metro will observe this limit when the tunnel reopens in 2007. Once LINK light rail begins operations, King County Metro will maximize the use of the tunnel up to allowable limits based on operating experience with joint bus and rail use, and continue to utilize transit priority measures on 3rd Avenue and throughout downtown Seattle to promote efficient and reliable transit.
- **SR-99/ Alaskan Way Viaduct Early Construction Projects.** Projects to improve segments of the Alaskan Way Viaduct have been funded by the state Legislature and are in the design process. These projects may provide improved transit access into downtown Seattle when completed, but may also have significant impacts on service during construction, including extended closures or delays in the Battery Street tunnel, on SR-99 south of Seattle and First Ave S.
- **South Lake Union Streetcar.** The City of Seattle is implementing a streetcar service between downtown Seattle and South Lake Union. The project is under construction and is scheduled to open in December 2007. King County Metro will operate the streetcar, and the city will pay for a portion of the operating cost.

Major Transportation Corridor Projects

There are numerous large-scale transportation projects planned for the region that are not yet fully funded. Many of these would be implemented if the joint Sound Transit/Regional Transportation Investment District (RTID) roads and transit ballot measure passes in November 2007. Many of the investments in the proposed package would have an impact on transit service when complete.

During the ten-year horizon of this strategic plan, the impacts that the construction program would have on both traffic and transit may perhaps be a more important issue. With extended construction underway on multiple corridors concurrently, maintaining mobility through the construction period may be one of the region's more significant transportation challenges.

Implications of these construction projects for King County Metro are multi-layered. Foremost, Metro will be faced with the challenge of keeping buses moving through construction-related congestion that will affect the whole region. Secondly, King County Metro service could potentially be an important part of efforts to mitigate construction-related congestion. King County Metro's role in mitigating construction traffic impacts will be considered further in the 2008 update to this strategic plan.

Some of the major transportation projects and proposals include:

- **Alaskan Way Viaduct (AWV) Replacement, or a Streets and Transit Alternative.** No decision has been reached about how the middle mile of the Alaskan Way Viaduct will be replaced. When this decision is made, it will have a strong impact on Metro Transit services, influencing overall accessibility into downtown Seattle, transit operating speed and costs into and through downtown, and the amount of transit service needed in the affected corridors during and after project construction. Since a majority of Metro Transit service passes through downtown Seattle, small increases in travel speed or reliability have a large impact on both ridership and the cost of operation.
- **SR-520 Bridge Replacement and HOV Project.** State and local governments continue to work with neighborhoods and local organizations to refine designs for a bridge replacement and decisions about freeway options through the Montlake area. Although construction is not scheduled to begin until 2013, King County Metro will

work actively with local groups and the state to maintain transit-friendly features of the project and address potential impacts to transit.

- **Urban Partnership.** Related to the SR 520 project, and in partnership with the Puget Sound Regional Council and the Washington State Department of Transportation, King County is one of the metropolitan areas selected for federal funding and technical assistance for planning innovative approaches to congestion reduction. The proposal would implement tolls on SR-520 subject to legislative authorization, and fund transit improvements in the corridor. Experience gained from the urban partnership program could affect plans to implement tolls on other freeways, providing increases in ridership demand and, potentially, in revenues for transit.
- **Roads and Transit Ballot Measure.** In November 2007, the roads and transit package proposed by the Regional Transportation Investment District (RTID) and Sound Transit (ST) will go before voters in Snohomish, King and Pierce Counties. The proposal includes the addition of 0.6 percent sales tax to fund Sound Transit Phase 2 (ST2) which includes 50 miles of light rail construction and expanded regional bus and commuter rail services; and the RTID program of improvement projects on state highways, bridges and local roads.
 - The ST2 program will extend Link light rail north into Snohomish County, south to Tacoma in Pierce County, and across the I-90 Bridge to Bellevue and Overlake. Most of this investment would be completed after the ten-year horizon of this strategic plan, but preliminary plans for service integration are already beginning.
 - The RTID package includes \$100M in funds that could be used by Sound Transit and King County Metro to mitigate traffic congestion related to the major freeway construction projects also included in the package. This program will be considered further in the 2008 update of this strategic plan if the RTID package passes.

Emerging Issues

There is increasing interest in how transit can play a role in several emerging and related issues, some of which will be a focus for King County as a whole and will be addressed in King County's 2008 update to its Comprehensive Plan. The 2008 update to this Strategic Plan will identify additional transit actions and strategies that will have a positive impact on each of these issues.

- **Global Climate Change.** King County Executive Ron Sims has developed an action plan and set goals to address the issue of global climate change. King County Metro will be expected to play an important role in regional efforts to reduce greenhouse gas emissions. The King County Climate Plan finds that “Climate change is real, but we have an opportunity now to prevent its worst impacts. If we act effectively during the next ten years—to take these steps to reduce global greenhouse gas emissions and to prepare our region for the physical impacts of climate change—we will be able to limit the severity of climate change consequences for 21st century and beyond.” The 2008 update to this strategic plan will confront transit’s role in responding to that challenge as well as address how King County Metro will meet the goals established in emerging plans such as the King County Energy Plan.

- **Community Health.** King County has identified the health impacts of an automobile-captive lifestyle to be a significant public health issue, and concluded that the county must regionally coordinate and integrate its decisions in transportation, land use, environment and health to bring about approaches to community design that consider multiple environmental and health factors. Transit is a part of developing walkable communities and healthier lifestyles. Transit’s role to develop healthier communities will be developed further in the 2008 update.

- **Transportation System Pricing and Management.** King County supports further exploration in conjunction with federal, state and local governments of congestion mechanisms for the region. Road pricing can play an important role in managing congestion, raising revenue and reducing greenhouse gas emissions from transportation. Road pricing has been successfully implemented in other areas of the world, such as the City of London. Freeway management, possibly including pricing, will also be needed to maintain the speed and reliability of freeway HOV lanes and the buses that use them.

