



**KING COUNTY**  
**Signature Report**

1200 King County Courthouse  
516 Third Avenue  
Seattle, WA 98104

**September 18, 2012**

**Motion 13736**

**Proposed No. 2012-0233.2**

**Sponsors Hague**

1           A MOTION accepting a Five-Year Implementation Plan  
2           for Alternatives to Traditional Transit Service Delivery, as  
3           required by Ordinance 17143, Section 7.

4           WHEREAS, the King County council adopted the King County Metro Transit  
5 Strategic Plan for Public Transportation 2011-2021 ("Strategic Plan") and Service  
6 Guidelines in July 2011, and

7           WHEREAS, strategies 2.1.1 and 2.1.3 of the Strategic Plan encourage Metro to  
8 design and offer a variety of products and services, including non-fixed-route transit, that  
9 meet different mobility needs and provide value to all parts of King County, and

10           WHEREAS, strategy 6.2.3 of the Strategic Plan calls for Metro to "develop and  
11 implement alternative public transportation services and delivery strategies," and

12           WHEREAS, Section 7 of Ordinance 17143, which adopted the Strategic Plan,  
13 included specific requirements requiring the King County executive to transmit a five-  
14 year implementation plan for alternatives to traditional transit service delivery by June  
15 15, 2012, and

16           WHEREAS, Section 10 of Ordinance 17169, which approved the temporary  
17 congestion reduction charge in August 2011, includes specific direction concerning  
18 alternative service delivery and, in particular, calls for Metro to begin implementing new,  
19 right-sized services provided at reduced operating costs, and

20 WHEREAS, Metro staff conducted required research, compiled supporting  
21 materials and developed an implementation plan;

22 NOW, THEREFORE, BE IT MOVED by the Council of King County:

23 A. The King County Metro Transit Five-Year Implementation Plan for  
24 Alternatives to Traditional Transit Service Delivery, which is Attachment A to this  
25 motion, is hereby accepted.

26 B. The transit division is requested to accelerate the timetable for implementation  
27 of the additional alternative services, slated for 2015 through 2017, to mid-2014.

28 C. To establish alternatives to traditional transit service as an integral part of a  
29 comprehensive transit system, the executive is requested to:

30 1. Develop and propose Strategic Plan for Public Transportation amendments  
31 and amendments to the King County Code that would include implementation of  
32 alternatives to traditional transit service in all funding environments, not just when Metro  
33 Transit dedicated revenues are increasing, and utilize it as an option:

34 a. to provide the last public transit connection in a community;

35 b. to support restructuring the transit network;

36 c. to complement existing fixed route service; and

37 d. to meet unmet travel needs, including "first-mile" and neighborhood

38 connections to transit activity centers and regional growth centers; and

39 2. Develop and propose as part of the April 2013 update to the King County  
40 Metro Service Guidelines amendments that would:

41 a. establish a clear role for alternatives to traditional transit service as an  
42 integral part of a comprehensive transit system;

43           b. implement alternatives to traditional transit service consistent with the  
44 funding environments at the time of initiation of the alternative service planning and  
45 evaluation processes, not just when Metro Transit dedicated revenues are increasing or  
46 decreasing, and utilize it as an option:

47           (1) to provide the last public transit connection in a community;

48           (2) to support restructuring the transit network;

49           (3) to complement existing fixed route service; and

50           (4) to meet unmet travel needs, including "first-mile" and neighborhood

51 connections to transit activity centers and regional growth centers; and

52           c. Consistent with the productivity, social equity and geographic value policies  
53 of the Strategic Plan for Public Transportation, establish a set of performance measures  
54 for alternatives to traditional transit service, monitor alternative service performance, and  
55 establish how alternative transit service and levels of service should be adjusted in the  
56 future;

57           3. Fares for alternative services, if they are to be charged at all, should be  
58 transmitted to the council as an update to fare policy, and should be consistent with and  
59 compatible with fares for traditional fixed route service;

60           4. Develop and propose Strategic Plan for Public Transportation amendments to  
61 incorporate annual reporting on and updates to implementation of alternatives to  
62 traditional transit service;

63           5. Continue to explore future policy changes identified in the Five-Year  
64 Implementation Plan ("Policy Changes for Further Consideration"), which include  
65 potentially expanding Community Access Transportation eligibility requirements, raising

66 the percentage cap on dial-a-ride transit service hours, broadening the applicability of the  
67 taxi scrip program and lifting restrictions on Metro funding for new alternatives; and

68           6. Work in collaboration with local jurisdictions who have secured funding for  
69 an alternative-service program to develop and implement that program.

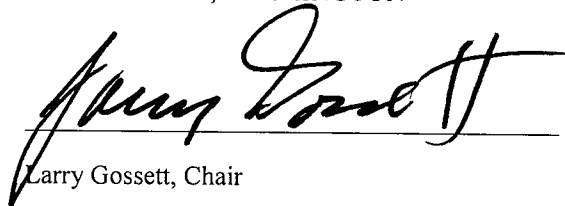
70           D. The executive is requested to provide an annual progress to date report on  
71 these topics by December 15 each year, beginning in 2013, and to transmit the  
72 amendments to the Strategic Plan for Public Transportation and King County Metro  
73 Service Guidelines with the April 30, 2013, update. The executive shall file the annual  
74 report in the form of a paper original and an electronic copy with the clerk of the council,  
75 who shall retain the original and provide an electronic copy to all councilmembers. The  
76 transit division shall make the draft amendments to the Strategic Plan for Public  
77 Transportation and King County Metro Service Guidelines identified in section C. of this

78 motion available for review by councilmembers and staff before submission to the clerk  
79 of the council.  
80

Motion 13736 was introduced on 7/16/2012 and passed as amended by the Metropolitan King County Council on 9/17/2012, by the following vote:


Yes: 8 - Mr. Phillips, Mr. von Reichbauer, Mr. Gossett, Ms. Hague,  
Ms. Lambert, Mr. Ferguson, Mr. Dunn and Mr. McDermott  
No: 0  
Excused: 1 - Ms. Patterson

KING COUNTY COUNCIL  
KING COUNTY, WASHINGTON



Larry Gossett, Chair

ATTEST:



Anne Noris, Clerk of the Council

**Attachments:** A. Five-year implementation plan for alternatives to traditional transit service delivery--  
September 17, 2012



*We'll Get You There*

**King County  
Metro Transit  
Five-year  
implementation plan  
for alternatives to  
traditional transit  
service delivery**

Adopted September 2012



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King County Metro Transit  
**Five-year implementation plan for alternatives  
to traditional transit service delivery**

Adopted September 2012



*We'll Get You There*

**Department of Transportation  
Metro Transit Division**

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## Contents

BACKGROUND AND CONTEXT.....	2
DESCRIPTION OF ALTERNATIVE SERVICES .....	4
OPPORTUNITIES FOR ALTERNATIVE SERVICE DELIVERY .....	6
PROCESS FOR COMMUNITY COLLABORATION .....	10
TIMELINE AND PLANNING .....	12
POLICY CHANGES FOR FURTHER CONSIDERATION.....	14
CONCLUSION .....	14

## Appendix

A: REVIEW OF BEST PRACTICES .....	A-1
B: STAKEHOLDER INVOLVEMENT .....	A-10
C: CONSTRAINTS TO IMPLEMENTATION .....	A-15
D: STRATEGIES TO BUILD RIDERSHIP.....	A-18
E: MEASURING SUCCESS .....	A-20
F: CASE STUDIES.....	A-21
G: BIBLIOGRAPHY .....	A-38
H: LOW-PERFORMING ROUTES .....	A-45
I: PRODUCT MATRIX .....	A-49

**Note:** Appendix I is formatted to fit 8.5" x 14" (legal size) paper.

## ■ EXECUTIVE SUMMARY

As the primary public transportation provider in King County, Metro Transit strives to provide transportation choices that make it easy for people to travel in the county and the region. This requires us to find a fair and acceptable way to deliver transportation options throughout the county.

To meet this challenge, we offer a variety of public transportation services, including fixed-route service, ridesharing, paratransit service, Dial-a-Ride Transit, and community shuttles. The variety of these services reflects the variety in travel needs that we seek to meet. It also reflects Metro's commitment to providing efficient, cost-effective service that taxpayers, riders, and providers can all be proud of. Alternative service delivery options reflect Metro's commitment to meet community mobility needs in the most cost-effective manner possible.

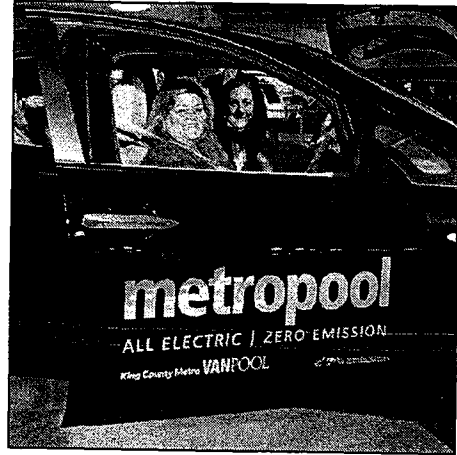
This five-year plan is intended to guide Metro's decision-making about the provision of alternatives to fixed-route service in King County between 2012 and 2017. It outlines how and where we will pursue alternative service delivery options and the process we will follow when working with communities to choose alternative products. It also recommends candidate areas for the first demonstration projects.

Metro will make adjustments during the next five years based on information learned from the demonstration projects to be done in the first communities in 2013 and 2014. We will also continue to address any issues that arise in collaboration with local communities and stakeholders. The array of possible alternative products is continuously changing, and Metro should explore new technologies and delivery methods as they emerge if they show potential for use in King County.

Metro's vision, as spelled out in the *Strategic Plan for Public Transportation 2011-2021*, includes the following introductory statement:

Metro provides safe, efficient and reliable public transportation that people find easy to use. The agency offers a cost-effective mix of products and services, tailored to specific market needs. Its fixed-route bus system meets most public transportation needs, particularly in areas of concentrated economic activity or urban development and along the corridors that link them. Metro also offers alternative public transportation options for people who cannot use the fixed-route system. No matter what community they live in or whether they have special needs because of age, disability or income, people can use public transportation throughout King County.

This plan is an important first step in realizing Metro's vision. If we are successful, Metro will broaden the set of resources and service types that is available for us to use when considering how to meet mobility needs in any environment in King County. Our goal will be to put services of the right size, scale, and type into each community we serve.



## ■ BACKGROUND AND CONTEXT

Public transportation improves quality of life by providing mobility to those who need or choose to use it. It connects commuters to jobs, students to schools, and residents to recreation. It offers travel options to those who cannot drive, and provides assurance to drivers that other mobility options exist should they need them.

As the major public transportation provider in King County, Metro Transit plans and operates transit services throughout the county in line with county, regional, state, and federal planning policies. There are places in King County where fixed-route transit is not the most cost-effective way to address certain mobility needs. In such areas, alternative service delivery methods allow Metro to meet these travel needs.

Over the past several years, the combination of Metro's financial conditions, the County Council's legislative actions, and Metro's strategic planning have all led to an increasing role for alternative service delivery.

### Regional Transit Task Force

Since 2008, the weak economy has caused a significant downturn in sales-tax revenues, a major funding source for Metro. As a result, King County and Metro have taken many actions to improve the cost effectiveness and productivity of Metro's services. One of these actions was the formation of the Regional Transit Task Force in 2010. The County Council and Executive asked the task force to consider a policy framework to guide future service investments or—if necessary—contraction of the county's transit system.

After seven months of intensive deliberations, the task force delivered a set of recommendations that focused on three areas:

1. Transparency and clarity
2. Cost control
3. Productivity

### Strategic plan and service guidelines

The task force's recommendations were incorporated into Metro's Strategic Plan for Public Transportation 2011-2021, which was adopted by the County Council in July 2011. The plan specifically calls for an expanded role for alternative service delivery in achieving a cost-effective, equitable public transportation system.

Strategies 2.1.1 and 2.1.3 in the strategic plan encourage Metro to design and offer a variety of products and services, including non-fixed-route transit, that meet different mobility needs and provide value to all parts of King County. Strategy 6.2.3 calls for Metro to "Develop and implement alternative public transportation services and delivery strategies." The plan also notes that "Fixed-route transit service is not cost-effective in some areas of King County because of the land uses, infrastructure, or density. However, people in these areas still have mobility needs and by circumstance or choice, require public transportation services..."

The new service guidelines that are part of the strategic plan outline how Metro should achieve these objectives.<sup>1</sup>

### Ordinance 17143

In addition to the guidance provided by the strategic plan, Ordinance 17143, which adopted the plan, includes specific requirements related to alternative service delivery. Section seven requires the King County Executive to transmit a five-year implementation plan for alternatives to traditional transit service delivery by June 15, 2012. This plan should include, at a minimum:

1. A review of alternative service delivery best practices in the transit industry.
2. Consideration of local service needs.

<sup>1</sup> See Strategic Plan for Public Transportation 2011-2021, Service Guidelines section, pages 16-17.

3. Stakeholder involvement.
4. Costs and benefits of all evaluated alternative service delivery options.
5. A summary of constraints to implementation and methods to reduce barriers for change.
6. Strategies to build ridership (i.e., through marketing), where resources are available.
7. Recommendations for alternative service delivery.
8. A timeline for implementation.

### Ordinance 17169

Ordinance 17169, which was adopted by the County Council when it approved the temporary congestion reduction charge in August 2011, includes specific direction concerning alternative service delivery. Section 10 requires Metro to “begin implementing, by the June 2012 service change, new right-sized services provided at reduced operating costs.” In compliance with this directive, the County Executive announced that three bus routes would be converted to Dial-a-Ride Transit (DART) service in February 2012. This manner of “right sizing” used smaller DART vehicles with some flexible routing to provide transportation at lower costs than fixed-route bus service. More fixed-route service will be converted to DART service in June 2012.

After these initial conversions, Metro will extend alternative service delivery products to communities according to the plan outlined in Section 5, Timeline and Planning. As part of this plan, Metro will work with various communities to look for and develop other service concepts that meet public transportation needs and are cost-effective.

#### “Right-sized” services

Section 10 of the Congestion Reduction Charge ordinance, approved by the King County Council in August 2011, called for the “right sizing” of targeted fixed-route services operating in south and east King County as part of an effort to reduce operating costs. The primary objective was to provide a more efficient and appropriate level of service that would continue to meet a community’s mobility needs. The ordinance called for between 5,000 and 20,000 annual hours of traditional fixed-route service to be “right sized” by June 2012.

In response, Metro chose Routes 149, 186, and 251, operating within or adjacent to rural areas of south and east King County, to transition to DART. Routes 149 and 251 were changed entirely to DART services (renumbered as 907 and 931), along with midday and Saturday service on Route 186 (which became DART Route 915). Changing these routes to DART service allowed Metro to continue operating along the same routing with more appropriate and economical smaller vehicles while also offering “off-route” deviations into designated DART areas along the way.







## DESCRIPTION OF ALTERNATIVE SERVICES

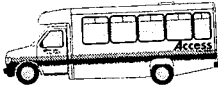
We divide alternative service options into two categories: those that Metro provides or supports (Access paratransit service, Dial-a-Ride Transit, VanPool and other rideshare options, custom bus, and community shuttles) and those provided by private organizations or businesses. Some of the private options, such as car sharing, volunteer driver programs, and employer-provided shuttles, already exist in King County. Others, such as bike sharing, are not here now but could potentially be used here. Appendix I is a detailed list of possible alternative products, both Metro-branded and private.

As mentioned above, Metro already offers a wide range of existing transportation options that serve communities throughout King County. The two main challenges are that some of these services are limited to special populations, and many King County residents are not aware that these programs exist or are not familiar with how to use them.

The chart below shows Metro's "family of services."

Current products, usage, and budget <sup>2</sup>			
Fixed-route service (60-, 40-, and 30-foot coaches; transit vans)			
			
Annual boardings	Average operating cost/boarding	Annual operating cost	Average fare revenue/boarding
109,583,654	\$4.03	\$442,147,051	\$1.13
Dial-a-Ride-Transit (DART) service (transit vans)			
			
Annual boardings	Average operating cost/boarding	Annual operating cost	Average fare revenue/boarding
817,030	\$7.30	\$5,964,808	\$1.13
Custom bus (40- and 30-foot coaches)			
			
Annual boardings	Average operating cost/boarding	Annual operating cost	Average fare revenue/boarding
193,464	\$7.74	\$1,496,885	\$4.40
Vanpool/Vanshare, MetroPool (commuter vans)			
			
Annual boardings	Average operating cost/boarding	Annual operating cost	Average fare revenue/boarding
2,849,585	\$1.69	\$4,810,170	\$2.06 <sup>3</sup>

<sup>2</sup> Source: 2010 Annual General Manager Report

Taxi scrip			
Annual boardings	Average operating cost/boarding	Annual operating cost	Average fare revenue/boarding
32,502	\$9.98	\$323,134	50% of meter
Community Access Transportation			
Annual boardings	Average operating cost/boarding	Annual operating cost	Average fare revenue/boarding
250,369	\$4.59	\$1,149,193	\$0 to \$0.50
Access paratransit service (transit vans)			
			
Annual boardings	Average operating cost/boarding	Annual operating cost	Average fare revenue/boarding
1,229,039	\$38.64	\$48,795,947	\$0.25

As we evaluate how to improve or better manage services in a corridor, Metro will consider the entire family of services we provide for potential use in that corridor, as well as services that are provided or could be provided by other parties. This will give us the broadest possible set of tools for managing the public transportation system.

Two of the most successful community transportation services in King County operated by partner agencies and supported by King County Metro are the Hyde Shuttle and Snoqualmie Valley Transportation.

The Hyde Shuttle is a free van service for seniors 55 or older and people with disabilities living in Burien, Des Moines/Normandy Park, Federal Way, Renton, SeaTac/Tukwila, Seattle, Shoreline/Lake Forest Park, and the Snoqualmie Valley. Senior Services' Hyde Shuttle helps fill gaps in transit service and provides a higher level of service than Metro buses or Access Transportation.

In 2010, the Hyde Shuttle provided about 75,000 one-way trips to 2,500 customers with a fleet of 28 vehicles (provided by Metro Transit).

Snoqualmie Valley Transportation (SVT) serves the cities of North Bend, Snoqualmie, Preston, Fall City, Carnation, Duvall, and Monroe. In 2003, the service evolved from serving seniors and persons with disabilities exclusively to serving all residents in the service area. In 2008 the Snoqualmie Nation began collaboration with SVT, providing more vans and drivers in exchange for an expansion of area coverage.

SVT provided about 26,000 rides in 2010 with eight vans.



3 Pursuant to King County Code 4.150.130, vanpool fares will maintain a target of recovering 100 percent of the operating and capital costs, and at least twenty-five percent of the cost of administering the vanpool program.

## ■ OPPORTUNITIES FOR ALTERNATIVE SERVICE DELIVERY

As a county-wide transit agency, Metro provides service in urban, suburban, and rural areas, which include low-density rural areas, urban areas on the rural fringe, and smaller urban “islands” surrounded by rural land. Some areas have limited fixed-route service to begin with, so any reduction or elimination of service in those areas could have significant impacts on riders and communities there.

Where population density is low, fixed-route services may not be cost-effective. It may make more sense to meet travel needs in the area with products like carpools and vanpools, community-access transportation, employer transportation programs, flexible transit services, shared taxis, and taxi scrip.

The Service Guidelines section of the *King County Metro Transit Strategic Plan for Public Transportation (2011-2021)* lays out Metro’s process for evaluating the performance of fixed-route transit service. We first group routes by market, then rank them by riders per platform hour and passenger miles per platform mile. Routes that perform in the bottom 25 percent of their category become candidates for potential changes.

Metro will plan for the use of alternative services in three possible funding environments:

1. **Diminishing or unstable funding.** In this environment, Metro will implement alternative services when a fixed-route service proposed for elimination is the last public transit connection in a community. Metro’s current funding environment is unstable because the Congestion Reduction Charge (a stop-gap funding measure approved by the King County Council in 2011) will end in June 2014.
2. **Stable funding.** In a stable funding environment—defined as having enough resources to prevent budget cuts for more than two years—we would consider providing alternative services where an eliminated service is not the last public transit connection available, or where resources are available through restructuring the transit network. As in the diminishing or unstable funding environment, the resources to implement alternative services would come from the reduction or elimination of fixed-route service.
3. **Growing resources.** In this funding environment, Metro would consider complementing existing fixed-route services with alternative services. We will further define how and when that expansion might take place during the first two years of implementation of this plan, and will involve stakeholders in that process.

In the first and second funding environments (unstable and stable funding), candidate alternative service areas would be chosen largely based on a route’s performance and the social equity and geographic value of the service provided. Metro’s service guidelines require that where service exists today, some form of publicly-supported mobility will continue to be provided in areas surrounded by or adjacent to rural areas, regardless of a route’s productivity (if it is the last connection in the area). So poorly performing fixed-route services that operate through or next to rural areas or serve “urban islands” within rural areas are candidates for replacement with alternative transportation services.

In the third funding environment, with growing resources, Metro might identify candidate alternative service areas based on feedback from communities about unmet travel needs. Alternative services could respond to travel needs not easily accommodated by fixed-route transit, or could be designed to make the fixed-route service more efficient and effective. This could involve adding service in underserved corridors or supporting “last-mile” and neighborhood connections to transit activity centers and regional growth centers.

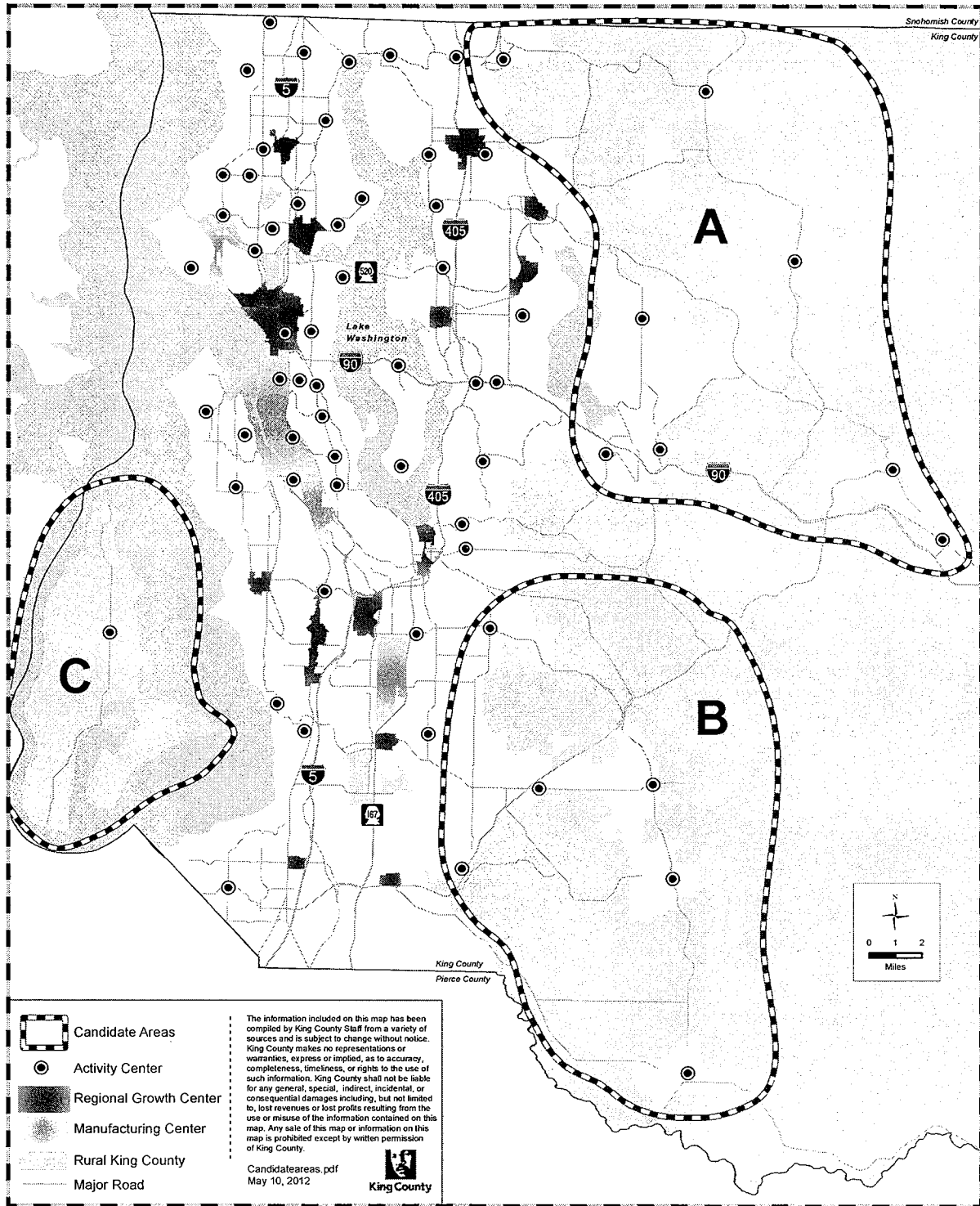
## First candidate areas for alternative transportation services

During the first two years of this five-year plan (2012-14), Metro expects to be in a stable or unstable funding situation, so alternative transportation services will focus on areas surrounded by or adjacent to rural areas where fixed route service is not productive or cost-effective. Initial candidate areas (southeast King County, Vashon Island, and the Snoqualmie Valley) are shown on the map in Fig. 1. They were chosen based on the following criteria:

- Adjacent to or surrounded by rural area
- Analysis of route productivity
- Analysis of land use, equity, and geographic value (corridor analysis)
- Elimination of the community's last public transit fixed-route or DART connections
- Potential for partnerships with agencies, jurisdictions, or other service providers
- Potential cost savings
- Ability to replicate the alternative service in other areas
- Community acceptance in an area
- Geographic distribution throughout King County



**FIG. 1**  
Candidate Areas for Alternative Service Delivery Pilots



By delivering an alternative service in any candidate area, Metro's objective would be to provide the same level of mobility—or better—at a lower cost than current fixed-route service. Our intention when modifying what services are provided in an area, and how they are provided, would be to make the investment in mobility for the area more meaningful to the people who live there.

Below are some examples of potential alternative transit services in the candidate areas.

### ■ Southeast King County

**Existing Metro service:** Routes 143 (weekday peak hours only) and 907 (DART).

#### **Opportunities for alternative service**

Potential alternative service for Route 143 would provide peak-period service between Black Diamond and Renton via Maple Valley. Alternative service should connect with fixed-route service.

Route 907 operates on weekdays, during midday hours only, about every 90 minutes. It connects Black Diamond with Enumclaw, Maple Valley, and Renton. It also provides off-route service within designated DART areas, including Black Diamond, where it serves an area west of the town center. This service was "right-sized" through conversion to DART in February 2012. Because it is the only transit service going through Black Diamond during midday, alternatives could be considered in conjunction with any significant reduction or elimination of Route 907.

### ■ Vashon Island (south King County)

**Existing Metro service:** Routes 118 and 119 (all day)

#### **Opportunities for alternative service**

Any potential alternative service for providing midday and evening transportation on Vashon and Maury islands would include connections with Washington State Ferries.

Routes 118 and 119 provide weekday service on the major corridors along Vashon and Maury islands, with most trips timed to connect with Washington State Ferries. Route 118 operates on Vashon Island between the North Dock and either Burton or Tahlequah, and Route 119 operates along the north half of Vashon and Maury islands. Both routes combine to operate about every 30 minutes during weekday peak periods and about every 90 minutes during midday. Route 118 also operates about every 90 minutes on Saturdays.

A reduction of service during midday on either route, or both, could result in a loss of coverage or span of service. Loss of evening service on Route 118, which provides last trips connecting with arriving ferries, could also warrant consideration of alternative options.

### ■ Snoqualmie Valley (east King County)

This is an unincorporated rural area in the Snoqualmie Valley between the cities of Duvall and Snoqualmie.

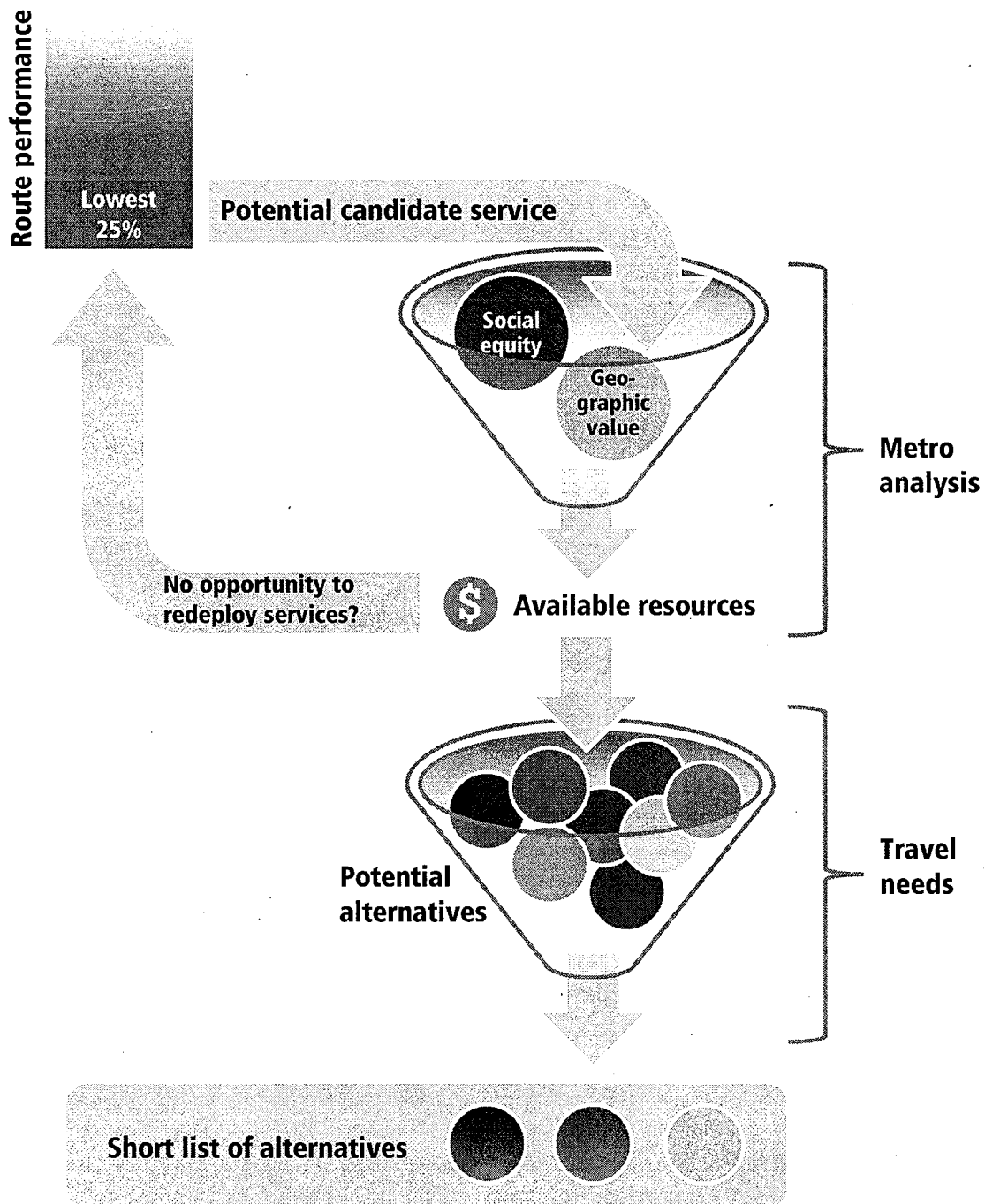
**Existing Metro service:** Routes 209 and 224. Route 224 provides all-day weekday service connecting Fall City with Redmond, Duvall, and Carnation.

#### **Opportunities for alternative service**

Potential alternative service for all or part of Route 224 could include connections with lower Snoqualmie Valley communities. Alternative routing of Route 209 to serve Snoqualmie Ridge would remove the connection now made in Fall City between upper and lower Snoqualmie Valley communities, which also would warrant consideration of alternative service, especially on lost route segments.

# ■ PROCESS FOR COMMUNITY COLLABORATION

FIG. 2  
Identifying Opportunities



Metro will use the following process to plan and implement alternative services:

1. Use our service guidelines to identify current services that may be candidates for replacement with an alternative service. The first step is to analyze the productivity of each route in the system. Routes with productivity in the lowest 25 percent will be analyzed for possible elimination, restructuring, or other remediation (see Appendix H).
2. Where a route has been identified for possible replacement with an alternative service, Metro will meet with community stakeholders to identify existing transportation providers, service gaps, and mobility needs.

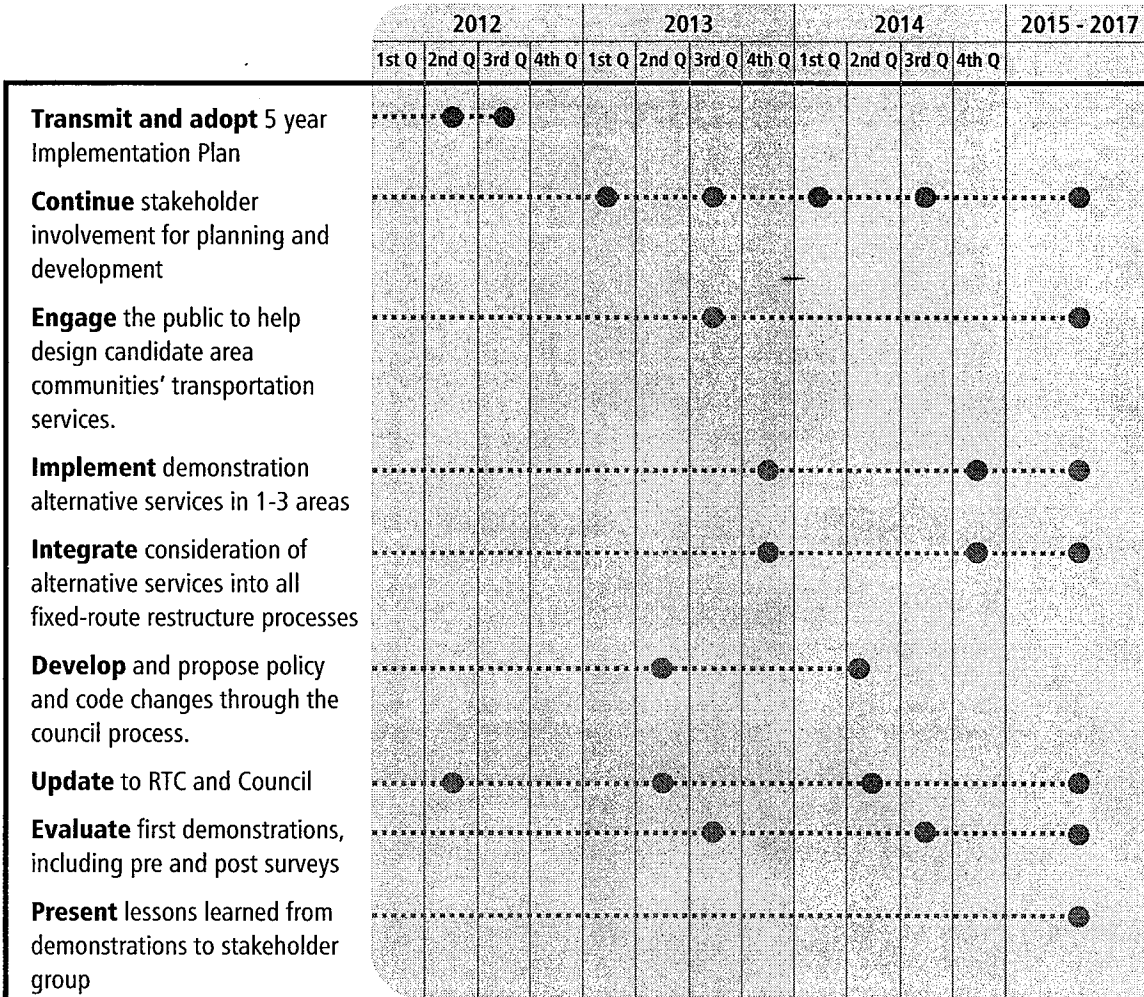
The local jurisdictions served by the route, along with local organizations, service providers, schools, churches, employers, and the general public, will be considered the primary stakeholders in this process, and will be invited to participate.

Metro will find out from users of the existing fixed-route bus service how and why they use the service, what other transportation options might be available to the community, and what connections to the public transit network the current users need to maintain.

3. Metro will propose two or three alternative service options, based on the following criteria:
  - The ability to expand access to travel options for residents in the community
  - How well the option maintains the public's access to "important trips"—e.g., the trip to ongoing, critical medical services
  - Maintenance or improvement of social equity and geographic value
  - Cost-effectiveness
4. Communities may propose an option that is different or modified from what Metro proposes. This is also the opportunity for implementation partners to formalize their commitment to a service.
5. Metro will choose one or more alternative products for implementation.
6. Using the service change ordinance process, Metro will seek the approval of the King County Council to eliminate fixed-route services in the candidate area in order to fund the alternative service demonstration.
7. Metro will create regular reports on the alternative service(s) provided, and will evaluate the alternative service(s) annually for future funding, per the measures identified in Appendix E, Measuring Success.

# TIMELINE AND PLANNING

**FIG. 3**  
Alternative Service Delivery Timeline



**2012**

- Transmit and adopt five-year implementation plan
- Engage the public to help design transportation services in candidate communities

**2013-14**

- Start one-to-three demonstration alternative-service programs using the identified process for community collaboration. The process begins with the candidate areas of Southeast King County, Vashon Island, and the Snoqualmie Valley.
- Metro will start one additional demonstration of alternative-service programs using the identified process for community collaboration. The demonstration will focus on suburban connections to urban transit corridors and be consistent with the policies and priorities of the service guidelines when reducing, restructuring or adding service where an alternative service would better meet the needs of the riders and community than a fixed route service. The objective of this demonstration is to preserve access to frequent and very frequent transit service and major transit centers.
- Integrate the community collaboration model into all fixed-route restructure planning and outreach processes in order to consider an array of alternative services.
- Sustain engagement with stakeholders to further define how alternative services can complement the fixed-route network under a scenario of growing resources, and how to change adopted policy to create an environment for success. Coordinate this activity with other updates to the strategic plan and service guidelines.
- Provide updates to the Regional Transit Committee and King County Council.
- Evaluate first demonstrations.

**2015-17**

- Continue to evaluate first demonstrations.
- Reconvene stakeholder group to discuss lessons learned and future direction of program.
- Start additional alternative services appropriate to the revenue environment, or when an opportunity arises to partner with local jurisdictions and organizations to provide services.

## ■ POLICY CHANGES FOR FURTHER CONSIDERATION

1. Consider whether to open Metro-supported Community Access Transportation to the general public rather than targeting special populations. This would require changing Section 28.94.045 of the King County Code, which relates to eligibility for use of Community Access Transportation.
2. Explore and negotiate the conditions in which the cap on DART service hours could be raised under Metro's labor agreement with the operators' union (Amalgamated Transit Union Local 587).
3. Work with taxi providers to explore issues relating to the provision of shared-use taxi feeder service, such as taxicab availability in suburban and rural areas, fare coordination with Metro's fixed-route bus service, and accessible vehicles.
4. Consider adjustments to King County Metro Transit's Rates of Fare Ordinance to reflect new types of service.
5. Explore changes to the taxi scrip program to broaden its applicability.
6. Explore lifting restrictions on Metro funding for new alternatives, such as bicycle programs.

## ■ CONCLUSION

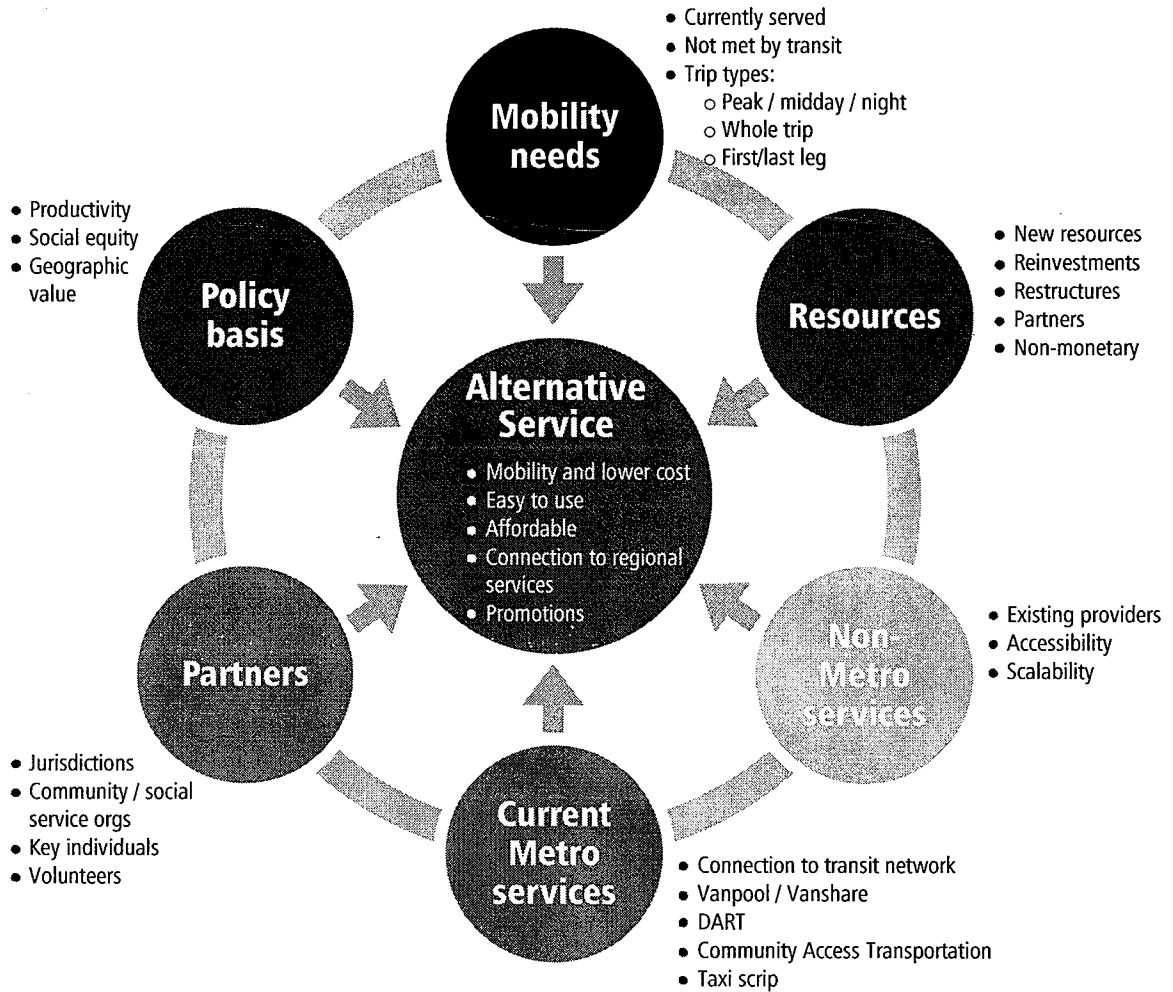
In order to be successful in putting the right type of service in place, Metro will need to find the best fit among many interests and needs. Among the factors we must consider are:

- The policy basis of Metro's strategic plan (productivity, social equity, geographic value).
- The function of existing service.
- Mobility needs in the community.
- What Metro services are currently available.
- What resources Metro has available.
- The availability of services provided by other (non-Metro) parties.
- Available partner resources.

When Metro and local community stakeholders can properly configure these factors – in the context of the design and performance of the fixed-route system – the likelihood of implementing alternative services that truly work for a community is high. If we are successful, Metro and community partners will together develop services that:

- Maintain and improve mobility at a lower cost.
- Are easy to use.
- Are affordable to users.
- Connect with regional transit services.
- Allow local point-to-point connections within the area served by the alternative service.

**FIG. 4**  
Key Issue Areas





## ■ APPENDICES

A: REVIEW OF BEST PRACTICES .....	A-1
B: STAKEHOLDER INVOLVEMENT .....	A-10
C: CONSTRAINTS TO IMPLEMENTATION .....	A-15
D: STRATEGIES TO BUILD RIDERSHIP.....	A-18
E: MEASURING SUCCESS .....	A-20
F: CASE STUDIES.....	A-21
G: BIBLIOGRAPHY .....	A-37
H: LOW-PERFORMING ROUTES .....	A-44
I: PRODUCT MATRIX .....	A-49

**Note:** Appendix I is formatted to fit 8.5" x 14" (legal size) paper.

## ■ APPENDIX A: REVIEW OF BEST PRACTICES

King County Ordinance #17143 requires King County Metro Transit to review “best practices in alternative service delivery in the transit industry.”

The term “best practices” is used very loosely in the context of projects or businesses. Generally, it refers to a standard way of doing things that multiple organizations can use.

A key point to keep in mind when applying best practices is the ability to balance the unique qualities of an organization with the practices that it has in common with others. Some practitioners offer an alternative idea, called “contextual practice,” in which the notion of what is “best” varies with the context. It’s important not to assume that one organization’s best practices can be applied in another context with equal success.

Metro’s alternative service products team pursued best practices by doing a literature search for reports, articles, and websites with state-of-the-art information on alternative service delivery methods and alternative products. Information gleaned from this search is reflected in the case studies (Appendix F) and bibliography (Appendix G). Staff members also looked at transit agencies and other organizations using new or unique approaches to providing mobility to low-density communities in their service areas. Tables 1-3 have information on some of these public transportation service providers and the innovative approaches they are using.

### Alternative service delivery methods

#### **Mobility management**

Transit systems are reinventing their service delivery models by creating full ranges of well-coordinated mobility services that focus on:

- Individual travel needs.
- Partnerships among multiple transportation providers.
- A full range of travel options.
- A single point of customer access to multiple travel modes.

Alternative delivery options normally involve providing some type of resources to social service agencies, cities, or other community organizations that are willing to coordinate the operation of mobility services for their clients (and potentially for a broader set of residents in the community). The resources provided can include some combination of operating funds, vehicles, fuel, comprehensive or collision insurance, maintenance, and the training of volunteer drivers. King County Metro Transit’s Community Access Transportation program is based on this type of model.

In turn, the agencies provide some combination of the following: volunteer drivers, scheduling, bookkeepers, liability insurance, and transportation service for their customers.

This approach has been implemented in rural, small-urban, and urban areas, and has succeeded in all demographic settings. The common thread in these successes has been the building of multi-modal provider coalitions such as Ride Connection in Portland, Oregon.

#### **Flexible transportation services**

Flexible transportation service is an especially valuable alternative in communities where mobility markets are defined by low or irregular demand.

Flexible transportation service includes a wide range of hybrid service types that are not fully demand-responsive or fixed-route. The primary types of flexible service are defined in the box on the next page.

#### **Sharing unused capacity**

Other organizations are exploring new ways to create mobility by sharing unused private capacity. This new

### Types of flexible transportation services

**Route deviation**—Vehicles operate on a regular schedule along a regular route, with or without marked bus stops, and deviate to serve requests within a zone around the path. The extent of the zone may be precisely established or flexible.

**Point deviation**—Vehicles serve requests within a zone and also serve a limited number of stops within the zone without any regular path between the stops.

**Demand-responsive connector**—Vehicles operate in demand-responsive mode within a zone, with one or more scheduled transfer points that connect with a fixed-route network. A high percentage of ridership consists of trips to or from the transfer points.

**Request stops**—Vehicles operate in conventional fixed-route, fixed-schedule mode, but switch to demand-responsive operation for limited portions of their routes.

**Zone route**—Vehicles operate in demand-responsive mode along a corridor, with established departure and arrival times at one or more end points.

Source: *A Guide for Planning and Operation of Flexible Public Transportation Services*, TCRP Report 140, Transportation Research Board, Washington, D.C., 2010.

approach to community transportation, still in its infancy, has been made possible through the use of information technology. It has given rise to such solutions as car sharing, dynamic ridesharing, and community-based volunteer transportation services—particularly those in which volunteers can earn credits in exchange for providing rides.

### Expanding multi-modal options

Transit agencies across the country are increasingly acknowledging the importance of integrating other modes of transportation into their bus services. For example, encouragement of bicycling as a means of access to transit hubs can provide new mobility for those who have few options for getting to the closest park-and-ride lot or transit center. By expanding bicycle carrying capacity on transit vehicles, improving bicycle infrastructure near transit facilities, improving bicycle parking choices, and providing right-of-way for bike sharing stations, transit agencies are recognizing the role of non-motorized options as smart ways to link to transit in all types of geographic areas.

### Alternative product best practices

The case studies in Appendix G provide information on alternative transportation products that are being tried or used in the U.S.

and elsewhere, including the locations and types of setting in which these products work. The mix of products is evolving and will continue to do so over the next five years.

For example, bike sharing systems are springing up in cities throughout the U.S., and comparative data from different systems is just now becoming available. The technology of bike sharing has changed rapidly over the past five years. Initial systems in the U.S. were hard-wired, and stations needed to be sunk into concrete. The Bixi system in Montreal revolutionized the bike-sharing industry by introducing solar-powered stations that were modular and did not need to be attached to the ground.

Car sharing is another industry that has evolved greatly since the late 1990s. After spreading throughout the U.S. and Canada, it is now branching into new types of delivery models. Rental car companies, initially reluctant to embrace car sharing, are now getting into this business. In addition, peer-to-peer car sharing, in which individuals put their own cars into a fleet by means of a third-party broker and social networking, is also taking off. Legislation approved by Washington State lawmakers in March 2012 ensures that this type of program can now be operated in the state and opens the door for companies to come here and set up business.

Dynamic ridesharing, which allows matches to be made on a spur-of-the-moment basis, is also an evolving possibility, thanks to the widespread adoption of smartphones. One of its attractions is its responsiveness to variability in people's commuting schedules.

Table 1: Communities with successful alternative transportation delivery models

Agency	Service Area Characteristics	Innovative Services
<b>Denver RTD</b> (Colorado)	Provides public transportation for 40 cities in eight counties around Denver. Service area population of more than 2.8 million in 2,348 square miles.	RTD has a "family of services" program.  Vanpool and Access-a-Cab programs provide alternatives to some paratransit services, saving more than \$2 million per year while serving more people.  RTD partners with a number of localities and agencies for services that it does not provide.
<b>COAST</b> (rural Washington and Idaho)	A nonprofit social service agency in rural eastern Washington that provides specialized and public transportation services to residents of eight counties (three in Washington and five in Idaho) within a 22,000 square-mile service area.	<ul style="list-style-type: none"> <li>▪ Serves as a broker</li> <li>▪ Operates vehicles</li> <li>▪ Operates a vehicle insurance pool</li> <li>▪ Provides training services</li> <li>▪ Operates with both paid and volunteer drivers</li> <li>▪ Orientation toward customers is reflected in comprehensive client list.</li> </ul>
<b>Transit Authority of River City</b> (Louisville, Kentucky)	Serves 14 million customers in five counties in Kentucky and southern Indiana.	TARC's Adventure Bus provides transportation services to qualified nonprofit organizations that offer programs that enrich the lives of at-risk youths from low-income families in the greater Louisville area. There is also a Job Hunter bus that provides preplanned transportation to job fairs.
<b>PACE</b> (northeastern Illinois)	Serves the suburban area of Chicago Regional Transit Authority (a six-county region).	Shared-ride taxi program in Ozaukee County that started in the 1970s for riders who are elderly and disabled; later expanded to serve general public. Second-largest vanpool program in U.S.
<b>Savannah Mobility Management</b> (Georgia and South Carolina)	Serves the four-county, two-state region surrounding Savannah. Started by Chatham Area Transit.	Nonprofit board created to provide connections between downtown Savannah and the new International Trade and Convention Center via integrated services, including several types of free-fare services. Funded by surcharges levied by the city's major hotels.
<b>State of Wisconsin</b>	Sixty-nine of 72 Wisconsin counties are actively practicing mobility management.	The State of Wisconsin used its New Freedom funds to hire 19 mobility managers throughout the state. By 2010, that number had grown to 55.
<b>Detroit, Michigan</b>	Suburban Mobility Authority for Regional Transportation (SMART) Community Partnership Program.	In partnership with 73 local communities that operate more than 246 small buses, SMART provides links to job-growth areas and to every city, township, and village in its district. It also offers community forums, coordinated dispatching, preventive maintenance, joint capital purchases, and travel training, and has saved \$2.7 million.

Agency	Service Area Characteristics	Innovative Services
<b>Portland, Oregon</b>	The Ride Connection program involves 20 community service partners and has been serving Clackamas, Multnomah, and Washington counties for more than 20 years.	Ride Connection, a non-profit community organization operating in close collaboration with TriMet, has helped the agency trim its paratransit costs by nearly \$2 million. The program provides administrative functions and volunteers as well as paid drivers.

Table 2: Examples of successful flexible public transportation services

Agency	Service Area Characteristics	Flexible Services Offered
<b>Mason County Transportation Authority</b> (Washington)	This area had 377,706 passenger trips in 2008.  <b>Service area:</b> 961 square miles <b>Population served:</b> 58,000	Allows a deviation of up to one mile from regular bus routes for those who experience difficulty getting to bus stops. Also offers service to the general public in a limited geographic zone through a contract with the school district.
<b>St. Joseph Transit</b> (Missouri)	Municipal bus company for the City of St. Joseph, Missouri.  <b>Service area:</b> 49.5 square miles <b>Population served:</b> 75,000 (2008)	Operates flexible public transportation service on each of its eight regular routes. Provides a fixed-route system with route deviation and request stops.
<b>Potomac and Rappahannock Transportation Commission</b> (Virginia)	A multi-jurisdictional agency serving two counties and three cities in northern Virginia.  <b>Service area:</b> 360 square miles <b>Population served:</b> 425,000	Operates OmniLink, a flexible public transportation service, on six routes. OmniLink is a route-deviation system blended with fixed-route characteristics that serves in place of a separate paratransit system.
<b>Pierce Transit</b> (Washington)	Second-largest transit agency in Washington State.  <b>Service area:</b> 414 square miles <b>Population served:</b> 767,000	Operates flexible public transportation on three routes in mid- to low-density areas. Deviated fixed routes are called Bus PLUS. Buses follow a fixed route and schedule but deviate into neighborhoods on request. Paratransit service does not operate in areas served by Bus PLUS.
<b>Jacksonville Transit Authority</b> (Florida)	Independent state agency that provides public transportation services throughout the Jacksonville area.  <b>Service area:</b> 841 square miles <b>Population served:</b> 795,566	Ride Request provides flexible public transportation service in several areas throughout the region. Ride Request is a demand-responsive connector service available on reservation or request. There are also two routes that follow a fixed route but deviate off-route upon request.
<b>Charleston Area Regional Transportation Authority (ARTA)</b> (South Carolina)	Provides public transportation services throughout the Charleston area.  <b>Service area:</b> 73 square miles <b>Population served:</b> 630,000 (2007)	Operates four flexible-zone routes, known as ARTA at Night, that operate after most regular bus service has ended. These routes serve urban and established suburban neighborhoods in hard-to-serve areas.

Table 3: Examples of successful approaches to providing rural mobility

Agency	Service Area Characteristics	Innovative Approaches
<b>Treasure Valley Transit (Idaho)</b>	Rural transportation provider for a 300-mile service area spanning eight counties, and also serves Malheur County in Oregon. Operates 18 peak-hour vehicles with a staff of 42. Provided more than 145,914 trips in 2010.	Uses an innovative approach to work with communities, develop demonstrations, and tailor service to needs. TVT has never had to pull service from a community, and in many cases has expanded service.
<b>Idaho Transportation Department (ITD)</b>	The Local Mobility Management Networks (LMMN) cover the counties of Ada, Boise, Canyon, Elmore, Gem, and Owyhee.	ITD has given each of 17 mobility networks, composed of stakeholders, decision-making powers related to FTA funding in rural areas.
<b>Capital Area Rural Transportation System (CARTS) (Texas)</b>	A transportation system serving 169 communities, seven counties, and two non-urbanized areas within a 7,500-square-mile region.	Developed a new rural hybrid service design called "fixed-schedule" service. Passengers can still be picked up at the curb, but they must adhere to a schedule. Improved productivity.
<b>South East Transit Authority (Zanesville, Ohio)</b>	A public, non-profit transportation service provider for two counties in southeastern Ohio	Implemented a successful service transporting children to and from the local Early Start program by adding a paid part-time attendant to ride with the children. Addressed growing population of single mothers.
<b>ITN Network (Portland, Maine)</b>	A volunteer driver program that became the first model program for ITN America. Serves 13 communities in the greater Portland, Maine area.	Charges different fares for individual travel and shared-ride service; riders willing to wait longer, be flexible in their pick-up times, and incur longer ride times pay less.
<b>JAUNT (Virginia)</b>	Six-county rural transit system operates 48 vehicles during peak hours. Provided 304,624 trips in 2010.	Launched a new mobility manager program to mentor human-service agencies. Includes opportunities for the agency to partner with JAUNT to address unmet transportation needs, ways the agency may be able to pool resources or share vehicles with another human service agency, and/or ways the agency could use private providers.
<b>Ben Franklin Transit (Washington)</b>	Serves six cities and two counties in central Washington.	Operates a vanpool program that has become the fourth largest in the nation, despite the low population density of the service area.

## METRO'S EXISTING ALTERNATIVE PRODUCTS

### Community shuttles (Community Access Transportation)

Metro creates partnerships with jurisdictions or agencies to help them set up their own transportation services. The county provides 8-, 12-, or 15-passenger accessible vans and operating grants to cover expenses such as gas, maintenance, and labor. Agencies provide insurance, scheduling, drivers, and monthly ridership reports. Today, Metro provides vehicles and operating funds to 26 agencies under such partnerships.

This service is currently set up for people with special transportation needs, but it could be revised to include the general public. Community shuttles fill gaps in transit service, and are adaptable to meet the needs of the community. This type of service is also a cost-effective alternative to paratransit service for persons who are elderly or who have disabilities.

King County has four community shuttle programs: the Maple Valley shuttle, the Hyde Shuttle, Snoqualmie Valley Transportation, and Senior Services shuttles. Eligibility requirements to use the shuttles vary by service. The Maple Valley Shuttle and Snoqualmie Valley Transportation serve youths age 13 and older, and the Hyde and Senior Services shuttles are limited to riders who are elderly or have disabilities.

#### Maple Valley Shuttle

The Southeast Regional Shuttle (Greater Maple Valley Community Center Shuttle) offers rides within its service area to transportation-dependent residents who are age 13 and older. Communities served include Maple Valley, Black Diamond, Covington, Hobart, Kanaskat-Palmer, Lake Morton, Lake Sawyer, and Ravensdale.

Service is available Monday through Friday from 8:30 a.m. to 4:45 p.m. Same-day reservations are accepted, and users pay 50 cents per trip.

#### Hyde Shuttle

The Hyde Shuttle is a free van service for seniors age 55 or older and people of all ages with disabilities. More than 30 vans provide free rides to hot-meal programs, medical appointments, senior centers, grocery stores, and other local destinations. The vans operate Monday through Friday from 8 a.m. to 4 p.m., and trips must be reserved in advance. Hyde Shuttles currently operate in the following communities:

- Beacon Hill – southeast Seattle
- Burien – Highline
- Central Seattle (First Hill, Capitol Hill, Central Area and the International District)
- Des Moines – Normandy Park
- Federal Way
- Northeast Seattle
- Northwest Seattle
- Queen Anne/Magnolia/Interbay
- Renton
- SeaTac/Tukwila
- Shoreline – Lake Forest Park
- Snoqualmie Valley
- West Seattle

The shuttles are equipped with lifts, and provide personalized transportation with trained drivers.

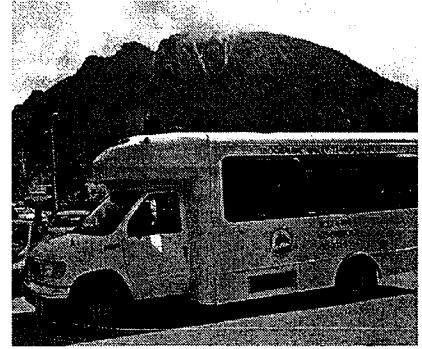
The Hyde Shuttle could potentially serve a greater portion of the county's population if the following two conditions were met:

1. If the King County Code were changed to lift eligibility restrictions.
2. If more operating funding were available to provide service to more communities and/or to expand service hours to evenings and weekends.

## Snoqualmie Valley Transportation

Snoqualmie Valley Transportation is a nonprofit project of the Mount Si Senior Center and the Snoqualmie Tribal Nation. It provides transportation within the Snoqualmie Valley for anyone age 13 or older. Communities served include North Bend, Snoqualmie, Preston, Fall City, Carnation, Duvall, and Monroe.

Rides cost 50 cents for the general public and 25 cents for seniors. The service is provided with six vehicles by volunteer drivers Monday through Friday from 6 a.m. to 8 p.m. Residents can call for service the day they need transportation or make reservations for up to two weeks in advance.



Snoqualmie Valley Transportation began in 1998 as a service that was exclusive to senior and disabled residents. It was expanded to include all Snoqualmie Valley residents in 2003. This expansion was a response to a perceived need to provide public transportation to low-income residents and/or those who did not meet the age or disability qualifications to use the service. The Snoqualmie Nation started its collaboration with Snoqualmie Valley Transportation in 2008 by providing more vans and drivers in exchange for coverage of a larger territory.

Many residents are now taking Snoqualmie Valley Transportation rather than owning second cars.

## Commuter vans (VanPool/ VanShare)

Metro's commuter van programs (VanPool and VanShare) provide vans to groups of five or more riders commuting to and from a common work location. Riders must commute at least one day each week using the Metro-provided vehicle. The county provides a 7-, 8-, 12-, or 15-passenger van, maintenance, gas, insurance, a reservation system, and guaranteed rides home in cases of emergency. Van riders must provide liability insurance, a volunteer driver, a backup driver, a bookkeeper, and monthly reports.

VanShare makes the last-mile connection between a public transportation terminal (Sounder stations, transit centers) and a final destination (usually a work site). Of the 139 vanshares currently on the road, more than 50 percent are in South King County (Kent, Renton, SeaTac, and Tukwila).

A small number of employers (including Amgen, Seattle Children's, and Starbucks) have employees who VanShare with 5-person plug-in electric vehicles. This demonstration program, called MetroPool, is expected to expand when more companies offer charging stations for electric vehicles.



## Custom Bus

Custom Bus is an express bus service designed to meet the specific needs of commuters and students who subscribe to the service. Users travel to locations not well served by fixed-route transit. Buses make a minimum of one round trip each day.

Employers and schools contract with Metro for these customized express-bus routes. Current participating employers include Boeing, Lakeside School, and University Prep.

Fares are set to cover 100 percent of the operating costs and riders pay for the service with a monthly pass or daily cash fare.

## Access Transportation

Metro's paratransit service is available within three-quarters of a mile of its fixed-route service for persons who are elderly or disabled and cannot take the bus. Access service extends further than is required by the Americans with Disabilities Act (ADA) in eastern King County, and the Transit Now Initiative passed by voters in 2006 added Access service in pockets of rural King County that are not served by regular buses. Local communities fund Access services that go beyond ADA requirements, and these additional services may be cut if there is no funding available.



Getting There, a transportation resource center created in partnership with Harborview Medical Center, evaluates 5,000 customers a year to determine eligibility for Access Transportation. Eligible customers are certified as either “fully eligible” (they will always have a barrier to riding the bus or light rail by themselves because of permanent limitations) or “conditionally eligible” (the barriers they face when riding the bus or light rail might not always be present). Customers eligible to ride Access may go anywhere that Metro buses or Link light rail go, during the days and times when those services operate. Customers may need door-to-door service (the driver helps customers get on or off the van, offers a steadying hand, and walks them to or from the door at their destinations) or hand-to-hand service (the driver hands customers off to caregivers at their destinations).



Reservations are made from one to three days ahead.

At times when demand for Access Transportation service is high, Metro also contracts with taxi companies to provide additional Access service.

Access service is the most expensive alternative transportation option for Metro.

## DART

Metro’s Dial-a-Ride Transit (DART) service offers variable routing in some areas within King County. DART operates on a fixed schedule, but one that has more flexibility than regular Metro Transit buses. Vans can go off regular routes to pick up and drop off passengers within a defined service area. They do not go door-to-door. A limited number of off-route deviations can be made on any given trip; reservations must be made at least two hours in advance.



DART service is available to everyone, and the user cost is the same as for a regular bus ride. DART service hours and days vary from route to route. DART service is currently available in the following communities:

**West Seattle** (Water Taxi Shuttle provided by King County Ferry District)

**South King County:** Federal Way, Enumclaw, Black Diamond, Maple Valley, Renton, Auburn, Kent, and Algonia-Pacific

**East King County:** Newcastle, Coal Creek, Issaquah, Lake Sammamish Plateau, Bothell, Woodinville, Redmond, Kenmore, Juanita, Kingsgate

Expansion of DART service would require renegotiating the existing labor contract with ATU Local 587, because the current contract limits DART service to 3 percent of total service hours provided by Metro.

## Taxi scrip

King County provides taxi scrip that pays for 50 percent of a taxi trip for low-income King County residents age 18 to 64 who have disabilities, or those who are age 65 and over. Registered participants can buy up to six books of taxi scrip from Metro at a 50-percent discount each month. The customer pays the cab driver the meter fare using taxi scrip instead of money. Most taxi companies accept taxi scrip.



Our existing taxi scrip program could be expanded to serve riders in locations that were previously served by transit routes and are not suited for other service products. However, given that the cost per boarding is more than twice the cost for fixed-route service, a lower level of subsidy, such as 25 or 30 percent, rather than the existing 50 percent, should be considered for the general public to save costs.

## PRIVATE TRANSPORTATION OPTIONS

There are a wide range of transportation options that are not currently provided or supported by Metro. These include bike sharing and bike libraries, car sharing (both traditional and peer-to-peer), carpools, flexible carpools (also called dynamic ridesharing), jitneys, moped loan programs, private shuttles, school buses, shared taxis, slug lines (also called casual carpooling), and volunteer driver programs.

Some of these options, such as car sharing, private shuttles, and volunteer driver programs, are currently provided in Metro's service area by employers, social service agencies, or private businesses. Other options—bike sharing, bike libraries, slug lines, moped loan programs, jitneys, and use of school buses—do not currently operate in King County, but may have the potential to be started in a local community.

The various types of products are defined, and the benefits, constraints, and conditions under which they succeed are listed in Appendix I. Some (such as jitneys and traditional car sharing) are best suited for dense urban areas, while others (such as moped loan programs, bike libraries, and peer-to-peer car sharing) can work well in suburban and even rural settings.

## ■ APPENDIX B: STAKEHOLDER INVOLVEMENT

From January through April of 2012, Metro engaged stakeholders and the public to help shape the process we will use to implement alternative service delivery.

The goals of public involvement were as follows:

- To inform stakeholders and the public about the policy objectives and define what we mean by “alternative service delivery.”
- Get feedback from stakeholders and the public about Metro’s plan concerning which market conditions should trigger an alternative service delivery approach, as well as the process for implementing alternative service delivery (who initiates it, how transportation needs are assessed, who needs to be involved, and how those involved determine what alternative services will best meet local needs).

### Approach

Stakeholders invited to participate in the process include agencies and people whose participation will be needed to make alternative service delivery effective and sustainable, including transit users themselves.

In reaching out to the public, we targeted the following groups:

- Transit riders who use routes that may be candidates for alternative service.
- Transit-dependent riders.
- Transit riders already using alternative services.
- Organizations that serve populations with special needs.
- Transportation advocacy organizations.
- Employers.
- Jurisdictions that would be likely partners with Metro in delivering alternative services.

### Process

Metro invited a broad group of stakeholders representing those who are likely to be affected by the implementation of alternative service delivery to attend a series of meetings. At the meetings, they learned about how Metro identifies candidate routes for alternative service delivery and were asked for feedback about our proposed process for selecting an alternative service. We used their feedback to further refine the implementation plan in an iterative process that concluded with stakeholders having the opportunity to review a draft of what will be presented to the Metropolitan King County Council.

### Invited stakeholders

*(Alphabetized by organization)*

Bellevue College: Deric Gruen, sustainability and resource conservation manager

Boeing: Liz Warman, community relations

Advisory committees: Jane Kuechle, former member, Regional Transit Task Force and Transit Advisory Commission

Advisory committees: Ed Miller, former member, Regional Transit Task Force and Transit Advisory Commission

B Line Sounding Board: David Johnson, former member

Cascade Land Conservancy: Alison Van Gorp

Central Seattle Community College: Melissa Coan

City of Algona: Dave Hill, mayor

City of Auburn: Dennis Dowdy, public works director

City of Bellevue: Franz Loewenherz, senior transportation planner

City of Black Diamond: Seth Boettcher, public works director  
City of Bothell: Steve Anderson, assistant city manager  
City of Burien: Steve Roemer, public works director  
City of Carnation: Ken Carter, city manager/interim public works director  
City of Clyde Hill: Craig Olson, public works director  
City of Covington: Richard Hart, community development director  
City of Des Moines: Grant Fredricks, public works director  
City of Duvall: Amy Ockerlander, councilmember  
City of Enumclaw: Chris Searcy, public works director  
City of Federal Way: Jeanne Burbidge, councilmember  
City of Issaquah: Sheldon Lynn, public works engineering director  
City of Kenmore: Jennifer Gordon, public works operations manager  
City of Kent: Cathy Mooney, senior transportation planner  
City of Kirkland: Ray Steiger, public works director  
City of Lake Forest Park: Frank Zenk, director of public services  
City of Maple Valley: Steve Clark, public works director  
City of Medina: Joe Willis, public works director  
City of Mercer Island: Rich Conrad, city manager  
City of Milton: Letticia Neal, public works director  
City of Newcastle: Mark Rigos, public works director  
City of Normandy Park: Stacia Jenkins, councilmember  
City of North Bend: Ron Garrow, public works director  
City of Pacific: Jay Bennett, public works director  
City of Redmond: Chester Knapp, senior planner  
City of Redmond: Kim Allen, councilmember  
City of Renton: Jim Seitz, transportation planning  
City of Renton: Dan Hasty, transportation planning  
City of Sammamish: Laura Philpot, public works director  
City of SeaTac: Tom Gut, public works director  
City of Shoreline: Mark Relph, public works director  
City of Snoqualmie: Nancy Tucker, public works director  
City of Tukwila: Bob Giberson, public works director  
City of Woodinville: Tom Hansen, public works director  
City of Yarrow Point: Sara McMillon, clerk-treasurer  
Eddie Bauer: Karl Weiss, transportation program manager  
Four Creeks Unincorporated Area Council: peter eberle, president

Greater Maple Valley Community Council: Steve Hiester, president  
 Highline Community College: Victoria England, CTR coordinator  
 Hopelink: Alina Aaron, mobility manager  
 Kent Youth and Family Services: Mike Heinisch, director  
 King County Council: Jane Hague, councilmember  
 King County Council: Kathy Lambert, councilmember  
 King County Mobility Coalition: Michelle Zeidman, coordinator  
 Microsoft: Jim Stanton (former member, Regional Transit Task Force)  
 Muckleshoot Tribe: Carl Abbott, planning director  
 North Highline Community Council: Barbara Dobkin, president  
 North Seattle Community College: Melissa Coan  
 Office of King County Councilmember Jane Hague: Kimberly Nuber  
 Office of King County Councilmember Julia Patterson: Emiko Atherton  
 Office of King County Councilmember Kathy Lambert: Christine Jensen  
 Paccar: Amber Eslinger  
 Providence Health and Services: Sandy Haynes  
 Seattle Department of Transportation: Peter Hahn, director  
 Seattle-KC Human Services Coalition: Julia Sterkovsky, executive director  
 Senior Services: Cindy Zwart, director, transportation program  
 Shoreline Community College: Stuart Trippel  
 Snoqualmie Tribe: Jon Jenkins, manager, Snoqualmie Valley Casino  
 Snoqualmie Valley Transportation: Jonathon Nelson, transportation coordinator, Mt Si Senior Center  
 Snoqualmie Valley Transportation Benefit District: Michelle Twohig  
 South Seattle Community College: James Lewis, transportation coordinator  
 Starbucks: Brent Stavig, employee transportation coordinator  
 Suburban Cities Association: Monica Whitman, senior policy analyst  
 Transition Snoqualmie Valley: Diane Muir, secretary  
 Transportation Choices Coalition: Rob Johnson, executive director  
 University of Washington: Joshua Kavanaugh, director, transportation services  
 University of Washington: Nate Jones, transportation services  
 Upper Bear Creek Community Council: Kevin Coughlin  
 UW Evans School: Becky Edmonds, Hopelink transportation researcher  
 Vashon-Maury Island Community Council: Tim Johnson  
 West Hill Community Council: Bill Bowden, president

Metro hosted three meetings, summarized below.

January 24, 2012 (Fall City) – We informed stakeholders about what Metro has been asked to do regarding alternative service delivery and why. We used a case study to help people think of an example of where an alternative service might be considered, and had participants meet in small groups to answer questions about how they would like to be approached by Metro if they were served by a candidate route, who Metro should approach, and what that engagement process might look like.

February 29, 2012 (Kent) – Metro reported back on the themes we heard at the January meeting, and provided more information about our research into alternative services. We also presented a more refined implementation approach and asked for feedback on it.

March 29 (Woodinville) – Metro provided an overview of emerging concepts – how Metro will identify alternatives, different funding environments, policy considerations, and the community collaboration model. Stakeholders reflected on these concepts, asked questions, and provided further input to refine them.

Meeting notes and materials from each meeting were provided to all invitees after the meeting (see enclosed Public Comment CD).

### General public process

The following tools were used during March and April of 2012 to engage the general public in providing feedback on this plan.

- **Website**—The website provided an overview of what Metro is planning and solicited feedback via an online questionnaire on the development of the Five-Year Implementation Plan.
- **Online questionnaire**—The questionnaire collected information from transit users, organizations, service providers, employers, and jurisdictions on their transportation needs and resources, as well as their input on the plan.
- **Email notifications**—We used these to let people know about the opportunity to provide feedback. Recipients included people who have subscribed to rider alerts for potential candidate routes and subscribers to the Metro Matters email list. We also sent notes to employee transportation coordinators, jurisdictions, unincorporated area councils (UACs) and the UAC newsletter, and community partners, who were asked to help engage their constituents in providing feedback.
- **Presentations**—We made presentations to community and stakeholder groups upon request. On March 20, 2012, Metro made a presentation to the Transit Advisory Commission, a group of riders who advise Metro and King County on the issues and concerns of transit riders. Meeting notes reflecting their comments about this plan are included on the enclosed Public Comment CD.

### What we heard from the public

Members of the public were invited to weigh in on this plan by learning more online and completing an online survey that asked a range of questions about plan concepts. The questions tested people's perceptions and expectations about replacing fixed-route service with alternatives and gathered feedback that will help Metro implement this plan more effectively. There were three survey tracks, for individuals, jurisdictions, and community organizations/businesses.

Of 169 people who completed the survey, 73 percent said they were very or somewhat supportive of the idea of Metro providing alternative services where regular fixed-route bus service is not cost effective. Respondents expressed concerns about:

- The reliability of alternative service.
- Having to use a reservation system, which they perceived as inaccessible to transit-dependent populations.

- Overcrowding.
- General uneasiness with the loss of fixed-route service. People like the idea of alternative service if it provides service in days, times, or locations that currently do not have service – in other words, if it adds to what is available now.

In general, respondents expect alternative services to take longer, be less convenient, and be harder to use than regular fixed-route service. However, they are not familiar with most of the alternatives that Metro already provides or could provide. They are somewhat familiar with Metro VanPool service, the King County Water Taxi, and carpool promotions. The top criteria for a replacement service were that it should:

1. Connect people to the same destinations and transfer points.
2. Cost the same as or less than current service.
3. Provide service during the same time of day as current service.
4. Meet the needs of transit-dependent, disabled, elderly, or low-income residents.

Asked whether there are other alternatives that Metro hasn't considered but should consider, most respondents suggested various forms of service that Metro has already identified. Beyond specific alternative services, respondents suggested that we increase park and rides, provide fixed-route service using smaller vehicles, try increasing fixed-route service where it is not cost-effective (because current service levels do not attract riders), and learn from several projects being implemented by other agencies. These suggestions will help Metro flesh out the set of alternatives that will be considered during the implementation phase.

We gathered information from organizations already providing some kind of transportation service and from jurisdictions about their transit goals as part of their master plans. Both types of organizations were asked whether they had conducted transportation needs assessments and if they would be willing to share this information with Metro. We'll use data from those willing to share it to strengthen Metro's implementation plan and identify possible partners with whom we can work to assure that alternative services are sustainably implemented.

Complete survey results can be found on the enclosed Public Comment CD.

## ■ APPENDIX C: CONSTRAINTS TO IMPLEMENTATION AND METHODS TO REDUCE BARRIERS

Any assessment of alternative transportation products must consider potential constraints to implementation. A product might have a long start-up time for implementation, or only be likely to succeed in a high-density area if heavily subsidized, or—as with non-motorized options like bike sharing—might not appeal to those with physical limitations.

Dynamic ridesharing, vanpooling, and shared-ride taxis require large pools of potential riders traveling to the same area in order to succeed, although minimum requirements to form shared-van groups are sometimes reduced during special promotions.

Use of school buses to provide additional mobility to people living in rural areas is limited by the fact that vehicles are usually available only when school is in session, and even then for only limited hours on weekdays.

Another potential constraint to implementation is the mindset of Metro’s current customers, who may choose to convert to a different travel mode if their only bus route is eliminated. They may see the loss of their fixed-route service as a “take-away.” Any alternative transportation products that Metro offers to replace that service need to be seen as providing the same or greater value. Change can be difficult, and there are various hurdles to overcome as we work to inform, educate, and generate trial on the new alternative modes.

For more details on the constraints relating to individual products, see Appendix D.

To ensure that alternatives to fixed-route service have the best possible chance to succeed, Metro will need to address barriers to operation that currently exist for many of the transportation products with potential application in King County.

These barriers include the following:

### Resources

Metro’s planning for alternative services has thus far been done with existing staff resources. Implementation may require additional staffing and involve additional costs. Also, feedback provided at the public meetings indicated a desire for a survey of bus riders on routes that have the potential to be cut back. If such surveys are included in the process, funds for them would have to be included in the budget.

Where alternative service replaces bus service, we assume that the cost savings from reducing the bus service would pay for the alternative service. If we expand alternative services beyond those tied directly to bus service cuts, funding would have to come from another source, such as a local partner.

### Labor contract

Metro’s ability to provide its DART service to the general public on a contract basis is limited by Section 3.10 of our existing labor contract with the operator’s union (Local 587 of the Amalgamated Transit Union) to 3 percent of Metro’s total service hours. This limits our ability to provide alternative service via the DART program.

The next negotiations regarding this labor contract will start in 2013, and will provide an opportunity for Metro and the union to consider revisions to this limit on DART service hours.

### King County Code

There are several sections of the King County Code that relate to alternative products:

Section 28.94.020 defines DART service and allows for route deviation. Metro does not view this section of the code as a barrier to providing alternative service.



Section 28.904.035 defines Access Transportation, Metro's paratransit service. The code focuses on attributes of the service (eligible populations, span of service, three-quarters-of-a-mile buffer, curb-to-curb, etc.) The eligibility requirements define who can and cannot use Access Transportation.

Section 28.94.045 defines Community Access Transportation and identifies some attributes of this service (eligible populations, span of service, door-to-door or hand-to-hand, subscription service for eligible individuals, etc.) This section also establishes community partnership services. The major constraint is that the code does not say this type of service can be used by the general public.

Section 4.150.130 provides policy direction regarding fare recovery. It says that vanpool fares have to recover 100 percent of operating and capital costs and 25 percent of administrative costs.

This section may need to be modified or waived to allow for "free" service (e.g. Trip Pool) if Metro does not have a mechanism to collect fares.

If dynamic ridesharing included a fee, as some envision, the definition of "for-hire driver" might need to be changed to distinguish dynamic ridesharing from taxi service.

### Need for staffing, administration, and funding at partner agencies

The level of staffing and administrative responsibilities at partner agencies will be largely dependent on the type of service chosen. While Metro could pay part of these costs, local agencies may have to acquire new staff or reassign a portion of existing staff time to support the program. Metro may also be in a position to provide enhanced services, above those supported by the savings achieved through reducing regular bus service. This might present an opportunity for agencies to obtain a higher level of transportation service in exchange for partnership funding.

### Monitoring and reporting

In most cases, service quality measures, such as on-time performance, will be monitored in some way. In some cases, such as DART service, monitoring will be reported to Metro. In other cases, performance might be reported by or to a local organization.

### Fare coordination

Fare issues could vary greatly depending on the type of service. Fare coordination with Metro is desirable if the alternative service is primarily a feeder service to Metro. This is less important if the alternative service is primarily a neighborhood or regional service. In some cases, like carpooling, a fare might not be appropriate or would be worked out between the individuals sharing the ride.

### Taxi limitations in non-urban areas

In many non-urban areas of King County, taxis are not available or not reliable. Taxi operators are often independent contractors who affiliate with a larger association for dispatch and marketing services. These operators choose when and where they want to work and cluster toward high-density areas such as downtown Seattle or the airport. Setting up taxi programs in rural and suburban environments is likely limited to the availability of taxi service in the area. Some rural areas do have one or two rural taxi operators.

### Travel information

There may be constraints on Metro's ability to incorporate new travel information into our existing trip planning program, maps, and stop signage. The level of rider information support that is available through our existing information channels, such as the Rider Information Office, is another consideration.

How these barriers will be addressed also depends on what role Metro would like to assume in promoting alternative products. Some of these issues would not come into play if Metro simply takes the role of facilitator to make sure residents are aware of the services available in their communities. However, if we decide to take a more active role by providing subsidies, vehicles, or training, or even branding of products with the King County logo, there may be legal, financial, and policy implications that will need to be reviewed.

## Promoting Trip Pools

*An example of a potential strategy to build ridership*

Trip pools provide a vanpool connection to transportation hubs. They follow a defined route with regular stops during commute hours.

Metro did a demonstration trip pool project in summer 2011. If we were to offer this service again, signs on Trip Pool vehicles could indicate their routes, and transit and Trip Pool routes could share signs at the roadside and at park-and-rides.

Trip pool vehicles would have a different appearance from Metro's commuter vans, but would incorporate—and benefit from—Metro's branding while providing appropriately sized vehicles for rural trips.

Promotion of new Trip Pool service would focus on the distribution of information regarding the service and strategies to attract riders. All distribution methods will be used; electronic, print, and broadcast. Community profiles will be considered to address issues of language and culture in all collateral elements.

To attract Trip Pool riders, Metro might first develop community outreach networks to identify potential riders and to help us in our outreach efforts. Municipal leaders in target areas will be asked to assign community coordinators to be the program's local faces—people with whom residents can relate. Rideshare staff would consult with these coordinators and meet with employers, civic organizations, and elected officials to gain access to residents in their preferred environments. Brochures and posters would be part of a package developed for the community networks to distribute to residents, and would be made available in local businesses and municipal buildings.

Trip-Pool-specific incentive programs would stimulate recruitment of volunteer drivers and riders and/or reinforce ridership frequency. Commute coach program incentives might be made available to people who coach newly forming groups. These coaches could receive \$100 for each successful group they mentor, up to five groups. Monthly rideshare reward drawings could award \$50 gift cards to 50 riders who record seven trips in a month. These incentives would help both the growth and retention of ridership.

Additional incentives for Trip Pool service might include a free commute for the driver and/or personal use of the vehicle during non-commute hours.

RideshareOnline provides several web-based tools that would support the formation of Trip Pool groups and ongoing ridership development. Social media sites that Metro already uses could let participants and potential participants know about the service, promote incentive programs, and provide interactive communication with current and potential riders.

## ■ APPENDIX D: STRATEGIES TO BUILD RIDERSHIP

When people think about Metro, they usually picture buses. But in fact we provide a wide range of transportation choices. Alternative service delivery is a good fit with our mission, which is to provide “the best possible public transportation services and improve regional mobility and quality of life in King County.”

When introducing these new service products to the marketplace, Metro should take care to present them as integrated parts of its range of mobility options, and avoid the appearance that some of its products compete with others. It’s also important to avoid alienating customers who have relied on fixed bus routes that are being replaced with alternative service.

### Potential ridership-building strategies

- Brand the array of alternative products with a new name for this program.
- Incorporate the messaging for alternative products into all of Metro’s marketing materials, including the website and online trip planner.
- Use signs at Metro facilities (e.g., park-and-rides) to show that Metro sanctions certain activities, such as casual carpooling.
- Increase the use of social networking to get the word out about options.
- Target mailings to particular neighborhoods.
- Make presentations to community or other stakeholder groups (since alternative service usually targets a specific clientele, area, or community).
- Promote alternative service products through community blogs, newspapers, and bulletin boards.
- Promote alternative service products at senior centers, neighborhood associations, local business groups, community fairs, and events at colleges or local schools.
- List and describe all alternative services on Metro’s website.
- Form more partnerships with community agencies and owners of major destinations (e.g., shopping centers).
- Open existing services that are currently available only to special populations to the general public.
- Fill unused seats in vehicles already on the road through programs such as real-time ride-matching, slug lines, shared-ride taxis, and use of school buses.
- Offer more amenities, such as Wi-Fi, on vehicles.
- Encourage people to try out an alternative product by temporarily reducing barriers to entry (e.g., Metro’s VanPool program has promotions that reduce the number of riders needed to form a new vanpool group).

The most successful strategy used by Metro’s Rideshare Operations group is to provide short-term incentives such as gift cards for people who join or establish a carpool or vanpool, track their use over a period of time by means of an online calendar, and meet a certain participation level. Rewards are also provided for participants who recruit other riders.

### Promoting new modes

Start-up discounts, employer subsidies and promotions, street-teaming (putting staff members on the street to talk directly with people passing by), and promotion through social media are some of the means that Metro has used successfully to build ridership for innovative transportation options.

In Metro’s community shuttle program, partner agencies promote their own programs. Services such as the Hyde Shuttle and the Snoqualmie Valley shuttle are not considered Metro services, but partnership grants. Agencies normally promote the shuttles in the following ways:

- Transportation fairs
- Program brochures
- Targeted mailings
- Community blogs or newspapers
- Senior/community center bulletins
- Community events

- Listing in FindARide.org, 2-1-1, and with other transportation resource centers such as the King County Mobility Coalition travel ambassador program or Metro's Transportation Resource Center at Harborview.

With modes like car sharing and bike sharing, the vehicles and branded facilities add to awareness of their existence and help create a market through curiosity.

Slug lines (casual carpools) usually require little promotion other than word-of-mouth because of their visibility and the high motivation to reduce tolling costs and use HOV lanes for a faster commute. Although they are normally not administered by any organization, they often have websites devoted to answering questions from potential users.

Each type of program will have unique promotional characteristics and opportunities. The overarching goal will be to demonstrate the value the program provides within the range of transportation choices Metro provides. Potential riders will always want to know how a particular mode is beneficial to their specific needs.

Metro has a unique ability to cast a wide net with promotional messaging for these choices through its sizable bus riding community. As noted, word-of-mouth is huge, and the more we can make the hundreds of thousands of daily Metro riders aware of these choices, the easier and more effective our localized promotional efforts will be to increase usage and ridership.

## ■ APPENDIX E: MEASURING SUCCESS

The Metropolitan King County Council's direction and guidance in Metro's *Strategic Plan for Public Transportation 2011-2021* suggest several criteria for measuring the success of the Alternative Service Delivery program. These measures can be grouped into the two broad categories of access and cost-effectiveness.

### Access

Strategies 2.1.1 and 2.1.3 in our strategic plan encourage Metro to offer a variety of services to meet mobility needs that may not be best served with fixed-route transit. The plan further states that despite some areas not being good candidates for fixed route service, "...people in these areas still have mobility needs and by circumstance or choice, require public transportation services..." The strategic plan also commits Metro to maintaining service in areas that are next to or surrounded by rural areas.

The success of these strategies can be measured directly by the access provided by, and use of, alternative services. These services should extend or maintain access to public transit in areas where there is currently no fixed-route service or where that service is not effective. The typical measure for access is the number or percentage of people who live within walking distance to transit. A potential measure of the alternative service delivery products could be the number of people who live farther than walking distance from fixed-route transit who now have access to transit.

### Cost-effectiveness

When evaluating the cost-effectiveness of a service, we compare use of the service with the cost to provide it. Strategy 6.2.3 in Metro's strategic plan and direction from the County Council in ordinance 17169 both encourage Metro to use alternative services as a way to reduce costs or at least provide service in a more cost-effective way. One of the major contributing factors to Metro's alternative services program is the recognition that fixed-route transit is not cost-effective in some areas of King County.

The cost-effectiveness of any alternative service can be measured directly and would be an excellent measure of success for the alternative service delivery program. With the cost-effectiveness calculated, it would be possible to compare the effectiveness of any alternative service with the effectiveness of any other alternative, as well as that of fixed-route transit. In fact, a potential benchmark for the cost-effectiveness of alternative service would be the cost-effectiveness of fixed-route transit in a similar operating environment.

The cost per rider would allow a valid comparison. The full cost of similar services would need to be compared. Where an alternative service is not more cost-effective than fixed-route transit in a similar environment, the performance and/or cost structure of the alternative service should come under review.

## ■ APPENDIX F: CASE STUDIES

### Introduction

There are only so many transportation modes: bus, van, taxi, car, motorcycle, scooter, bicycle, and walking. But there are infinite variations on the way these modes are offered, delivered, and managed.

This paper attempts to define the most common transportation products available as alternatives to fixed route transit service, provide case studies from places where they are being used or where pilot projects have been done, and share lessons learned about where these types of products are most effective.

It became apparent during this literature search that there is a continuum of transportation modes, ranging from bus and van services with drivers and vehicles provided by an agency to non-wheeled modes (i.e., pedestrian transportation). The continuum includes services provided by third parties as well as private vehicles owned by the travelers themselves (i.e., cars, motorcycles, scooters, and bicycles). While Metro-provided service is the target of Metro's current project, the development and promotion of the alternative transportation options operated by others may hold the most promise for serving a large segment of King County residents in the future.

### Ridesharing

**Carpool**—A group of two or more persons who commute together in a privately owned vehicle. Carpools are primarily used to commute to work. There are also organizations that help families create carpools to take children to and from school.

#### Case study: **DividetheRide.com**

- A free internet-based service for families throughout the country, with the highest concentration of users living in the Northeast.
- Helps families organize carpools for kids' activities, particularly after-school pick-up.
- Carpools are created with families parents already know and trust.
- Started in 2006.
- Thousands of carpools formed.
- Created and operated by Horizon Marketing Group to help people save money on gas, reclaim some of their time, make kids' activities possible for more families, fight childhood obesity, and save the planet.
- Note: this service was recently discontinued.

#### **Contact:**

Sean Childs  
Divide the Ride Team  
Horizon Marketing Group  
seanc@horizonmarketing.com

#### **Where this works**

In general, regular commuting carpools are most successful when people:

- Live near each other.
- Work together or near each other.
- Travel far enough to work that the time required for pick-up and drop-off doesn't add significantly to the total commute time.
- Have similar work hours.
- Get along.

The two most important factors that will encourage more carpooling in the future will be the active participation of employers and the application of technology.<sup>4</sup>

<sup>4</sup> "Carpooling trends in Canada and abroad" in Transport Canada 8/26/2010  
[www.tc.gc.ca/eng/programs/environment-utsp-casestudy-cs73e-carpooling-889.htm](http://www.tc.gc.ca/eng/programs/environment-utsp-casestudy-cs73e-carpooling-889.htm)

**Dynamic ridesharing**—A system that lets drivers and passengers make one-time ride matches close to their departure times, convenient and flexible enough to be used on a daily basis.

**Case study: Goose Networks** (beta service for Microsoft employees, Redmond, Washington)

- Before launching Goose Express, a no-strings carpool network for commuters with irregular schedules that is sponsored by the Washington State Department of Transportation (WSDOT), Goose Networks did a beta test of its pioneering text-message-powered ride matching service. Between September 2006 and January 2007, Microsoft employees living in downtown Seattle were eligible to use a text-based version of the service at no cost. Participants used the service to find ride-sharing partners to and from the Microsoft campus in real time by sending free text messages from their mobile phones.
- To reward users, the beta service automatically split the fuel cost of every trip between rider and driver (GooseGas).
- Goose Networks also provided the following incentives for users:
  - \$10 gas credit when registering.
  - \$10 gas card when first being matched as a driver.
- To plan trips on the go, users sent text messages to request drivers or passengers. If a match was available, both rider and driver were notified via email and/or text message and directed to a neutral meeting spot.

**Contact:**

Zachar Corker  
Parkio (formerly Goose Networks)  
206-574-6673 ext. 7  
www.parkio.com

**Case study: Avego Carpool Pilot Project** (State Route 520, Washington)

- Avego teamed up with Nelson/Nygaard, a consulting firm, and the Washington State Transportation Center (TRAC) at the University of Washington to collaborate with the Washington State Department of Transportation on this pilot carpool project.
- Avego combines GPS and GIS with existing telecommunications systems to match drivers with passengers. A GPS-enabled iPhone, which sits on a car's dashboard, runs the Avego application.
- On any given day, commuters who don't want to drive use an iPhone or any regular cell phone to check the availability of drivers online. To advertise available seats, drivers turn on the Avego system in their cars. If someone along their route wants a ride, the system works out a match and notifies them.
- Like a taxi meter, the Avego device tracks the cost of the journey, based on the distance traveled.
- The project began in October 2010.
- The goal was to get 250 pre-screened drivers willing to offer empty seats in their personal vehicles to a pool of 750 pre-screened riders commuting along SR-520.
- The final report was completed in fall 2011.

**Contact:**

Shamus Misek  
Rideshare Program Manager  
WSDOT Public Transportation Division  
Olympia, WA  
360-705-7346  
miseks@wsdot.wa.gov

**Where this works**

The biggest challenge has been creating critical mass. Lessons learned:

- Only a fraction of those identified as potential users of dynamic ridesharing will want to participate.
- Many travelers do not have sufficient incentive to share rides. For them, the cost or time savings don't outweigh the perceived benefits of driving alone.

- Of those who do want to share a ride, some will prefer conventional ridesharing programs or transit rather than dynamic ridesharing.
- Dynamic ridesharing is most likely to appeal to people who are comfortable with computer and cell phone messaging.
- Registration and screening by the ride-sharing service reduces concerns about safety and security.
- Dynamic ridesharing appeals to people who are interested in saving time and money on their commutes, but are not able to commit to a regular ridesharing arrangement.
- Dynamic ridesharing appeals to people willing to share a ride for environmental or social reasons but who cannot do so on a regular basis.
- The number of participants must be high enough to provide users with a good chance of finding a ridesharing match.

**Slug lines** (casual carpooling)—Informal carpools that form when drivers and passengers meet without specific prior arrangement at designated locations and commute together in privately owned vehicles.

**Case study: Casual carpooling** (San Francisco Bay area, California)

- Originated because regular carpools on the Bay Bridge and Interstate 80 are required to have three or more people in a car, and carpools are able to bypass the long delays at the Bay Bridge toll plaza. In the evenings, carpools can take advantage of the carpool-only on-ramp to the bridge and carpool lanes on I-80 and I-880.
- Casual carpools are not “run” by any organization or authority. They have worked well for more than 30 years, based on a few simple rules that have evolved among drivers and passengers. There are a number of East Bay meeting locations
- Drivers drop passengers off at a few designated locations in downtown San Francisco.
- Tolls began being charged for carpools on July 1, 2010. It’s not clear that a standard has evolved for sharing the toll.
- Participants normally form as many carpools as possible (no more than three people per car). In the afternoon in San Francisco, however, if there is still a substantial line of passengers after 6 p.m., drivers are urged to take as many people as their vehicles can hold.
- Riders and drivers are free to wait for another driver or rider. Such choices are respected without comment or disapproval.

**Contact:**

[www.Commute.org](http://www.Commute.org)

**Shared taxis/jitneys**—Falling somewhere between taxis and conventional buses, these informal vehicles for hire are found throughout the world. They are smaller than buses and usually take passengers on a fixed or semi-fixed route without timetables (they usually leave when all seats are filled). Most will stop anywhere to pick up or drop off passengers.

Shared taxis range from standard four-seater cars up to minibuses. Many are privately owned and have an anarchic operating style, lacking central control or organization. In many U.S. cities, the term “jitney” refers to an unlicensed taxi.

**Case study: Shared Ride Taxi** (Washington County, Wisconsin)

- Provides public shared-ride services throughout Washington County and into the northern portion of Menomonee Falls.
- Origin or destination must be in Washington County.
- Operates Monday through Saturday from 5 a.m. to 10 p.m., and Sunday from 8 a.m. to 4 p.m.
- Provides service to and from Washington County Commuter Express park-and-ride lots at the reduced rate of \$1 for a one-way trip.
- One-day advance notice must be given for specialized door-to-door service for persons with disabilities.

**Contact:**

262-338-2908

[taxi@rideWCCE.com](mailto:taxi@rideWCCE.com)



**Case study: Taxi Feeder Service, Ben Franklin Transit** (Tri-Cities area, Washington)

- Taxis provide service in scarcely populated areas and carry passengers to transfer locations such as bus terminals or stops.
- Serves only neighborhoods with a few riders or with roads that are inaccessible to larger buses.
- Agency contracts with a local taxi company through an RFP process.
- Taxi fare ranges from \$1 to \$3, depending on pickup location. Customers pay regular bus fare when boarding the bus.
- Not a door-to-door service.
- Available Monday through Friday 6 a.m. to 6 p.m. and Saturday 8 a.m. to 6 p.m.

**Contact:**

Kathy McMullen, Service Development Manager, Ben Franklin Transit  
 509-734-5107  
 kmcmullen@bft.org

**Case Study: Atlantic City Jitney Association** (Atlantic City, New Jersey)

- The longest operating non-subsidized transit company in the U.S., started in 1915.
- Thirteen-passenger minibuses travel the entire city on four routes.
- Stops are located at all hotels and attractions.
- Available 24 hours a day, every day of the year.
- Fare for a single ride is \$2.25
- With New Jersey Transit, provides free two-way shuttle service between the Atlantic City Rail Terminal and all casinos.
- New jitneys using compressed natural gas were put in service in 2010.

**Contact:**

Atlantic City Jitney Association  
 609-344-8642

**Case study: Jitney service** (Miami, Florida)

- In 1992 Miami set aside \$46 million dollars to contract jitneys at \$15-21 per hour when Hurricane Andrew struck Miami to provide transportation for Miami residents who had lost their residences and had no transportation. Within two weeks jitneys were operating 12 fixed routes in Dade County.
- After this, further regulations were imposed on jitneys until they operated in basically the same manner as a fixed-route bus system.
- Today jitneys operate along 21 fixed routes in Miami
- Jitney drivers may operate only during certain hours and cannot overlap with Metrobus' routes more than 30%.
- Jitneys are a major source of transportation for service workers from outlying areas into downtown Miami.

**Contact:**

Miami Mini bus  
 305-759-2221

**Case study: Jitney service** (San Diego)

- San Diego legalized its jitney services in 1979. Over the next four years, 100 vehicles provided about 15,000 rides per week.
- Regulation of the jitney market by city officials brought an end to unregulated jitneys during the 1980s.
- The legal jitneys operated primarily in commercial strips, military bases, and tourist spots, and transported people between downtown and the airport at one-fourth the price of a taxi.

**Contact:**

San Ysidro Business Association  
 619-428-5200

**Case study: Jitney service (Detroit)**

- Nearly one-third of Detroit households are without cars.
- Retired autoworkers, church deacons, and others charge a small fee to give people with low incomes rides to where they shop and work.
- Most jitney drivers will not serve the whole shopping center, but will attach themselves to one store.
- Owners of stores vouch for certain drivers by issuing them cards that are placed prominently in windshields.
- As of January 2000, the jitney business was thriving in Detroit because the police preferred not to enforce the regulations.
- Drivers charge much less than taxis.

**Contact:**

Jitney Express

313-340-1000

or

The Detroit Bus Company

hello@thedetroitbus.com

333-444-BUS1

**Where this works**

Jitneys are common in many countries throughout the world, but they started in the U.S. and Canada in the early 1900s. Local regulations, demanded by streetcar companies, killed the jitney in most cities. Since the 1973 oil crisis, jitneys have reappeared in some areas of the U.S., particularly in inner city areas once served by streetcars and private buses.

An increase in bus fares usually leads to a significant increase in jitney usage. Jitneys are seen by economists as a “market-friendly” alternative to public transportation, although in North America they often augment conventional public transit. Although concerns over fares, insurance liabilities and passenger safety have kept legislative support lukewarm for jitneys, in some area, such as New York City and northern New Jersey, jitneys are regulated but still remain popular.

Miami has the country’s most comprehensive jitney network.

**Trip pool**—A van that serves as a connector to a transportation hub, following a defined route with regular stops during regular commute hours. Trip pools are limited to one inbound and one outbound trip per day.

**Case study: King County Metro in cooperation with Avego (Seattle, Washington)**

- A 10-week demonstration of the trip pool concept was operated between July 18 and September 23 of 2011.
- The service operated between the Overlake Transit Center and Capitol Hill.
- The purpose of the demonstration project was to test the feasibility of operating fixed-route, scheduled service using commuter vans and volunteer drivers.
- The objectives were to identify issues, problems, and opportunities associated with using smartphones to fill empty seats, and to identify issues related to operating fixed-route service using the vanpool model.
- During the demonstration, service grew from an initial three days a week to five days a week, and from two trips a day (one morning and one afternoon/evening) to four trips a day.
- The service provided a total of 400 rides to 235 unique riders. Sixty percent were one-time users, and the remaining 40 percent were repeat riders.

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**Vanpool**—Groups of five to 15 people commuting together in an agency-provided van.

**Case study: STAR Vanpool Program** (Metropolitan Transit Authority, Houston, Texas)

- Serves an eight-county area.
- More than 700 vanpools.
- Three fare plans: monthly, daily, and part-time.
- STAR customers are automatically enrolled in the Emergency Ride program.

**Contact:**

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**Case study: King County Metro's Vanpool Program** (Seattle, Washington)

- Largest program in the U.S.
- 933 vehicles.
- Ridership of more than two million.
- Provides vans, staff, support, maintenance, fuel, and insurance to groups of 5-15 people who commute together between home and work.
- Volunteer driver from the group both drives and rides the van for free.
- Monthly fee based on the commute's round-trip mileage, the size of the van, and the number of people in the vanpool.
- Riders pay for 100 percent of the capital, operating, and insurance cost and 70 percent of the direct administrative cost.

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**Where this works**

Vanpooling is particularly suitable for longer commutes of 10 miles or more each way.

**Van share**—Passenger vans are made available to commuters to bridge the distance between a transportation terminal and the workplace or home.

**Case study: King County Metro's VanShare program** (Seattle, Washington)

- Serves as a "first mile" or "last mile" connection to a transit or ferry terminal.
- Program started by King County Metro Transit in 2001.
- Had 142 vehicles in use in 2010.
- Ridership in 2010 was 296,494.
- There are about 50 vanshare groups in downtown Seattle, about 50 at the Sounder station in Tukwila, about 10 at the Fauntleroy Ferry Terminal, and a handful each from the Sounder stations in Kent and Auburn and the Eastside. There are also a couple of groups on Vashon Island.
- Riders pay for 100 percent of the capital, operating, and insurance cost and 70 percent of the direct administrative cost.

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**Case study: Metra Feeder Service** (Pace, Chicago, Illinois)

- A Pace van is parked at a Metra station near the worksite.
- 5-13 participants can take the train and then use the van to complete their commute.
- To qualify for the program, at least half of the participants must purchase a Metra monthly pass or 10-ride ticket.
- Each participant pays \$58 per month to cover all the costs associated with the van (Metra fares and parking are not included in this rate).

**Where this works**

Mostly serves destination-end worksites in urban and suburban settings, although there are some vanshares on Vashon Island near Seattle.

## Flexible transit

**Paratransit**—The federal government, via the Americans with Disabilities Act of 1990, requires the provision of access to public transportation for persons with disabilities. The act mandates curb-to-curb service for those whose disabilities prevent their using accessible non-commuter fixed-route bus service. Paratransit provides next-day, shared-ride service within three-quarters of a mile on either side of non-commuter fixed-route bus service during the times and on the days those routes are operating.

**Case study: King County Metro Access** (Seattle, Washington)

- Metro contracts for this service.
- The fleet has 500 vehicles.
- Vehicles are maintained at four facilities, including a new base in Kent.
- Twenty hybrid vehicles were added to the fleet in 2011.
- Access provided 1.2 million trips in 2010.
- The operating cost in 2011 was \$39.17 per passenger ride.

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**Case study: Pierce Transit Shuttle** (Tacoma, Washington)

- A shared-ride service for customers who are unable to ride a regular Pierce Transit bus.
- Provides door-to-door service or, in some instances, transportation to transit centers or bus stops to connect with regular bus service.
- Provided with vans equipped for wheelchairs.
- Cost of a one-way ride is 75 cents.

**Contact:**

Pierce Transit  
253- 581-8100

**Flexible transit services**—Small bus or van services that offer variable routing in some service areas. Does not go door-to-door, but operates on a fixed schedule that has more flexibility than regular transit service.

**Case study: Use of Shelton School District buses** (Mason County Transportation Authority, Shelton, Washington)

- Mason Transit has contracted with the Shelton School District since 1998 to provide supplemental service with school buses to outlying areas in Mason County.
- Service is provided for a couple of hours after 5 p.m. Monday through Friday.

- The service is only operated when school is in session (most recently September 6, 2011 through June 14, 2012). No service is provided on transit holidays or when school is not in session.
- Service is available to the general public as well as school children.
- In 2010 there were 10,810 boardings.
- Riders must call the Customer Service Center one hour in advance to request a ride.
- The school buses follow specific routes, but will deviate for customers.
- Mason Transit pays the school district an hourly rate plus a per-mile rate. In 2010, the hourly reimbursement was \$24.42 with a minimum of two service hours charged per service day for each of the four zone routes. The per-mile charge was \$1.20.
- Service is provided north to Hoodspoint, south to Kamilche, and East to Pickering, Timberlakes, Agate, Shorecrest, Lake Limerick, and Mason Lake. The area covered is about 400 square miles.

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**Case study: Bus Plus Point/Route Deviation Service, Pierce Transit (Tacoma, Washington)**

- Bus Plus routes have fixed routes and schedules, but will deviate off the route upon request to designated Bus Plus stops.
- Principal users are people with disabilities, students, commuters, and youths.
- Total Bus Plus ridership in 2006 was 120,000.
- Productivity is three passengers per hour.
- Cost per trip in 2006 was \$18.71 (compared with \$4.50 per trip on fixed-route service and \$34.00 on paratransit service).

**Contact:**

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**Case study: Community Bus Service, Broward County Transit (Palm Beach, Florida)**

- Eighteen municipalities in Broward County have partnered with Broward County Transit (BCT) to provide community bus/connector service.
- The service is designed to increase the number of destinations within city limits that residents can access through public transit.
- All community buses connect to BCT fixed routes.
- The service operated 59 buses in 2011.
- Productivity ranges from 2.7 to 25.1 passengers per hour.
- The type of service provided (e.g., fixed-route demand-response and deviated fixed-route), schedules, routes, and fares are determined by each municipality. Five municipalities charge fares.
- BCT provides the vehicles and an annual operating stipend of \$15 per revenue service hour for each service.
- Those cities that provide their own wheelchair-accessible vehicles receive a capital cost allowance of \$13,295.20 per year per vehicle in revenue service.
- BCT also provides bus stop signs, timetables, and driver training.

**Contact:**

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## Community vans and shuttles

**Community Access Transportation**—King County Metro Transit created this service category to make use of an increasing number of high-quality retired Access and VanPool vehicles as well as to create new, innovative programs.

### **Case study: Snoqualmie Valley Transportation** (Snoqualmie, Washington)

- Serves the cities of North Bend, Snoqualmie, Preston, Fall City, Carnation, Duvall, and Monroe.
- Headquartered in the North Bend Senior Center.
- In 2003, expanded from serving seniors and residents with disabilities to all residents in the service area.
- In 2008, the Snoqualmie Nation began providing more vans and drivers.
- Operated with eight lift-equipped vans.
- Operates Monday through Friday from 6 a.m. to 10 p.m.
- Provided 26,000 rides in 2010, more than 90 percent to the general public.

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### **Case study: Hyde Shuttle** (Seattle, Washington)

- Operated by Senior Services' Transportation Program.
- A coordinated, community-based paratransit program created in 1997 to provide affordable, accessible, user-friendly transportation to seniors age 55 and older and people with disabilities.
- Targets people who need a higher level of assistance than regular transit provides, people who do not qualify for paratransit service due to strict eligibility requirements, rural populations, and immigrant and refugee elders with limited English.
- Uses both paid and volunteer drivers to provide service.
- The shuttles are donation-based.
- Hours of operation are Monday through Saturday, 8 a.m. to 4 p.m.
- There are currently 28 vehicles in the fleet (King County Metro vans).
- Metro purchases and provides routine maintenance for the vans and replaces aging vehicles in the fleet.
- Metro also provides scheduling software, technical assistance, and operating funds.
- Through the years, Senior Services has built a broad base of community support for the Hyde Shuttles. Collaborations and partnerships with Metro, Aging and Disability Services, the Puget Sound Regional Council, the King County Housing Authority, suburban cities, senior centers, agencies serving refugee, immigrant, and limited-English-speaking populations, and other human services agencies enabled them to expand operations as well as customize service to meet the individual needs of the communities and populations served.
- Provided 74,890 one-way trips covering 349,778 miles to 2,536 riders (unduplicated count) in 2010.

**Contact:**

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### **Case study: TAP** (Snohomish County, Washington)

- Operated by Senior Services of Snohomish County.
- Provides transportation for older adults and people with disabilities who live in Snohomish County's rural areas.

- Established in 1997.
- Brings passengers from rural areas to the paratransit-service corridor (within 3/4 mile of a Community Transit bus route, as required by the Americans with Disabilities Act) to connect them with Metro's DART or Access Transportation service, or with Everett Paratransit service.
- Takes clients to work, social events, senior centers, medical appointments, shopping.
- Operates six wheelchair-equipped, 12-14 passenger buses.
- Makes about 23,000 trips per year.
- Won the 2011 Urban Community Transportation System of the Year award from the Community Transportation Association of America.

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**Custom bus**—A pre-arranged service designed to meet specific group or individual needs. Can be provided as part of a system's fixed-route service, using accessible buses that are available off-peak or by using accessible spare fixed-route buses.

**Case study: Golden Gate Transit Club Buses (Marin and Sonoma Counties, California)**

- The Golden Gate Bridge, Highway, and Transportation District (GGBHTD) offers a Club Bus program.
- A "club" of commuters is responsible for organizing and administering their own commuter service and contracting with a charter company.
- GGBHTD began operating this service in 1972.
- Between 1970 and 1990, GGBHTD approved a 50-percent subsidy for six clubs operating 15 buses. In the 1990s the subsidy was reduced to 30 percent, and in 2009 it was at 20 percent.

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**Case study: Massachusetts Bay Transportation Authority (MBTA) Commuter Bus Program**

- Between 1987 and 2000, MBTA provided operating subsidies to private bus companies participating in the Commuter Bus Program.
- The program enabled MBTA to respond to the need for transit in lower-density parts of the region.
- Rather than contracting with private carriers, this program subsidized the operation of publicly available, regularly-scheduled commuter coaches.
- Funding for the program's subsidies was eliminated in 2009 due to the state budget deficit.

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**Case study: King County Metro Custom Bus**

- The program was begun in 1979 as a partnership between Boeing and Metro.
- Boeing recognized the need to provide employees with transportation to the new transit-inaccessible corporate headquarters in Everett, Washington.
- Dedicated buses picked up employees near their residences or at transit hubs for a direct trip to the Boeing campus.

- Over the years, other companies and private schools have partnered with Metro to create their own custom bus routes.
- Employers are required to pay the full cost of the service, which includes King County Metro buses and drivers.
- Metro provides route planning, drivers, insurance, emergency response, and other services.
- The employers can apply for state and federal grants. To receive these funds, the buses must be open to the public.

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**Where this works**

Employment decentralization to low-density areas with easy freeway access are not well matched to traditional bus and rail lines as travel patterns between home and work are generally indirect, dispersed, and cover long distances. Commuter buses generally travel more than 20 miles and go through several jurisdictions.

**Private shuttles (employer transportation programs)**—Some transportation needs, especially when many people are traveling from a variety of locations to a single work site, can be effectively provided through an employer. Buses are provided exclusively for employees as a fully subsidized benefit.

**Case study: San Mateo County Employer-Sponsored Shuttle Program** (San Bruno, California)

- An innovative coalition between Samtrans, Caltrain, the Bay Area Air Quality Management District, local businesses, San Mateo County public agencies, and the Air District.
- Public/private partnership in which public agencies share shuttle costs with participating local employers.
- Shuttles meet riders at the BART or Caltrain station and transport them to various business sites in San Mateo County to provide the “last mile” bridge between the transit station and the work site.
- Some shuttles offer an individual pass for purchase, and some shuttles are free to riders (dependent on funding)

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**Case study: Microsoft Connector** (Redmond, Washington)

- Launched in 2007.
- Operates 23 routes, 66 buses (combination of 45' coaches and 25-30' vehicles). There is also a bike shuttle (a van pulling a trailer that accommodates 12 bikes) that serves cyclists trying to cross SR-520.
- Makes stops in neighborhoods from King County north to Mill Creek and South Everett, and south to Maple Valley and Kent.
- Provides a convenient, productive, and comfortable means for commuting to work at the Microsoft campus in Redmond.
- This is a free service available to all full-time Microsoft employees.
- Provides about 2500 one-way trips per day.
- Features include bike racks, Wi-Fi connectivity and AC power ports.
- Has several pickup times in the morning between 6:20 and 9:30 a.m. and several departure times from Redmond in the evening between 4:30 and 7:30 p.m.

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### Where this works

The success of privately-provided commuter buses is due to the flexible and direct service to employment areas not well covered by public transit. Commuters are drawn to the bus service as it reflects their preferences and commute routes. Even highly-paid professionals who are able to drive alone to work and can afford rising gas prices choose the bus for more productive use of the commute, made possible by on-board wireless internet service.

## Personal transport

**Car sharing**—A neighborhood-based transportation service that allows people to use a car when needed, without the costs and responsibilities of ownership. It converts automobile use from a product to a service. Cars of various sizes are kept in small parking lots all over a city.

### Case study: City Carshare (San Francisco Bay Area)

- Non-profit organization.
- Launched in San Francisco in 2001.
- Has more than 100 car locations in San Francisco.
- One of 18 organizations around the world that helped launch the CarSharing Association.
- Launched a pilot program in partnership with Spride CarShare in 2010 to put privately owned vehicles into use for car sharing. The State of California passed legislation to allow car owners to share their vehicles without losing their insurance.

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### Case study: Zipcar (North America, Britain, and Europe)

- Founded in 2000 in Cambridge, Massachusetts.
- In October 2007, merged with rival Flexcar.
- By 2009, Zipcar became the world's largest car-sharing service, sharing 6,000 vehicles among 275,000 drivers in 49 U.S. cities as well as Vancouver, Toronto, and London.
- In 2010, Zipcar bought London-based car-sharing firm Streetcar in its bid to expand across Europe.

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### Where this works

- Density is one of the most important factors indicating the viability of car sharing.
- Other factors that should be taken into account include the difficulty and cost of parking, low rates of vehicle ownership, and a mix of land uses. Residents of urban neighborhoods with restricted on-street parking and households with lower incomes are particularly amenable to car sharing.
- The three most important market segments are residents, businesses, and transit transfers.
- Assuming that 30 percent of North American drivers live in higher-density, multi-modal neighborhoods and 20 percent of these have low-annual-mileage vehicles (less than 6,000 miles per year), about 6 percent of current privately owned vehicles could shift to car sharing.

**Scooters/mopeds**—A moped is a two-wheeled vehicle that is a hybrid of motorized and human pedaling power. The top speed is usually 30 miles per hour.

— A scooter does not have pedals, can exceed 30 miles per hour, is typically gas-powered, and can have two or three wheels. A motorcycle license endorsement is usually required to drive a scooter.

**Case study: Wheels 2 Work** (North Yorkshire, U.K.)

- This program provides mopeds for a six-month period to applicants age 16 or older who live in North Yorkshire.
- Applicants must need transportation for employment, training, or education.
- The daily journey must be a practical distance for a moped.
- Service is provided where no suitable alternative form of transport is available.

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<http://wheels2work.co.uk/casestudies.html>

**Where this works**

Moped loan programs can work in any setting, but are particularly suited for rural areas that lack public transportation options. They work well for young people who lack the financial means to drive or own a car, which can keep them from getting a job or taking college classes. Bicycling can be impractical in rural areas due to the long distances involved.

**Bike sharing**—An innovative, healthy travel option that complements a public transit system for “last-mile” connections. Bikes checked out at kiosks are used to make short trips (80 percent of trips are less than 30 minutes). Most systems use high-tech, utilitarian bicycles docked at kiosks located every 900 feet. Users return the bikes to any kiosk in the system. The first 30-60 minutes of use are free.

**Case study: Nice Ride** (Minneapolis, Minnesota)

- Launched in June, 2010.
- Has 700 bikes available from 73 stations.
- In 2010, the program had 29,000 24-hour subscriptions and 1,300 one-year subscriptions
- Non-profit model draws on federal funding and private dollars.
- Uses BIXI bicycles
- Shuts down for the winter.

**Contact:**

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**Case study: Capital Bikeshare** (Washington, D.C.)

- Started in September 2010.
- Operates in Arlington, Virginia and Washington, D.C. Other cities in Maryland and Virginia plan to join.
- Operated by Alta BikeShare using BIXI bicycles.
- Has 1,100 bikes.
- Has more than 110 stations.
- Rush-hour use has increased by 82 percent since 2007.

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**Case study: Boulder B-Cycle (Colorado)**

- Launched in May 2011.
- Had 140 bikes and 17 stations by the end of 2011.
- Operated by a community nonprofit.
- Collects members' ride data, such as trip distance and duration, calories burned, and carbon offset, and uploads this information to members' personal pages at boulderbicycle.com.

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**Where this works**

Bike sharing started in Europe and is now used in 177 systems throughout the world. The largest system has 60,000 bikes in Hangzhou, China.

Bike sharing started in the U.S. in 2007. Today there are about 16 bike-share systems operating in the U.S., and many more planned. The target markets are tourists, residents, and commuters.

Demand for bike sharing depends on a combination of residential and employment density, tourist attractions (museums, parks, libraries, etc.), commercial, retail, and service locations, and transit station locations.

Bike shares are replacing trips that would otherwise be taken using cars or cabs. Bikes are engaging new or previously car-dependent audiences.

**Taxi scrip**—A program that pays a percentage of the cost of a taxi ride for low-income seniors, adults with disabilities, or, in some municipalities, to anyone traveling in a certain area or at specific times of day.

**Case study: TAXIBUS (Rimouski, Quebec, Canada)**

- The city of Rimouski has a population of 31,000.
- The city has used the TAXIBUS service in place of a bus transit system since 1993.
- On weekdays, taxis make stops on a predetermined schedule to pick up and drop off passengers. Passengers can travel between any two of 350 designated stop points.
- All trips must leave within 15 minutes of the scheduled time.
- Riders must call the dispatcher in advance.
- The city government subsidizes the cost of the ride beyond a nominal fee. The average fare is \$2.64.
- The service requires a municipal subsidy of about \$180,000 per year.

**Contact:**

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 La Societe des transports de Rimouski  
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**Case study: Access-a-Cab, Denver Regional Transportation District (RTD)**

- Implemented in 1997.
- Alternative to paratransit service for riders with disabilities.
- Changed from voucher to user-side subsidy in 2000.
- Rider pays the first \$2. The RTD pays the next \$12, and the rider pays any fare over \$14.
- In 2010 this program saved the RTD \$1,364,166.
- Provided 118,968 rides in 2010.

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**Where this works —**

Taxi scrip programs are ideal for smaller cities with low-density populated areas. Municipalities in Ontario and western Canada use variations on the Rimouski model, often to supplement fixed-route bus systems.

**Volunteer Transportation Assistance**—Use of volunteers to provide rides to older adults in private vehicles, using a reimbursement or transportation credit system.

**Case study: Senior Services' Volunteer Transportation Program (King County, Washington)**

- Largest volunteer driver program in King County.
- Began in 1975.
- Successfully coordinates a network of more than 600 volunteer drivers who use their own vehicles to transport seniors and people with disabilities to medical and other essential appointments.
- In 2011, the cost per trip was \$15.57.
- This service model does not work for everyone, including refugee and immigrant populations and those unable to provide advance notice.
- Senior Services plans to expand its program by offering a system based on the TRIP model (see below), which offers a low startup cost and is easily adapted to an existing transportation program.

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**Case study: TRIP (Transportation Reimbursement and Information Program) (Riverside, California)**

- Began in 1993.
- Provides transportation for older adults who do not drive and have no public services available where they live or who are unable to use the public services that do exist.
- Empowers riders to ask for rides from people they know without feeling like they are asking for charity.
- Riders recruit their own drivers, usually friends and neighbors.
- Both riders and drivers convey documents to a sponsor.
- Riders are reimbursed, and give this money to their drivers.
- Sponsor, riders and drivers interact in a manner that results in administrative efficiency and cost effectiveness.
- As of 2009, TRIP had provided 1.4 million miles of service to 583 passengers in a service area of 7,200 square miles.
- The cost per ride in 2011 was just \$5.40.
- TRIP is now serving older adults in Kansas City, MO; Crystal Lake, IL; Marin County, CA; and Mystic Valley, MA.

**Contact:**

Independent Living Partnership  
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 www.TRIPtrans.org

**Case study: ITNGreaterMercer (Mercer County, New Jersey)**

- New nonprofit community-based transportation service for seniors and persons with visual impairment in Mercer County.
- Provides 24/7 transportation for seniors.
- Transportation is provided primarily by volunteers, but is supplemented with several paid drivers.
- All members have a debit transportation account so the drivers never need to worry about collecting ride fees.
- ITNGreaterMercer never restricts the destination, trip purpose, or frequency of its members' rides.
- The program tries to keep volunteers in their own towns as much as possible.

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**Where this works**

This model works in rural as well as urban and suburban communities.

Right now ITN is working on a project called ITNEverywhere to address the needs of smaller communities with no public transportation. It uses the business innovations of the Independent Transportation Network as the core of a suite of software programs that will access unused private capacity. Until now, there have been shared rides have been provided via separate silos – the rideshare silo, the car-share silo, the volunteer transportation silo. ITNEverywhere will bring these together.

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## ■ APPENDIX H: LOW PERFORMING ROUTES

### How to read the table

Route performance is evaluated by two measures, rides per platform hour (Rides/ Plat Hr) and passenger miles per platform mile (Pass Mi/Plat Mi) in three time periods: peak, off-peak, and night. If no value is listed in the performance fields, it is because the route does not operate during that time period. Furthermore, Metro routes are divided into two markets, those that serve the Seattle core (downtown Seattle and the University District) and those that do not. Poor performance is evaluated relative to the market served. If a route is in the bottom 25 percent for any measure, that cell is shaded black and the font is bold white. If a route is in the top 25 percent for any measure, that cell is shaded blue and the font is bold black.

Source: Spring 2011 Automatic Passenger Counts and 2011 Corridor Analysis

**Spring 2011 Routes by Market in the Bottom 25% for Both Performance Measures in at Least One Time Routes that DO NOT serve Seattle Core**

Route	Between	Peak		Off Peak		Night	
		Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
118	Vashon Island	23.3	4.6	9.6	2.4	4.6	1.0
119 <sup>1</sup>	Vashon Island	16.3	4.8	13.9	3.1	2.5	0.3
129 <sup>2</sup>	Riverton Heights and Tukwila	7.9	0.8				
139 <sup>3</sup>	Burien and Highline Community Hospital	20.9	2.9	14.8	2.5	8.0	1.1
149 <sup>4</sup>	Enumclaw and Renton via Maple Valley	3.7	2.2	4.6	2.7		
200	North Issaquah and Downtown Issaquah	9.3	1.7	14.7	3.8		
209	North Bend and Issaquah	10.4	5.6	12.8	8.1	5.4	2.3
219 <sup>5</sup>	Newcastle and Factoria	4.2	0.5				
222 (241)	Bellevue and Eastgate via Beaux Arts and Factoria	15.6	3.3	16.0	4.7	8.3	2.4
224	Redmond and Fall City via Duvall, Stillwater and Carnation	4.4	1.4	4.8	1.7		
236	Woodinville and Kirkland	9.8	2.8	9.3	3.3	4.8	1.3
238	Bothell and Kirkland	13.6	3.7	14.1	4.6	6.3	2.1
246	Bellevue and Eastgate via Factoria	9.6	1.8	8.5	2.0		
247	Kent/Renton and Overlake via Eastgate	4.8	1.3				
249	Bellevue and Overlake via South Kirkland	15.6	4.5	14.9	5.3	5.0	1.4
251 <sup>6</sup>	Bothell and Redmond via Woodinville	8.6	2.9	9.8	3.5	5.9	1.3
908DART	Renton Highlands and Renton	7.8	2.0	6.6	1.8		
909DART	Kennydale and Renton DART	12.5	3.1	10.8	2.8		
910DART	N Auburn and Supermall			7.5	1.7		
913DART	Riverview and Kent	4.3	1.2	4.3	1.1		
925DART <sup>7</sup>	Newcastle and Factoria	1.0	0.5				
926DART	Eastgate and Crossroads DART	8.4	2.2	7.4	1.9		
927DART	Issaquah and Sammamish	6.0	2.6	5.2	2.1		
930DART	Redmond and Totem Lake	8.4	2.7				
935DART <sup>8</sup>	Kenmore and Totem Lake	4.8	1.7	3.4	1.2		
Spring 2011 Thresholds		Peak		Off Peak		Night	
Bottom 25%		9.8	2.9	12.7	3.3	8.8	2.6
Top 25%		27.0	7.2	27.4	9.3	20.3	6.2

- 1 Scheduled to discontinue Night service in June 2012
- 2 Route scheduled for deletion in June 2012 (other service in area includes routes 128, 132)
- 3 Scheduled to discontinue night service in June 2012
- 4 Converted to DART (Route 907) in February 2012
- 5 Route scheduled for deletion in June 2012 (other service in area includes route 240)
- 6 Converted to DART (Route 931) in February 2012
- 7 Route scheduled for deletion in June 2012 (other service in area includes route 240)
- 8 Scheduled to discontinue midday service in June 2012

**Spring 2011 Routes by Market in the Bottom 25% for Both Performance Measures in at Least One Time Routes that serve Seattle Core**

Route	Between	Peak		Off Peak		Night	
		Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
21	Arbor Heights and Seattle CBD* via 35th Ave SE and 4th Ave S	24.9	7.4	24.2	9.9	14.0	5.1
22	White Center and Seattle CBD via Alaska Junction and SODO	25.2	8.3	20.3	8.8		
24	Magnolia and Seattle CBD	39.2	10.7	29.3	9.0	13.8	4.9
25	Laurelhurst and Seattle CBD via U District	18.7	4.9	13.1	4.9		
25	Laurelhurst and Seattle CBD via U District	18.7	4.9	13.1	4.9		
31	Magnolia and U District via Fremont	35.2	9.7	24.4	9.6		
33	Magnolia and Seattle CBD	47.9	11.1	30.5	8.5	15.0	4.2
35	Harbor Island and Seattle CBD	8.6	1.6				
37	Alaska Junction and Seattle CBD via Alki	16.6	6.4				
39	Rainier Beach and Seattle CBD via Seward Park and Beacon Hill	28.0	7.7	23.6	8.5	9.9	3.4
42	Pioneer Square and Columbia City	9.1	1.8	10.3	2.5		
46	Shilshole and University District via F2Fremont	19.8	4.2	6.6	1.2		
56	Alki and Seattle CBD	30.4	10.1	23.2	8.8	11.4	4.2
60	Broadway and White Center via Georgetown and Beacon Hill	31.3	9.3	29.8	9.5	16.1	4.7
70	U District and Seattle CBD via Eastlake	39.8	10.4	32.2	10.2	15.9	3.5
79EX	Lake City and Seattle CBD	18.5	5.9				
84	Owl: Seattle CBD and Madison Park via Madrona					7.7	2.2
99	International District and Waterfront	32.0	7.4	21.1	5.1		
116EX	Fauntleroy and Seattle CBD	12.4	5.3				
118EX	Seattle CBD and Vashon Heights and Tahlequah via Ferry	13.7	5.7				
119EX	Seattle CBD and Vashon Heights and Dockton via Ferry	13.0	7.2				
121	Des Moines and Seattle CBD via Burien	25.2	10.4	21.6	9.3		
123EX	Burien and Seattle CBD	15.2	7.5				
134	Burien and Seattle CBD via Georgetown	10.6	4.1				
157	Lake Meridian P&R and Seattle CBD	11.5	7.1				
161	Kent East Hill and Seattle CBD	15.2	7.5				
Spring 2011 Thresholds		Peak		Off Peak		Night	
Bottom 25%		18.6	7.9	29.4	9.8	17.7	5.8
Top 25%		42.0	12.9	52.6	15.2	32.0	8.4

\*CBD = Seattle Core Business District

continued

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**Spring 2011 Routes by Market in the Bottom 25% for Both Performance Measures in at Least One Time Routes that serve Seattle Core**

Route	Between	Peak		Off Peak		Night	
		Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi	Rides/ Plat Hr	Pass Mi/ Plat Mi
175 <sup>9</sup>	W Federal Way and Seattle CBD	11.4	7.0				
192	Star Lake P&R and Seattle CBD	15.6	7.8				
202	Mercer Island and Seattle CBD	12.3	4.4				
205EX	Mercer Island and U District via First Hill	17.4	5.2				
210	Issaquah and Seattle CBD via Factoria	10.7	5.0				
211EX	Issaquah Highlands P&R and First Hill via Eastgate	16.9	4.8				
250	Overlake and Seattle CBD	9.2	4.5				
261	Overlake and Seattle CBD via Crossroads and Bellevue	17.2	7.2				
265	Overlake and First Hill via Rose Hill and Seattle CBD	11.0	5.6				
266	Redmond and Seattle CBD via 148th Ave NE and SR 520	13.5	7.1				
272	Eastgate and U District via Houghton P&R	14.3	6.1				
277	Juanita and U District via Houghton P&R	13.0	5.1				
600 <sup>10</sup>	South Base and Seattle CBD	11.5	1.9				
661	NE 145th and Seattle CBD via I-5			5.2	3.7		
Spring 2011 Thresholds		Peak		Off Peak		Night	
Bottom 25%		18.6	7.9	29.4	9.8	17.7	5.8
Top 25%		42.0	12.9	52.6	15.2	32.0	8.4

\*CBD = Seattle Core Business District

- 1 Route 175 scheduled for elimination in June 2012 to be replaced by new route 178
- 2 Route 600 scheduled for elimination in June 2012 to be replaced by new route 601



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## ■ APPENDIX I: PRODUCT MATRIX

### King County products

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Applications
<b>Product: Access</b>						
Access provides door to door ADA paratransit service using accessible vans for ADA eligible customers who have a disability that prevents them from riding the bus and are registered for the service.	Average cost per boarding is \$38.64.	Complies with the requirements of the ADA. Provides equal access to public transit for people who have a disability that prevents bus use.	Less cost effective in areas where Access ridership is low. Ridesharing is essential to reducing the cost of the service.	All transit agencies in U.S.	In areas served by fixed route bus service.	Currently available where fixed route service is provided.
<b>Bus</b>						
Bus service on fixed routes and schedules available to general public.	Average cost per boarding is \$4.03. Cost to users based on existing Metro fare schedule.	Provides consistent, cost-effective transportation service to general public and significantly reduces SOV usage in urban/suburban areas where it is used.	Less cost effective in areas where population density is low due to low ridership and fixed cost of service.	All transit agencies in U.S.	Works best in urban and suburban areas with significant population demand for mass transit services.	Service available in all urban, suburban and most rural communities.
<b>CAT–Community Shuttles</b>						
King County creates partnerships with jurisdictions or agencies to set up their own transportation service. The County provides 8, 12, or 15 passengers accessible vans and operating grants to cover expenses such as gas, maintenance and labor. Agencies provide insurance, scheduling, drivers and monthly ridership reports. The service is currently set up for people with special transportation needs, but could be revised to include the general public	Average cost per boarding is \$4.59 Cost per boarding w/o grant funds is about \$20-23.	Fills gaps in service; Cost effective alternative to ADA Paratransit Service and is adaptable to meet the needs of the community	Partnering agency or jurisdiction needed to run the service; Vehicles need to be purchased to meet demand; budget would have to be adopted to cover expansion.	King County; Snohomish County; Portland, Oregon	Could be implemented anywhere. Service is adaptable to meet the needs of the community	Currently implemented through community organizations.

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Applications
<b>Custom Bus</b>						
Custom Bus is an express bus service designed to meet the specific needs of commuters and students who subscribe to the service who travel to locations not well served by fixed route transit. Buses make a minimum of one round-trip each day.	Average cost per boarding is \$7.74. Employers and schools contract with Metro for these customized express bus routes. Fares are set to cover 100% of the operating costs and riders pay for the service with a monthly pass, or daily cash fare. This can be done through a cost-sharing arrangement with a "Premium monthly pass"	Ability to provide revenue backed service to areas not served by fixed route. The service provides a fast trip time, using limited number of passenger stops, freeway express stops in areas where fixed route service is not provided. Provides access to transit to King County residents who work outside King County.	Cost is more than regular transit service. Requires employer investment.	Participating employers include Boeing, Lakeside School and University Prep.	Routes generally operate on freeways and stops on major arterials. The service allows for close-in loading and unloading for the commuter at the work or school end of the trip and operates at times compatible with commuters' shift or school schedule requirements.	Allows for cost sharing among employer groups and institutions. It is a viable option to replace regular transit service where there is a service need.
<b>DART</b>						
Metro's Dial-a-Ride Transit (DART) offers variable routing in some areas within King County to the general public by using vans that can go off regular routes to pick up and drop off passengers within a defined service area, allowing passengers to arrange for transit service closer to a location. DART does not go door-to-door. It operates on a fixed schedule, but one that has more flexibility than regular Metro Transit buses.	Average cost per boarding is \$7.30.	Ability to provide revenue backed service to areas not served by fixed route. It operates on a fixed schedule, but one that has more flexibility than regular Metro Transit buses. Smaller vehicles can be deployed appropriate to customer demand in area.	Users need to plan trips in advance and may not be able to travel when they want to. Metro's contract with Local 587 limits DART operations to 3% of the total annual service hours provided by Metro. (DART service currently accounts for 2.7%.)	Most transit agencies offer some type of flexible transit service with route deviation.	Works best where there is consistent rider demand that can be met by a smaller vehicle. Service adaptable to meet customer demand in a defined service area.	DART service is being used in suburban and rural areas of King County where fixed-route service does not or would not have enough ridership.

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Applications
<b>Taxi Scrip</b>						
County provides Taxi Scrip equivalent to 50% of taxi trip for low-income King County residents age 18 to 64 who have a disability or age 65 and over for taxi trips. Registered participants purchase taxi scrip from Metro at a 50 percent discount. Customer pays driver the meter fare using taxi scrip instead of money. Most taxi companies accept taxi scrip. Existing taxi scrip could be expanded to service riders in locations previously served by transit routes that are not suited for other service products.	Average cost per boarding is \$9.98.	Fills gap in service; service is adaptable to meet the needs of the community: Service for guaranteed ride home, errands, field trips or weekend service	Taxi scrip is currently only available for low-income residents 18 - 64 who have a disability or age 65 and over. Taxi service is not readily available in areas of the county.	Traditional taxi scrip programs available to seniors and persons with disabilities in available nationwide.	Works best in densely populated areas already served by taxicabs.	Established program in King County for low income, disabled, and senior populations.
<b>Trip Pool</b>						
Serves as a connector to a transportation hub that follows a defined route with regular stops during regular commute hours limited to one inbound and one outbound trip per day. County provides 8, 12, or 15-passenger van, maintenance, gas, insurance, reservation system and guaranteed ride home. Customers provide volunteer drivers.	Under review	Fills gap in service; reduced SOV at park and ride lots; service available to transport riders to local transportation hubs; reduces congestion/SOV trips	Requires volunteer drivers. Limited to one round trip per day per Trip Pool.	None	Could be implemented at any employer site or serve any community.	This is a viable option for customers in urban or rural areas who may lose transit service. Pilot run in 2011 between Capitol Hill and Redmond.
<b>Vanpool/Vanshare/MetroPool</b>						

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Applications
<p>The program provides a van to groups of 5 or more commuters commuting to and from a common work location. Rider must commute at least one day each week on the Metro provided vehicle. County provides 5 (EV), 7, 8, 12, or 15-passenger van, maintenance, gas, insurance, reservation system and guaranteed ride home. Customer provides liability insurance, volunteer driver, backup driver, bookkeeper and monthly reports.</p>	<p>Average cost per boarding is \$1.69. Average cost to customer of \$100/month.</p>	<p>Fills gap in service; reduces overload on buses; provides transit service in areas underserved by fixed route; reduces congestion/SOV trips. VanShare extends the reach of transit service and can reduce SOV trips to P&amp;R lots.</p>	<p>Vanpool, VanShare and MetroPool require 5 or more people to form a group. They require volunteer drivers and bookkeepers. VanShare requires a fare payment in addition to the one charged by the transit service to which it connects.</p>	<p>King County, nation-wide</p>	<p>Could be implemented at any employer site or serve any community.</p>	<p>Established program in King County for commuter trips.</p>
<p><b>Water Taxi (passenger-only ferry)</b></p>						
<p>Passenger-only ferry service is available to the general public and links Vashon Island to Downtown Seattle and West Seattle to Downtown via a 77 foot catamaran with capacity for 150 passengers and 18 bicycles.</p>	<p>Average cost per boarding is \$12. Funded through a property tax, which barely covers the cost of operating the service.</p>	<p>Short crossing time, fun trip</p>	<p>Limited locations for the boats to dock in areas with the needed population density; connections between the docks and residential areas and employment sites; financial constraints; striking the right balance between speed and impacts on equipment and maintenance.</p>	<p>Baltimore, New York, Hawaii</p>	<p>Works best in areas isolated by bodies of water with limited transportation options available.</p>	<p>When the King County Ferry District was established, there were five demonstrations proposed. These included service between Kirkland &amp; Madison Park/ UW; Eastside to South Lake Union; Kenmore to Madison Park or Sandpoint; and Renton to the west side or South Lake Union.</p>

### Private sector products

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Application in King County
<b>Bike library</b>						
A community-based system allowing users to check out and borrow bicycles on a daily, weekly or several month basis.	This type of system usually operates out of storefront locations within a community. These locations need to be staffed, often by volunteers, and the bikes need to be maintained.	Usually low cost for both operator and user. Works well for tourist market and low-income populations.	If bicycles are borrowed on a long-term basis, they are not available to others during that time period.	Fort Collins, Colorado; Arcata, California; Annapolis, Maryland.	Small towns, college towns.	Could be a good option for downtown areas in suburban or rural areas that do not have a high enough density to support traditional bike sharing. Could be part of an multi-modal transportation center.
<b>Bike sharing</b>						
A public bike system with high-tech, 3-speed utilitarian bikes available for short trips. Provider pays for bicycles and maintains bikes; helmets may be available for rent at the stations for a small added cost. The first 30 – 60 minutes are free. <b>Suitable for residents, employees, students and tourists.</b>	Most systems financed through public/private partnerships, using a combination of corporate sponsorships and federal grants for capital and user revenue and station sponsorships for operating.	Provides “last mile” connection to transit; health benefits; creates a new mobility option in urban centers. Has been transformative in most of the cities where implemented; actually found to increase safety for cyclists; promotes tourism; creates jobs; gets new segment of community on bicycles.	Combination of public/private funding must be raised to launch system; King County helmet law, topography and weather present unknowns for estimating demand	Washington, D.C. , Boston, Montreal, Miami, Boulder, Denver, Minneapolis, London	Urban and suburban city centers with high residential density, employment density, tourist attractions and transit hubs. Used for short-distance trips of three miles or less and for “last mile” connections to transit	Bike share program proposed for implementation in late 2012 by Bike Share Partnership Team (Cities of Seattle, Redmond, Kirkland, King County, UW, Seattle Children’s, Microsoft, Cascade Bicycle Club, Sound Transit, PSRC). First launch area would be Downtown Seattle, SLU, Capitol Hill, U District, Sand Point). Would expand to other Seattle neighborhoods and other parts of King County as system grows.

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Application in King County
<b>Car sharing (traditional)</b>						
A neighborhood-based transportation service that allows people to use a car when needed, without the costs and responsibilities of ownership. Provider pays for vehicles, gas, insurance, parking. Different types of cars and pick-up trucks in the fleet. <b>Target market is residents of urban neighborhoods where vehicle ownership is low and parking difficult.</b>	Annual membership plus hourly charge	Makes it more practical for people to use transit on a regular basis when they have access to a car on an occasional basis. Cars available to those who need them only occasionally without the cost of ownership. Also used by businesses as an alternative to fleet cars.	In most services, cars must be returned to the same location where they were rented. To be successful, the financial model relies on each car making multiple trips per day.	Seattle, Portland, Washington, D.C., Chicago, San Francisco, Boston, Toronto, Vancouver, B.C., London, many cities in Europe	High-density residential neighborhoods and suburban city centers; employment sites; university campuses	Zipcar already operating in areas of the County where the business can succeed; would require a subsidy in areas of lower density.
<b>Car sharing (peer-to-peer)</b>						
A new type of car sharing service that allows private individuals to rent out and get paid for use of their personal cars on a part-time basis.	Private individuals determine the hourly rate they want to charge; a third party broker takes about a 40 percent cut and provides insurance and marketing through social media.	Allows individuals to make money during the time their cars are not being used; individuals putting cars into the fleet have the flexibility to set their own rates and determine the hours they want to make their cars available. Brings car sharing down to the community level even more than traditional car sharing. Takes advantage of unused capacity.	Service quality depends on ratings by users. A bill being adopted in the Washington State legislature will provide the legal framework for the insurance. This product has not yet been tested in Washington.	San Francisco Bay Area; Portland, Oregon	Has the potential to work in suburban and rural areas where traditional car sharing does not tend to succeed.	Zipcar has just announced that it is getting into the peer-to-peer car sharing business. There are other companies that also provide this service in other areas and may end up doing business in King County.

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Application in King County
<b>Carpools</b>						
A group of two or more persons who commute together in a privately owned vehicle on semi-regular schedule. Free web-based and emerging pay-and-ride software programs available to facilitate matching. Cost-sharing is handled either among passengers or via third party tool. <b>Target market is commuters, families taking kids to after-school activities.</b>	For a round-trip commute of 30 miles with gas at \$3.65 per gallon, and no parking cost, RideshareOnline.com calculates an annual cost for driving alone at \$5238 per year and half that amount for a two-person carpool.	Makes more efficient use of a vehicle that would otherwise be making a solo trip; saves money on gas, tolls and parking; provides access to HOV lanes; fills gap in service; reduces overload on buses	Must synchronize schedules with other riders in carpool; Viability of pay and ride software is still to be determined	RideshareOnline provides free web-based carpool matching; DividetheRide.com is a free internet-based service serving families throughout the country; Avego, RideAmigos and Zebigo have implemented various carpool and pay pilots	Anywhere	Potential for expansion for public and private events and to reduce drop-off traffic at schools.
<b>Flexible carpools (dynamic ridesharing)</b>						
Emerging technology that facilitates the ability of drivers and passengers to make one-time ride matches close to their departure time via their computer or smart phone. Free web-based and emerging pay-and-ride software programs available to facilitate matching. Cost-sharing is handled either among passengers or via third party tool.	Requires a net public cost of about \$0.69 per boarding (estimate from a 2008 study)	Allows part-time, spur-of-the moment ridesharing; registration and screening by the rideshare service reduces concerns about security; having car pool partners meet in cyberspace rather than at physical locations eliminates the requirements for curb space, adjacent parking and residential density.	Creating "critical mass" has been the main issue. Number of participants must be high enough that users have a good chance of finding a match.	Demonstrations done by Avego on SR 520; by Goose Networks at Microsoft.	Works best at high-tech companies. Requirements for success are: 1) an institutional sponsor committed to the project; 2) sufficient incentives, such as scarce parking spaces provided to projects participants, and 3) sufficient marketing to create critical mass.	Has great potential for use in King County. More demos planned by Avego and Metro Rideshare Operations.



Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Application in King County
<b>Jitney</b>						
A mode of transport that falls between taxis and conventional buses. Private, for-hire taxis or vans take general public on a fixed or semi-fixed route without timetables, usually leaving when all seats are filled. <b>Target market is commuters, shoppers, and tourists.</b>	Service generally costs less than taxicabs	Frequent trips and unsubsidized when unregulated.	Jitney service is now regulated in most cities and operates in much the same manner as fixed-route bus.	Miami, Detroit, New York, Atlantic City	Most successful in inner cities with little regulation.	Best potential in high-density areas of King County.
<b>Moped loan program</b>						
Mopeds ( two-wheeled vehicles which are a hybrid of both motorized and human pedaling power) are loaned for a temporary period (in some programs to allow participants to get to work or to get an education). Basic equipment such as helmets, lights, etc. Agency provides the vehicle, insurance, training, servicing, provides personalized transportation plan for when program ends.	Ensures participants value the program by requiring safety training and a small payment toward upkeep and safety equipment.	Provides residents with transportation in areas with little or no existing fixed-route service.	Case study customers were generally young adults. After the 6-12 month loan period, many of the youths buy a car, which is not a sustainable solution. Only resolves the transportation problem for a temporary period unless participants are allowed to buy the moped, perhaps at a subsidized price.	Edington, Bridgwater, Somerset and other rural areas in the U.K.	Targeted to rural areas with few or no public transportation options, but could work anywhere.	Could work well in rural areas, but would need to be run by an agency. Could consider letting participants keep the bikes, using a payment plan. Could also consider use of electric bikes.

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Application in King County
<b>Private shuttles</b>						
Contracted transportation service that generally provides a driver and motor coaches, vans or accessible vehicles exclusively for employees through an employer, often as a fully subsidized benefit. <b>Although the target market is employees, hospital shuttles may serve patient families in addition to employees.</b>	A 25-passenger shuttle bus costs about \$100-\$175K per year to operate. Passenger revenue generally covers only the cost of administration.	Fills a very specific niche market for a distinct clientele. Benefits include direct service at low or no cost to user and provision of passenger amenities, such as Wi-Fi. Frequent service is also typical of employee shuttles between worksites.	Transportation limited to direct employees; could be conflicts between public and employer-based service at transit facilities.	King County Microsoft Connector, Seattle Children's shuttle Bay Area - Golden Gate Transit Club buses MBTA, Massachusetts	Works where people are traveling from a variety of locations to a single work site, especially when the employer is located in a place that is not adequately served by public transit.	In Massachusetts, MBTA provided operating subsidies to open the program to the public. Enabled MBTA to respond to need for transit in lower density parts of the region.
<b>School buses</b>						
Supplemental service to outlying areas is provided to the public with school buses through a contract with a school district; buses deviate from their route to <b>pick up residents who call ahead for a reservation.</b>	Greatly reduced cost for serving low-density areas, compared with provision of fixed-route service by transit agency.	Provides supplemental transportation service on buses already traveling to outlying areas; Does not necessitate additional labor and capital investment on the part of the transit agency Provides an added transportation option to residents who may have few other options at times when it's available. Makes more efficient use of an existing resource.	Only available on days when school is in session and during very limited hours	Mason Transit has a contract with Shelton School District	In most any area with a school district whose buses have low demand at certain times of day.	Has potential to be used as a flexible transportation service in King County rural areas

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Application in King County
<b>Shared-ride taxi</b>						
Private or contracted taxi provides subsidized or flat fee service to the general public. Mix of models available including service along a transit route at set intervals, picking up and dropping passengers off at bus stops or taxi dispatched at customer request. Service may be mileage-based fee (taxicab) or flat fee (for-hire vehicle). It is a shared-ride service, so the cab may pick up and/or drop off passengers during the ride.	A study done by the Center for Urban Transportation Research in Florida in 2002 provides a figure of \$8.19 as the cost per trip.	Can provide basic mobility at times of lower demand when it would otherwise be cost-prohibitive to provide fixed-route service. Reduces the cost of a solo taxi ride and provides a mobility option to get to and from transit hubs.	Could be difficult for private providers to use public infrastructure and challenging to establish a fare structure that meets the needs of the taxi driver, Metro and the user. Service quality can be difficult to ensure.	Washington County, Wisconsin; Ben Franklin Transit; Ann Arbor	Need enough people for shared taxis to be worthwhile. Could end up being most successful in areas of the County where fixed-route service is also most successful.	Could be used to provide late night or weekend service. Could provide supplemental fixed-route service in certain areas or at certain times of day. In some areas, could be the primary service. Metro could contract out some service or form partnerships with taxi companies.
<b>Slug lines (casual carpooling)</b>						
Informal carpools that form when drivers and passengers meet without specific prior arrangement at designated locations and commute together in a privately owned vehicle.	How much individuals pay for a ride is up to each driver. This is normally worked out by the individuals sharing the ride. The driver saves money on tolls. There is no clear standard for sharing the toll or splitting the cost of gas.	Allows part-time, spur-of-the-moment ridesharing; saves money; not run by any organization.	No clear standard has evolved for payment since tolls for carpools started in the Bay Area; normally a limited number of drop-off points. Studies have shown that the biggest constraint is not fear for safety, but concerns about time.	San Francisco, New York, Washington, D.C. area; Houston	Works where carpools can take advantage of HOV lanes and bypass long delays at toll plazas. Carpoolers normally wait in queues near on-ramps to bridges and freeways, sometimes at major park-and-ride lots.	Has potential in King County when tolling goes into affect.

Product Description	Cost Considerations	Benefits	Constraints	Existing Implementations	Where it works	Application in King County
<b>Volunteer drivers</b>						
<p>Use of volunteers to provide rides to older adults in private vehicles, generally using a reimbursement or transportation credit system. Available to seniors and persons with disabilities.</p>	<p>Some programs use public funds for reimbursement of a driver's expenses and/or to offset organizational costs related to providing volunteer transportation to persons with special transportation needs. With ITNAmerica programs, members can also trade in their existing vehicle to pay for rides.</p>	<p>Volunteer driver programs provide an alternative transportation option for seniors and persons with disabilities who do not qualify for paratransit services. Provides mobility to older adults without the need to ask for favors. Service is adaptable to meet the needs of the community.</p>	<p>Availability of sponsoring organizations to run volunteer driver program; sufficient volunteer drivers to meet demand.</p>	<p>Riverside, California; Mercer County, New Jersey, Washington (e.g. Senior Services in King County)</p>	<p>Anywhere sponsoring organization is available.</p>	<p>Could be set up through an agency</p>