



Creating efficiencies by integrating systems



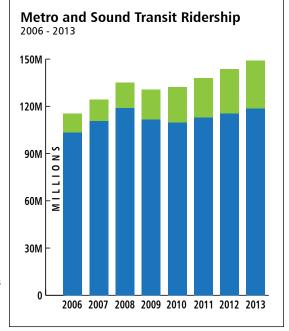
By further integrating the planning and operations of our transit agencies, we can create efficiencies as new lines open and provide innovative services that better serve the needs of a growing region.

Dow Constantine King County Executive Sound Transit Board Chair Puget Sound Regional Council Board

In June, I announced a new effort to bring together transit agencies in the Puget Sound Region to better integrate our collective projects and services. That's important to me in my dual roles as elected King County Executive, which makes me the head of King County Metro Transit, and as appointed Sound Transit Board Chair.

People across the Central Puget Sound have long embraced public transportation, creating local transit agencies to serve their communities — Metro, Community Transit, Everett Transit, Kitsap Transit and Pierce Transit. For more than 40 years, Metro has served an increasing number of people in King County with a growing array of innovative public transportation services. Today Metro provides 400,000 passenger trips every weekday — over 118 million trips in 2013.

Then Sound Transit was created by the state legislature almost 20 years ago with a unique mission: To complement local transit service with high-capacity transit (HCT) connecting the region's employment centers. Sound Transit and Metro quickly began work to integrate new regional HCT services with local services. They collaborated on service planning, transit operations, passenger facilities, customer information and more. The combination of Sound Transit and Metro services transformed public transit in King County and attracted more riders than ever. Together the two agencies provided 148 million passenger trips within the county in 2013 – about 450,000 trips every weekday – and ridership continues to soar.



In my leadership roles today, I see the opportunity to take these partnerships to the next level — to make the region's transit agencies work together even more effectively. On June 12 I directed Metro to aggressively pursue joint work with Sound Transit, and the Sound Transit Board directed Sound Transit staff to do the same with all the region's transportation partners.

This report summarizes implementation work over the past three months, primarily focused on services in King County, and introduces a blueprint for next steps. We hope to broaden this work in the months ahead to include all the partner agencies, including the

Sound Transit

Metro

state. With this report, I am pleased to confirm significant opportunities to realize efficiencies, achieve savings and ultimately deliver better transit service for the people of our region.

Ongoing integration work between transit agencies has gone well for many years, and the foundation of collaboration is strong. Our landscape has changed, however, and now is a pivotal time for transit in the Puget Sound region, with several important factors at play:

- The regional light rail system is developing as envisioned, Metro's RapidRide service is growing, and demand for transit services keeps climbing.
- All transit agencies face significant financial pressure dealing with the recession's long-term impacts and growing ridership demands.
- With a million more residents projected to live here by 2040, public transit becomes increasingly essential by adding capacity to the overall transportation system and helping commuters, businesses, and our thriving regional economy.

What worked in the past isn't enough for our future. We need to dig deep to maximize collaboration and integration, to work for a future where transit can help this region achieve economic prosperity and maintain the incredible quality of life and natural beauty we enjoy in the Puget Sound region.

The Sound Transit Board and I directed our agencies to dramatically accelerate integration of work to optimize the investments we are making in rail, high-capacity bus service, and local bus services. I challenged them to find "efficiency dividends" through these integration efforts to stretch the public investment as far as possible. I expect the agencies to view shared and overlapping responsibilities through one unified lens to determine which investments will best serve our customers, regardless of the services they currently use.

While the region's transportation partner agencies have done a good job of coordinating and collaborating to date, we have been working across the table from each other. Now is the time to marshal all of our assets to plan and operate as one region with a seamless, efficient, and transparent system for all of our customers.

Integration is a huge effort and this report is just the beginning. While this report focuses on Metro and Sound Transit, ongoing work will bring in other transportation partners including private transportation providers, the

state Department of Transportation, and local cities in which our transit services operate. Working together, Sound Transit and Metro have identified short- and long-term actions to increase integration of planned and new services and to ensure new facilities are built to provide the best service to both rail and bus passengers. We have identified areas with immediate benefit and where more work is needed to fully achieve potential benefits. These areas include:

- Immediate steps to provide transit options for riders affected by impending cutbacks in Metro service;
- Short- and long-term planning to ensure existing light rail and RapidRide bus services leverage as much integration and efficiency as possible, maximizing transportation choices for the region;
- Bus and rail integration with the opening of Link light rail to the University District and Angle Lake Station in SeaTac in 2016; to Northgate in 2021; and to the Eastside, Lynnwood, and Kent/Des Moines in 2023;
- Linking long-range planning efforts underway at both agencies to ensure they are integrated and complement one another;
- Study of additional integrated bus/rail networks in system planning for a likely future Sound Transit ballot measure:
- Customer-focused initiatives to make all transit service in the region easier to understand and use; and
- Exploration of potential operational efficiency in areas such as security and public safety.

The "efficiency dividends" highlighted throughout this report are the real benefits that will come from this work. I'm convinced that, through integration, we can make the best use of the public's investment to improve transit availability and gain higher ridership.

With the Puget Sound region growing and changing, public transportation is more important than ever. We are challenged to meet increased transit needs with a combination of sustainable funding and innovative approaches to providing transit service. This report focuses on the innovation part of that equation.



Working together

Collaboration at a glance

Metro, Sound Transit and many other transportation agencies and jurisdictions work together to make it easier for people to get around the Puget Sound region. Here are some of the remarkable success stories that provide the foundation for the current initiative:

PugetPass and ORCA

Five of the region's transit agencies — Metro, Sound Transit, Community Transit, Everett Transit and Pierce Transit— created the regional PugetPass in 1999. Joined by Kitsap Transit and later by Washington State Ferries, they launched the ORCA fare payment system in 2009. Providing for easy, seamless fare payment among the region's public transportation services, ORCA has rapidly gained tremendous customer support with more than 71 million annual uses. Metro's annual rider survey found that ORCA was the service feature Metro riders liked most for three years running. Overall satisfaction with the ORCA card is at 97 percent.

Downtown Seattle Transit Tunnel

Shared use of the tunnel by Sound Transit's Link light rail and Metro buses is the only such joint operation in the nation. It supports speedy trips for those who travel through the tunnel, and reduces traffic congestion on downtown surface streets.

Cooperative service planning

When Sound Transit and Metro start new services or improve existing ones, they work as partners in planning changes and engaging the public in the process. For example:

- As Sound Transit prepared to launch the region's first light rail service between Sea-Tac Airport and downtown Seattle, Metro reshaped nearby bus services to provide new connections within and beyond communities served by Link, giving riders more transit options to reach more places. Link ridership has grown rapidly to serve an average 33,000 daily riders today; Metro's ridership on services in southeast Seattle and south King County has grown by about 10 percent.
- As Metro planned to start the RapidRide B Line and Sound Transit completed its expansion of the Overlake Transit Center, the two agencies worked together to restructure their services on the Eastside, eliminating duplication and giving customers more connections to more places.

Metro's start of RapidRide on six corridors serving II King County cities was planned in part to complement Sound Transit's 26 ST Express regional bus corridors, Sounder trains and new Link corridors. RapidRide already has more than 55,000 daily riders, attracted not only by its frequent, faster service but also by the connections to ST's regional high-capacity transit system.

Park-and-ride facilities

Metro and Sound Transit jointly operate a system of 130 park-and-ride facilities in King County with more than 25,000 parking spaces. Those are included in the 189 transit customer parking options identified in a 2013 Washington State Department of Transportation-led inventory and usage study of regional parking capacity.

Fare alignment

To help keep fare payment simple for riders, Metro and Sound Transit strive to align their fares. The agencies' adult one-zone peak, youth and senior/disabled fares for travel in King County are currently the same.

Customer information tools

The regional trip planner and rideshare.com services provide information about the regional transit system to users who visit any of the region's transit agency websites. In recent years, Sound Transit and Metro have provided open data and encouraged local application developers to build apps for transit users. OneBusAway, a popular app, is managed and administered by Sound Transit and supported by Metro and other local transit partners.

Good Neighbor policy

The region's transit agencies have agreed that when they build facilities, other agencies can connect their services to them.

Bus fleet efficiencies

Sound Transit and local transit agencies jointly procure buses and periodically move vehicles among agencies to accommodate Sound Transit's shifting service needs.

Making the most of roadway capacity

The Washington State Department of Transportation, Metro and Sound Transit have worked together for more than a decade to increase the capacity on the Interstate 90 bridge to accommodate light rail, and on the SR 520 bridge and corridor to maximize bus transit options and provide more rider choices on that tolled facility.



Fostering partnerships

Regional transit today

Puget Sound transit agencies, WSDOT and state ferries, Puget Sound Regional Council and local jurisdictions work together continually to ensure effective regional mobility. Many regional forums ensure this coordination takes place across all agency levels — from planners to executives and board members. This integration effort will build on these strong partnerships and working relationships.

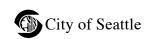
The seeds for this increased integration work were planted many years ago, starting with Sound Transit's decision to contract with Metro, Pierce Transit and Community Transit to operate ST Express buses and Link light rail, and with BNSF Railway Company to operate Sounder trains. Regional collaboration on PugetPass and ORCA fare payment systems helped the region transit system blossom.

These models, now being expanded to include all agency functions, provide a platform for other regional partners to join. Already leaders from the City of Seattle, Pierce County, Snohomish County, east King County and the state are engaged in the effort. For example, the First Hill Streetcar opening in months ahead is a joint effort of the City of Seattle, Sound Transit and Metro. Sound Transit and Community Transit are integrating planning of bus restructures in Snohomish County in anticipation of the opening of Lynnwood Link. In Pierce County, Sound Transit and Pierce Transit have integrated bus and Sounder service schedules in cities like Puyallup and Lakewood; the agencies also work with WSDOT and Amtrak to coordinate shared use of the busy rail corridor by passenger and freight trains.

Throughout the region, WSDOT and Sound Transit have collaborated for years to increase transit speed and capacity on the most congested highway corridors, and are expanding capacity on the I-90 bridge to accommodate future light rail. And PSRC has long hosted various forums, such as the Transit Operators Committee, to share information and forward planning initiatives — and will partner with transit agencies to host a Transit Summit next year.

There is always more room at the table, and we invite our partners to pull up a chair.















Puget Sound Regional Council
PSRC



Integration is built into the composition of the Sound Transit Board, made up of 17 elected officials from local jurisdictions around the region and the Washington State Secretary of Transportation. Half of the Board's members from each of King, Pierce and Snohomish counties also serve on their local transit boards.

Embracing the challenge

Introducing the 'Efficiency Dividend' concept

Looking broadly at the regional transportation landscape, it's clear that several important factors are converging to make this exactly the right time to take bold action. All transit agencies face significant financial pressure and ridership demands. The light rail system is expanding as planned. And with 30 percent regional population growth expected by 2040, an effective transportation system is critical to our economic health and quality of life. Successful transit integration will net "efficiency dividends" in several areas:

Transit operations

Providing more overall service with fewer resources by coordinating light rail, bus and other services will result in increased overall transit use and the ability to extend bus service to new areas with redeployment of services to the places that need them. It also can add more bus service connecting to rail or bus rapid transit (BRT, such as RapidRide), further invest in the region's high-capacity rail and bus systems, provide more capital improvements, or improve the financial health and stability of agencies. Recent analyses confirm that effective collaboration can improve efficiency and effectiveness across the regional transit network.

Customer experience

Improved access and better connections - combined with reduced travel times, increased reliability and service to more locations - will make riding transit more attractive and effective for current and future customers.

Transportation network

Effective train and bus options add needed capacity to our overall transportation system in the region's most congested areas, where it's especially difficult to build more roads.

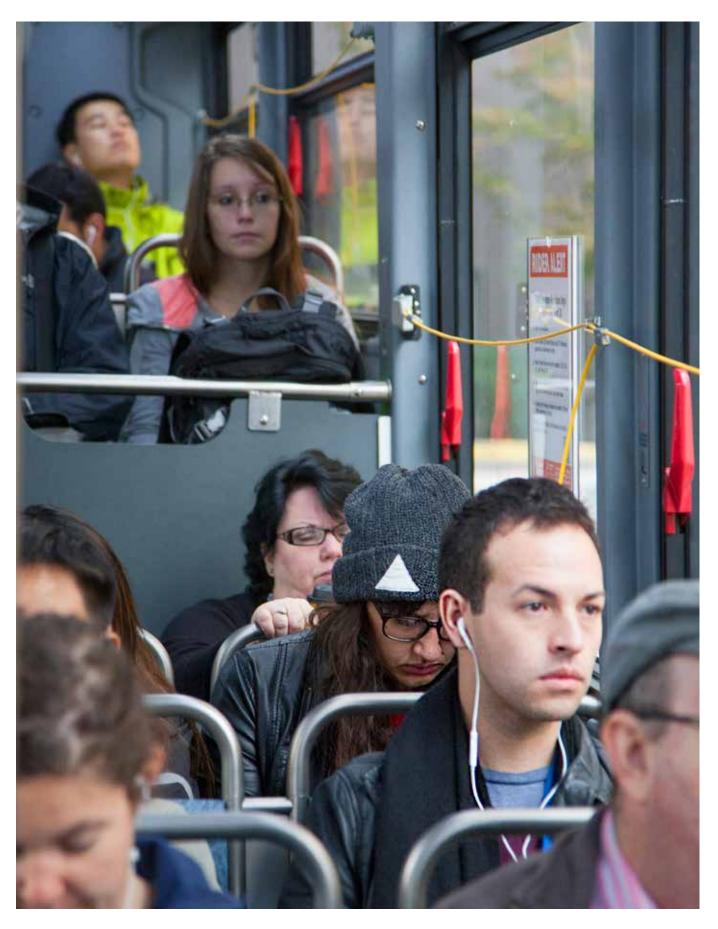
Environmental quality

Transit takes cars off roads, reducing greenhouse gas pollution and negative impacts to the natural environment we treasure.



As Central Puget Sound continues to grow, we must work together to improve the way we provide transportation options across the region.

John Lovick Snohomish County Executive Sound Transit Board PSRC Board





Progress to date

Sound Transit and Metro have longstanding formal processes for ongoing coordination of transit service changes. The agencies also partner to implement significant, unique changes in service, including the 2005-2007 closure of the Downtown Seattle Transit Tunnel for light rail retrofit, service restructures in the I-90, SR 520 and SR 522 corridors, and the 2009 launch of Link light rail service.

Community Transit, Metro, Pierce Transit, Washington State Ferries and Sound Transit coordinate service changes three times yearly, aligning schedule information and customer communications.

Action going forward

While substantial interagency coordination occurs today, we must seize opportunities to maximize coordination as our region continues to grow and service changes take place at both Metro and Sound Transit. Metro faces significant changes with service reductions beginning in September 2014 and continuing in 2015 with ongoing impacts. These changes - combined with the opening of light rail service in 2016 north to Capitol Hill and the University of Washington and south of the airport to Angle Lake Station at South 200th - provide early opportunities for service integration and better coordination.

Managing impacts of Metro service reductions: 2014

Metro will be restructuring and reducing service due to an ongoing funding gap. To bring service in line within available resources, Metro plans to take the following actions:

September 2014: 151,000 hours cut across King County (31 routes deleted, 13 revised)

February 2015: 169,000 hours cut (16 routes deleted, 32 revised)

June and September 2015: further service reductions may be made as part of the county budgeting process

Many riders will rely on Sound Transit service in several corridors where Metro is making reductions in September 2014.

Northshore/Northeast Seattle: Along the SR-522 corridor, Sound Transit provides all-day service while Metro provides peak-period service. Metro will eliminate about 10 daily peak bus trips in September, and Sound Transit will add two trips to help mitigate the losses.

Interstate 90: Metro's peak-period routes along this corridor will be reduced by about 25 daily bus trips. Along the I-90 corridor, Sound Transit provides all-day service in Issaquah and to and from Issaquah and Eastgate. Available capacity on Sound Transit buses and larger coach sizes along this corridor will help address these reductions.



At the end of the day, the public wants all of our transit agencies to work efficiently as an integrated system. This is an important step to continuing our commitment to make transit agencies more efficient, by working together and integrating our planning efforts.

Paul Roberts Everett City Council Sound Transit Board Vice Chair

Managing impacts of Metro service reductions: 2015

Metro is developing a phasing strategy for the remaining reductions in 2015. When these service changes are made, Metro and Sound Transit services will preserve and enhance access for many riders by integrating services in the following areas:

Efficiency Dividend: First Hill Streetcar opening

A major opportunity associated with the 2015 service changes is the opening of the First Hill Streetcar in late 2014 or early 2015. Metro's service reduction plan achieves efficiencies by reorienting neighborhood bus services to the area around 12th Avenue and South Jackson Street. Several neighborhoods including the Central District and Mount Baker will have excellent streetcar connections maintaining and enhancing access to downtown Seattle, First Hill and Capitol Hill, and the light rail system.

Sound Transit and Metro, working with the City of Seattle, will continue to identify potential opportunities to integrate their services to achieve greater overall system efficiencies.

Sounder commuter rail

As part of its reductions to express bus service to downtown Seattle, Metro will reorient several bus routes to Sounder commuter rail, maintaining transit access for downtown-bound commuters from areas such as Kent East Hill. In this example, Metro will modify East Hill bus schedules to improve connections with Sounder trains.

Interstate 5 south

To maintain service availability and access to major destinations along I-5 south of Seattle such as Federal Way, Metro will consolidate routes and eliminate peak-period service to park-and-ride lots with lower use. This will free up service hours to deploy one frequent peak-period route serving multiple park-and-ride lots in the corridor. Resulting Metro and Sound Transit routes in this corridor will be highly used and more efficient.

SR 520, I-90, I-405, Kirkland and Issaguah

In these corridors, Metro's deletion of peak-period weekday routes, targeted to segments in which Sound Transit offers all-day regional express bus service, will encourage riders to make more use of ST Express service.



Exploring state grant funds

Metro and Sound Transit are jointly exploring two state Regional Mobility Grants for service in the SR 522 and I-5 south corridors. Along SR 522, grants would fund strategically added bus trips between Seattle, Lake City and Bothell to reduce overcrowding, minimize pass-ups and help alleviate service reductions. Along I-5 between Federal Way and downtown Seattle, grant funding would also increase capacity at locations with highest ridership demand.

In all corridors with current service, riders will continue to have transit access to activity centers throughout the region, though they may have to walk farther to catch a bus. These service changes will result in lower agency costs per rider in these corridors. At the same time, risks of overcrowding and pass-ups will increase when overall service levels are reduced on important transit corridors that already carry high passenger volumes.

To address the complexity of Metro service reductions and resulting impacts on Sound Transit services, Metro and Sound Transit have formed a work group to explore creative ways to mitigate these impacts. Options might include consolidating Metro service with Sound Transit service, the agencies using stand-by coaches to address occasional service problems on either system, and/or Sound Transit allocating resources to purchase additional trips.

Managing impacts of Metro service reductions: 2016



To improve bus/rail integration and generate an efficiency dividend with the opening of U Link in early 2016, Metro and Sound Transit will work closely with the City of Seattle and the University of Washington to maximize this large capital investment. Sound Transit and Metro will develop an integrated rail-bus service network that enhances transit rider mobility while making the best use of resources in this corridor, including:

- Providing convenient transfers to light rail service at U Link stations for riders traveling downtown;
- Improving transit connections to Link light rail and high-frequency bus service for neighborhoods north and northeast of the university;
- Providing more reliable, expanded opportunities for transit

- travel to and from the University of Washington, Capitol Hill, downtown Seattle and throughout the region; and
- Reducing delay of both transit and general traffic by reducing the number of buses traveling into and through downtown Seattle in the U Link corridor.

As next steps, Metro, Sound Transit and the City of Seattle will work jointly to develop a restructured bus network that creates efficient, effective connections to U Link rail service at the Capitol Hill and University of Washington stations.

As the rail line is expanded throughout the region, riders in communities north and south of the Link system will be able to take advantage of light rail speed, frequency, reliability and capacity. Bus services will be modified to provide direct connections to new stations as they come on line. For example, when Angle Lake Station opens later in 2016, more buses will likely serve the light rail station and nearby RapidRide stops.

Potential Metro changes with U Link opening

Metro will begin public outreach in 2015 to discuss possible service restructures around U Link. Options under consideration include:

Creating a continuous transit connection between Northgate and Bellevue via northeast Seattle and the U District

- Extend Route 271 (Bellevue-U District) to Northgate via Maple Leaf
- Consolidate and extend existing service, improving frequency of connections along this corridor
- Bring riders from Roosevelt and Maple Leaf to new Link station at University of Washington
- Create a no-transfer trip between northeast Seattle and Bellevue

Creating a connection between southeast Seattle and the U District via Capitol Hill, First Hill and Beacon Hill

- Provide frequent service between Rainier Valley, Beacon Hill,
 First Hill, Capitol Hill and U District
- Consolidate routes 36 and 49 into a single route
- Provide new frequent cross-town service tying neighborhoods without current direct service
- Connect with Link light rail at Othello, Beacon Hill, Capitol Hill and University of Washington stations

Upgrading or creating new routes serving Capitol Hill

- Possible Route 8 revision to connect uptown, South Lake Union,
 Capitol Hill and Madison Valley
- Provide opportunity to connect Link riders to South Lake Union and First Hill

Restructuring commuter service between East King County and downtown Seattle

- Restructure routes 252, 255, 257, 268 and 311 with ST Express route 545
- Provide a transfer point at University of Washington Station for commuter and/or all-day service between East King County and downtown Seattle
- Improve frequency and connections between U District and East King County
- Extend some commuter service beyond U District to other areas such as South Lake Union or Fremont

Restructuring service in northeast Seattle to provide better connections

- Restructure routes 65, 68, 75 and 372
- Create better connections to U District and Link light rail service at University of Washington station for Laurelhurst, Sand Point and Ravenna

Next steps

To develop a more integrated and coordinated approach to service planning, Metro and Sound Transit have formed a joint service planning strategy team. This team will continue to explore ways to:

- Develop service plans working jointly with the Sound Transit Board and King County Council;
- Address policy issues that make integration difficult, such as agency budget processes, pricing structures, geographic service distribution, and service policies, standards and guidelines; and
- Seek ways to expand integration with other partner transit agencies.

A partnership of the University of Washington, Sound Transit, Metro, the City of Seattle and WSDOT focused on the area around Husky Stadium - including the new Link light rail station, the Burke Gilman Trail expansion and the Rainier Vista project development — will continue working together to realize the efficiency dividend possible with U Link opening in 2016.

University Link at a glance

Number of trips: 149 round trips each weekday between downtown Seattle and U District

Travel time from U District to downtown Seattle: six minutes

Train frequency: every six minutes in both directions during peak periods

Capacity: Two-car trains with combined seated/ standing capacity of 300 passengers

Rush-hour capacity: 3,000 passengers per hour

Expected U Link ridership: About 35,000 weekday

boardings by 2018 (65,000 on entire line)

Total U Link weekday capacity: about 87,000





Guiding principles

High-capacity transit (HCT) and bus rapid transit (BRT) will be prioritized where 1) strong transit ridership exists, and 2) it connects urban centers where growth will be concentrated.

Use of transfers will broaden customer access to HCT, making all segments of a transit trip more reliable and reducing overall travel time. Time spent transferring will be offset by HCT bypassing traffic in the region's most congested corridors.

Integrating local bus service with HCT lines makes all-day, two-way service available to a large new rider market.

Integration strategies must increase overall service efficiency and effectiveness, and not merely transfer costs from one agency to another.

Sound Transit and Metro must ensure that the region's transit operations run efficiently without duplication or competition in shared high-demand corridors. Duplicative service within the same corridor always costs more than consolidated service. Integrating bus and rail services has significant potential to increase ridership, save money overall and reduce costs per trip. This potential grows as the rail system continues to expand and brings high-capacity transit to the most congested corridors.

Many more opportunities for integration will become available with the opening of Link light rail service to Northgate (2021), Lynnwood, Bellevue and Redmond and Kent/Des Moines (all 2023), plus the introduction of new and expanded RapidRide service. Modifying many existing bus routes to connect with these services offers tremendous potential for efficiency dividends. Here's an example:

Interstate 5 north

Metro, Sound Transit and Community Transit currently operate 1,200 bus trips each weekday in the I-5 corridor. With an integrated network, the I-5 portion of many of these bus routes will be replaced by Link light rail service to Lynnwood in 2023 and more than 1,000 of those bus trips could be removed from I-5. Even with most bus service reinvested into local communities, integration could result in between three and 10 percent fewer local bus hours, lowering total costs and improving cost efficiency. Actions like these would have these additional benefits:

- Reduced travel times for trips to more than 75 percent of activity centers in the north corridor project area, with these estimated averages:
 - Trips to Shoreline Community College = 4.5 minutes travel time savings
 - Trips to Lake City = 2+ minutes travel time savings
 - Trips to Wallingford = 1.5 minutes travel time savings
- 9,000 more daily transit boardings
- 4,200 more daily Link light rail boardings
- Greater service reliability with fewer buses on congested I-5 and Link light rail on exclusive right of way



Significant efficiency can be gained by taking aggressive steps to further integrate the Metro and Sound Transit networks. Integrated bus/rail networks will be thoroughly studied for cost and ridership benefits. Once its long-range planning currently underway is complete, Sound Transit will begin planning potential regional transit system expansions in the decades ahead. This provides an opportunity to begin these integration studies in 2015 in coordination with Metro's long-range plan update.

Efficiency Dividend: Link light rail extensions opening 2021-2023

Long-term service integration will benefit transit riders throughout the region. Here's how:

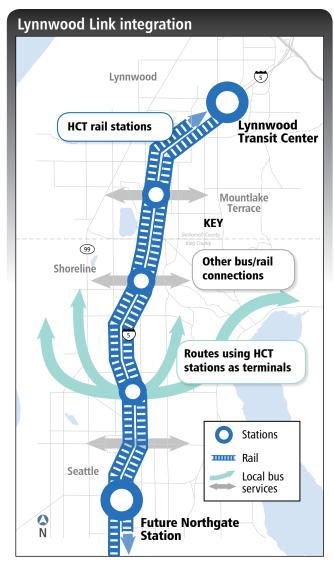
Connectivity: Increased connectivity within the regional transit network will allow travel between more places in less time. Connectivity can be measured as travel time between centers, and changes in average transit travel times. Interconnectivity is a positive improvement that attracts more riders and improves mobility.

Service frequency: More frequent service can be achieved when route redundancy is reduced or HCT (rail or bus) is connected by neighborhood bus routes that previously operated in new HCT corridors. Frequency improves overall travel time by reducing the amount of time people wait for trains or buses.

Reliability: Altering some bus routes to connect with HCT at major transit hubs such as rail stations provides an opportunity to substantially shorten the length and travel time of some routes. Shorter routes generally lead to greater schedule reliability. Keeping routes from traveling through the most congested parts of the region also improves reliability.

These customer benefits will lead to increased ridership. When more population and job centers are reliably and more frequently connected, transit ridership increases. More people riding transit translates to less road congestion and less need for space and funding to expand road capacity. Improved connections between economic centers also benefit people in our community who are dependent on public transportation due to age, income or disability. An effective transit system improves access to jobs, education and training, medical and other needed services. It benefits our entire community.

Sound Transit and Metro are jointly analyzing the potential for efficiency dividends under different scenarios. Those scenarios will include policy decisions framed to determine the best transit network to meet the future needs of King County and the region.



A new high-capacity transit (HCT) corridor can spur an aggressive redesign of the current transit network. Potential actions could redesign bus routes to provide frequent service to communities, centers and rail stations; eliminate routes that generally duplicate the rail line; modify bus routes to use the rail station as a major transit center; and reinvest savings from discontinued or shortened bus routes into new transit connections or more frequency.

In the Lynnwood example shown above, RapidRide service on SR 99 could continue serving a parallel but unique and strong market. Integrating the bus network and light rail station/transit center in this manner would have these benefits:

- A net gain in total service for riders,
- Higher ridership within the corridor,
- Potential savings of 3-10% from reduction in bus service hours (savings will depend on policy decisions on how best to integrate the network and serve riders),
- Opportunities for more frequency on shortened bus routes, and
- High-quality, reliable transfers.

Integrated bus/rail network of the future

Sound Transit is currently updating its long-range plan, while Metro is beginning its own long-range plan update. In 2015, Sound Transit will undertake system planning potential regional transit service expansions in decades ahead. These planning efforts will be fully integrated, including:

- Coordinating public outreach
- Developing regional transit maps showing integrated future networks
- Creating a joint long-range planning team
- Establishing a clearinghouse for transportation modeling data

Estimated transit travel times in Northgate-Lynnwood corridor in 2024



Travel time savings (in minutes) between moderately and aggressively integrated bus & rail networks



Potential mobility and ridership improvements of coordinated network 5 TODAY: 1,200 daily bus trips in I-5 north corridor 385 TRIPS 85 TRIP 160 TRIPS 100 TRIP Lynnwood Northgate 99 (520) **Seattle**

Today, Metro, Sound Transit and Community Transit run nearly 1,200 bus trips each weekday in the I-5 corridor between Seattle and Lynnwood. When the I-5 portion is duplicated by Link light rail service starting in 2023, more than 1,000 of those bus trips could be removed from I-5. This has enormous potential for saving public funds or redeploying them to provide new and better connections.



Progress to date

Active coordination between agencies today is evidenced in several areas:

Customer communication and ridership development: Metro and Sound Transit have long partnered on customer communications and regional marketing efforts. The agencies also collaborate on Commute Trip Reduction, ORCA To Go, ridership promotions and outreach to communicate regional transportation options.

ORCA: Seven regional transit partners (Community Transit, Everett Transit, Kitsap Transit, Metro, Pierce Transit, Sound Transit and Washington State Ferries) jointly developed a nationally recognized, award-winning program to coordinate regional transit fares. Starting with the PugetPass and evolving into today's ORCA card, the multi-agency smart card system allows transit riders to travel across the region with the flexibility to pay as they go, buy individual passes, or receive passes from their employers or schools. Major ORCA benefits include:

- Universal pass acceptance and transfer policies;
- Common customer and fare payment categories;
- Regional marketing and administration of bulk pass sales contracts;
- Fully regional, multi-agency ORCA fare media sales, distribution and customer service;
- Policies that place high priority on pricing consistency and coordination; and
- Joint pilot programs and implementation of new pass types and marketing campaigns to develop new rider markets, including a new ORCA Passport program for apartment and condo residents.

One Bus Away: Started as a student project at the University of Washington, One Bus Away has quickly become a widely used transit app in the Seattle area, serving as a model for how independent software engineers can provide real-time transit information to riders. In 2013, Sound Transit and Metro worked together to keep One Bus Away available to riders by assuming operational responsibility from the University of Washington.



I fully support an integrated regional transit system where all transit agencies work together to achieve operating efficiencies and cost savings wherever possible.

Fred Butler Issaguah Mayor, Sound Transit Board, PSRC Transportation Policy Board



Ensuring that our diverse, multimodal transit system can effectively and efficiently move people across the Puget Sound region requires regional leadership, and this is a great example of that. As our population grows, we must continue coordinating our services for greater efficiency and better customer service.

Pat McCarthy
Pierce County Executive
Sound Transit Board
Pierce Transit Board
PSRC Board President

Trip planner: Planning trips is the most-used function by riders across all transit agency websites. Over the past several years, both Metro and Sound Transit have updated their trip planners to improve customer experience. Each trip planner currently uses the same regional data set, with partner agencies sharing scheduling data as released. The two agencies have committed to working together as future improvements are made with the goal of having a single regional trip planner.

Low-income fares: In March 2015, Metro will launch its low-income fare program. For people who qualify, Metro will offer a flat \$1.50 all-day fare via ORCA E-purse or monthly ORCA pass. As Metro has been planning program implementation, Sound Transit has been actively engaged. The Sound Transit Board will decide later this year whether and to what extent to establish a similar fare change on Sound Transit services.

Action going forward

Metro and Sound Transit are introducing a Rider Engagement Initiative to improve the customer experience for riders of both systems. Focus on providing a consistent, easy-to-use customer experience for the region's riders is critical for this initiative's success.

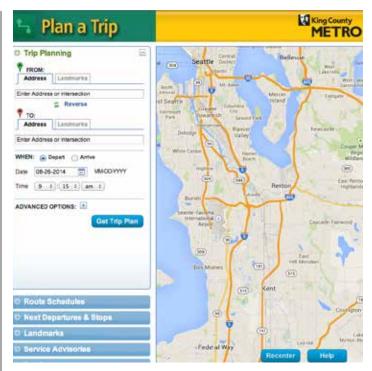
Rider Engagement Initiative

- Strengthen integration on projects where the two agencies are already cooperating;
- Launch a series of new joint initiatives; and
- Identify areas where future cooperation will be strengthened.

Efficiency Dividend: New joint initiatives

New transit app for smartphones: Metro will release a new smartphone app in fall 2014. The new app, downloadable from online stores, offers features allowing customers to plan trips, access schedules and obtain real-time bus arrival information regionwide. Metro will coordinate with Sound Transit and partner transit agencies on this app's release.

Mobile ticketing: Consistent with the long-term ORCA strategic plan, transit partner agencies will jointly develop a mobile ticketing project that enables riders to pay fares with their smart phones; a pilot program is expected to launch in 2015. Mobile ticketing has been deployed by many transit agencies across the U.S., enabling riders to use cell phones to pay transit fares.



Today's riders increasingly rely on smartphone apps and the web to plan their trips and calculate wait times.

Cellular service in DSTT and University Link: By mid-2016, the agencies will launch cellular service in the Downtown Seattle Transit Tunnel and University Link tunnels that will allow riders to receive continuous cell service while riding buses and trains in the tunnels.

Open transit data: The agencies will jointly launch a new service that provides standardized real-time and schedule information to third-party software developers to enable them to create innovative technology software and services for riders. The project's first phase will create a combined data set for regional transit services with improved data review tools scheduled for completion in early 2015. Future enhancements, to be rolled out over the 2015/2016 timeframe, will include additional data sources (such as Link light rail, Community Transit and Everett Transit real-time data), improved data quality, monitoring and reporting, and a forum for developers to interact with one another and with the agencies on enhancements. Providing data that covers more agencies and modes, includes real-time arrival information and has consistent quality standards will ultimately benefit riders and developers by fostering the creation of a wider variety of customer tools and applications.

Parking availability pilot: Sound Transit and Metro will start a parking availability pilot program aimed at improving information for transit riders.

TVM redesign: Sound Transit and Metro ticket vending machines (TVMs) enable riders to purchase train tickets and make ORCA transactions. This project will make machines easier to use, allowing riders to get their tickets and board transit more quickly. The new interface will roll out in mid-2016.

Fare collection: By early 2015, the regional transit agencies (ORCA partners) will jointly issue a strategic roadmap for regional fare collection that will ensure seamless fare payments by riders as the region invests in new fare collection systems.

Digital signage: In coordination with transit partners, Sound Transit is starting a pilot project to test real-time transit information at transit stations. Results from the pilot project will guide future investments in station signage and the underlying software control system.



All of these joint efforts will improve the customer experience for current transit riders and attract new ones while responsibly stretching the public's investment in transit.

Customer communication and ridership development:

Sound Transit and Metro will partner to make it easier for all customers to access each other's service information via either agency's web site. The agencies will also develop consistent signage at joint facilities, adopt consistent bicycle policies and programs and explore combined efforts to address region-wide events such as traffic reroutes and major sporting events.

Rider alerts: Metro has a 2015/2016 "Real Time Improvements" project in its budget request. Sound Transit has a rider alerts project as part of its Research and Technology program scheduled for 2015-2016. The agencies will evaluate these two programs and optimize coordination to provide the most accurate, complete, timely information to customers.



Transit apps built by third-party developers rely on uniform, open data in order to innovate. Riders win from technology that improves their transit experience.

Customer responses: The agencies will jointly evaluate the benefits of a centralized customer database to improve communication with customers.

Trip planner: Both Sound Transit and Metro are currently investing in improvements to their respective trip planners. The agencies will jointly plan and evaluate the next generation regional trip planner, unifying their approach to providing the best technology tools for riders.

Signage/wayfinding: Sound Transit and Metro will collaborate to simplify signage in the Downtown Seattle Transit Tunnel and adopt consistent terminology for clear customer communications.

SMS: Short Message Service text messaging has been supported by OneBusAway, and Metro is exploring an SMS option to make information more widely available to customers.



Creating a seamless, unified payment system with the ORCA card was a collaborative accomplishment that regional transit agencies work continuously to improve.



Progress to date

Transit facilities must be designed to enable seamless rider transfers between buses and trains, whether by moving bus stops closer to train stations or building bus transit centers at train stations. Designing facilities must consider station footprints, bus stops or centers, bus layover needs, bus movements and traffic impacts. Pedestrian and bicycle access, and how stations interact with the surrounding community, are other important factors.

Early in the development of capital projects come important opportunities to coordinate service. These include preliminary corridor alignments and extension, station locations and network design. Coordination up front helps ensure a smooth planning process and helps minimize design changes later.

Sound Transit and Metro have integrated planning to achieve maximum efficiency and customer benefits for these transit facilities under development:

Tukwila Sounder station

The agencies continue close collaboration as the new Tukwila Station is completed, providing an interface for Sounder commuter trains, Metro buses and WSDOT Cascades intercity passenger trains. This project included the supporting infrastructure for Metro's RapidRide F line, which was accelerated to meet the June 2014 launch date of the new service. The new station also includes power and equipment to support a Metro electric vehicle charging station.

Northgate

Building the Northgate light rail station will include relocation and reconstruction of the Northgate Transit Center so that bus and rail services are co-located. This will facilitate rider transfers between modes. As an added benefit, it will free up additional property for the county's transit-oriented development (TOD) program.



Introducing integration to the public

In August, Sound Transit and Metro convened a joint open house on transit integration on the Eastside. Staff discussed bus/rail integration when East Link opens in 2023. Many open house participants echoed the themes of this integration report. Here's what we heard:

"It makes sense, but we need good connections" Interest in time savings Interest in future light rail expansions

To design the light rail station at Northgate, Sound Transit, Metro and the City of Seattle developed a new planning model that maximizes rider convenience, incorporates sustainability and increases TOD viability.

Early in the process, Sound Transit, Metro and the City of Seattle developed a workable plan for the Northgate light rail station and bus facilities. As the design developed, however, the agencies realized that this "business as usual" approach would not provide the best customer experience. To develop a new approach, the agencies agreed to these mutual objectives and principles guiding their collaborative effort:

- Coordinate and develop services for an integrated and seamless regional transportation system and create conditions to maximize ridership.
- Develop and implement a comprehensive approach to TOD
- Enhance bicycle and pedestrian infrastructure as alternative transportation options.
- Incorporate sustainable development practices into the design, construction, and operations.
- Ensure that project communication, outreach and engagement efforts reached all residents, particularly communities that have been historically underrepresented.
- Work within Sound Transit project scope, schedule and budget constraints.

The resulting final design incorporates the bus transit center into the light rail station, maximizes rider convenience and increases TOD viability at the station.

Mercer Island

Metro, Sound Transit and the City of Mercer Island continue working together to analyze options to establish an integrated transit station that would enable I-90 bus service at Mercer Island to focus on east I-90 destinations and transfer riders between bus and rail when Link light rail service opens in 2023. Metro and Sound Transit leadership will reach a decision on the final alternative by the end of 2014.



ST Express and Metro buses at Redmond Transit Center today. Future light rail service will integrate with RapidRide buses and light rail service.

Parking and system access

In 2012, Sound Transit convened a multi-agency work group including WSDOT, PSRC, Metro, Community Transit and Pierce Transit to better understand barriers to transit use. That initiative led to Sound Transit's access management pilot program, including a parking pilot this year; access improvement initiatives by PSRC, WSDOT and Metro; and two joint research projects involving Sound Transit, Metro and WSDOT. Agencies work with local jurisdictions and communities to gain their endorsements before starting research or pilot programs.

Redmond

In the Overlake segment of the East Link light rail project, Metro and Sound Transit continue working to develop alternatives to integrate existing RapidRide B line stops with planned Link light rail stations. Partnerships with Microsoft and the City of Redmond for bike/pedestrian bridges over SR 520 will improve customer access to both rail and bus service.





Station location: Stations should be sited in areas easily served by bus transit and on the way to other destinations. Station access should limit, to the greatest extent possible, out-of-direction travel or circuitous routing through the station area.

Station access prioritization: Different modes of access should be prioritized as follows: pedestrian, transit and shuttles, bicycles, carpools, cabs and drop-offs, and single-occupant vehicles.

Connections with bus transit: The link between buses and trains should be direct, short and unimpeded by vehicle crossings if possible. Movements and wayfinding should be as seamless as possible to facilitate and encourage use of both transit modes. Maximize ridership for both rail and bus, clearly avoiding overlap to make rider choices clearer while maintaining access to local activity centers.

Bus operating environment: Ensure station area has a comfortable, effective and efficient bus transfer facility that features a prioritization of bus movements on the street network and nearby layover sites.

Reduce the need for auto access: Surrounding area development should support transit use as a priority mobility choice without the need for additional parking. Encourage alternative modes of transportation including transit, bicycling and walking.

Bicycle facilities: The station area development should promote enhanced bicycle access. Bicycle facilities should be visible, secure, well lit, and sheltered.

Surrounding bike and pedestrian facilities:

Encourage development of bike and pedestrian facilities that support access to the station, commercial and residential areas.

Passenger safety: Stations should be designed to maximize passenger safety while transferring between bus and rail and when waiting for service.



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Actions going forward

Starting transit integration work earlier in project development will help achieve superior multi-modal facilities. Work during alternatives analysis, environmental review and preliminary engineering provides many chances for improved coordination on alignment choices, station locations, bus circulation, layover facilities, IT systems and fare payment. Some examples:

Lynnwood Link and Federal Way Link Extensions

Sound Transit and Metro are working collaboratively on these projects to make service integration and the final facilities as seamless as possible.

ST Express bus base

The voter-approved Sound Transit 2 plan includes construction of a bus base to serve the growing needs of the regional bus fleet. Potential changes to existing routes, creation of shorter feeder routes through the integration effort and other possible changes resulting from closer alignment of the two agencies could affect the location and programming requirements for an additional bus base. All of these factors will be considered carefully and incorporated before the bus base project moves into preliminary engineering.

Link trains and many buses currently share the use of the DSTT. Sound Transit and Metro are working to determine the tunnel's future use by transit.

Downtown Seattle Transit Tunnel

As the region continues to grow, so will traffic congestion in downtown Seattle. The Downtown Seattle Transit Coordination Group — comprised of Metro, Sound Transit, Community Transit, Seattle DOT and WSDOT — works together to focus on future downtown mobility issues. Currently, buses and trains in the DSTT carry about 50,000 daily riders. Key issues focus on transit access to, from and through downtown Seattle as North Link and East Link are built, the SR 99 bored tunnel and portal street networks are connected, the central waterfront area is reconstructed, and other major public and private development takes place in the coming decade.

Within this planning horizon, the future use of the DSTT will be determined. The tunnel is affected by many issues including the number and frequency of train operations; physical modifications required to prepare for rail extensions to the east, north and south; and other projects such as potential expansion of the convention center.

From the larger Downtown Coordination group, Sound Transit and Metro have formed a small working group to determine the volumes of buses and trains that will run in the tunnel at key points between 2015 and 2023, as well as when the tunnel converts to rail only. These decisions, to be made in 2014, will provide the basis for the Downtown Coordination group to make recommendations about other issues including alternative downtown transit pathways and necessary surface street modifications.





The integration work outlined here does not begin or end with this report. This is the first step in a fundamental shift in how this region's transportation agencies conduct business together. It is critical that progress continues and that the agencies document and memorialize assumptions and agreements to keep moving forward.

Sound Transit and Metro have identified a number of core transit functions with potential for savings. Initial research and analysis are underway in the following focus areas:

- Customer service
- Security and police
- Facilities maintenance
- Operations and maintenance facilities
- Service contracts
- Procurement

Changes to current business models will be pursued if they can demonstrably improve customer experience, achieve financial savings, and avoid shifting costs from one agency to another.

Leadership team

Going forward, a structured partnership led by Sound Transit's CEO, Metro's General Manager and leadership from partner agencies is responsible for managing the work, seeking guidance and decisions from policy makers, and jointly reporting on progress to the Sound Transit Board, King County Council and other elected officials. The team will meet monthly meeting to discuss and resolve issues.

Annual reporting

Transit Summit: The region's partner transit agencies, in partnership with the Puget Sound Regional Council, will host a Transit Summit for the region's transit agency board members and other stakeholders to meet, provide status reports, exchange ideas and discuss new plans and initiatives.

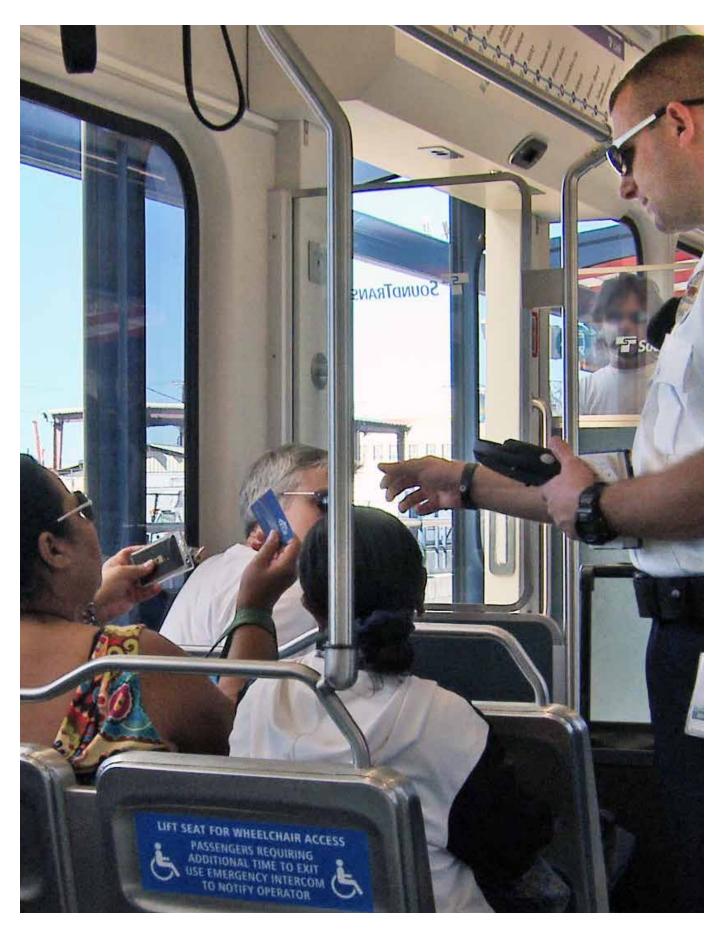
Transit Integration Report: The PSRC released its *Transit Coordination in the Central Puget Sound* report in 2013. Moving forward, the partner transit agencies will work with the PSRC to jointly issue an annual report on transit integration to the region we serve.

Measuring success

Done right, here's what successful transit integration means:

- Achieving an integrated bus/rail and bus/BRT network resulting in increased ridership
- Realizing an efficiency dividend resulting in more transit and savings to the agencies
- Improving ability of customers to understand and use regional transit services
- Implementing more efficient business practices leading to savings to the agencies

The Central Puget Sound region has been the birthplace for world-class innovation and collaboration on several fronts. Building on that legacy as transportation leaders and public servants, we are challenged to capitalize n available resources and create a new framework for providing the best service possible to our customers and to the region. It's a challenge we embrace.





MOTION NO. M2014-44

A motion of the Board of the Central Puget Sound Regional Transit Authority directing the chief executive officer to study bus-rail-streetcar integration, and develop transit integration plans and proposals in coordination with King County Metro and other transit providers as may later choose to participate, to ensure that transit service is delivered as efficiently and effectively as possible while providing a higher quality, more seamless experience for transit customers.

BACKGROUND:

An integrated, coordinated service plan can increase the efficiency and effectiveness of transit service delivery. Efficiency can be increased by utilizing the strengths of high capacity transit modes in the appropriate corridors and maximizing the strengths of the bus system. All local transit partner agencies have faced significant service reductions.

Joint and coordinated transit planning complements efforts Sound Transit already has underway, such as development of an updated Long-Range Plan as well as the system planning work which could follow as early as 2015, pending additional Sound Transit Board guidance.

Because integrated planning work relates directly to the Sound Transit Long-Range Plan it could be accomplished within the established Long Range Plan budget and consulting contract during 2014.

MOTION:

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is directed to study bus-rail-streetcar integration, and develop transit integration plans and proposals in coordination with King County Metro and other transit providers as may later choose to participate, to ensure that transit service is delivered as efficiently and effectively as possible while providing a higher quality, more seamless experience for transit customers.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on June 26, 2014.

Dow Constantine Board Chair

ATTEST:

Marcia Walker Board Administrator



King County Administrative Policies and Procedures

Executive Orders

Title	Document Code No.
Directing the King County Department of Transportation to develop an integrated transit service plan in coordination with Sound Transit and partner agencies to ensure that service is delivered as efficiently and effectively as possible.	ACO-9-1 (AEO)
	,
Department/Issuing Agency	Date
Department of Transportation	6/12/2014

This order directs the King County Department of Transportation to develop an integrated transit service plan in coordination with Sound Transit and partner agencies to ensure that service is delivered as efficiently and effectively as possible.

WHEREAS, King County Metro (Metro) and Sound Transit already collaborate to deliver the regional ORCA fare system with over 500,000 daily transactions, conduct community outreach in concert with system planning, jointly operate rail and bus services in the downtown Seattle transit tunnel, and successfully built new transit ridership through the integration of Metro buses, RapidRide and Sound Transit's Link Light Rail and Sounder service. The agencies also jointly manage and operate Sound Transit's Link Light Rail and Regional Express Bus services; and jointly and individually manage the region's over 25,000 park-and-ride spaces and transit center and rail facilities throughout King County.

WHEREAS, the economic downturn that started in 2008 and resultant decline in sales tax revenues caused a projected shortfall in Metro's operating funds of about \$1.2 billion for the years 2009-2015. Sound Transit's forecasted revenue is down \$4 billion due to the recession, which required cuts to projects and services.

WHEREAS, the 2013 update to the Strategic Plan for Public Transportation 2011-2021 requires that Metro establish and maintain a long range transit service and capital plan developed in collaboration with local comprehensive and regional long range planning. The Sound Transit Board directed Sound Transit staff to proceed with the development of an updated Long-Range Plan necessary to permit the creation of the next phase of high capacity transit system. These efforts provide an opportunity for integrating the planning of the high-capacity transit network.

WHEREAS, an integrated service delivery plan could mitigate some rider impacts related to King County Metro's expected service reductions by leveraging sixty miles of existing RapidRide service and thirty-four miles of light rail Sound Transit will deliver by 2023 as well as providing combined operating efficiencies to both Sound Transit and King County Metro.

[Division] Effective Date: 6/22/2014

ACO-9-1 (AEO [Document Code No.] Page 2 of X 2

NOW, THEREFORE, I, Dow Constantine, King County Executive, do hereby order that:

- The King County Department of Transportation to coordinate with Sound Transit to:
 - Develop plans and proposals to integrate bus and rail service over time to fully utilize the significantly greater operating speeds, reliability and capacity of RapidRide and Link light rail investments.
 - b. Optimize efficiency by increasing and improving coordinated operations, maintenance, administration, transparency and accountability measures that King County Metro and Sound Transit currently take.
 - c. Deploy savings gained through efficiencies to improve bus service in markets not served by rail.
 - Integrate bus and rail service to fully utilize the significantly greater operating speeds, reliability and capacity of RapidRide and Link light rail investments.
 - e. Jointly plan high-capacity transit facilities to best integrate access for all transportation modes.
 - f. Build upon current regionally managed services like ORCA and Trip Planner to work toward unified rider information, tools, and technologies.
 - Maintain a focus on equity, sustainability, and serving transit-dependent populations
 - Recognize the role of private and non-profit transit providers in planning transit services.
 - i. Explore opportunities to further integrate planning with state highways, ferries, and other modes.
- 2. King County and Sound Transit to coordinate the implementation of Metro service reductions and restructures for the fall of 2014 and 2015, as well as the start-up of University Link service from downtown Seattle to Capitol Hill and Husky Stadium in 2016.

Dated this 12 day of June, 2014.

Dow Constantine King County Executive

Norm Alberg Director
Records and Licensing Services Division

To provide riders with a seamless transit experience through increased coordination of service, customer products and facilities, the agencies are launching a series of initiatives.

Taking early actions

- Manage impacts of Metro service reductions (Examples: Restructure Metro services in Kent/East Hill to connect with Sounder trains; Coordinate service along SR 522 to shift riders from Metro services to more Sound Transit buses)
- Integrate bus and rail with the opening of University Link (Benefits: Expand transit system service hours and destinations; Increase mobility for riders between neighborhoods and across network)

Mobilizing for future gains

- Combine long-range planning efforts underway at both agencies to ensure maximum integration (Examples: joint Sound Transit/Metro planning teams, coordinated outreach, regional transit vision showing integrated networks, clearinghouse of transportation modeling data)
- Continue service and facility integration planning and implementation for future planned Link light rail extensions
- Jointly study fully integrated bus/rail networks in system planning to prepare for likely future Sound Transit ballot measure

Improving customer experience

- Implement a new low-income fare (King County introducing in spring 2015; Sound Transit Board in late 2014 will consider similar action)
- Release a new joint trip planning app for smartphones
- Launch a new joint mobile ticketing pilot program enabling riders to pay fares using smartphones
- Provide cellular service in Downtown Seattle Transit Tunnel and University Link tunnels
- Provide combined open transit data to third-party software developers for app development
- Introduce a parking pilot program that provides parking availability information to transit riders
- Start pilot project to jointly test real-time information at select transit stations
- Coordinate new signage/way finding including simplified signage in Downtown Seattle Transit Tunnel
- Evaluate potential customer experience improvements such as optimizing coordination for rider alerts, centralized customer response, collaborative ADA initiatives, and joint development of other tech tools

Developing the right infrastructure

- Continue coordination at Tukwila Sounder station to integrate local, regional and intercity services
- Build Northgate light rail station to facilitate rider transfers between bus and rail services
- Develop coordinated plan to connect bus and rail at Mercer Island working with local jurisdictions and the public
- Jointly evaluate highest and best use of facilities such as Downtown Seattle Transit Tunnel and bus bases

Managing for maximum efficiency

Explore opportunities for operational efficiencies in areas such as security and public safety



