

## REGIONAL TRANSIT AUTHORITY

### RESOLUTION NO. 24

A RESOLUTION of the Board of the Regional Transit Authority for the Pierce, King and Snohomish Counties region recognizing the feasibility of the Everett-Seattle and Tacoma-Lakewood commuter services and authorizing the Executive Director to take the necessary steps to incorporate these projects into the Authority's work program.

WHEREAS, as provided by RCW 81.112.030(1), the Joint Regional Policy Committee for High Capacity Transportation (JRPC) adopted and recommended a system and financing plan entitled Regional Transit System Plan to the RTA for its consideration; and

WHEREAS, pursuant to Chapters 81.104 and 81.112 RCW, the Regional Transit Authority (RTA), is responsible for finalizing and implementing a system and financing plan for high capacity transportation within the RTA's service area; and

WHEREAS, the JRPC's recommendation included commuter rail service between Tacoma and Seattle as an element of an integrated public transportation system; and

WHEREAS, the JRPC also recommended that before making a final commitment to the Everett-Seattle commuter rail segment, the RTA should complete detailed technical analysis of the segment's feasibility comparable to that already completed for the Tacoma-Seattle segment; and

WHEREAS, the JRPC also recommended that both rapid rail service and commuter rail service for the Tacoma-Lakewood/McChord segment should be evaluated before determining how to best serve that market; and

WHEREAS, on October 8, 1993 the RTA Board adopted Resolution No. 03 authorizing the preparation of feasibility studies for Everett-Seattle and Tacoma-Lakewood commuter rail services pursuant to RCW 81.104.120; and

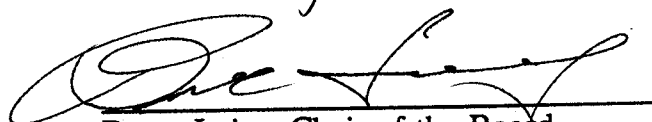
WHEREAS, these feasibility studies have been completed and found that Everett-Seattle and Tacoma-Lakewood commuter rail services meet the test for reasonableness included in RCW 81.104.120;

NOW THEREFORE, BE IT RESOLVED by the Board of the Regional Transit Authority as follows:

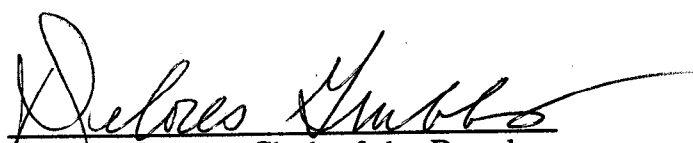
Section 1. The RTA Board hereby recognizes the feasibility of commuter rail service between Everett and Seattle and between Tacoma and Lakewood and expresses its intent to include these services in the Regional Transit System Long Range Master Plan scheduled for adoption in the fall of 1994.

Section 2. The RTA Board further directs the Executive Director to prepare for the Board's consideration a comprehensive work program and schedule for the expanded commuter rail system consistent with the Board's overall work program and to recommend any required budget amendment or consultant support contract.

ADOPTED by the Board of the Regional Transit Authority for Pierce, King and Snohomish Counties region this 22<sup>nd</sup> day of April, 1994.

  
Bruce Laing, Chair of the Board

ATTEST:

  
Delores Grubbs, Clerk of the Board

**REGIONAL TRANSIT AUTHORITY**

**STAFF COMMENTS**

**Resolution No. 24**

**Staff Contact: Bob White  
Phone No.: 684-1627**

**Action:**

Approve on April 22, 1994 Resolution No. 24 recognizing the feasibility of commuter rail service between Everett and Seattle and between Tacoma and Lakewood and expressing the Board's intent to include these services in the amended Regional Transit System Long Range Master Plan scheduled for adoption in the fall of 1994. The resolution also directs the Executive Director to prepare for the Board's consideration a comprehensive work program and schedule for the expanded commuter rail system consistent with the Board's overall work program and to recommend any required budget amendment or consultant contracts.

**Discussion:**

On October 8, 1993 the RTA Board adopted Resolution No. 3 directing staff to study the feasibility of Everett-Seattle and Tacoma-Lakewood/commuter rail service. The feasibility studies have determined that these commuter rail services satisfy the requirements of RCW 81.101 120. The feasibility studies and their results are described in the Commuter Rail Status Report, dated March 25, 1994, included in the Board's agenda packet. Full technical reports are available and were reviewed by the Washington State Expert Review Panel on April 6, 1994. The results of this review were reported to the Board at its April 8, 1994 by Aubrey Davis, the Panel's chair. The Panel questioned the structure of the statutory reasonableness test rather than the study results. The Panel suggested it would be better to rate commuter rail according to how it fits into the overall system and serves the region. The Panel did believe the population and employment forecasts used in the studies were appropriate.

Resolution No. 24 indicates the Board's intent to include the Everett-Seattle and Tacoma-Lakewood commuter rail services into the Regional Transit System Long Range Master Plan scheduled for adoption by the Board in the fall of 1994. In the interim the Board, consistent with the Expert Review Panel's recommendation, will be able to evaluate commuter rail services in the context of the overall system before making its phasing decision.

**Budget Issues:**

Resolution No. 24 would not have any direct budget impact. The resolution does call for the Executive Director to recommend a comprehensive work program for the expanded commuter rail system consistent with the Board's overall work program for the Board's consideration. This work program will include a recommendation on the timing for initiating project level planning for the two new commuter rail segments.

**TABLE A**

**COMMUTER RAIL SEGMENT COMPARISON**

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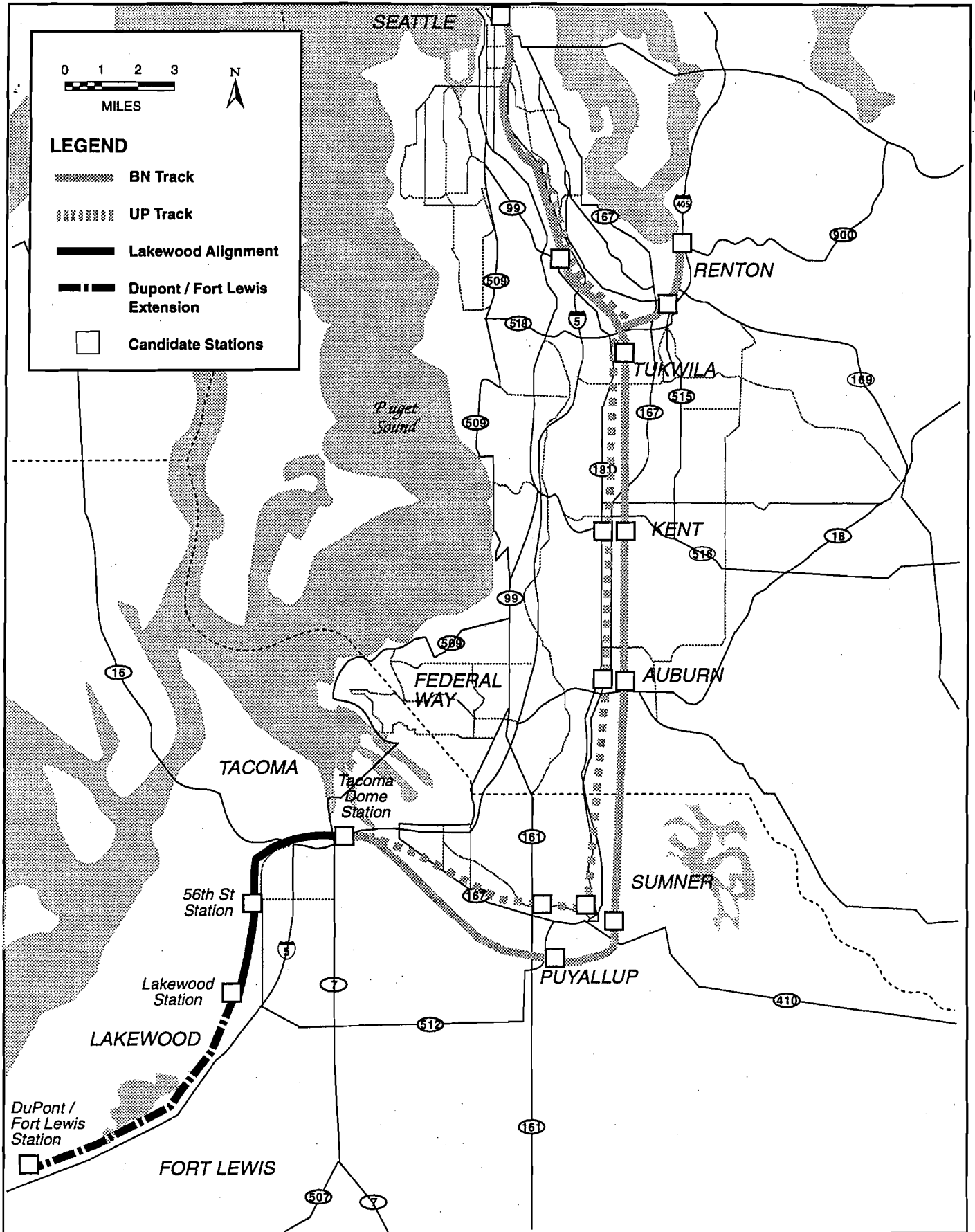
<sup>1</sup> These results are being reevaluated as part of project-level planning. Both ridership plus capital and O/M costs are expected to increase as a result of new population and employment forecasts being used in the travel forecasting and to reflect the need to maintain capacity for increased freight rail and intercity traffic passenger rail.

<sup>2</sup> An express bus alternative was not defined on the model.

<sup>3</sup> Costs in 1991\$

<sup>4</sup> Based on year 2000 total boardings resulting from Renton service.

<sup>5</sup> Based on year 2020.



## **Tacoma-Lakewood commuter rail costs and performance**

Capital costs	\$70.3 million (1993 \$)
Annual O&M costs	\$0.9 million (1993 \$)
Annual passengers (2010)	0.3 million
Annual passenger miles (2010)	2.3 million

## **Lakewood to Dupont commuter rail costs and performance**

Capital costs	\$36.6 million (1993 \$)
Annual O&M costs	\$0.85 million (1993 \$)
Annual passengers (2010)	0.05 million
Annual passenger miles	0.33 million

## **Project-level planning**

If the RTA board authorizes project-level planning, the following steps will be required:

- conducting public involvement and scoping for the environmental analysis
- preparing a project level environmental document
- developing an all-bus "Transportation System Management" alternative for comparison purposes in the environmental analysis and for calculating the federal cost-effectiveness index
- conducting traffic, safety, station area and feeder bus service planning
- working the state Transportation Department to validate the need for double track throughout the corridor to support the Intercity Passenger Rail Program and freight service
- evaluating the results of the Tacoma-Seattle commuter rail project planning to determine if park-and-ride lot capacity adequate to meet demand can be developed at the Sumner, Puyallup and Tacoma Dome intermodal stations. Unmet demand at these stations could increase demand in the Lakewood segment
- develop a phasing and system integration plan for combining this line with the Tacoma - Seattle commuter rail project.

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## ATTACHMENT 3

# Tacoma -Lakewood/Dupont commuter rail feasibility study\*

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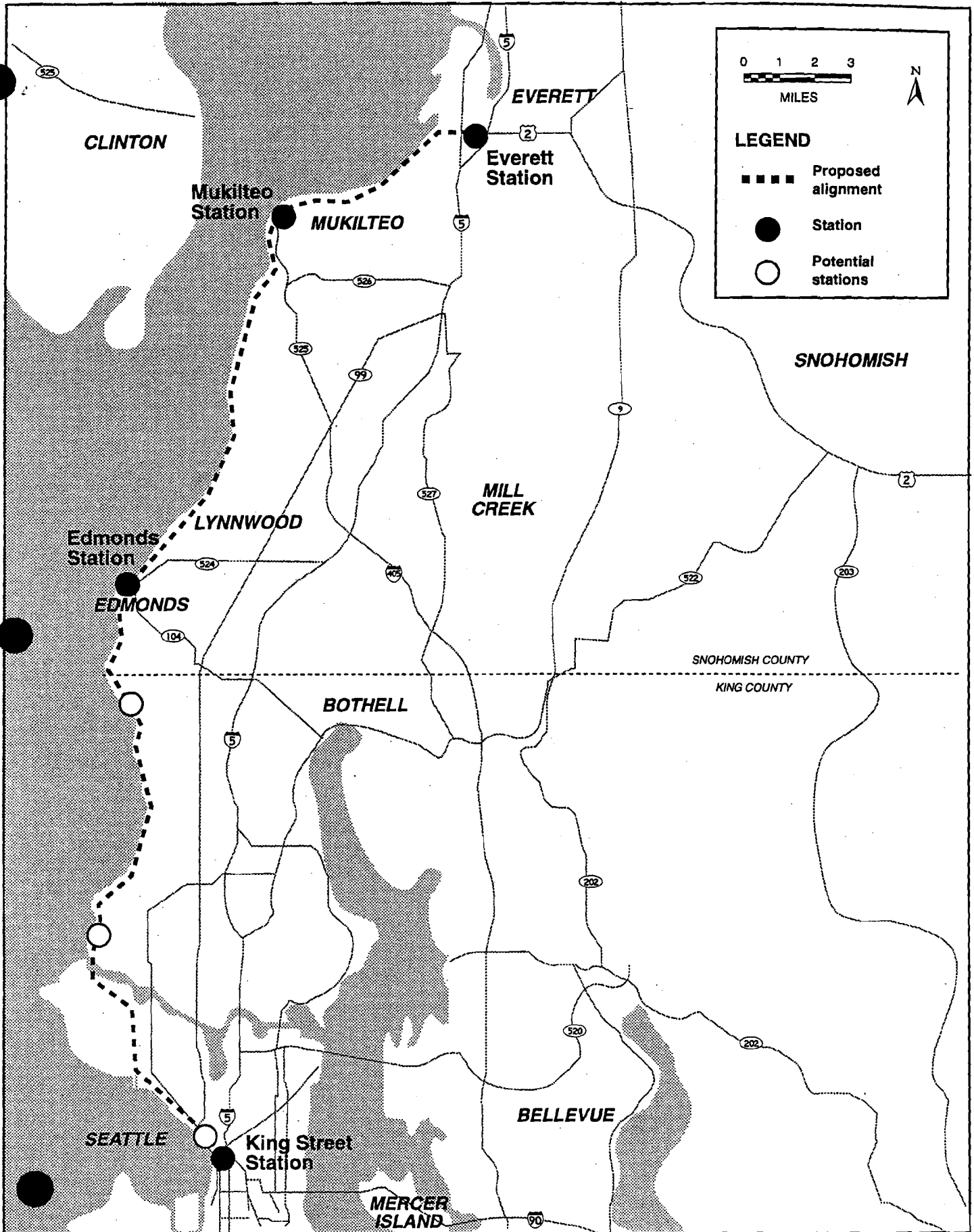
### ALTERNATIVE EVALUATED:

Commuter rail service between Tacoma and Lakewood with stations at 56th Street in south Tacoma and at 100th Street in Lakewood was evaluated (Figure 3). Commuter rail was assumed to operate weekdays during peak-use hours. Trains would run every 30 minutes from 6 to 9 a.m. and from 4 to 7 p.m. Trains were assumed to be through routed to Seattle. Commuter rail service was compared to an "equivalent express bus alternative" as required by RCW 81.104.120.

Capital, operating and maintenance costs and ridership estimates were also made for a commuter rail extension from Lakewood to Dupont. An equivalent all-bus alternative was not developed for this segment, therefore the cost per passenger mile comparison required could not be made.

### Results:

- The Tacoma-Lakewood commuter rail service passes the RCW 81.104.120 statutory reasonableness test. The cost per passenger mile for this commuter rail segment is \$2.73 compared to \$2.91 per passenger mile for the express all-bus alternative.
- The need to essentially rebuild and expand the existing rail infrastructure coupled with analyzing the Lakewood segment independently from Tacoma-Seattle service generates the relatively high per passenger mile cost in this segment.
- Thirty percent of the ridership growth forecast in the study is due to increased population and employment in the service area between 1994 and 2010.
- Extending commuter rail to Lakewood could cause the state Transportation Department to reconsider routing its intercity rail passenger service from the shoreline south of Tacoma to the Lakewood corridor. This presents the opportunity of sharing track and signal upgrade costs and potentially improving the feasibility of later extensions to the south.
- If intercity rail passenger service does use this corridor it could significantly reduce commuter rail's capital cost (\$10-15 million).
- Extending commuter rail to Lakewood and providing direct transit connections to the rest of the region, supporting the major urban center designation for Lakewood in the Pierce County comprehensive plan.





- Combined with the state Transportation Department's Statewide Passenger Rail program, the RTA's commuter rail program can provide resources to accelerate track and signal, crossing and station improvements that add capacity and benefit both regional and long-distance passenger travel.

**Everett-Seattle commuter rail costs and performance:**

Capital Costs <sup>1&amp;2</sup>	\$57.6 - \$75.3 million (1993 \$)
Annual O&M Costs <sup>2</sup>	\$ 5.9 million (1993 \$)
Annual Passengers <sup>3</sup> (2010)	1.168 million
Annual Passenger Miles (2010)	32.0 million

**Project-level planning:**

If the RTA board authorizes project-level planning, the following steps will be required:

- conduct public involvement and scoping for the environmental analysis
- prepare a project-level environmental document
- analyze potential stations in Richmond Beach, Ballard and on the Seattle waterfront
- analyze timing and integration with multimodal terminals in Everett, Edmonds and Mukilteo
- develop an all-bus "Transportation System Management" alternative for comparison purposes in the environmental analysis and for calculating the federal cost-effectiveness index
- conduct traffic, safety, station areas and feeder bus service planning
- engage in detailed discussions with Burlington Northern and local jurisdictions regarding commuter rail operating issues and capital facility improvements.
- develop a phasing and system integration plan for combining this line with the Tacoma - Seattle commuter rail project.

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1 Assumes WSDOT has completed the \$20 million track improvements included in the Statewide Rail Passenger Service program.

2 These costs do not include the cost of developing and operating stations in Richmond Beach, Ballard or on the Seattle waterfront identified for evaluation during project planning.

3 A ridership sensitivity test recommended by USL, consultant to Snohomish County, suggests that annual ridership could be 1,519,000.

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## ATTACHMENT 2

# *Everett -Seattle commuter rail feasibility study\**

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### ALTERNATIVE EVALUATED:

Commuter rail service between Everett and Seattle with stations located in Everett, Mukilteo, Edmonds and Seattle was evaluated (see Figure 2). Commuter rail was assumed to operate weekdays during peak-use periods. Trains would run every 30 minutes from 6 to 9 a.m. and from 4 to 7 p.m. It was assumed that trains would be through-routed to Renton. Commuter rail service was compared to an "equivalent express bus alternative" as required by RCW 81.104.120.

### Results:

- The Everett-Seattle commuter rail service passes the RCW 81.104.120 statutory reasonableness test. The cost per passenger mile for this commuter rail segment would be \$0.33 to \$0.38 compared to \$0.40 per passenger mile for the express bus alternative.
- Forty-five percent of the ridership growth forecast in the study is based on population and employment growth between 1993 and 2010. The Puget Sound Regional Council (PSRC) Vision II scenario projects a significant increase in the number of people living and working in downtown Everett.
- The 2010 travel ridership forecast shows 60 percent of commuter rail passengers traveling in the "peak" direction, suggesting that demand during either peak-use period would be fairly balanced. The "reverse" commute forecast was significantly affected by Everett employment and residential growth assumptions.
- Travel forecasts indicate that commuter rail offers significantly better service between Edmonds, Mukilteo and Everett than the express bus alternative. Commuter rail would provide relatively direct service compared to the slower, more roundabout bus service (there is no direct road connection between the destinations).
- Including the Everett-Seattle commuter rail segment in the regional transit system plan would provide continuous passenger rail service that connects five intermodal terminals currently in the project development stage (Everett, Mukilteo, Edmonds, Seattle and Tacoma).
- Including the Everett-Seattle commuter rail segment in the regional transit system plan would connect three of the region's four major urban centers and be consistent with the region's adopted land-use plan — Vision 2020.

### **III. Everett-Seattle and Tacoma-Lakewood/Dupont feasibility studies**

- On October 8, 1993, the RTA board adopted Resolution No. 3 directing staff to study the feasibility of Everett-Seattle and Tacoma-Lakewood/Dupont commuter rail service.
- The feasibility studies have determined that the Everett-Seattle and Tacoma-Lakewood/Dupont commuter rail segments satisfy the requirements of RCW 81.101.120. The feasibility studies are scheduled to be reviewed by the Washington State Expert Review Panel on April 6, 1994.
- Table A compares various commuter rail segments analyzed to date.
- Attachments 2 (Everett-Seattle) and 3 (Tacoma-Lakewood/Dupont) summarize the feasibility study results.

### **IV. Issues**

#### **A. RTA Policy Issues**

1. The RTA will consider Resolution 24 which recognizes feasibility study findings for the Everett-Seattle and Tacoma-Lakewood/Dupont segments and expresses the board's intent to include those services in the revised system plan scheduled for adoption in October 1994.
2. Resolution 24 also directs the RTA Executive Director to prepare for the board's consideration:
  - an integrated work program and schedule for the expanded commuter rail system
  - revised budgets and consultant contracts required to support the work program.

#### **B. Implementation Strategy**

1. Including the Everett-Seattle and Tacoma-Lakewood commuter rail segments in the system plan makes the commuter rail implementation schedule and financial plan more complex. Staff will need to analyze service, capital improvement and operating subsidy phasing options.
2. The board will need to determine what parts of the overall commuter rail program to include in the system plan "first phase" that will be submitted to voters. The board may wish to consider developing performance criteria to guide commuter rail implementation over time.

## Table A Commuter Rail Segment Comparison

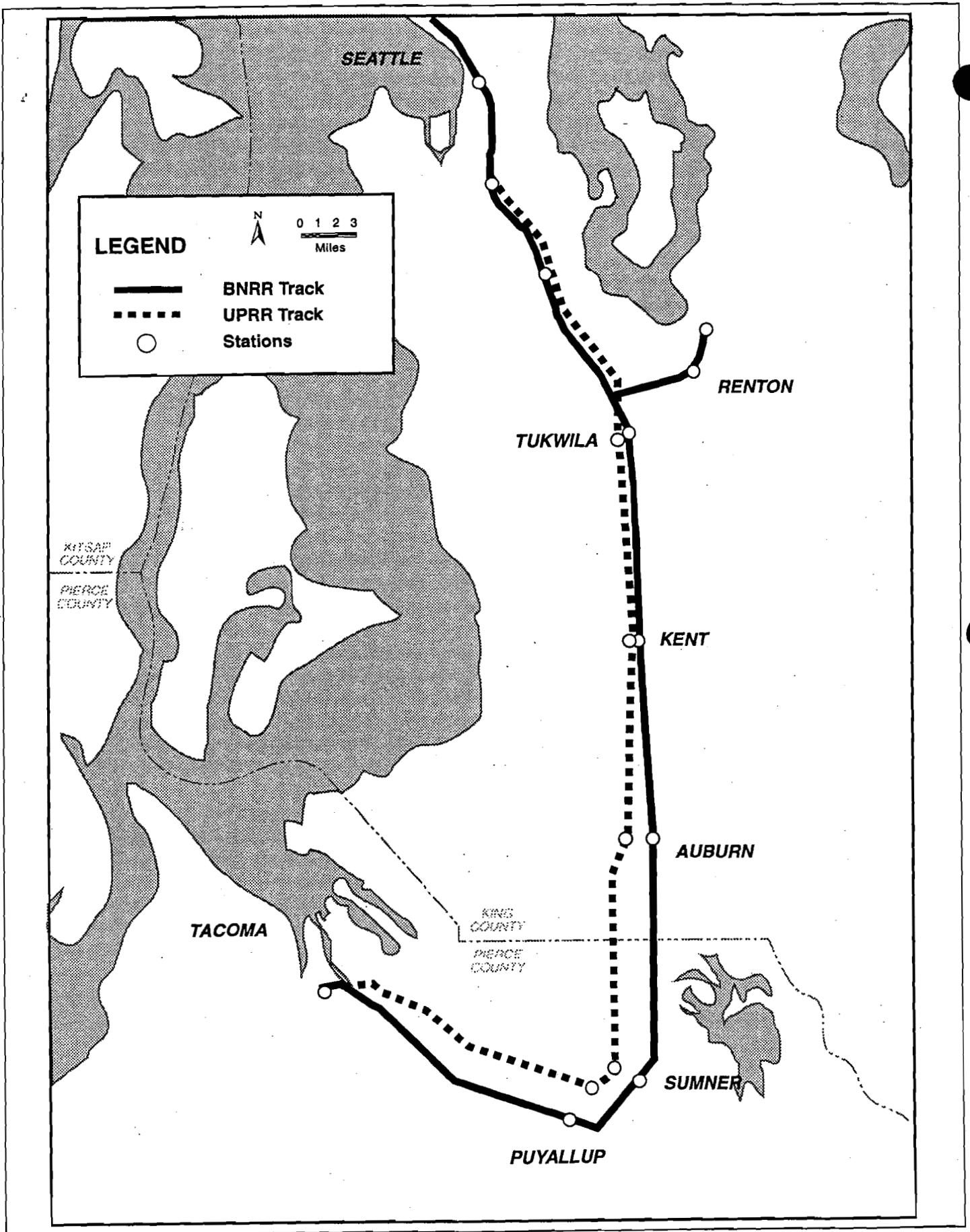
Segment	Miles	Boardings per day (2010)	Capital cost (1993\$)	Operating & maintenance cost (1993\$)	Cost per passenger mile	Express bus cost per passenger mile
Tacoma-Seattle (1992) <sup>1</sup>	40	8,100 <sup>4</sup>	180-275m <sup>1</sup>	9.7m <sup>2&amp;4</sup>	0.46 <sup>2&amp;4</sup>	0.54 <sup>2&amp;4</sup>
Renton service (1993) <sup>1</sup>	4	3,000 <sup>3</sup>	48m <sup>2</sup>	2.8m <sup>2&amp;3</sup>	0.54 <sup>2&amp;3</sup>	0.59 <sup>2&amp;3</sup>
Everett-Seattle (1994)	34	4,600	58-75m	5.9m	0.33-0.38	0.40
Lakewood-Tacoma (1994)	7	1,200	70m	0.9mm	2.73	2.92

<sup>1</sup> These results are being reevaluated as part of project-level planning. Both ridership plus capital and O/M costs are expected to increase as a result of new population and employment forecasts being used in the travel forecasting and to reflect the need to maintain capacity for increased freight rail and intercity traffic passenger rail.

<sup>2</sup> Costs in 1991\$

<sup>3</sup> Based on year 2000 total boardings resulting from Renton service.

<sup>4</sup> Based on year 2020.



## **II. Tacoma-Seattle segment**

The RTA is conducting project-level planning for Tacoma-Seattle commuter rail segment (Figure 1). This planning will allow the authority to complete the state environmental process for the project by the end of 1994.

### **A. Project planning**

- The RTA held eight scoping meetings for the environmental assessment process January 10-19, 1994. About 300 people attended the meetings. A summary of the scoping meetings and comments received at the meetings is available upon request.
- Attachment 1 shows the schedule for completing the environmental assessment process. The RTA will be able to select station locations by November 1994.
- Once station locations have been identified the RTA can develop a detailed work program for station design. Station design can begin as soon as grant funds are made available and the authority receives federal environmental clearances (early 1995).

### **B. Federal funding for accelerated track and signal improvements**

- At its January 14, 1994 meeting, the RTA board directed staff to investigate the possibility of using appropriated commuter rail funds for track and signal improvements in 1994/1995.
- Federal Transit Administration (FTA) officials have indicated that the RTA will need local funds for beginning commuter rail service before the administration could release federal funds for track and signal improvements.
- Staff is determining how quickly the RTA could develop a financial plan for beginning commuter rail service that would be satisfactory to the FTA.

### **C. Negotiations with Union Pacific and Burlington Northern railroads**

- Staff is negotiating a Letter of Intent with Union Pacific and Burlington Northern railroads. The Letter of Intent will establish a schedule for subsequent agreements between the RTA and the railroads.
- These agreements will:
  - establish joint operations by the two railroads between Tacoma and Seattle that would increase the corridor's overall capacity
  - identify short- and long-term capital improvements needed to support commuter rail in the corridor
  - provide technical and financial assistance from the railroads to design and implement the capital improvements
  - provide the RTA commuter rail track rights for commuter rail operation and identify the selection process for a service operator.

"Commuter rail should be developed to be compatible with the statewide passenger rail program and in a way that ensures continued freight train mobility. Regional Transit System funds are not intended for enhancing rail freight movements."

#### **D. Relationship to Pacific Northwest Rail Corridor**

The Pacific Northwest Rail Corridor is one of five federal "high speed" rail corridors in the nation. It extends from Eugene, Oregon to Vancouver, B.C. In addition to train technology improvements a number of speed, signalization and grade-crossing improvements are required in the corridor for high-speed rail to be competitive with other types of transportation.

An estimated \$232.8 million of capital improvements are required in the corridor over the next six years to support the Northwest Rail Corridor service objectives. Of these capital improvements about \$45 million are the same investments required to operate commuter rail. About \$25 million of these investments would take place between Tacoma and Seattle and about \$20 million between Everett and Seattle.

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# ***Commuter Rail Status Report***

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## **I. Background**

### **A. Washington State's High Capacity legislation includes unique requirements for commuter rail**

*RCW 81.104.120 states:*

"... regional transit authorities may operate or contract for commuter rail service where it is deemed to be a reasonable alternative transit mode. A reasonable alternative is one whose passenger costs per mile, including costs of trackage, equipment, maintenance, operations and administration are equal to or less than comparable bus, entrained bus, trolley bus or personal rapid transit systems."

### **B. The Joint Regional Policy Committee's adopted Regional Transit System Plan provides the following policy direction regarding commuter rail:**

"The regional rail system vision includes commuter rail service between Tacoma, Seattle, Everett and Renton, to be implemented within two years of locally committed funding."

"Before making a final commitment to the Seattle-Everett commuter rail line, the RTA will complete a technical analysis comparable to that carried out for the Tacoma-Seattle line."

"Both rapid rail and commuter rail service from Tacoma to Lakewood will be evaluated to determine how to best serve this market."

### **C. Regional Transit System Plan implementation program:**

"The Tacoma-Seattle line will proceed as rapidly as possible and will not depend upon the Everett-Seattle line schedule."

"The RTA should form a coalition with the ports of Seattle and Tacoma, along with WSDOT, to seek additional state and federal funds for the project."

"To support development of the commuter rail system the following services and facilities will be developed:

- intracounty express and local feeder bus
- expedited right-of-way acquisition for building transit rail stations and park-and-ride lots
- expedited construction of pedestrian, bicycle, and non-motorized vehicle access improvements."





Regional Transit Authority

# Commuter Rail Status Report

**DRAFT**

March 25, 1994

