

MOTION NO. M2011-87
Identifying the Range of Alternatives to Study in the North Corridor Transit Project Environmental Impact Statement

MEETING:	DATE:	TYPE OF ACTION:	STAFF CONTACT:	PHONE:
Capital Committee	12/8/11	Recommendation to Board	Ric Ilgenfritz, PEPD Executive Director	(206) 398-5239
Board	12/15/11	Final Action	Matt Shelden, Light Rail Project Development Manager	(206) 398-5292

PROPOSED ACTION

Identifies the range of North Corridor Transit Project alternatives to be studied in the Draft Environmental Impact Statement and excludes from further study worse performing and less promising alternatives evaluated in the project alternatives analysis.

KEY FEATURES

- Identifies the range of alternatives to be considered in the Draft Environmental Impact Statement (EIS), including:

Extension of the light rail guideway from the Northgate Station to the Lynnwood Transit Center generally along the Interstate 5 (I-5) corridor in a mix of alignment and profile alternatives along the east and/or west sides and/or median as reasonable and appropriate to connect alternative stations.

Location of four stations in alignments and profiles appropriate to specific sites as follows:

- East side of I-5 at NE 130th, 145th or 155th Street
 - East or west side of I-5 at NE 185th Street
 - Mountlake Terrace Freeway Station or east side of I-5 at 236th Street SW
 - Lynnwood Transit Center
- Excludes from further study worse performing and less promising alternatives evaluated and documented in the project *Alternatives Analysis Report and State Environment Policy Act (SEPA) Addendum*, including:
 - Transportation System Management (TSM) (TSM will not be advanced as a formal EIS alternative, but will be carried forward for comparison as required for New Starts funding.)
 - Lake City Way light rail
 - 15th Avenue light rail
 - SR 99 light rail
 - I-5 bus rapid transit
 - Multi-Corridor bus rapid transit

PROJECT DESCRIPTION

The North Corridor Transit Project is part of ST2 and extends light rail from Northgate Station in the City of Seattle to the City of Lynnwood in Snohomish County. The project also serves the cities of Shoreline and Mountlake Terrace. The project will extend light rail along the I-5 corridor with stations, alignment, and profiles to be determined following the issuance of the Final EIS and Board selection of the project to be built.

FISCAL INFORMATION

Not applicable to this action.

SMALL BUSINESS PARTICIPATION

Not applicable to this action.

EQUAL EMPLOYMENT WORKFORCE PROFILE

Not applicable to this action.

BACKGROUND

The North Corridor Transit Project to extend the regional transit system from Northgate Station to Lynnwood Transit Center is part of the voter-approved ST2 Regional Transit System Plan. The project will extend regional light rail facilities and service from King County to Snohomish County between the cities of Seattle, Shoreline, Mountlake Terrace and Lynnwood.

Sound Transit intends to apply for federal funding to help pay for the extension from Northgate to Lynnwood through the Federal Transit Administration's (FTA) New Starts grant program. The grant program requires that Sound Transit complete an Alternatives Analysis (AA) to evaluate reasonable alternatives to meet the project's purpose and need, including alternative transit modes, routes, profiles and stations. The AA process evaluates alternatives, screens out less promising alternatives, and identifies those to be considered further in the environmental review process. Narrowing the range of promising alternatives through the AA process allows subsequent engineering and environmental review to be more focused.

Before committing federal funds to the North Corridor project, the FTA is required to undertake environmental review in compliance with the National Environmental Policy Act (NEPA). As the public agency proposing the North Corridor project, Sound Transit is required to comply with the State Environmental Policy Act (SEPA). The FTA, as the federal lead agency under NEPA, and Sound Transit, as the state lead agency under SEPA, have determined that the proposed project may have probable significant adverse environmental impacts. To satisfy both NEPA and SEPA requirements, the agencies are preparing a combined EIS for the project.

The AA process began in fall 2010 with early public and agency scoping to solicit comments on the purpose and need for the project, the range of alternatives to be examined, and proposed evaluation criteria. Early scoping included three public workshops, one agency scoping meeting, and a 30-day public comment period to help define the alternatives and evaluation process. Staff used input to develop and evaluate several bus rapid transit (BRT) and light rail alternatives for the corridor, which are documented in the *Alternatives Analysis Report and SEPA Addendum*. Evaluation findings were reported to the Board as screening progressed in December 2010, April 2011 and September 2011. Alternatives evaluated include:

- A TSM alternative representing the best set of transit improvements short of a major capital investment, consistent with FTA requirements under the New Starts grant program;
- Two bus rapid transit (BRT) alternatives; one focused on I-5 and the other making improvements in three corridors (I-5, SR 99 and 15th Avenue NE) in the project area;
- Several light rail alternatives in various alignments, profiles and operating configurations following portions of I-5, SR 99 and 15th Avenue NE, with various connections to and from the

Northgate and Lynnwood transit center termini. An alternative connecting Northgate to Lynnwood via Lake City Way was also considered.

These alternatives were taken through four levels of evaluation using criteria derived from the Purpose & Need statement for the project. Analysis at each level became progressively more detailed and quantitative. Alternatives were eliminated at each step of the process, as described below. The TSM alternative was maintained throughout the process as a comparator for New Starts evaluation purposes, but it does not meet the purpose and need for the project in most categories.

Pre-screening: The Lake City Way alternative was eliminated because it did not meet purpose and need related to transportation effectiveness (it serves different markets) or consistency with Sound Transit's Regional Transit Long-Range Plan (it is a separate corridor). Alternatives that involved operating light rail in mixed traffic in any corridor were eliminated because they did not meet purpose and need related to transportation effectiveness such as insufficient capacity, slow speed and/or unreliability.

Initial screening: The 15th Avenue light rail alternatives were eliminated because they did not meet purpose and need related to either transportation effectiveness, or environmental impacts, or both (the route would be slow and unreliable, have insufficient capacity, have property and park impacts as well as noise and scale issues). Fully at-grade light rail along SR 99 was also eliminated for similar reasons, though a refined "mixed profile" alternative (mostly elevated with at-grade portions only at stations) was advanced. Connecting to SR 99 from Northgate via a tunnel through the Haller Lake neighborhood was also eliminated because it had no clear advantages over connecting to SR 99 via the N 110th Street corridor or Roosevelt Way. Connecting from SR 99 to Lynnwood via the 200th Street corridor was similarly eliminated because of no clear advantages over using the 208th Street corridor. Finally, using significant stretches of the former Interurban right-of-way instead of SR 99 was eliminated because it would have major impacts on existing trails and power transmission lines.

Level 1 screening: The I-5 BRT alternative was eliminated because of lower transportation effectiveness and higher costs than the Multi-Corridor BRT alternative. The Multi-Corridor BRT alternative was advanced for further evaluation.

Level 2 screening: Mixed at-grade and elevated light rail along SR 99 did not meet the project's purpose and need due to inadequate capacity, low reliability, small travel time benefits, and inconsistency with goals and objectives of the Long Range Plan. As a result, a fully elevated light rail alternative along SR 99 that provides better performance and similar capacity to light rail along I-5 was developed and evaluated. Variants of this alternative that would use Roosevelt Way to connect to Northgate, stay along SR 99 north of the King-Snohomish county line, or use 208th Street to connect to Lynnwood were eliminated due to worse transportation effectiveness, worse land use/economic development effects, and/or higher adverse environmental and community impacts. The Multi-Corridor BRT alternative was also eliminated because of poor transportation effectiveness (e.g. low ridership, slow travel times, unreliability, and constrained capacity) and inconsistency with the Long-Range Plan.

At the end of the alternatives analysis, two corridor alternatives remain for further evaluation in the Draft EIS:

- I-5 Corridor Alternative: Mixed at-grade and elevated light rail along I-5 corridor; and
- SR 99 Corridor Alternative: Fully elevated light rail along N 110th Street, SR 99, and SR 104, continuing as predominantly at-grade light rail along I-5 between SR 104 and Lynnwood in the same configuration as the I-5 light rail corridor alternative.

The performance of these alternatives and the most recent public input is described below.

Transportation effectiveness:

The SR 99 alternative is less direct and is 28 percent slower than the I-5 alternative between Northgate and Lynnwood (18 v. 14 minutes). SR 99 light rail produces eight percent fewer total riders in 2030 (48,000/day v. 52,000 per day), 15 percent fewer new riders (3.9 v. 4.5 M/year) and 16 percent less travel time savings (3.8 v. 4.6 M/year) than I-5 light rail. These factors in turn lead to 19 percent fewer savings in regional vehicle miles travelled for the SR 99 alternative v. the I-5 alternative. Regarding system integration, light rail along I-5 provides more opportunities to feed I-5 bus routes and riders to rail, and reprogram bus service hours to other service priorities. Light rail along SR 99 provides fewer opportunities to reprogram bus service hours because longer travel times make the route less attractive for riders to transfer to rail to continue their trips. As a result, more express bus service along I-5 would be needed leading to fewer service reinvestment opportunities. Further, Community Transit is already running BRT on SR 99 in Snohomish County, and King County Metro soon will be running BRT along SR 99 in King County. Ridership modeling shows that light rail and BRT would compete for riders if they operate together in the SR 99 corridor. Another consideration is the longer travel times of the SR 99 alternative would lengthen trips on future extensions north of Lynnwood, potentially lowering ridership on those extensions.

Supportive land use and economic development effects: Both corridor alternatives have two stations in common, and they both connect to the Northgate Station, a major focus of transit-oriented development activity. The Cities of Lynnwood and Mountlake Terrace have policies that support more intensive land use and economic development around stations, and both are preparing for regional transit improvements. The differences between the alternatives are in what could happen in north Seattle and Shoreline with stations along I-5 versus SR 99. The analysis shows that while current land uses and zoning along SR 99 are more supportive of development and redevelopment, shallow land parcels and local policies that seek to buffer adjacent neighborhoods limit opportunities for economic development. Some stakeholders have expressed concerns about the barrier that an elevated guideway along SR 99 would pose (e.g. loss of developable land, access restrictions, and obscuring business frontages). The analysis also shows that the longer travel times of the SR 99 alternative are less supportive of increased economic activity in Northgate and Lynnwood, the two regional centers prioritized to connect with regional transit under *Transportation 2040* and accommodate future growth and economic development under *Vision 2040*.

Preservation of a healthy environment: The Alternatives Analysis Report and SEPA Addendum included a high-level review of potential environmental impacts including ecosystems, water resources, park/trails, historic properties, visual, noise, property/right-of-way, traffic and construction impacts. The analysis also included potential environmental benefits like improved air quality/GHG reductions and better pedestrian and bicycle connectivity. The biggest differences between the alternatives are property and community disruption impacts. More properties would be impacted along SR 99 (40 acres; estimated 200-230 parcels would need to be partially or fully acquired). The majority of these impacts would be to businesses and communities that have seen substantial construction disruption from other transportation improvement projects in recent years. In contrast, more public right-of-way is available along I-5 and fewer properties (22 acres; estimated 140-170 parcels would need to be partially or fully acquired) would be impacted.

Cost & constructability: The SR 99 corridor alternative is estimated to cost over 40 percent more to build than the I-5 corridor alternative (\$2.0-\$2.3 billion v. \$1.4-\$1.6 billion) because of 1.7 miles of additional guideway length, the additional station and fleet, and slower travel times. It would also cost one third more to operate annually versus the I-5 corridor route (\$14.6 M v. \$11.0 M per year).

SR 99 light rail's higher costs and lower ridership lead to substantially lower cost effectiveness than the I-5 alternative. SR 99 light rail is estimated to cost \$42-\$48 per hour of user benefit and \$41-\$46 per new passenger in 2030. I-5 light rail is estimated to cost \$25-\$28 per hour of user benefit and \$25-\$29 per new passenger.

New Starts grant program competitiveness: The I-5 light rail corridor is the most cost-effective alternative and under current New Starts rating criteria would be competitive for a federal New Starts grant. The SR 99 light rail corridor does not meet current minimum New Starts cost effectiveness thresholds, and would not likely achieve the "medium" rating necessary to compete for a grant. The SR 99 alternative's length and need for full grade separation mean that further refinement would likely yield only marginal cost reductions, if any, that would not change its competitiveness for New Starts.

Sound Transit program affordability: Revenue forecasts for ST2 are down 25 percent versus revenues anticipated when voters approved the program in 2008. Recovery from the recession has been slow and will not likely replenish revenues within the ST2 program timeframe. The I-5 corridor alternative is within the range of forecast program affordability presuming Sound Transit obtains a reasonable level of New Starts funding. The SR 99 alternative's substantially higher cost and slim chance of competing for New Starts funding make it unreasonable to assume that it could be funded without major reductions in other Sound Transit programs.

Public and agency input: Based on the most recent environmental scoping input, a wide range of stakeholders support continuing work on I-5 light rail alternatives in the DEIS, including:

- The cities of Seattle, Shoreline, Mountlake Terrace, Edmonds, Lynnwood, and Everett
- Community Transit and King County Department of Transportation
- Organizations including the Shoreline Chamber of Commerce, Snohomish County Tomorrow, the Economic Development Alliance of Snohomish County, and the Snohomish County Committee for Improved Transportation (SCCIT).

No public agencies, and only a few individuals suggested dropping I-5 light rail from further consideration. About 13 percent of individuals who commented on alternatives and one agency (King County Department of Transportation) suggested that further analysis of SR 99 light rail alternatives be performed. King County Department of Transportation later clarified that I-5 was their preferred alternative. Some individuals and stakeholders, including the Aurora Avenue Merchants Association, raised concerns about the business and construction impacts of light rail along SR 99 and suggested that further work on SR 99 alternatives not be pursued.

ENVIRONMENTAL COMPLIANCE

Environmental review for the North Corridor project has occurred in several phases. To date, the project has undergone programmatic environmental review under SEPA. Light rail, along with other potential regional transit system enhancements in the North Corridor were broadly evaluated at the planning level in the Supplemental Environmental Impact Statement (SEIS) for the Regional Transit Long-Range Plan in 2005. Like the 1993 EIS it supplements, the 2005 SEIS provided plan-level environmental review under SEPA of potential high capacity transit modes and corridors.

The project has also now undergone a formal Alternatives Analysis as required by Federal Transit Administration guidelines for projects that intend to compete for 49 USC §5309 New Starts grant funding (September 2011). The Alternatives Analysis included a SEPA Addendum, which adds to the analysis in the 2005 Supplemental EIS. The addendum added information and analysis regarding the North Corridor transit alternatives considered in the alternatives analysis and their

environmental impacts. The addendum was issued pursuant to the SEPA rules, WAC 197-11-600(4)(c) and WAC 197-11-625.

The next step in the environmental review process is to prepare the project-level Draft EIS consistent with both NEPA and SEPA requirements. This more detailed project-level environmental review will evaluate potential alignment, station location, and profile alternatives for the North Corridor project.

SSK 11-30-11

TIME CONSTRAINTS

Delaying identification of alternatives to be considered in the EIS could delay the start of the Draft EIS and conceptual engineering development and subsequent publication of the Draft EIS, identification of a preferred alternative, preliminary engineering of that alternative, and application to the FTA New Starts grant program.

PUBLIC INVOLVEMENT

During the AA process, Sound Transit provided opportunities for ongoing agency engagement via the Interagency Technical Working Group. Staff also briefed the Board and other stakeholders at key points. Sound Transit and the FTA conducted “early scoping” in October 2010 to provide agencies and the public an early opportunity for input into the project’s alternatives and scope. Final alternatives analysis findings were also presented to and commented on by the public and agencies during formal environmental scoping for the EIS. Outreach efforts included three public meetings, one agency scoping meeting, and a 30-day comment period during October 2011.

LEGAL REVIEW

PW 12/6/11

MOTION NO. M2011-87

A motion of the Board of the Central Puget Sound Regional Transit Authority identifying the range of North Corridor Transit Project alternatives to be studied in the Draft Environmental Impact Statement (EIS) and excluding from further study other worse performing and less promising alternatives evaluated in the project alternatives analysis.

BACKGROUND:

The North Corridor Transit Project to extend the regional transit system from Northgate Station to Lynnwood Transit Center is part of the voter-approved ST2 Regional Transit System Plan. The project will extend regional light rail facilities and service from King County to Snohomish County between the cities of Seattle, Shoreline, Mountlake Terrace and Lynnwood.

Sound Transit intends to apply for federal funding to help pay for the extension from Northgate to Lynnwood through the Federal Transit Administration's (FTA) New Starts grant program. The grant program requires that Sound Transit complete an Alternatives Analysis (AA) to evaluate reasonable alternatives to meet the project's purpose and need, including alternative transit modes, routes, profiles and stations. The AA process evaluates alternatives, screens out less promising alternatives, and identifies those to be considered further in the environmental review process. Narrowing the range of promising alternatives through the AA process allows subsequent engineering and environmental review to be more focused.

Before committing federal funds to the North Corridor project, the FTA is required to undertake environmental review in compliance with the National Environmental Policy Act (NEPA). As the public agency proposing the North Corridor project, Sound Transit is required to comply with the State Environmental Policy Act (SEPA). The FTA, as the federal lead agency under NEPA, and Sound Transit, as the state lead agency under SEPA, have determined that the proposed project may have probable significant adverse environmental impacts. To satisfy both NEPA and SEPA requirements, the agencies are preparing a combined EIS for the project.

The AA process began in fall 2010 with early public and agency scoping to solicit comments on the purpose and need for the project, the range of alternatives to be examined, and proposed evaluation criteria. Early scoping included three public workshops, one agency scoping meeting, and a 30-day public comment period to help define the alternatives and evaluation process. Staff used input to develop and evaluate several bus rapid transit (BRT) and light rail alternatives for the corridor, which are documented in the *Alternatives Analysis Report and SEPA Addendum*. Evaluation findings were reported to the Board as screening progressed in December 2010, April 2011 and September 2011. Final alternatives analysis findings were also presented to and commented on by the public and agencies during environmental scoping, which included three public meetings, one agency scoping meeting, and a 30-day comment period during October 2011.

Sound Transit has completed the AA process, including a SEPA addendum to the 2005 Supplemental Environmental Impact Statement for the Regional Transit Long-Range Plan and environmental scoping, and has concluded that light rail is the best performing transit mode and that Interstate 5 (I-5) is the best performing general corridor for the extension. Recent scoping comments from the public, agencies, jurisdictions, and stakeholders also strongly support continued study of I-5 light rail alternatives.

MOTION:

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the following range of alternatives be considered in the North Corridor Transit Project Draft Environmental Impact Statement and associated conceptual engineering, and that other worse performing and less promising alternatives be excluded from further study. The range of alternatives to be considered in the DEIS is as follows:

Extension of the light rail guideway from the Northgate Station to the Lynnwood Transit Center generally along the Interstate 5 (I-5) corridor in a mix of alignment and profile alternatives along the east and/or west sides and/or median as reasonable and appropriate to connect alternative stations.

Location of four stations in alignments and profiles appropriate to specific sites as follows:

- East side of I-5 at NE 130th, 145th or 155th Street
 - East or west side of I-5 at NE 185th Street
 - Mountlake Terrace Freeway Station or east side of I-5 at 236th Street SW
 - Lynnwood Transit Center
- Excludes from further study worse performing and less promising alternatives evaluated and documented in the project *Alternatives Analysis Report and State Environment Policy Act (SEPA) Addendum*, including:
 - Transportation System Management (TSM) (TSM will not be advanced as a formal EIS alternative, but will be carried forward for comparison as required for New Starts funding.)
 - Lake City Way light rail
 - 15th Avenue light rail
 - SR 99 light rail
 - I-5 bus rapid transit
 - Multi-Corridor bus rapid transit

It is further moved that Sound Transit work with the cities served by the alternatives to encourage transit-oriented development (TOD) at and around light rail stations, and with the cities and local transit agencies to strengthen connections between the light rail stations along I-5 and TOD opportunities in surrounding neighborhoods and communities. While specific TOD projects will not be evaluated in the EIS, the document will generally address the potential for TOD at or near stations for the alternatives considered in the EIS.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on December 15, 2011.



Aaron Reardon
Board Chair

ATTEST:

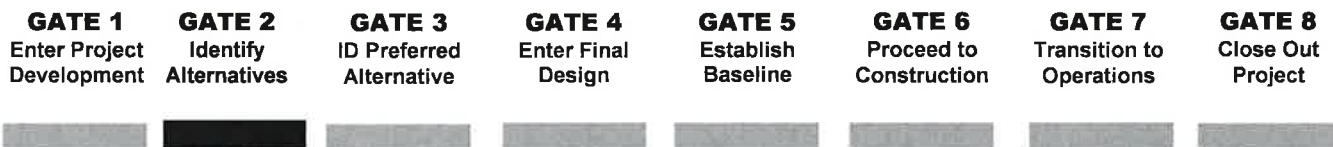


Marcia Walker
Board Administrator



PHASE GATE ACTION
North Corridor High Capacity Transit Project

MEETING	DATE	STAFF CONTACT	PHONE
Board	12/15/11	Ric Ilgenfritz, PEPD Executive Director Matt Shelden, Light Rail Development Manager	206-398-5239 206-398-5292



ACTION REQUESTED

Authorize the North Corridor High Capacity Transit Project to enter Gate 2 – Identify Alternatives

BUDGET

Preliminary Engineering Budget: \$57,119,000
Estimated Final Project Cost: \$1,301,637,000

SCHEDULE

Project Completion: 2023

PROJECT DESCRIPTION

The North Corridor High Capacity Transit (HCT) Project is included in the voter-approved ST2 plan and extends light rail from Northgate Station in the City of Seattle to the City of Lynnwood in Snohomish County. The project also serves the cities of Shoreline and Mountlake Terrace. The project will extend light rail along the Interstate 5 corridor with stations, profiles, and alignments to be determined following the issuance of the Final Environmental Impact Statement (EIS) and Board selection of the project to be built.

Consistent with FTA New Starts requirements, an alternative analysis began in fall 2010 and was completed in summer 2011. Environmental scoping occurred in October 2011.

With approval of Phase Gate 2, the Board will identify the range of alternative(s) to be studied in the Draft (EIS). The next phase of work includes development of the Draft EIS and advanced conceptual engineering. The Board is identifying the alternatives to be considered in the Draft EIS in Motion No. M2011-87.

ACTION APPROVED



Board Chair

12-15-2011

Date