King County

Meeting Agenda

Transportation, Economy, and Environment Committee

Councilmembers:
Rod Dembowski, Chair;
Teresa Mosqueda, Vice Chair;
Claudia Balducci, Jorge Barón, Pete von Reichbauer,

Lead Staff: Sherrie Hsu (206-477-7253)
Committee Clerk: Angelica Calderon (206 477-7470)

9:30 AM   **Tuesday, June 18, 2024**   **Hybrid Meeting**

Hybrid Meetings: Attend King County Council committee meetings in person in Council Chambers (Room 1001), 516 3rd Avenue in Seattle, or through remote access. Details on how to attend and/or provide comment remotely are listed below.

Pursuant to K.C.C. 1.24.035 A. and F., this meeting is also noticed as a meeting of the Metropolitan King County Council, whose agenda is limited to the committee business. In this meeting only the rules and procedures applicable to committees apply and not those applicable to full council meetings.

HOW TO PROVIDE PUBLIC COMMENT: The Transportation, Economy and Environment Committee values community input and looks forward to hearing from you on agenda items.

The Committee will accept public comment on items on today's agenda in writing. You may do so by submitting your written comments to kcccomitt@kingcounty.gov. If your comments are submitted before 8:00 a.m. on the day of the meeting, your comments will be distributed to the committee members and appropriate staff prior to the meeting.

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TTY Number - TTY 711.
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3)   Listen to the meeting by telephone.

          Dial: 1 253 215 8782
          Webinar ID: 892 6924 2617

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1.   Call to Order

To show a PDF of the written materials for an agenda item, click on the agenda item below.

2.   Roll Call

3.   Approval of Minutes **p,5**

> *Minutes of May 21, 2024 meeting.*

Consent

4.   Proposed Motion No. 2024-0175 **p. 10**

> A MOTION confirming the executive's appointment of the Honorable Amy Lam, councilmember, city of Sammamish, who resides in council district three, to the King County solid waste advisory committee, filling the local elected public official position.
>
> **_Sponsors:_**   Perry

Terra Rose, Council staff

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5. Proposed Motion No. 2024-0079 **p. 15**

A MOTION acknowledging receipt of the 2024 public benefit rating system report as required by the 2023-2024 Biennial Budget Ordinance, Ordinance 19546, Section 79, as amended by 19633, Section 58, Proviso P1.

Sponsors: Balducci

Brandi Paribello, Council staff

Briefing

6. Briefing No. 2024-B0072 **p. 55**

Metro General Manager Briefing

Michelle Allison, Director, Metro Transit Department

Discussion and Possible Action

7. Proposed Motion No. 2024-0192 **p. 56**

A MOTION related to public transportation, approving the King County Metro Agency Safety Plan 2024, in accordance with the Federal Transit Administration's Public Transportation Agency Safety Plan regulations and the Bipartisan Infrastructure Law.

Sponsors: Dembowski

Contingent to introduction and referral to the Committee

Mary Bourguignon, Council staff

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Briefing

8.   Briefing No. 2024-B0073   **p. 140**

Metro Zero Emission Work and Electrification Audit

Mary Bourguignon, Council staff
Ben Thompson, Audit Director, King County Auditor's Office
Luc Poon, Principal Management Auditor, King County Auditor's Office
Elise Garvey, Principal Management Auditor, King County Auditor's Office
Mark Ellerbrook, Director, Capital Division, Metro Transit Department
Huoi Trieu, Strategic Planning Manager II, Metro Transit Department

9.   Briefing No. 2024-B0074   **p. 164**

Salmon Recovery Briefing

Janne Kaje, Regional Partnerships Unit Supervisor, WLRD, DNRP
Elissa Ostergaard, WRIA 7 Salmon Recovery Manager, WLRD, DNRP
Jason Mulvihill-Kuntz, WRIA 8 Salmon Recovery Manager, WLRD, DNRP
Matt Goehring, WRIA 9 Salmon Recovery Manager, WLRD, DNRP
Alison Agness, Kokanee Recovery Manager, WLRD, DNRP
Chris Gregersen, Environmental Scientist, WLRD, DNRP

Other Business

Adjournment

King County

Meeting Minutes

Transportation, Economy, and Environment Committee

Councilmembers:
Rod Dembowski, Chair;
Teresa Mosqueda, Vice Chair;
Claudia Balducci, Jorge Barón, Pete von Reichbauer,

Lead Staff: Sherrie Hsu (206-477-7253)
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3.   Remote attendance at the meeting by phone or computer: You may provide oral comment on current agenda items during the meeting's public comment period by connecting to the meeting via phone or computer using the ZOOM application at https://zoom.us/signin, and entering the Webinar ID number below.

TrEE Meeting Materials   Page 5 of 164   June 18, 2024

You are not required to sign up in advance. Comments are limited to current agenda items.

You have the right to language access services at no cost to you. To request these services, please contact Language Access Coordinator, Tera Chea at (206) 477 9259 or email Tera.chea2@kingcounty.gov by 8:00 a.m. at least three business days prior to the meeting.

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1.   <u>Call to Order</u>

Chair Dembowski called the meeting to order at 9:31 a.m.

2.   <u>Roll Call</u>

Present: 5 - Balducci, Barón, Dembowski, Mosqueda and von Reichbauer

3.   <u>Approval of Minutes</u>

Councilmember Barón moved approval of the April 16, 2024 meeting minutes. There being no objections, the minutes were approved.

4.   <u>Public Comment</u>

There was no individuals present to provide public comment.

Discussion and Possible Action

5.   **Proposed Motion No. 2024-0137**

A MOTION acknowledging receipt of a report on options for providing public transportation service to the Seattle waterfront and northwest Belltown in response to the 2023-2024 Biennial Budget Ordinance, Ordinance 19546, Section 114, Proviso P7.

> *<u>Sponsors:</u>*   Barón and Mosqueda
>
> *Mary Bourguignon, Council staff, briefed the committee on the legislation and answered questions from the members. David VanderZee, Service Planning, Metro Transit Department and Cristina González, Community Engagement, Metro Transit Department Metro, were present to commented and answered questions from the members.*

> **A motion was made by Councilmember Barón that this Motion be Recommended Do Pass. The motion carried by the following vote:**
>
> **Yes:**   4 -   Barón, Dembowski, Mosqueda and von Reichbauer

> **Excused:**   1 -   Balducci

Briefing

6.   **Briefing No. 2024-B0063**

Briefing on Fish Passage Restoration Program Audit

> *Sherrie Hsu, Council staff, briefed the committee on the legislation and answered questions from the members. Kymber Waltmunson, County Auditor, King County Auditor's Office; Cindy Drake, Supervising Auditor, King County Auditor's Office; and Zainab Nejati, Capital Projects Analyst, King County Auditor's Office, were present to briefed the Committee via PowerPoint presentation and answered questions from the members. Also present were Josh Baldi, Water and Land Resources Division Director, Department of Natural Resources and Parks; Evan Lewis, Special Projects Manager, Department of Natural Resources and Parks and Joann Kosai-Eng, County Road Engineer, Department of Local Services to answered questions from the members.*

> **This matter was Presented**

Discussion and Possible Action

7.   **Proposed Motion No. 2024-0162**

A MOTION acknowledging receipt of a report in response to Motion 16463.

> *<u>Sponsors:</u>*   Dembowski
>
> *Jenny Giambattista, Council staff, briefed the committee on the legislation and answered questions from the members. Marissa Aho, Director, Office of Climate, was present to commented and answered questions from the members.*

This matter was Deferred

8.   **Proposed Ordinance No. 2024-0007**

AN ORDINANCE relating to parks and recreation; amending Ordinance 14509, Section 4, and K.C.C. 7.01.010, Ordinance 14509, Section 7, as amended, and K.C.C. 7.08.060, Ordinance 14509, Section 9, and K.C.C. 7.08.070, Ordinance 14509, Section 10, and K.C.C. 7.08.080, Ordinance 6798, Section 2, as amended, and 7.12.020, Ordinance 6798, Section 3, and K.C.C. 7.12.030, Ordinance 14509, Section 14, and K.C.C. 7.12.035, Ordinance 6798, Section 5, as amended, and K.C.C. 7.12.050, Ordinance 6798, Section 11, as amended, and K.C.C. 7.12.110, Ordinance 6798, Section 12, and K.C.C. 7.12.140, Ordinance 6798, Section 65, and K.C.C. 7.12.650, Ordinance 6798, Section 66, and K.C.C. 7.12.660, Ordinance 6798, Section 67, and K.C.C. 7.12.670, Ordinance 6798, Section 70, as amended, and K.C.C. 7.12.700, and Ordinance 4461, Section 2, as amended, and K.C.C. 20.22.060, adding new sections to K.C.C. chapter 7.12, repealing Ordinance 6798, Section 16, as amended, and K.C.C. 7.12.160, Ordinance 6798, Section 17, and K.C.C. 7.12.170, Ordinance 6798, Section 18, and K.C.C. 7.12.180, Ordinance 6798, Section 19, and K.C.C. 7.12.190, Ordinance 6798, Section 20, and K.C.C. 7.12.200, Ordinance 6798, Section 21, and K.C.C. 7.12.210, Ordinance 6798, Section 22, and K.C.C. 7.12.220, Ordinance 6798, Section 23, and K.C.C. 7.12.230, Ordinance 6798, Section 24, as amended, and K.C.C. 7.12.240, Ordinance 6798, Section 25, as amended, and K.C.C. 7.12.250, Ordinance 6798, Section 26, as amended, and K.C.C. 7.12.260, Ordinance 6798, Section 27, and K.C.C. 7.12.270, Ordinance 6798, Section 28, and K.C.C. 7.12.280, Ordinance 6798, Section 29, and K.C.C. 7.12.290, Ordinance 8518, Section 1, as amended, and K.C.C. 7.12.295, Ordinance 6798, Section 30, as amended, and K.C.C. 7.12.300, Ordinance 6798, Section 31, and K.C.C. 7.12.310, Ordinance 6798, Section 32, and K.C.C. 7.12.320, Ordinance 6798, Section 33, and K.C.C. 7.12.330, Ordinance 6798, Section 34, and K.C.C. 7.12.340, Ordinance 6798, Section 35, and K.C.C. 7.12.350, Ordinance 6798, Section 36, and K.C.C. 7.12.360, Ordinance 6798, Section 37, and K.C.C. 7.12.370, Ordinance 6798, Section 38, and K.C.C. 7.12.380, Ordinance 6798, Section 39, and K.C.C. 7.12.390, Ordinance 6798, Section 40, and K.C.C. 7.12.400, Ordinance 6798, Section 41, as amended, and K.C.C. 7.12.410, Ordinance 6798, Section 42, as amended, and K.C.C. 7.12.420, Ordinance 6798, Section 43, as amended, and K.C.C. 7.12.430, Ordinance 17375, Section 2, and K.C.C. 7.12.435, Ordinance 6798, Section 44, as amended, and K.C.C. 7.12.440, Ordinance 14509, Section 22, and K.C.C. 7.12.445, Ordinance 6798, Section 45, and K.C.C. 7.12.450, Ordinance 6798, Section 46, as amended, and K.C.C. 7.12.460, Ordinance 6798, Section 47, as amended, and K.C.C. 7.12.470, Ordinance 6798, Section 48, as amended, and K.C.C. 7.12.480, Ordinance 6798, Section 49, and K.C.C. 7.12.490, Ordinance 6798, Section 50, and K.C.C. 7.12.500, Ordinance 6798, Section 51, and K.C.C. 7.12.510, Ordinance 6798, Section 52, and K.C.C. 7.12.520, Ordinance 6798, Section 53, as amended, and K.C.C. 7.12.530, Ordinance 6798, Section 54, and K.C.C. 7.12.540, Ordinance 6798, Section 55, as amended, and K.C.C. 7.12.550, Ordinance 6798, Section 56, as amended, and K.C.C. 7.12.560, Ordinance 6798, Section 57, and K.C.C. 7.12.570, Ordinance 6798, Section 58, and K.C.C. 7.12.580, Ordinance 6798, Section 59, and K.C.C. 7.12.590, Ordinance 6798, Section 60, as amended, and K.C.C. 7.12.600, Ordinance 6798, Section 61, as amended, and K.C.C. 7.12.610, Ordinance 6798, Section 62, and K.C.C. 7.12.620, Ordinance 6798, Section 63, as amended, and K.C.C. 7.12.630, Ordinance 6798, Section 64, as amended, and K.C.C. 7.12.640, Ordinance 8538, Section 3, and K.C.C. 7.12.642, and Ordinance 7620, Section 1, and   K.C.C. 7.12.645, and prescribing penalties.

          **Sponsors:**   Dembowski

          Sherrie Hsu, Council staff, briefed the committee on the legislation and answered questions from the members.   Warren Jimenez, Parks Division Director, Department of Natural Resources and Parks was present to commented and answered questions from the members

          There was a Striking amendment S1 and Title Amendment T2 moved by Councilmember Mosqueda, the amendments were adopted.

**A motion was made by Councilmember Mosqueda that this Ordinance be
Recommended Do Pass Substitute. The motion carried by the following vote:**

Yes:　3 -　Barón, Dembowski and Mosqueda

Excused:　2 -　Balducci and von Reichbauer

Other Business

There was no other business to come before the Committee.

Adjournment

The meeting was adjourned at 11:21 a.m.

Approved this _____ day of _____

_____
Clerk's Signature

Metropolitan King County Council
Transportation, Economy, and Environment Committee

STAFF REPORT

Agenda Item:	4	Name:	Terra Rose
Proposed No.:	2024-0175	**Date:**	June 18, 2024

SUBJECT

Proposed Motion 2024-0175 would confirm the Executive's appointment of Sammamish City Councilmember Amy Lam, who resides in Council District 3, to the King County Solid Waste Advisory Committee, filling the local elected public official position for the remainder of a three-year term to expire on September 30, 2026.

BACKGROUND

State law (R.C.W. 70.95.165) requires each county to establish a local solid waste advisory committee to assist in the development of programs and policies concerning solid waste handling and disposal, and to review and comment upon proposed rules, policies, or ordinances prior to adoption.

The King County Solid Waste Advisory Committee (SWAC) was established in 1984 (K.C.C. 10.28) to advise and make recommendations to the County Executive and the Council relating to:

- All aspects of solid waste management planning;
- The development of programs and policies concerning solid waste management;
- Solid waste management rules, policies or ordinances prior to their adoption; and
- The development of programs and policies that will establish, enhance and assure utilization of methods for reusing materials which would otherwise be disposed, and in particular to promote use of products manufactured from recycled materials.

The SWAC is composed of at least nine and not more than 20 members. Membership is comprised of interested citizens, local elected officials, and representatives from public interest groups, businesses, the waste management industry, the recycling industry, manufacturers located in King County, and marketing and education interests. King County Code requires that members shall include one representative from each of the two bargaining units representing the greatest number of Solid Waste Division employees, as well as at least one representative who resides within a mile of the property boundaries of the Cedar Hills Regional Landfill.

Nominees are appointed by the Executive and subject to confirmation by the Council. Members serve a term of three years or until their successor is appointed and confirmed. Vacancies are filled for the remainder of the term of the vacant position.

APPOINTEE INFORMATION

Amy Lam's application indicates that she serves as a Sammamish City Councilmember and a Design Manager at the Washington State Department of Health. She states that in her role as a graphic designer, she selects paper for printing and the type of plastics used for container, which would offer a unique perspective to the Solid Waste Advisory Committee. Her application also notes that she serves on the Sound Cities Association Public Issues Committee and is an alternate on the King County Board of Health. She resides in District 3.

ANALYSIS

Staff have not identified any issues with the proposed appointments. Councilmember Lam's appointment appears to be consistent with the requirements of K.C.C. 10.28.

ATTACHMENTS

1. Proposed Motion 2024-0175
2. Transmittal Letter

KING COUNTY

Signature Report

Motion

Proposed No. 2024-0175.1   **Sponsors** Perry

1   A MOTION confirming the executive's appointment of the

2   Honorable Amy Lam, councilmember, city of Sammamish,

3   who resides in council district three, to the King County

4   solid waste advisory committee, filling the local elected

5   public official position.

6   BE IT MOVED by the Council of King County:

7   The county executive's appointment of the Honorable Amy Lam, councilmember,

8   city of Sammamish, who resides in council district three, to the King County solid waste

9   advisory committee, filling the local elected public official position, for the remainder of

10   a three-year term to expire on September 30, 2026, is hereby confirmed.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____
Rod Dembowski, Chair

ATTEST:

_____
Melani Pedroza, Clerk of the Council

APPROVED this _____ day of _____, _____.

_____
Dow Constantine, County Executive

Attachments: None

2

King County

Dow Constantine
King County Executive

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www.kingcounty.gov

May 13, 2024

The Honorable Dave Upthegrove
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember Upthegrove:

This letter transmits a proposed Motion confirming the appointment of the Honorable Amy
Lam, Councilmember, City of Sammamish, who resides in council district three, to the King
County Solid Waste Advisory Committee, filling the local elected public official position, for
the remainder of a three-year term expiring September 30, 2026.

Councilmember Lam's application, financial disclosure, board profile, and appointment letter
are enclosed to serve as supporting and background information to assist the Council in
considering confirmation.

Thank you for your consideration of the proposed legislation. If you have any questions about
this appointment, please have your staff call Rick Ybarra, Boards & Commissions Liaison, at
206-263-9651.

Sincerely,

Dow Constantine
King County Executive

Enclosures

cc: King County Councilmembers
            ATTN: Stephanie Cirkovich, Chief of Staff
                Melani Hay, Clerk of the Council
        Karan Gill, Chief of Staff, Office of the Executive
        Penny Lipsou, Council Relations Director, Office of the Executive
        Rick Ybarra, Boards & Commissions Liaison, Office of the Executive
        Amy Ockerlander, Staff Liaison
        The Honorable Amy Lam, Councilmember, City of Sammamish

Metropolitan King County Council
Transportation, Economy & Environment Committee

STAFF REPORT

Agenda Item:	5	Name:	Brandi Paribello
Proposed No.:	2024-0079	Date:	June 18, 2024

SUBJECT

Proposed Motion 2024-0079 would acknowledge receipt of a 2024 Public Benefit Rating System Report, required under a budget proviso.

SUMMARY

King County offers an incentive (a property tax reduction) to landowners who voluntarily preserve open space, farmland, or forestland on their property via the Public Benefit Rating System (PBRS), which is administered by the Department of Natural Resources and Parks (DNRP). Under the PBRS, a property can qualify for one or more of 20 open space resource categories and five bonus categories (25 total categories).

During the 2023 1st Omnibus Supplemental Budget deliberation process, the King County Council included a proviso asking DNRP to prepare a Public Benefit Rating System Report, to be transmitted by January 4, 2024, with a revised transmittal deadline of March 4, 2024. Transmittal to council took place on February 29, 2024.

The transmitted report appears to comply with the proviso requirements.

BACKGROUND

In 1968, Washington State adopted Amendment 53 to the Washington Constitution, which enabled the legislature to develop and implement a process to tax property based on actual use for agriculture, forestry, and open space lands that are used for recreation or enjoyment of their scenic or natural beauty. This led to the Washington State Open Space Taxation Act ("the Act") in 1970. The Act established current use assessment (CUA) programs to encourage landowners, via the incentive of a property tax reduction, to voluntarily protect forests, farmland, and other forms of open space on their property rather than pursue development or more intensive uses. King County's program began as the Open Space Land CUA program in 1971 and has since evolved.

There are currently three CUA programs in King County that offer an incentive (a property tax reduction) to landowners to voluntarily preserve open space, farmland, or forestland on their property. One program is the Public Benefit Rating System (PBRS), which is administered by DNRP's Agriculture, Forestry, and Incentives Unit (AFI) within WLRD. The other two programs, Farm and Agricultural Land (Farm & Ag), and Designated Forest Land (DFL), are administered by the King County Department of Assessments (DOA).

Under the PBRS, a property can qualify for one or more of 20 open space resource categories and five bonus categories (25 total categories). Categories include protecting buffers to streams and wetlands, protecting groundwater, preserving significant wildlife habitat, providing recreational opportunities to the public, and conserving farmland and forestland through implementing best management practices.

Budget actions. During the 2023 1st Omnibus Supplemental Budget deliberation process, Council included a proviso[1] asking DNRP to prepare a Public Benefit Rating System Report, to be transmitted by January 4,2024, with a revised transmittal deadline of March 4, 2024:

P1 PROVIDED THAT:

Of this appropriation, $100,000 shall not be expended or encumbered until the executive transmits a Public Benefit Rating System ("PBRS") report and a motion that should acknowledge receipt of the report, and a motion acknowledging the receipt of the report is passed by the council. The motion should reference the subject matter, the proviso's ordinance number, ordinance section, and proviso number in both the title and body of the motion.

The PBRS report shall include, but not be limited to, the following:
A. Description of the PBRS program purpose and goals;
B. Analysis and summary of the properties enrolled in the PBRS including, but not limited to, number of enrolled properties, acres enrolled, present use of enrolled properties as identified by the King County department of assessments, open space resource categories, public benefit rating or current use value, and amount of property tax reduction benefit received since 2013. The data should be provided for the program and disaggregated into the incorporated area and unincorporated area, jurisdiction, and council district;
C. Based on the analysis in subsection B. of this proviso, evaluation of the properties receiving credit for public access under K.C.C. 20.36.100.D . The evaluation should consider the benefit to the public compared to the cost of the program, including an assessment of the amount of property tax reduction benefit to the owners of enrolled properties that is then subsidized by the rest of the taxpayers of King County. The evaluation should also consider the nexus between the type and frequency of public use and the amount of tax reduction benefit for properties receiving credit for public access;

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[1] Ordinance 19633, Section 58, Proviso P1

D. Identification of other county land conservation and open space programs in which properties enrolled in the PBRS program are currently participating or for which PBRS properties could be eligible;

E. Identification of King County's current policies and adopted plans for open space, land conservation, and equity and an evaluation of how the PBRS program's purpose and implementation align with those policies and adopted plans;

F. Based on the review in subsections A. through E. of this proviso, summary of options for updating the PBRS program to align with King County's current policies and adopted plans for open space, land conservation, and equity, including, but not limited to, changes to the categories of open space resources, qualifying standards, and process improvements.

The executive should electronically file the report and motion required by this proviso no later than January 4, 2024 [revised to March 4, 2024], with the clerk of the council, who shall retain an electronic copy and provide an electronic copy to all councilmembers, the council chief of staff, and the lead staff for the transportation, economy and environment committee or its successor.

ANALYSIS

2024 Public Benefit Rating System Report. The transmitted report, which is Attachment A to Proposed Motion 2024-0079, addresses the required subjects in the proviso.

A. Description of the PBRS program purpose and goals.

The report states that the PBRS is "a long-standing tool used to voluntarily conserve valuable natural, historic, and recreational resources throughout King County" and states that enrollment in the program reflects the Growth Manageman Act goal of "focus[ing] development within cities and urban growth areas and minimiz[ing] conversion of farms, forests, and other types of open space in rural areas."

B. Analysis and summary of the properties enrolled in the PBRS.

The proviso requires several sub-categories of information in this section, and the report's responses to the sub-categories are below.

1. *Number of enrolled properties.* The report states that there were 935 properties participating in PBRS in 2013, with the number growing to 1,338 in 2023 (a 43% increase).

2. *Number of acres enrolled.* As of 2023, there were more than 14,000 acres participating.

3. *Present Use of Enrolled Properties as Identified by the King County DOA.* The report states that the predominant present use for PBRS properties in both incorporated and unincorporated King County are "Single Family (Res Use/Zone)" and "Vacant (Single-family)."

4. *Open Space Resource Categories.* The report indicates that properties within incorporated cities and unincorporated in King County participating in PBRS most frequently receive credit for the following:

Table 1. Most Credited Open Space Resource Categories

Incorporated Cities	UKC
Urban open space; Significant wildlife or salmonid habitat; Public Access	Significant wildlife or salmonid habitat; Aquifer protection area; Surface water quality buffer; Buffer to public or current use classified land; Watershed protection area; Forest stewardship land

5. *Amount of Property Tax Reduction Benefit Received since 2013.* The report states that the annual tax savings for owners of properties participating in PBRS increased from approximately $2.7 million in 2013 to $4.3 million in 2023 in return for providing a broad suite of open space benefits to residents of King County.

6. *Public Benefit Rating or Current Use Value.* Table 3 located within the report provides this information.[2] It shows land use values before and after PBRS participation.

7. *Disaggregate the Data into Incorporated, UKC, Jurisdiction, and Council District.* The report indicates that each of the 9 council districts had property participating in PBRS, with 94% of all PBRS properties and 95% of participating acreage located in districts 3, 8, and 9. Tables 5 through 11 located within the report provide more detailed information.[3]

C. Based on the analysis in subsection B. of this proviso, evaluation of the properties receiving credit for public access under K.C.C. 20.36.100.D.

The proviso requires sub-categories of information in this section, and the report's responses to the sub-categories are below.

1. *Consider the benefit to the public compared to the cost of the program, including an assessment of the amount of property tax reduction benefit to the*

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[2] 2024 Public Benefit Rating System Report, Pages 11-12
[3] Id., Pages 13-18

owners of enrolled properties that is then subsidized by the rest of the taxpayers of King County.

The report provides several tables illustrating this information.[4]   It further states that, "Under the method used to calculate the percentage reduction, the small number of points awarded for public access was often not enough to significantly increase the total property tax reduction benefit realized from participating in PBRS.   Overall, only seven percent of all landowners participating in PBRS received an additional property tax benefit for meeting the requirements for the Public Access category."

2. *The evaluation should also consider the nexus between the type and frequency of public use and the amount of tax reduction benefit for properties receiving credit for public access.*

The report states that WLRD conducted an email survey to better understand frequency of use on PBRS properties that were awarded credit for providing public access and that 32 out of 63 property owners responded.   Of the respondents, 28 reported active and ongoing public use that ranged from several users daily or weekly to hundreds daily during warmer and drier months of the year.

D.   Identification of other county land conservation and open space programs in which properties enrolled in the PBRS program are currently participating or for which PBRS properties could be eligible.

The report lists and provides informaiton for the following: Farmland   Preservation Program, Forestry Program, Livestock Program, Noxious Weeds Control Program, Healthy Lands Project (HeLP), Transfer of Development Rights Program, and Agricultural Drainage Assistance Program.[5]

E.   Identification of King County's current policies and adopted plans for open space, land conservation, and equity and an evaluation of how the PBRS program's purpose and implementation align with those policies and adopted plans.

The report lists and provides informaiton for the following: Land Conservation Initiative, SCAP, Clean Water Healthy Habitat, 30-year Forest Plan, Open Space Plan, Comprehensive Plan, and ESJ Strategic Plan.[6]

F.   Based on the review in subsections A. through E. of this proviso, summary of options for updating the PBRS program to align with King County's

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[4] Id., Pages 20-23
[5] Id., Page 24-25
[6] Id., Page 25-26

current policies and adopted plans for open space, land conservation, and equity, including, but not limited to, changes to the categories of open space resources, qualifying standards, and process improvements.

The report states the following:

"PBRS is well aligned with King County's current policies and plans related to land and open space conservation, and is an important tool used to help achieve many strategic plan objectives. The rate of new PBRS enrollments has remained relatively stable, which demonstrates continued public support for the program. Although additional major operational or programmatic changes are not considered necessary at this time."

Next steps. Council action on the transmitted report (Proposed Motion 2024-0079) would acknowledge receipt of the report and release $100,000 that the budget ordinance encumbered from the DNRP budget. As noted above the transmitted report appears to satisfy the requirements in the budget proviso.

ATTACHMENTS

1. Proposed Motion 2024-0079 and its attachment
2. Transmittal Letter

KING COUNTY

Signature Report

Motion

Proposed No. 2024-0079.1   **Sponsors** Balducci

1   A MOTION acknowledging receipt of the 2024 public

2   benefit rating system report as required by the 2023-2024

3   Biennial Budget Ordinance, Ordinance 19546, Section 79,

4   as amended by 19633, Section 58, Proviso P1.

5   WHEREAS, the 2023-2024 Biennial Budget Ordinance, Ordinance 19546,

6 Section 79, as amended by 19633, Section 58, Proviso P1, states that $100,000 shall not

7 be expended or encumbered until the executive transmits a public benefit rating system

8 report and a motion that should acknowledge receipt of the report, and a motion

9 acknowledging the receipt of the report is passed by the council, and

10   WHEREAS, the executive has transmitted to the council the requested report and

11 a motion acknowledging receipt thereof by March 4, 2024;

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

13   Receipt of the 2024 Public Benefit Rating System Report Attachment A to this

14 motion, is hereby acknowledged.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____

1

Rod Dembowski, Chair

ATTEST:

_____

Melani Pedroza, Clerk of the Council

APPROVED this _____ day of _____, _____.

_____

Dow Constantine, County Executive

Attachments: A. 2024 Public Benefit Rating System Report

2024 Public Benefit Rating System Report

February 29, 2024

I.   Contents

List of Tables

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II.   Proviso Text

Ordinance 19633, Section 58, Department of Natural Resources and Parks, P1[1]

P1 PROVIDED THAT:
Of this appropriation, $100,000 shall not be expended or encumbered until the executive transmits a Public Benefit Rating System ("PBRS") report and a motion that should acknowledge receipt of the report, and a motion acknowledging the receipt of the report is passed by the council. The motion should reference the subject matter, the proviso's ordinance number, ordinance section, and proviso number in both the title and body of the motion.

The PBRS report shall include, but not be limited to, the following:
   A. Description of the PBRS program purpose and goals;
   B. Analysis and summary of the properties enrolled in the PBRS including, but not limited to, number of enrolled properties, acres enrolled, present use of enrolled properties as identified by the King County department of assessments, open space resource categories, public benefit rating or current use value, and amount of property tax reduction benefit received since 2013. The data should be provided for the program and disaggregated into the incorporated area and unincorporated area, jurisdiction, and council district;
   C. Based on the analysis in subsection B. of this proviso, evaluation of the properties receiving credit for public access under K.C.C. 20.36.100.D. The evaluation should consider the benefit to the public compared to the cost of the program, including an assessment of the amount of property tax reduction benefit to the owners of enrolled properties that is then subsidized by the rest of the taxpayers of King County. The evaluation should also consider the nexus between the type and frequency of public use and the amount of tax reduction benefit for properties receiving credit for public access;
   D. Identification of other county land conservation and open space programs in which properties enrolled in the PBRS program are currently participating or for which PBRS properties could be eligible;
   E. Identification of King County's current policies and adopted plans for open space, land conservation, and equity and an evaluation of how the PBRS program's purpose and implementation align with those policies and adopted plans;
   F. Based on the review in subsections A. through E. of this proviso, summary of options for updating the PBRS program to align with King County's current policies and adopted plans for open space, land conservation, and equity, including, but not limited to, changes to the categories of open space resources, qualifying standards, and process improvements.

The executive should electronically file the report and motion required by this proviso no later than January 4, 2024 [revised to March 4, 2024], with the clerk of the council, who shall retain an electronic copy and provide an electronic copy to all councilmembers, the council chief of staff, and the lead staff for the transportation, economy and environment committee or its successor.

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[1] Ordinance 19633 [LINK]

2024 Public Benefit Rating System Report
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III.   Executive Summary

King County's Public Benefit Rating System program (PBRS or the "program") offers a property tax reduction, for landowners wanting to protect resources on their private property. PBRS is a long-standing and successful land conservation tool used throughout King County for more than 30 years, with more than 1,300 properties and over 14,000 acres participating.[2]

Ordinance 19633, Section 58, P1, calls for a report that summarizes the program's goals, objectives, and current participation; summarizes and analyzes the public access component of the program; identifies similar County open space and land conservation programs in which property could participate; identifies County strategic plans and policies for open space, land conservation, and equity to which the program directly contributes; and summarizes any opportunities to update or improve upon the program. Findings and recommendations include:

- PBRS offers landowners an incentive (a property tax reduction) to preserve open space resources and recreational opportunities on private property by providing a reduction in appraised land value for taxation purposes for land enrolled in the program. Its existence is the result of the passage of the Washington State Open Space Taxation Act and its implementation and policies are guided by both state statute and King County code.

- PBRS participation reaches nearly all corners of the County and protects many types of valuable open space resources such as streams and wetlands, groundwater recharge areas, significant wildlife habitat, farm and forestland, historic sites, and public recreational opportunities. PBRS is a popular incentive program that has effectively protected thousands of acres of open space on private land throughout both rural and incorporated King County.

- PBRS provides for a variety of public recreational and educational opportunities through the award of its public access resource category on 144 properties spread throughout the County. These opportunities on private land complement similar recreational opportunities on public land at a relatively small cost in terms of the associated tax savings awarded when compared to the public benefit being provided.

- There are additional King County land and open space conservation programs in which a PBRS property can also participate, for those owners seeking to implement additional best management practices and sound stewardship of valuable natural resources. Notable programs include Farmland Preservation Program, Transfer of Development Rights Program, and the Noxious Weed Control Healthy Lands Project.

- PBRS is an integral component of multiple King County strategies, plans, and policies that prioritize open space and land conservation. PBRS is specifically noted as a tool to help meet many plans' goals and objectives, including the Land Conservation Initiative, Strategic Climate Action Plan, and 30-Year Forest Plan (30YFP). PBRS also indirectly supports King County's Equity and Social Justice Strategic Plan by reducing the annual property tax burden for financially challenged owners of valuable forest, farm, or open space land.

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[2] Upon enrollment in PBRS, land is then defined as "participating", unless it is later removed from PBRS.

- PBRS policy, administration, and implementation are regularly assessed, with significant program code revisions last completed in 2022. Although major operational or programmatic changes are not currently considered necessary, the Water and Land Resources Division within the Department of Natural Resources and Parks is evaluating opportunities to ensure more equitable service delivery to better align with King County's Equity and Social Justice Strategic Plan and the 2024 Equity and Social Justice Action Plan.

IV.   Background

Department Overview: The Department of Natural Resources and Parks (DNRP) supports sustainable and livable communities and a clean and healthy natural environment. Its mission is also to foster environmental stewardship and strengthen communities by providing regional parks, protecting the region's water, air, land, and natural habitats, and reducing, safely disposing of, and creating resources from wastewater and solid waste.

The Water and Land Resources Division (WLRD) provides stormwater management services for unincorporated areas, supports three watershed-based salmon recovery forums, acquires and manages open space, restores habitat-forming processes on streams and major river systems, monitors water quality, controls noxious weeds, and provides economic and technical support for forestry and agriculture.

As the primary service provider to the King County Flood Control District, WLRD reduces flood hazards to people, property, and infrastructure; inspects and maintains more than 500 river facilities; and partners in floodplain restoration. Additionally, WLRD operates the County's Environmental Lab and Science sections, which provide environmental monitoring, data analysis, and management and modeling services to partners, jurisdictions, and residents throughout the region. The King County Hazardous Waste Management Program – a collaborative effort with King County and its municipalities – is also part of WLRD.

Key Historical Context: Amendment 53 to the Washington Constitution, which revised Article 7, was adopted in 1968 and enabled the legislature to develop and implement a process to tax property based on actual use for agriculture, forestry, and open space lands that are used for recreation or enjoyment of their scenic or natural beauty.[3] In compliance with Amendment 53, and to address rising concerns over rapid growth and development across the state, the Washington State Open Space Taxation Act (OSTA) was enacted in 1970 and codified in chapter 84.34 Revised Code of Washington (RCW).[4] OSTA established current use assessment (CUA) programs to be implemented by every county in the state to "maintain, preserve, conserve, and otherwise continue in existence adequate open space lands for the production of food, fiber, and forest crops and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens."[5] These programs encourage landowners, via the incentive of a property tax reduction, to voluntarily protect forests,

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[3] https://leg.wa.gov/CodeReviser/Pages/WAConstitution.aspx#AMENDMENT_53
[4] RCW 84.34
[5] Washington State Open Space Taxation Act

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farmland, and other forms of open space on their property rather than pursue development or more intensive uses.

OSTA provided for three open space CUA programs:[6]

- **Timberland (TL)**: property devoted to the growth and harvest of timber for commercial purposes,
- **Farm and Agricultural Land (Farm and Ag)**: property devoted to the production of agricultural commodities for commercial purposes, and
- **Open Space Land**: property protecting natural and scenic resources such as streams, wildlife habitat, forests, recreational opportunities, and historic sites.

King County began implementing the third category above – its Open Space Land CUA program – in 1971.[7] In 1985, RCW 84.34 was amended to provide counties flexibility to adopt a more comprehensive public benefit rating system classification to replace OSTA's generic "Open Space Land" CUA classification.[8] Counties were authorized to establish specific open space resource categories to be protected along with eligibility criteria unique to their own jurisdiction and conservation priorities. In 1988, King County began developing its own comprehensive public benefit rating system classification that included expanded assessment of open space categories. King County's revised program was adopted in 1992 and is referred to as the King County Public Benefit Rating System (PBRS) program and is codified in King County Code (KCC), chapter 20.36.[9, 10]

In 1971, a fourth CUA program, Designated Forestland (DFL), was established in chapter 84.33 RCW, separate from those under the OSTA.[11, 12] DFL was initially for larger forested property (20 acres or more) devoted to commercial timber production. TL remained an option for owners of smaller tracts of managed forest. In 2014, Washington Senate Bill 6180, which amended RCW chapters 84.33 and 84.34, was signed into law to lower the minimum acreage requirement for DFL from 20 acres to five acres, the minimum acreage for TL. Amendments to RCW 84.33 and 84.34 authorized counties to merge their TL and DFL programs.[13, 14] Given that the TL and DFL programs serve the same purpose, the intent was to create administrative efficiencies by consolidating programs to maintain only the DFL classification for owners managing their forests for commercial timber production. King County implemented this consolidation in 2022.[15]

Key Current Context: There are three current use taxation programs in King County that offer an incentive (a property tax reduction) to landowners to voluntarily preserve open space, farmland, or forestland on their property. One program is PBRS, which is administered by DNRP's Agriculture,

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[6] https://apps.leg.wa.gov/rcw/default.aspx?cite=84.34

[7] Ordinance 1076 [LINK]

[8] https://app.leg.wa.gov/RCW/default.aspx?cite=84.34.055

[9] Ordinance 10511 [LINK]

[10] https://aqua.kingcounty.gov/council/clerk/code/23_Title_20.htm#_Toc441658352

[11] https://dor.wa.gov/sites/default/files/2022-02/designatedforestland.pdf

[12] https://app.leg.wa.gov/RCW/default.aspx?cite=84.33

[13] https://lawfilesext.leg.wa.gov/biennium/2013-14/Pdf/Bills/Session%20Laws/Senate/6180.SL.pdf?cite=2014%20c%20137%20%C2%A7%205

[14] https://app.leg.wa.gov/RCW/default.aspx?cite=84.34.400

[15] Ordinance 19484 [LINK]

Forestry, and Incentives Unit (AFI) within WLRD. The other two programs, Farm and Ag, and DFL, are administered by the King County Department of Assessments (DoA). This report is limited to an examination of PBRS.

While RCW 84.34 and 84.33 provide definitions and describe general policies and procedures for administration of open space CUA programs and DFL classifications, chapter 458.30 of the Washington Administrative Code (WAC) offers additional guidance.[16] Once a property is enrolled in one of these programs, tax savings are based on participating land being assessed at a "current use" value, which is lower than the "highest and best use" value usually applied to the property. An owner must adhere to specific program eligibility requirements to retain the property tax reduction each year. Unless the property is acquired by a government agency or nonprofit organization, the owner will normally owe compensating tax if participating land is later withdrawn or removed from one of the CUA programs.[17, 18]

The Land Conservation Initiative (LCI) includes PBRS as one component of a broader set of strategies for protecting open space resources on 65,000 acres of land. PBRS also aligns with the goals and objectives of Clean Water Healthy Habitat (CWHH) and the Strategic Climate Action Plan (SCAP) by protecting important natural resource lands, critical wildlife habitat, and waterways, and helping to combat climate change by conserving and enhancing management of forest and open space lands on private property. Program alignment with these plans and others is discussed in greater detail in the Report Requirements section of this report below.

Report Methodology: DNRP assembled this report using existing data collected and maintained by PBRS and collaborated with DoA to gather additional data needed to answer questions in the proviso. Data were primarily sourced from CUA, a DoA software platform, and the PBRS database managed by WLRD. DNRP's data gathering and synthesis were supported by King County's Department of Information Technology.

V.   Report Requirements

A. Description of PBRS Program Purpose and Goals

PBRS offers an incentive to preserve open space and recreational opportunities on private property by providing a reduction in assessed land value for taxation purposes for land enrolled in the program.[19] This 31-year-old program is a long-standing tool used to voluntarily conserve valuable natural, historic, and recreational resources throughout King County. As of 2023, there were more than 1,300 properties and more than 14,000 acres participating in PBRS (Table 1).

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[16] https://apps.leg.wa.gov/WAC/default.aspx?cite=458-30

[17] https://app.leg.wa.gov/RCW/default.aspx?cite=84.34.108

[18] https://app.leg.wa.gov/RCW/default.aspx?cite=84.33.145

[19] https://kingcounty.gov/en/legacy/services/environment/stewardship/sustainable-building/resource-protection-incentives.aspx

Table 1. Number of properties and acreage participating in PBRS in 2023.

Location	Number of Properties	Percentage	Acres	Percentage	Mean Acres Per Property
Incorporated	105	8	1,219	9	12
Unincorporated	1,233	92	12,916	91	10
Total	1,338		14,135		11

Ninety-two percent of the properties, and 91 percent of the acreage, enrolled in PBRS are located in unincorporated portions of King County (Table 1). The central objective of Washington's Growth Management Act is to focus development within cities and urban growth areas and minimize conversion of farms, forests, and other types of open space in rural areas. PBRS enrollments reflect this goal. Although the mean size of participating properties is similar between incorporated and unincorporated regions of the county, the numbers are highly skewed by a few large golf courses located within cities.

A point system determines a property's PBRS enrollment level (i.e., percentage of land value reduction) for the participating acreage. For the purposes of this report, "property" may include more than one parcel owned by a single landowner, but only includes those portions of a property that provide open space benefits (e.g., does not include the home site and areas an owner intends to develop but does include the relatively natural remainder of the property).

A property can qualify for one or more of 20 open space resource categories and five bonus categories (25 total categories). Categories include protecting buffers to streams and wetlands, protecting groundwater, preserving significant wildlife habitat, providing recreational opportunities to the public, and conserving farmland and forestland through implementing best management practices.[20] Each category a property qualifies for is worth a set number of points. Eligibility for certain categories excludes eligibility for others; therefore, a property cannot be awarded credit for all 25 categories. To date, the maximum number of points awarded to a single property is 78 and the mean number of points awarded for all 1,338 participating properties is 20. Specific category criteria and participation requirements are detailed in KCC 20.36.[21]

Potential enrollment of property in PBRS begins when a landowner submits an application. Subsequent steps include:
- WLRD visits the site to determine category/program eligibility,
- WLRD issues a report and recommendation to the King County Hearing Examiner,
- A public hearing is held before the King County Hearing Examiner, who subsequently issues a report and recommendation to the King County Council,
- The Council acts on the King County Hearing Examiner recommendation and approves enrollment through adoption of an ordinance, and

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[20] https://your.kingcounty.gov/dnrp/library/water-and-land/incentives/pbrs-resource-info-05-2023.pdf
[21] https://kingcounty.gov/en/legacy/council/legislation/kc_code/23_title_20

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- Enrollment is formalized through recording of an open space taxation agreement, signed by Council chair and landowner(s).

Formal PBRS enrollment typically requires a four- to six-month approval process. Normally, a landowner submits an application in one year, the application is processed the following year (within six months of submitting the application), and the initial property tax benefit is realized in the third year.

B. Analysis and summary of the properties enrolled in the Public Benefit Rating System

Rating System and Impact on Property Taxes and Land Values

Only those properties that would qualify for a property tax benefit are currently participating in PBRS. Total points awarded for a property's qualification for PBRS categories translate into a 50 percent to 90 percent reduction in the appraised land value for the portion of the property participating (Table 2). Relatively few properties (8 percent) qualify for the maximum property tax benefit, but more than 60 percent were awarded sufficient points to qualify for at least a 70 percent reduction in property tax.

Table 2. Potential property tax reduction, based upon total number of points awarded, for properties participating in PBRS in 2023.

PBRS Score	Potential Property Tax Reduction	Number of Properties Participating	Percent of Properties Participating
0 - 4 points	0 %	0	0 %
5 - 10 points	50 %	319	24 %
11 - 15 points	60 %	181	14 %
16 - 20 points	70 %	248	18 %
21 - 34 points	80 %	486	36 %
35 points and above	90 %	104	8 %

There were 935 properties participating in PBRS in 2013, which grew to 1,338 in 2023 (a 43 percent increase). PBRS receives and processes approximately 40 applications for program enrollment annually. Total land values and tax savings have increased over the same 11-year period due to PBRS expansion, county-wide increases in property values, and changes in tax. Annual tax savings for owners of properties participating in PBRS increased from approximately $2.7 million in 2013 to $4.3 million in 2023 (Table 3). For the entire 11-year study period, owners of properties participating in PBRS realized more than $38.3 million in property tax savings in return for providing a broad suite of open space benefits to residents of King County.

While the annual property tax savings can be meaningful for PBRS participants, total tax savings from all properties participating in PBRS is small in comparison to overall property tax collected. For example, in 2023 landowners of property participating in PBRS realized approximately $4.3 million in property tax savings (Table 3), which was approximately 0.06 percent of the overall property tax collection of $6.79 billion. Participation in PBRS shifts the resulting tax savings to landowners in affected levy rate distributions through an increase in levy rates, which essentially results in no loss of property tax

revenue. Additional details about the land value and tax implications for properties enrolled in PBRS can be found in Appendix B.

Table 3. Appraised Land Value and associated tax savings for all properties participating in PBRS 2013 through 2023, inclusive.

Tax Year	Land Value Before PBRS Participation	Land Value Due to PBRS Participation	Tax Savings Due to PBRS Participation
2013	$ 635,336,473	$ 438,655,948	$ 2,706,034
2014	$ 684,562,722	$ 467,857,564	$ 2,908,178
2015	$ 787,666,034	$ 551,329,653	$ 2,951,783
2016	$ 862,757,469	$ 605,104,684	$ 3,179,202
2017	$ 917,176,775	$ 649,393,953	$ 3,183,258
2018	$ 1,022,769,629	$ 730,930,340	$ 3,536,125
2019	$ 1,171,572,068	$ 842,078,191	$ 3,533,526
2020	$ 1,176,441,702	$ 839,326,945	$ 3,779,592
2021	$ 1,235,714,782	$ 880,598,499	$ 4,091,562
2022	$ 1,442,985,783	$ 1,050,171,009	$ 4,136,570
2023	$ 1,940,339,131	$ 1,451,282,533	$ 4,306,447
Total			$ 38,312,276

Geographic Distribution

PBRS participation reaches all corners of King County, from Skykomish to Snoqualmie Pass to the eastern edges of Enumclaw, and throughout many of the region's urbanized areas and cities. While most properties consist of rural residences, forests, and farms, participating land also includes publicly accessible green space and multiple-use public trails. Although 92 percent of properties participating in PBRS are located in unincorporated King County, only 78 percent of the property tax benefit was realized by those properties (Table 4). This was due to the relatively higher land values of properties in cities, as compared with those in unincorporated King County.

Table 4. Appraised Land Value and associated tax savings for properties participating in PBRS 2013 through 2023 (unincorporated and incorporated King County).

Location in King County	Land Values Before PBRS Participation	Land Value Due to PBRS Participation	Tax Savings due to PBRS Participation
Unincorporated	$ 9,711,830,363	$ 7,221,268,864	$ 30,001,371
Incorporated	$ 2,165,492,205	$ 1,285,460,455	$ 8,310,905
Total			$ 38,312,276

Each of the nine Council districts had property participating in PBRS, with 94 percent of all PBRS properties, and 95 percent of participating acreage, located in Council Districts 3, 8, and 9 (Table 5), which include most of the rural land in King County.

Table 5. Geographic distribution of properties and acreage participating in PBRS in 2023, by King County Council District.

Council District	Number of Properties	Percent	Acreage	Percent
1	26	2	47	<1
2	7	<1	1	<1
3	538	40	6,002	42
4	5	<1	4	<1
5	10	<1	55	<1
6	15	1	454	3
7	13	1	76	<1
8	263	20	1,972	14
9	461	34	5,523	39
Total	1,338		14,135	

Landowners in Council Districts 3, 8, and 9, who participated in PBRS received the majority of the cumulative tax savings between 2013 and 2023, inclusive (Table 6). Although more than 90 percent of the properties participating in PBRS were in those three districts, only 84 percent of the total tax benefit was received by landowners in Districts 3, 8, and 9. Additional details about the tax implications for PBRS participation can be found in Appendix B.

Table 6. Changes in appraised land values and property tax implications for participation in PBRS 2013 through 2023, by King County Council District.

Council District	Land Value Before PBRS Participation	Land Value Due to PBRS Participation	Tax Applied Due to PBRS Participation	Tax Savings due to PBRS Participation
1	$ 476,413,328	$ 328,601,480	$ 3,241,767	$ 1,434,648
2	$ 90,475,000	$ 76,581,464	$ 701,053	$ 126,900
3	$ 4,966,116,623	$ 3,744,791,825	$ 43,813,355	$ 14,510,448
4	$ 58,625,000	$ 33,090,879	$ 303,594	$ 233,694
5	$ 85,949,152	$ 59,567,592	$ 776,127	$ 352,836
6	$ 812,956,812	$ 352,823,437	$ 3,098,075	$ 3,959,851
7	$ 34,728,764	$ 24,686,560	$ 309,416	$ 130,428
8	$ 1,943,955,082	$ 1,448,790,325	$ 16,654,786	$ 5,769,355
9	$ 3,408,102,807	$ 2,437,795,757	$ 29,314,089	$ 11,794,116
Total				$ 38,312,276

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Mean cumulative tax benefit granted to landowners participating in PBRS between 2013 and 2023, inclusive, generally ranged from $10,000 to $55,000; however, there were one major outlier (Table 7). The mean tax benefit for landowners in District 6 was nearly $264,000, which is skewed due to the significant participating acreage (308 total acres) of two large golf courses participating in PBRS.

Table 7. Mean cumulative property tax savings for landowners participating in PBRS between 2013 and 2023, inclusive.

Council District	Mean Tax Savings per Property	Mean tax savings per acre
1	$ 55,167	$ 30,524
2	$ 18,128	$ 126,900
3	$ 26,971	$ 2,418
4	$ 46,739	$ 58,235
5	$ 35,284	$ 6,415
6	$ 263,990	$ 8,722
7	$ 10,033	$ 1,716
8	$ 21,937	$ 2,926
9	$ 25,583	$ 2,135

Twenty-five of the 39 incorporated cities in King County have supported PBRS enrollment for properties within their jurisdiction (Table 8). Mean size of properties participating in PBRS is five acres or less in 17 of the 25 cities. Small acreage (less than one acre) within cities is generally for participating properties that receive credit for public access. The only cities with mean participating property size greater than 10 acres are Black Diamond, Newcastle, Redmond, and Snoqualmie. PBRS participants in these four cities included golf courses and large open space areas.

Table 8. Distribution of properties participating in PBRS within incorporated cities in King County in 2023.

City	Number of Properties	Acreage	Mean Acreage
Auburn	2	15	8
Bellevue	3	12	4
Black Diamond	2	72	36
Burien	3	24	8
Carnation	3	6	2
Covington	1	2	<1
Des Moines	2	6	3
Enumclaw	1	8	8
Issaquah	5	22	4
Kenmore	4	11	3
Kent	5	19	4
Kirkland	2	6	3
Lake Forest Park	6	12	2
Maple Valley	1	<1	<1
Medina	2	6	3
Mercer Island	3	11	4
Newcastle	4	327	82
Normandy Park	4	31	8
North Bend	2	<1	<1
Redmond	5	349	70
Renton	2	8	4
Sammamish	14	40	3
Seattle	27	18	<1
Shoreline	1	5	5
Snoqualmie	1	210	210
Total	105	1,219	12

Land Use
Based upon data provided by DoA, the predominant present use for PBRS properties in both incorporated and unincorporated King County are "Single Family (Res Use/Zone)" and "Vacant (Single-family)" (Table 9). Details about present use for properties within cities are presented in Appendix C.

Table 9. Present use of properties participating in PBRS in King County in 2023.

Present Use Description	Incorporated	Unincorporated	Total
Apartment	1	0	1
Church/Welfare/Religious Service	0	1	1
Club	0	2	2
Driving Range	1	0	1
Duplex	1	1	2
Farm	1	2	3
Golf Course	4	5	9
Historic Prop (Misc.)	2	0	2
Mobile Home	0	50	50
Movie Theater	1	0	1
Office Building	1	0	1
Park, Public (Zoo/Arbor)	2	0	2
Resort/Lodge/Retreat	1	0	1
Restaurant/Lounge	0	2	2
Retail Store	1	0	1
School (Private)	1	0	1
Single Family (C/I Use)	0	1	1
Single Family (Res Use/Zone)	51	919	970
Ski Area	0	1	1
Vacant (Commercial)	2	0	2
Vacant (Multi-family)	0	1	1
Vacant (Single-family)	35	248	283
Total	**105**	**1,233**	**1,338**

Awarded Categories

As summarized in Section IV.A above, while a property can qualify for one or more of 25 PBRS categories, it is also important to note individual properties usually received credit for multiple categories. Properties within incorporated cities in King County participating in PBRS most frequently received credit for "Urban open space," "Significant wildlife or salmonid habitat," and "Public Access" (Table 10). Within unincorporated King County, properties participating in PBRS were most frequently awarded credit for "Significant wildlife or salmonid habitat," "Aquifer protection area," "Surface water quality buffer," "Buffer to public or current use classified land," "Watershed protection area," and "Forest stewardship land." Combined, 963 of the 1,338 participating properties (72 percent) received credit for "Significant wildlife or salmonid habitat."

Table 10. PBRS categories awarded to properties participating in PBRS in 2023.

PBRS Category	Points	Number of Properties Awarded Credit		
		Incorporated King County	Unincorporated King County	Total
Active trail linkage	15 or 25	2	2	4
Aquifer protection area	5	23	573	596
Buffer to public or current use classified land	3	28	488	516
Conservation easement or historic preservation easement	18	23	58	81
Contiguous parcels under separate ownership	2 or more	12	88	100
Easement and access	35	4	3	7
Ecological enhancement land	18	0	0	0
Equestrian-pedestrian-bicycle trail linkage	35	1	12	13
Farm and agricultural conservation land	5	4	362	366
Forest stewardship land	5	5	400	405
Historic landmark or archaeological site: buffer to a designated site	3	1	2	3
Historic landmark or archaeological site: designated site	5	11	19	30
Historic landmark or archaeological site: eligible site	3	1	9	10
Public access	3 or 5	42	102	144
Public recreation area	5	23	55	78
Resource restoration	5	10	95	105
Rural open space	5	1	216	217
Rural stewardship land	5	0	12	12
Scenic resource, viewpoint, or view corridor	5	10	48	58
Significant plant or ecological site	5	0	2	2
Significant wildlife or salmonid habitat	5	53	910	963
Special animal site	3	24	108	132
Surface water quality buffer	5, 8, or 10	40	547	587
Urban open space	5	64	10	74
Watershed protection area	5	10	432	442

Among the most frequently awarded categories for properties within Council Districts 3, 8, and 9, which contain most of the rural lands in King County, were "Aquifer protection area," "Buffer to public or current use classified land," "Significant wildlife or salmonid habitat," "Surface water quality buffer,"

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and "Watershed protection area" (Table 11). In addition, those three districts included virtually all properties awarded credit for "Farm and agricultural conservation land" and "Forest stewardship land." "Public access," "Significant wildlife or salmonid habitat," "Special animal site," "Surface water quality buffer," and "Urban open space" were among the most frequently awarded categories for PBRS properties within Council districts (1, 2, 4, 5, 6, and 7). Details about awarded categories for cities and districts can be found in Appendix C.

Table 11. PBRS categories and number of properties receiving credit in each King County Council district.

PBRS Category	Council District								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Active trail linkage	0	0	1	0	0	0	0	0	3
Aquifer protection area	0	0	240	0	5	1	4	239	107
Buffer to public or current use classified land	9	2	229	0	6	3	1	122	144
Conservation easement or historic preservation easement	10	0	20	2	0	5	2	15	27
Contiguous parcels under separate ownership	5	1	44	1	0	2	0	26	21
Easement and access	0	0	0	0	0	3	0	2	2
Ecological enhancement land	0	0	0	0	0	0	0	0	0
Equestrian-pedestrian-bicycle trail linkage	0	0	7	0	0	0	0	4	2
Farm and agricultural conservation land	0	0	105	0	1	1	6	35	218
Forest stewardship land	0	0	164	0	0	0	0	113	128
Historic landmark or archaeological site: buffer to a designated site	0	0	2	0	0	0	0	0	1
Historic landmark or archaeological site: designated site	1	1	20	1	0	2	2	2	1
Historic landmark or archaeological site: eligible site	0	0	0	1	0	0	1	3	5
Public access	9	3	48	4	1	10	4	36	29
Public recreation area	3	2	30	3	0	7	0	15	18
Resource restoration	3	0	37	2	0	2	1	31	29
Rural open space	0	0	120	0	0	0	1	23	73
Rural stewardship land	0	0	4	0	0	0	0	8	0
Scenic resource, viewpoint, or view corridor	2	0	34	0	0	3	0	8	11
Significant plant or ecological site	0	0	0	0	0	0	0	2	0
Significant wildlife or salmonid habitat	13	1	446	0	8	5	5	221	264
Special animal site	13	4	69	0	0	1	0	4	41
Surface water quality buffer	14	0	292	0	6	4	2	105	164
Urban open space	16	1	18	2	10	6	4	3	14
Watershed protection area	2	0	206	0	0	2	1	119	112

C. Evaluation of the properties receiving credit for public access per KCC 20.36.100.D

Properties Awarded Credit for Public Access

While not a requirement for participation, PBRS offers additional points for owners willing to provide public access on their properties. Data presented in Section B illustrate that PBRS participation and awarded resource categories largely focus on protecting forests, farms, and open space. However, encouraging landowners to provide public access for recreational and environmental education opportunities on participating lands is also an important aspect of the program's goals and objectives.

Points are awarded for providing public access if a property qualifies for one of four Public Access subcategories (Table 12). Generally, fewer points are awarded to properties that place limits on public access. Five points are awarded to properties that provide unlimited access or only limit access due to resource sensitivity. Three points are awarded to properties that provide seasonal access, the owner has requested limitations on access, or the property is only open for occasional educational programs.

Credit for the PBRS Public Access category has been awarded to 144 (11 percent) of the 1,338 properties participating in PBRS. Approximately 71 percent of the 144 properties that provided public access are in unincorporated King County (Table 12). Nearly half (47 percent) of all properties that received credit for public access met the requirements for Unlimited Access, which was the most frequently awarded Public Access subcategory countywide. Limited Access Due to Resource Sensitivity was the second most-awarded public use category, countywide (27 percent). See footnote 19 on page 9 for details regarding eligibility requirements for public access subcategories.

Table 12. Number of PBRS properties receiving credit for public access in each subcategory.

Public Access Subcategory	Incorporated King County		Unincorporated King County		Total	
	Number of Properties	Percent of All PBRS Properties Providing Public Access	Number of Properties	Percent of All PBRS Properties Providing Public Access	Number of Properties	Percent of All PBRS Properties Providing Public Access
Seasonally Limited Public Access	14	10	7	5	21	15
Limited Public Access Because of Resource Sensitivity	7	5	32	22	39	27
Unlimited Public Access	21	15	47	33	68	47
Environmental Education Access	0	0	16	11	16	11
Total	**42**	**29**	**102**	**71**	**144**	**100**

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Property Tax Implications for Providing Public Access

Although 144 properties received credit for public access, many of those property owners realized relatively little or no additional property tax benefit. Under the method used to calculate the percentage reduction, the small number of points awarded for public access was often not enough to significantly increase the total property tax reduction benefit realized from participating in PBRS. Of the 144 properties awarded credit for one of the four Public Access subcategories, owners of 55 properties (38 percent) received no additional tax reduction benefit by providing public access. Owners of 89 (62 percent) of the 144 properties awarded credit for providing public access did receive an additional property tax benefit. Overall, only seven percent of all landowners participating in PBRS received an additional property tax benefit for meeting the requirements for the Public Access category (55 of 1,338).

Owners of 87 of the 89 properties that received an additional property tax benefit by providing public access received a 10 percent increase in the property tax reduction realized by participating in PBRS. Owners of the remaining two properties received PBRS credit for only the Public Access category, which provided those property owners with a 50 percent reduction in the taxable value for acreage participating in PBRS.

Total annual property tax savings for landowners granted credit for providing public access ranged from nearly $29,000 to nearly $39,000 between 2013 and 2023, inclusive (Table 13). Total tax savings for the entire study period was $356,736. Mean annual tax savings for the 89 property owners who received a tax benefit by providing public access was approximately $364.

Table 13. Property tax benefit realized by the 89 owners of property participating in PBRS between 2013 and 2023, inclusive, who received an additional property tax benefit for providing public access.

Tax Year	Land Value Before PBRS Participation	Tax Applied Before PBRS Participation	Land Value Due to PBRS Participation	Tax Applied Due to PBRS Participation	Tax Savings Due to PBRS Participation	Tax Savings Associated with Credit for Public Access
2013	$ 61,983,900	$ 775,066	$ 23,373,227	$ 289,215	$ 485,854	$ 28,802
2014	$ 63,715,200	$ 785,647	$ 24,007,875	$ 292,762	$ 492,886	$ 29,153
2015	$ 68,324,500	$ 773,916	$ 26,240,998	$ 293,322	$ 480,597	$ 29,192
2016	$ 69,571,453	$ 782,408	$ 26,708,956	$ 297,890	$ 484,515	$ 29,645
2017	$ 72,974,153	$ 788,415	$ 28,519,779	$ 304,345	$ 484,071	$ 30,253
2018	$ 72,186,800	$ 796,886	$ 29,096,909	$ 318,680	$ 478,214	$ 31,666
2019	$ 92,086,639	$ 907,807	$ 32,935,209	$ 323,491	$ 584,318	$ 32,152
2020	$ 93,943,684	$ 978,526	$ 32,140,184	$ 335,992	$ 642,539	$ 33,371
2021	$ 100,149,173	$ 1,069,967	$ 34,233,091	$ 368,257	$ 701,704	$ 36,652
2022	$ 108,386,400	$ 1,067,016	$ 37,916,292	$ 373,813	$ 693,207	$ 37,135
2023	$ 132,282,800	$ 1,086,676	$ 46,731,463	$ 389,736	$ 696,941	$ 38,715
Total		$ 9,812,329		$ 3,587,503	$ 6,224,846	$ 356,736

Of the 144 properties that received credit for providing public access, 68 received credit for allowing unrestricted access, 39 received credit for providing access that was limited due to resource sensitivity, 21 received credit for allowing public access with landowner arrangements, and 16 received credit for allowing public access for educational purposes (Tables 14-17). In addition to being the most frequently awarded sub-category, properties that qualified for Unlimited Public Access also received the largest number of points for granting public access (5). Thus, that category accounted for approximately 39 percent of the total additional property tax benefit granted to properties that qualified for credit for the Public Access category.

Table 14. Adjustment in appraised land value and property tax for the 68 properties participating in PBRS between 2013 and 2023, inclusive, that received credit for unlimited public access.

Tax Year	Land Value Before PBRS Participation	Tax Applied Before PBRS Participation	Land Value Due to PBRS Participation	Tax Applied Due to PBRS Participation	Tax Savings Due to PBRS Participation	Tax Savings Associated with Credit for Public Access
2013	$ 48,863,900	$ 606,445	$ 17,467,785	$ 208,883	$ 397,562	$ 11,750
2014	$ 50,210,900	$ 613,269	$ 17,936,603	$ 211,304	$ 401,965	$ 12,113
2015	$ 52,211,000	$ 587,717	$ 18,922,734	$ 205,376	$ 382,341	$ 11,674
2016	$ 54,808,177	$ 612,825	$ 20,640,224	$ 221,539	$ 391,286	$ 11,600
2017	$ 57,844,600	$ 622,848	$ 21,405,887	$ 222,489	$ 400,359	$ 11,702
2018	$ 59,819,001	$ 648,366	$ 19,270,534	$ 208,298	$ 440,068	$ 10,715
2019	$ 76,365,140	$ 741,893	$ 25,513,938	$ 244,242	$ 497,651	$ 11,808
2020	$ 82,140,539	$ 863,215	$ 26,859,046	$ 276,907	$ 586,308	$ 13,365
2021	$ 87,075,050	$ 928,653	$ 27,939,120	$ 292,203	$ 636,450	$ 14,392
2022	$ 91,440,600	$ 900,741	$ 30,638,257	$ 296,659	$ 604,082	$ 14,701
2023	$ 99,312,510	$ 839,091	$ 33,854,995	$ 282,644	$ 556,447	$ 13,976
Total		$ 7,965,063		$ 2,670,544	$ 5,294,519	$ 137,796

Table 15. Adjustment in appraised land value and property tax for the 39 properties participating in PBRS between 2013 and 2023, inclusive, that received credit for limited public access because of resource sensitivity.

Tax Year	Land Value Before PBRS Participation	Tax Applied Before PBRS Participation	Land Value Due to PBRS Participation	Tax Applied Due to PBRS Participation	Tax Savings Due to PBRS Participation	Tax Savings Associated with Credit for Public Access
2013	$ 20,383,600	$ 252,348	$ 7,935,035	$ 100,957	$ 151,391	$ 8,622
2014	$ 20,572,600	$ 251,179	$ 8,050,561	$ 100,770	$ 150,409	$ 8,587
2015	$ 22,831,600	$ 257,114	$ 8,883,744	$ 102,584	$ 154,530	$ 8,749
2016	$ 24,527,700	$ 273,622	$ 9,641,008	$ 109,755	$ 163,867	$ 9,371
2017	$ 24,972,800	$ 264,262	$ 9,785,952	$ 105,966	$ 158,296	$ 8,934
2018	$ 28,402,100	$ 315,213	$11,017,902	$ 124,827	$ 190,386	$ 10,694
2019	$ 30,768,200	$ 305,533	$11,842,210	$ 119,572	$ 185,961	$ 10,185
2020	$ 33,137,685	$ 331,138	$11,096,660	$ 115,906	$ 215,232	$ 9,983
2021	$ 34,444,323	$ 356,452	$12,064,930	$ 132,113	$ 224,339	$ 11,452
2022	$ 40,213,300	$ 383,970	$13,300,862	$ 133,159	$ 250,811	$ 11,557
2023	$ 52,150,900	$ 408,909	$17,499,540	$ 143,885	$ 265,024	$ 12,711
Total		$ 3,399,740		$ 1,289,494	$ 2,110,246	$ 110,845

Table 16. Adjustment in appraised land value and property tax for the 21 properties participating in PBRS between 2013 and 2023, inclusive, who received an additional property tax benefit for providing seasonally limited public access.

Tax Year	Land Value Before PBRS Participation	Tax Applied Before PBRS Participation	Land Value Due to PBRS Participation	Tax Applied Due to PBRS Participation	Tax Savings Due to PBRS Participation	Tax Savings Associated with Credit for Public Access
2013	$ 17,162,000	$ 199,713	$ 9,094,088	$ 103,944	$ 95,769	$ 7,634
2014	$ 17,374,300	$ 198,122	$ 9,158,098	$ 102,458	$ 95,664	$ 7,531
2015	$ 20,113,300	$ 208,613	$ 10,801,918	$ 109,545	$ 99,068	$ 7,853
2016	$ 21,811,053	$ 218,713	$ 11,622,453	$ 116,186	$ 102,527	$ 7,631
2017	$ 24,163,053	$ 237,530	$ 13,121,415	$ 127,677	$ 109,853	$ 8,689
2018	$ 25,361,700	$ 259,034	$ 13,981,566	$ 140,829	$ 118,205	$ 9,191
2019	$ 29,043,000	$ 258,743	$ 15,171,838	$ 133,428	$ 125,315	$ 8,925
2020	$ 26,655,600	$ 254,371	$ 13,333,532	$ 126,154	$ 128,217	$ 8,757
2021	$ 27,044,800	$ 264,340	$ 14,372,974	$ 139,267	$ 125,073	$ 9,162
2022	$ 29,790,400	$ 270,557	$ 15,352,282	$ 138,819	$ 131,738	$ 9,117
2023	$ 34,946,400	$ 276,956	$ 18,741,096	$ 148,941	$ 128,015	$ 10,175
Total		$ 2,646,692		$ 1,387,248	$ 1,259,444	$ 94,665

Table 17. Adjustment in appraised land value and property tax for the 16 properties participating in PBRS between 2013 and 2023, inclusive, that received credit for environmental education access.

Tax Year	Land Value Before PBRS Participation	Tax Applied Before PBRS Participation	Land Value Due to PBRS Participation	Tax Applied Due to PBRS Participation	Tax Savings Due to PBRS Participation	Tax Savings Associated with Credit for Public Access
2013	$ 2,379,000	$ 33,567	$ 1,025,402	$ 14,473	$ 19,093	$ 796
2014	$ 2,925,000	$ 40,721	$ 1,187,541	$ 16,539	$ 24,182	$ 922
2015	$ 3,196,000	$ 41,586	$ 1,265,881	$ 16,467	$ 25,120	$ 916
2016	$ 3,490,700	$ 45,169	$ 1,322,288	$ 17,322	$ 27,849	$ 1,043
2017	$ 4,716,000	$ 58,538	$ 1,714,101	$ 21,571	$ 36,966	$ 928
2018	$ 5,238,000	$ 66,007	$ 1,931,653	$ 24,700	$ 41,306	$ 1,066
2019	$ 5,124,848	$ 59,015	$ 2,097,127	$ 24,397	$ 34,619	$ 1,234
2020	$ 5,040,000	$ 60,155	$ 2,114,151	$ 25,499	$ 34,656	$ 1,266
2021	$ 5,309,000	$ 65,870	$ 2,406,684	$ 30,207	$ 35,664	$ 1,646
2022	$ 6,291,000	$ 70,620	$ 2,855,921	$ 32,449	$ 38,171	$ 1,760
2023	$ 8,369,000	$ 76,141	$ 3,724,184	$ 34,209	$ 41,932	$ 1,853
Total		**$ 617,389**		**$ 257,833**	**$ 359,558**	**$ 13,430**

Compliance Monitoring

WLRD conducts compliance monitoring to ensure all properties continue to meet the requirements of their open space agreement. Monitoring typically includes a combination of reviewing aerial imagery, self-reporting by landowners, and site inspections. This approach to monitoring does not assess the frequency of public use and the continued award of this category does not require user numbers be tracked by PBRS or landowners. Thus, in preparation for this report, WLRD conducted an email survey to better understand frequency of use on those PBRS properties that were awarded credit for providing public access. Emails were sent to owners of 63 properties for which AFI had access to current email addresses.

Property owners who received the public use survey were asked to provide information on whether public access was still being provided, as well as the frequency and type of public use. Thirty-two owners responded to the email survey (51 percent response rate) with 28 owners reporting active and ongoing public use that ranged from several users daily or weekly to hundreds daily during warmer and drier months of the year. Although four of the respondents had not witnessed recent active public use of their property, it is important to note the required public accessibility was still being provided. Thus, it appears likely most, if not all, of the property owners who receive credit for public access continue to allow the public to use their property, and many residents of King County take advantage of the recreational opportunities provided. It is important to recognize that owners of PBRS properties allowing for public access do so at no cost to King County for acquisition or maintenance.

D. Identification of other county land conservation and open space programs in which properties enrolled in the PBRS program could be eligible

For more than 30 years, PBRS has proven to be a popular incentive for private owners interested in voluntarily conserving forests, farmland, recreational opportunities, and open space resources on their properties. WLRD offers a variety of additional programs for those same owners seeking to implement best management practices and sound stewardship of valuable natural resources. The list below represents other programs PBRS participants can, and often are, participating in.

- **Farmland Preservation Program (FPP)**—FPP was established to preserve agricultural land by purchasing easements that permanently restrict nonfarm uses of property. FPP easements permanently protect the land, its soils, and the potential for future agricultural use through the purchase of development rights and restrictions on allowable activities.[22] There are currently 41 properties participating in PBRS that are also encumbered by an FPP easement.

- **Forestry Program**—Focuses on retention of forestland for its environmental, social, and economic benefits. DNRP works in partnership with the King Conservation District (KCD) and Washington State University Forestry Extension to provide education, technical assistance, and economic incentives aimed at retaining forest resources of King County. A forest stewardship plan is required for properties that receive credit for the forest stewardship category. WLRD is responsible for approving forest stewardship plans for PBRS enrollees.[23] There are more than 400 properties currently participating in PBRS that are managed under a WLRD approved forest stewardship plan.

- **Livestock Program**—Supports the raising and keeping of livestock in an environmentally sound manner. The program allows for collaboration with livestock experts, with KCD, and the Natural Resources Conservation Service to provide technical and financial assistance to landowners to help them comply with the County's Livestock Management Ordinance, which includes guidance on manure management, stream and wetland setbacks, livestock densities, and clean water diversion.[24, 25, 26]

- **Noxious Weed Control Program**—Focuses on preventing and reducing the economic, environmental, and social impacts of noxious weeds. It provides educational and technical assistance to landowners and public agencies to help find the best control options for noxious weeds.[27]

- **Healthy Lands Project (HeLP)**—As part of the Noxious Weed Control Program, HeLP provides invasive weed control and stewardship assistance to keep open space healthy for people and

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[22] https://kingcounty.gov/depts/dnrp/wlr/sections-programs/rural-regional-services-section/agriculture-program/farmland-preservation-program.aspx

[23] https://kingcounty.gov/depts/dnrp/wlr/sections-programs/rural-regional-services-section/forestry-program.aspx

[24] https://kingcounty.gov/services/environment/water-and-land/agriculture/bmp-cost-sharing-guidelines.aspx

[25] https://your.kingcounty.gov/dnrp/library/2009/kcr2621.pdf

[26] https://aqua.kingcounty.gov/Council/Clerk/OldOrdsMotions/Ordinance%2011168.pdf

[27] https://kingcounty.gov/services/environment/animals-and-plants/noxious-weeds.aspx

the environment. The project controls invasive weeds on both private and public lands in cities and unincorporated areas throughout King County, primarily on recently protected conservation lands and open space.[28] There are 25 properties participating in PBRS that currently are, or have worked with, HeLP to control and remove noxious weeds.

- **Transfer of Development Rights Program (TDR)**—A market-driven approach to preserve land and steer development away from rural and resource lands into King County's urban areas. The purpose of TDR is to encourage builders to increase development capacity in urban area projects by purchasing development rights from farm, forest, and open space landowners and transferring those rights to urban centers to encourage increased density in already developed landscapes.[29] There are currently 23 properties participating in PBRS with a TDR conservation easement also in place.

- **Agricultural Drainage Assistance Program (ADAP)**—Provides a collaborative framework for drainage maintenance among landowners, King County, and KCD. ADAP provides technical assistance for the maintenance of waterways that are used to remove excess water from farm fields to allow for cultivation of agricultural lands in unincorporated King County.[30] Examples of ADAP project actions include removing accumulated sediments from drainage ditches, replacing nonfunctioning culverts with bridges, performing water crossing maintenance and replacement, performing drain tile technical assistance, or removing beaver dams that impede the flow of water off farm fields.

E. Identification of King County's current policies and adopted plans for open space, land conservation, and equity, and an evaluation of how the PBRS program's purpose and implementation align with those policies and adopted plans

King County's efforts to prioritize open space and land conservation are demonstrated in an array of adopted plans and strategies, each with specific goals and objectives to guide their implementation and future successes. PBRS is an integral component of many these plans and policies to ensure County objectives are being met.

- **Land Conservation Initiative**—LCI is a strategy to permanently protect 65,000 acres of the last, most important natural lands and urban greenspaces by 2050, before they are lost forever. There are six land categories to be protected: urban green space, regional trails, natural lands, rivers, farmlands, and forests.[31]

    PBRS alignment: LCI has set a goal to protect approximately 20,000 of the identified 65,000 acres through CUA enrollment, rather than purchase of easement or fee title acquisition.[32] To

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[28] https://kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/healthy-lands.aspx
[29] https://kingcounty.gov/en/legacy/services/environment/stewardship/sustainable-building/transfer-development-rights.aspx
[30] https://kingcounty.gov/en/dept/dnrp/nature-recreation/environment-ecology-conservation/stormwater-surface-water-management/drainage-problems-assistance/agricultural-drainage-assistance/agricultural-drainage-assistance-program
[31] https://kingcounty.gov/en/legacy/services/environment/water-and-land/land-conservation
[32] Fee title (or fee simple) is a type of ownership giving owner maximum interest in the land

achieve this target, increased enrollment of LCI-priority properties in PBRS is critical; PBRS has initiated marketing efforts to achieve this goal. WLRD processes an average 30 to 50 new applications each year, enrolling, on average, 512 acres, many of which include LCI-identified lands. One of the most important benefits of enrolling LCI-priority properties in PBRS is to ensure that properties are protected without use of property tax levy proceeds. This enables LCI to dedicate more Conservation Futures and Parks Levy tax collection toward properties that require fee title or easement acquisition for conservation.

- **Strategic Climate Action Plan**—SCAP is a five-year blueprint for climate action, which integrates climate change into all areas of County operations and its broader scope of work with King County cities, partners, communities, and residents. The SCAP outlines King County's priorities and commitments for climate action to residents and partners.[33]

  PBRS alignment: SCAP Priority Action GHG 6.1.2 identifies PBRS as tool to protect agriculture and forestland protection by increasing enrollments of LCI target lands.[34] Additionally, Performance Measure Greenhouse Gas (GHG) 30 calls for approximately 300 new acres to be enrolled in PBRS each year to support forestland and natural area protection; the program has met that goal every year.

- **Clean Water Healthy Habitat**—CWHH aligns work across the entire County enterprise so that all departments are advancing clearly defined environmental goals. This plan guides the work of both Parks and WLRD in terms of healthy forests, more green space, cleaner, controlled stormwater runoff, functional river floodplains, better fish habitat, and resilient marine shorelines.[35]

  PBRS alignment: PBRS supports the CWHH goal of maintaining healthy forests and providing more green spaces by protecting these forested resources and recreational opportunities through enrollment of property in the program. Additionally, lands participating in PBRS often include important riparian areas, which supports CWHH's goal of protecting and restoring native salmon and steelhead populations and their critical habitats.

- **30-Year Forest Plan**—30YFP identifies strategies, priorities and goals associated with increasing rural and urban forest cover and maintaining forest health. The 30YFP seeks to ensure that forests in King County continue to play a role in mitigating impacts of climate change while also guiding King County and its partners towards strategies that allow the County to meet multiple goals as it expands and enhances forest cover.[36]

  PBRS alignment: PBRS directly or indirectly contributes to advancing each of the seven priority areas included in the 30YFP. The plan specifically calls out PBRS as an important tool to meet

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[33] https://kingcounty.gov/en/legacy/services/environment/climate/actions-strategies/strategic-climate-action-plan.aspx
[34] GHG is an abbreviation used in the SCAP for "greenhouse gas".
[35] https://kingcounty.gov/en/dept/dnrp/about-king-county/about-dnrp/sustainability-commitments/clean-water-healthy-habitat
[36] https://kingcounty.gov/en/legacy/services/environment/water-and-land/forestry/forest-policy/30-year-forest-plan.aspx

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strategies focused on forestland connectivity, forest extent and health, water quality, and working forests.

- **Open Space Plan**—OSP is primarily a strategic plan that guides activities of the Parks and Recreation Division of DNRP. OSP also applies to natural resource conservation and restoration work performed by WLRD. OSP is updated every six years and provides the policy framework for how the County plans, develops, manages, and expands its complex system of 205 parks, 175 miles of regional trails, and 32,000 acres of open space.[37]

  PBRS alignment: OSP largely focuses on strategies, goals, and objectives associated with King County's public lands inventory. However, CUA programs are a tool to help King County protect and conserve high-priority sites containing valuable natural resources and habitat not directly tied to acquisition targets, but in support of CWHH and LCI conservation objectives.

- **King County Comprehensive Plan**—The Comprehensive Plan is the County's primary policy document. It guides how and where growth and development will occur in King County. The County is required to review and update the Comprehensive Plan at least once every eight years to ensure it meet the goals and requirements of the Washington State Growth Management Act. These updates are an opportunity to make major policy changes that address our community's long-term needs and advance the County's goals, including those related to the protection of working farms and forests and access to clean water, clean air, and a healthy environment.[38]

  PBRS alignment: Chapter 5 of the 2016 Comprehensive Plan, updated in 2022, details policies to protect, restore, and enhance the quality of the natural environment in King County for future generations. Incentive programs, including PBRS, are a critical component of those polices. Polices E-101, E-112a, E-429, E-443, E-449, and E-476 all reference incentive programs to help achieve natural resource conservation, forest retention, fish and wildlife habitat protection and enhancement, and invasive species control.

- **Equity and Social Justice Strategic Plan**—ESJ Strategic Plan provides direction for how the County will become a place where all people have equitable opportunities to thrive. It is a blueprint for change and was mutually created by King County and community partners. County residents from a broad range of sectors, geographic areas, and populations contributed to the plan which attempted to capture the concerns of those negatively affected by structural inequities. The plan includes high-level strategies to remove barriers to opportunity and implement actions that will help achieve equity.[39]

  PBRS alignment: By reducing the annual property tax burden, PBRS can make the cost of farm, forest, or open space ownership less of a burden to resource-challenged landowners. Although enrollment in PBRS is open to all King County landowners with properties that meet program

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[37] https://kingcounty.gov/en/dept/dnrp/nature-recreation/parks-recreation/king-county-parks/parks/open-space-plan
[38] https://kingcounty.gov/en/legacy/depts/executive/performance-strategy-budget/regional-planning/king-county-comprehensive-plan/CurrentAdoptedPlan.aspx
[39] https://kingcounty.gov/en/legacy/elected/executive/equity-social-justice/strategic-plan.aspx

criteria, greater effort is required to ensure that traditionally underserved communities are aware of PBRS benefits.

F. Findings and recommendations based on the review in subsections A. through E

PBRS is well aligned with King County's current policies and plans related to land and open space conservation, and is an important tool used to help achieve many strategic plan objectives. The rate of new PBRS enrollments has remained relatively stable, which demonstrates continued public support for the program. PBRS is recognized as an essential and increasingly important tool that supports County efforts to conserve and enhance farm, forest, and open space resources, as well as increase public recreation opportunities. PBRS is a popular landowner incentive that contributes to resource conservation efforts on private property throughout urban and rural King County.

PBRS policy, administration, and implementation are regularly reviewed, and several significant updates to the program have occurred since its adoption in 1992. Program revisions were most recently approved by Council and codified in December 2022.[40] These revisions included adding a new resource category, improving administration and policies, creating operating efficiencies, and amending code verbiage to improve public understanding.

Since 2013, PBRS has been managed by two full-time employees and a supervisor with a total allocation of 2.2 full-time equivalent (FTE) positions. This level of staffing is sufficient to manage the current volume of new enrollments, review of properties that have had a transfer in ownership, compliance monitoring, technical support for landowners, and general day-to-day program administration. Although the current staffing level is sufficient to address high-priority program needs, as the total number of properties participating increases, the ability to maintain a monitoring and compliance program will become increasingly challenged. Additionally, if marketing and outreach efforts are successful in generating an increase in the volume of applications from owners of LCI-priority properties and landowners from traditionally underserved communities, workload may exceed the capacity of current staff.

Although additional major operational or programmatic changes are not considered necessary at this time, DNRP is currently working on additional administrative improvements that do not require code changes. These improvements include:

- Working with the Prosecuting Attorney's Office, Department of Revenue, and city jurisdictions to clarify the approval process for city applications,
- Database improvements and automations to increase program efficiencies and communication with participating landowners and other DNRP programs,
- Implementing marketing strategies to expand PBRS enrollment to meet LCI objectives, and
- Improvements to program monitoring of participating properties to increase efficiency.

In addition to those ongoing PBRS enhancements, WLRD is reviewing opportunities to ensure more equitable service delivery and to better align with King County ESJ Strategic Plan objectives.[41] PBRS serves private property owners who apply for program inclusion, which tend to be disproportionately

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[40] Ordinance 19556 [LINK]
[41] https://aqua.kingcounty.gov/dnrp/library/dnrp-directors-office/equity-social-justice/201609-ESJ-SP-FULL.pdf

2024 Public Benefit Rating System Report

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white and financially advantaged. However, the benefits provided by participating properties enhance the environment and quality of life for all residents. Opportunities include:

- Identifying an appropriate Equity Impact Review Tool to assess program service delivery;[42]
- Conducting marketing/outreach efforts with equity needs in mind, targeting underserved/underrepresented communities;
- Assessing potential gaps in program delivery through an equity lens (e.g., program participation by census block to detect potential disparate participation based upon income);
- Working with WLRD and DNRP ESJ to investigate other options to better address equity needs in program delivery; and
- Translating of key program documents, application materials, and the County website to various secondary languages.
- Focusing outreach and education with homeownership organizations that help first-time homebuyers at or below the 80 percent of area median income with downpayment assistance to inform their clients about PBRS benefits. Organizations could include the Affordable Homeownership program (ARCH Housing), Habitat for Humanity, Homesight, Homestead Community Land Trust, and the like.
- Focusing outreach and education to real estate agents and real estate companies so they are able to inform their clients about PBRS benefits.

VI. Conclusion

PBRS provides a property tax reduction to more than 1,300 landowners who protect and manage open space resources on more than 14,000 acres of private property. Some of those properties are also made available for public access. Although PBRS provides a property tax incentive to landowners who voluntarily participated in the program, the participating properties provide valuable open space protection in return. Landowners who participate in PBRS protect, enhance, and manage streams, wetlands, groundwater recharge areas, wildlife habitat, farmland, and forestland.

In addition to providing landowners with a property tax benefit for protecting and managing a range of open space benefits, landowners who allow for public access to their property may be eligible for additional tax benefits. Of the 144 PBRS-participating landowners who allow public access, 89 received an increase in the property tax benefit for doing so (11 percent of all landowners participating in PBRS). The public access provided by those 144 landowners complement similar recreational uses on public land at relatively low cost to King County, in terms of the tax savings granted, when compared to the public benefit being provided. PBRS is also an integral part of King County's larger conservation initiatives that prioritize open space conservation.

PBRS policies, administrative protocols, and program implementation are regularly assessed for opportunities to improve program delivery and efficiency. Significant program code revisions were last completed in 2022 and no additional code changes are recommended. Although operational or programmatic changes are not considered necessary at this time, DNRP is currently working on additional administrative improvements to ensure more equitable service delivery.

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[42] https://kingcounty.gov/en/legacy/elected/executive/equity-social-justice/tools-resources

VII.   Appendices

Appendix A: List of Acronyms and Abbreviations
Appendix B: Impact of PBRS Participation on Appraised Land Value and Tax Liability
Appendix C: Current Land Use for PBRS Properties in Cities
Appendix D: PBRS Categories Awarded to Properties in Cities

![King County logo]

King County

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February 29, 2024

The Honorable Dave Upthegrove
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember Upthegrove:

This letter transmits the 2024 Public Benefit Rating System (PBRS) Report, in response to Ordinance 19633, Section 58, Proviso P1, and a proposed Motion that would, if enacted, acknowledge receipt of the report.

King County's PBRS program offers an incentive to preserve open space and recreational opportunities on private property by providing a reduction in assessed land value for taxation purposes for land enrolled in the program. This report provides an overview of the PBRS program and summarizes its goals, objectives, and current participation. It also provides an analysis of the public access component of the program as well as its overlap with County strategic plans and policies for open space, land conservation, and equity, and summarizes opportunities for improvement.

PBRS is a long-standing land conservation tool used throughout King County for more than 30 years, with more than 1,300 properties and over 14,000 acres participating. Participation in the program reaches nearly all corners of the county and protects many types of valuable open space resources such as streams and wetlands, groundwater recharge areas, significant wildlife habitat, farm and forestland, and public recreational opportunities on private land throughout both rural and incorporated King County. PBRS is also an integral part of the County's larger conservation initiatives that prioritize open space conservation.

Thank you for your consideration of this report. Increasing development pressures have put the protection of forests, farmland, fish and wildlife habitat, open spaces, and recreational opportunities at the forefront of King County land conservation policies and strategies. The PBRS program plays an important role in protecting these resources.

The Honorable Dave Upthegrove
February 29, 2024
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If your staff have questions, please contact Josh Baldi, Division Director, Water and Land Resources Division, Department of Natural Resources and Parks, at 206-477-9440.

Sincerely,

for

Dow Constantine
King County Executive

Enclosure

cc: King County Councilmembers
            ATTN: Stephanie Cirkovich, Chief of Staff
                        Melani Hay, Clerk of the Council
        Karan Gill, Chief of Staff, Office of the Executive
        Penny Lipsou, Council Relations Director, Office of the Executive
        Christie True, Director, Department of Natural Resources and Parks (DNRP)
        Josh Baldi, Division Director, Water and Land Resources Division, DNRP

King County

TRANSPORTATION, ECONOMY AND ENVIRONMENT COMMITTEE

June 18, 2024

Agenda Item No. 6
Briefing No. 2024-B0072

Metro General Manager Briefing

There are no materials for this item.

Metropolitan King County Council
Transportation, Economy, and Environment Committee

STAFF REPORT

Agenda Items:	7	**Name:**	Mary Bourguignon
Proposed No.:	2024-0192	**Date:**	June 18, 2024

SUBJECT

Proposed Motion 2024-0192 would approve Metro's 2024 Public Transportation Agency Safety Plan, prior to being submitted to the Federal Transit Administration.

SUMMARY

The requirement for a **Public Transportation Agency Safety Plan (PTASP)** resulted from a rule published by the Federal Transit Administration (FTA) in 2018, which was updated following the passage of the Bipartisan Infrastructure Law (BIL) in 2021. Each transit agency that receives federal funds must prepare and regularly update a PTASP. Metro's first PTASP was approved by the Council in 2020.[1] It was updated in 2023.[2] Metro's 2024 PTASP updates safety targets and senior management roles and responsibilities and replaces the Executive Safety Committee with the BIL Committee.

Metro's transmitted 2024 PTASP appears to comply with the FTA's requirements for a PTASP and includes information for each of the required categories:

- Transit agency information
- Plan development, approval, and update documentation
- Safety performance targets for fatalities, injuries, safety events, and system reliability, including how Metro coordinates with its partners
- Risk reduction program, with a focus on reducing vehicular and pedestrian safety events and mitigating assaults on transit workers
- Public health, focusing on minimizing exposure to infectious diseases
- Development of a Safety Management System (SMS)
- Safety management policy, including Metro's safety objectives
- Safety risk management, describing how hazards are identified and mitigated
- Safety assurance, monitoring Metro's compliance with safety regulations
- Safety promotion, describing Metro's training and communication programs
- Additional information, including definitions and acronyms.

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[1] Motion 15688
[2] Motion 16329

BACKGROUND

FTA PTASP requirement. On July 19, 2018, the Federal Transit Administration (FTA) published a rule[3] that required public transit agencies that receive federal funds to prepare an agency safety plan (formally called a Public Transportation Agency Safety Plan, PTASP); to implement and operate a Safety Management System (SMS); and to maintain safety management documentation. Following a delay due to the pandemic, the first PTASPs due under this rule were required to be submitted to the FTA by December 31, 2020.[4]

The rule states the basis for requiring PTASPs by noting that:

> The public transportation industry remains among the safest surface transportation modes in terms of total reported safety events, fatalities, and injuries. Nonetheless, given public transportation service complexities, the condition of transit equipment and facilities, turnover in the transit workforce, and the quality of policies, procedures, and training, the public transportation industry remains vulnerable to catastrophic safety events.[5]

The rule goes on to note that, although individual transit agencies will bear additional costs to prepare and update PTASPs, there will be benefits in reduced bus and rail safety incidents, as well as reduced delays in operations. Specifically, the rule notes that PTASPs could lead to activities that could yield safety improvements, such as, "improved communication, identification of hazards, and greater transit worker awareness, as well as increased accountability at the higher echelons of the organization."[6]

The requirement that transit agencies develop PTASPs is part of a broader Public Transportation Safety Program that consists of the National Public Transportation Safety Plan, Public Transportation Safety Certification Training Program, Public Transportation Agency Safety Plans, and State Safety Oversight Program.[7]

Metro's 2020 PTASP. Following the publication of the FTA's rule, Metro developed a PTASP, which was approved by the Council in 2020[8] and then submitted to the FTA for review. The 2020 PTASP complied with the FTA's requirements by describing Metro's safety programs and systems, including its strategies to mitigate risk, document incidents, and train transit workers.

At the time, Metro staff noted that the FTA requires each transit agency to review its PTASP at least once a year and certify its compliance with the FTA's rule. The agency was not required to update the plan unless necessary, for instance if the agency had

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[3] Public Transportation Agency Safety Plan, 49 CFR Part 673, Federal Register, Volume 83, No. 139, Thursday, July 19, 2018, Rules and Regulations, pp. 34418-34468 (link)
[4] Public Transportation Agency Safety Plan Notice of Enforcement Discretion, April 23, 2020 (link)
[5] Public Transportation Agency Safety Plan rule, pp. 34418-34419.
[6] Public Transportation Agency Safety Plan rule, p. 34421.
[7] 49 U.S.C. 5329 (b)-(e)
[8] Motion 15688

added or deleted services, fleets, or infrastructure, restructured its organization, or adopted new safety protocols. Each time the PTASP is updated, it must be signed by the Accountable Executive (Metro's General Manager)[9] and reviewed and approved by the Board of Directors (King County Council).[10]

2021 Bipartisan Infrastructure Law. The Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL),[11] was enacted by Congress, and signed into law by the President in November 2021. In addition to approving $108 billion for public transportation over the next five years, the BIL also enacted several regulatory changes, including updates to the FTA's regulations governing the content of PTASPs.[12]

Specifically, the BIL requires that, for transit agencies serving a large, urbanized area with a population of 200,000 or more:[13]

- **Safety Committee.** The transit agency must establish an internal Safety Committee by July 31, 2022, and that Safety Committee must approve an update to the Agency's PTASP by December 31, 2022.

- **Infectious disease prevention.** Each agency must document its strategies to minimize the exposure of the public, personnel, and property to infectious diseases and must identify mitigations or strategies related to exposure to infectious diseases.

- **Vehicular and pedestrian safety events.** Each agency must document the steps it is taking to reduce vehicular and pedestrian safety events involving buses, including measures to reduce visibility impairments on buses through retrofits to existing buses and specifications for future procurements.

- **Transit worker assaults.** Each agency must document the steps it is taking to mitigate assaults on transit workers, including deploying assault mitigation infrastructure and technology on buses (such as barriers to restrict the unwanted entry of individuals and objects into the workstations of bus operators). These mitigation measures must be based on a risk analysis performed by the Safety Committee to determine that barriers or other measures would reduce assaults on or injuries to transit workers.

- **Risk reduction performance targets.** The agency's Safety Committee must establish performance targets for the risk reduction program using a three-year rolling average of data submitted to the National Transit Database.[14]

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[9] Ordinance 19741 updated KCC 2.16.038 to state that "The director of the Metro transit department may also be referred to as the department's general manager and the public transit agency's accountable executive."
[10] King County Charter Article 2
[11] US Department of Transportation, Bipartisan Infrastructure Law ([link](#))
[12] US Department of Transportation Federal Transit Administration, Dear Colleague letter, February 17, 2022 ([link](#))
[13] Federal Transit Administration, Bipartisan Infrastructure Law Changes to Public Transportation Agency Safety Plan Requirements, March 1, 2022 ([link](#))

- **Safety training.** Each agency must certify that it provides a comprehensive staff training program for both operations and maintenance personnel and personnel directly responsible for safety that includes continuing safety education and de-escalation training.

PTASP updates and development process. Metro updated its PTASP following the passage of the BIL. The Council approved the updated PTASP in 2023[15] and it was then submitted to the FTA for review. Metro's 2024 PTASP update makes relatively minor changes to the 2023 PTASP to update safety targets and senior management roles and responsibilities and to replace the Executive Safety Committee with the BIL Committee.

In April 2024, the FTA published a new rule[16] that formally incorporated the BIL requirements into the requirements for a PTASP. This new rule will require additional changes to Metro's PTASP in 2025 and beyond.

The FTA's PTASP rule is a regulatory compliance process. It requires that each agency provide information for each of the required elements for the transit services required to be part of that agency's PTASP. The PTASP is to be developed in consultation with the agency's employees, to be part of an implementation plan, and to be coordinated with the agency's partners and oversight organizations.

In Metro's case, partner agencies include Sound Transit and the Seattle Department of Transportation (SDOT), for which Metro operates transit services under contract.[17] The oversight organization is the Washington State Department of Transportation (WSDOT). Metro must also collaborate on safety issues with the region's Metropolitan Planning Organization (MPO),[18] the Puget Sound Regional Council.

Before the PTASP is submitted to the FTA, the FTA requires it to be signed by the "Accountable Executive," the official at the agency who is responsible for carrying out the agency's safety and transit asset management plans and who has control or direction over the agency's human and capital resources. In Metro's case, this Accountable Executive is the General Manager.[19]

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[14] The FTA's National Transit Database is the repository of data about the financial, operating, and asset conditions of American transit systems. (link)

[15] Motion 16329

[16] Department of Transportation, Federal Transit Administration 49 CFR Part 673, RIN 2132-AB44, Public Transportation Agency Safety Plans, Final Rule, Federal Register, Volume 89, Number 71, Thursday, April 11, 2024 (link).

[17] Metro operates Link light rail and express bus service for Sound Transit and operates the Seattle streetcar for SDOT.

[18] A Metropolitan Planning Organization (MPO) is the policy board of an organization created and designated to carry out the metropolitan transportation planning process under FTA rules (link). The Puget Sound Regional Council (PSRC) has been designated the MPO for the four-county Puget Sound region (link).

[19] Ordinance 19741 updated KCC 2.16.038 to state that "The director of the Metro transit department may also be referred to as the department's general manager and the public transit agency's accountable executive."

Each PTASP must also be reviewed and approved by the agency's Board of Directors. In Metro's case, the King County Council fills this function.[20] The Council's passage of Proposed Motion 2024-0192 would provide this required approval, indicating that the Council believes Metro's transmitted 2024 PTASP to comply with the FTA's requirements and to be ready to be submitted to the FTA for review.

Transit services included in the PTASP. Metro provides a range of transit services, some of which it operates directly (bus, water taxi), some of which it operates under contract to other organizations (Link light rail, ST express bus, Seattle streetcar), some of which are provided for Metro by private contractors (Access paratransit, flexible services), and some of which are operated by volunteer drivers (vanpool, community van). The FTA's rule determines which of these services Metro is required to include in its PTASP. For some services, safety monitoring and reporting is required through different mechanisms or by different agencies. The result is that not all the services Metro provides are covered in the transmitted PTASP.

- **Included in Metro's PTASP:**
  - **Metro fixed-route bus service.** Metro's fixed-route bus service is operated by Metro and is included in Metro's PTASP.
  - **Access paratransit service.** Although Access paratransit is operated for Metro by a contractor, MV Transportation, Metro is considered the owner agency, and therefore Access paratransit is included in the PTASP, grouped under non-fixed route services.
  - **Other contracted services.** Metro provides other services that are operated by contractors, such as Dial-a-Ride Transit (DART) and flexible services, such as Metro Flex. Because Metro is the owner agency of these services, they are included in Metro's PTASP, grouped under non-fixed route services.

- **Not included in Metro's PTASP:**
  - **Water taxi service.** Metro's Marine Division is regulated by the US Coast Guard, not the FTA, and is therefore not included in the FTA PTASP.
  - **Sound Transit contracted services.** Metro operates Sound Transit express bus and Link light rail services under contract to Sound Transit. Per the FTA, all services are to be included within their owner agency's safety plan. Because Sound Transit is the owner agency of these services, they are covered in Sound Transit's PTASP.
  - **City of Seattle contracted services.** Metro operates the Seattle streetcar under contract to the City of Seattle. As with Sound Transit contracted services, the Seattle streetcar is included in its owner agency's PTASP, in this case the plan submitted by SDOT for the City of Seattle.
  - **Volunteer driver services.** FTA's regulatory requirements do not cover services driven by volunteers, such as vanpool or community van. Thus, these services are not included in Metro's PTASP.

Metro staff note that, although the FTA does not require all the services Metro provides to be included in the PTASP, Metro's Safety Management System (SMS) is applied

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[20] King County Charter Article 2

throughout the agency, and the resources included in the SMS, such as performance data, risk management, training, and promotion, are broadly used, even for services not covered by the FTA rule. Metro staff also note that Metro coordinated with Sound Transit and SDOT in the development of the PTASP, to ensure consistency between the agencies' plans. Further, Metro staff note that, in compliance with the FTA rule, Metro employees were engaged and involved in the development of the transmitted PTASP and will be involved in the implementation process required by the FTA.

Required elements of a PTASP. The FTA has developed a PTASP checklist[21] that summarizes the information each agency must provide as part of its safety plan. The required elements are organized into categories:

Transit Agency information
- Name and address of the transit agency
- Mode(s) of transit service covered by the PTASP
- Mode(s) of transit service provided by the transit agency (directly operated or contracted service)
- FTA funding types the agency receives
- Transit service provided by the agency on behalf of another entity
- Name of the Accountable Executive,[22] who must sign the PTASP
- Name of the Chief Safety Officer[23]

Plan Development, Approval, and Updates
- Name of entity that drafted the PTASP
- Safety Committee approval of the PTASP and date of approval
- Accountable Executive's signature and date
- Board of Directors' (or equivalent authority) approval and date
- Certification of compliance with the FTA PTASP rule
- Process and timeline for conducting an annual review and update of the PTASP
- Verification that the PTASP addresses all applicable requirements of the Public Transportation Safety Program and the National Public Transportation Safety plan

Safety Performance Targets
- Fatalities: total number or reportable fatalities and rate per total vehicle revenue miles, by mode
- Injuries: total number of reportable injuries and rate per total vehicle revenue miles, by mode
- Safety events: total number of reportable events and rate per total vehicle revenue miles, by mode
- System reliability: Mean (or average) distance between major mechanical failures, by mode

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[21] Public Transportation Agency Safety Plan, Checklist for Bus Transit, Version 3 (September 2022) (link)
[22] Ordinance 19741 updated KCC 2.16.038 to state that "The director of the Metro transit department may also be referred to as the department's general manager and the public transit agency's accountable executive."
[23] Ordinance 19741 updated KCC 2.16.038 to state that "The manager of the safety, security, and quality assurance division may also be referred to as the public transit agency's chief safety officer."

- Must specify that performance targets[24] are made available to the State to aid in the planning process
- Must specify that performance targets are made available to the Metropolitan Planning Organization (MPO) to aid in the planning process[25]
- Coordination with the State and MPO in the selection of State and MPO safety performance targets to the maximum extent practicable

Risk Reduction Program
- Risk reduction program for transit operations to improve safety by reducing the number and rates of safety events, injuries, and assaults on transit workers based on data submitted to the National Transit Database, including:
  - A reduction of vehicular and pedestrian safety events involving buses that includes measures to reduce visibility impairments for bus operators that contribute to safety events, including retrofits to buses in revenue service and specifications for future procurements that reduce visibility impairments
  - The mitigation of assaults on transit workers, including the deployment of assault mitigation infrastructure and technology on buses, including barriers to restrict the unwanted entry of individuals and objects into the workstations of bus operators when a risk analysis performed by the recipient's Safety Committee determines that such barriers or other measures would reduce assaults on transit workers and injuries to transit workers

Public Health
- Strategies to minimize exposure to infectious diseases, consistent with guidelines of the Centers for Disease Control and Prevention or a State health authority

Development and Implementation of a Safety Management System (SMS)
- The transit agency's establishment and implementation of an SMS
- The SMS is appropriately scaled to the size, scope, and complexity of the transit agency and includes Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion

Safety Management Policy
- Written statement of Safety Management Policy, including the agency's safety objectives
- Transit worker safety reporting program, that includes:
  - A process that allows transit workers to report safety conditions to senior management
  - Protections for transit workers who report safety conditions to senior management
  - A description of transit worker behaviors that may result in disciplinary action, and therefore are excluded from protection

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[24] Performance targets for a risk reduction program at 49 U.S.C. § 5329(d)(4) are not required until FTA has established these performance measures.

[25] The Puget Sound's Metropolitan Planning Agency is the Puget Sound Regional Council (link)

- ☐ Communication of the Safety Management Policy throughout the agency's organization
- ☐ Authorities, accountabilities, and responsibilities necessary for the management of safety, as they relate to the development and management of the agency's Safety Management System (SMS) for the following:
  - o Accountable Executive
  - o Chief Safety Officer (or SMS Executive)
  - o Agency leadership and executive management
  - o Key staff

Safety Risk Management

- ☐ *Safety hazard identification,* defined as methods or processes to identify hazards and consequences of hazards, which includes data and information provided by an oversight authority and FTA as sources for hazard identification
- ☐ *Safety risk assessment,* defined as methods or processes to assess the safety risks associated with identified safety hazards, which must include assessment of the likelihood and severity of the consequences of the hazards, including existing mitigations, and prioritization of the hazards based on the safety risk
- ☐ *Safety risk mitigation,* defined as methods or processes to identify mitigations or strategies necessary as a result of the agency's safety risk assessment to reduce the likelihood and severity of the consequences of hazards

Safety Assurance

- ☐ Activities to monitor the transit agency's system for compliance with, and sufficiency of, the agency's procedures for operations and maintenance
- ☐ Activities to monitor the transit agency's operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended
- ☐ Activities to conduct investigations of safety events to identify causal factors
- ☐ Activities to monitor information reported through any internal safety reporting programs
- ☐ *Management of change,* defined as a process for identifying and assessing changes that may introduce new hazards or impact the transit agency's safety performance, and confirmation that these proposed changes are evaluated through the agency's Safety Risk Management process
- ☐ *Continuous improvement,* defined as a process to assess the transit agency's safety performance, and the agency's plan to identify and address safety deficiencies as part of its safety performance assessment

Safety Promotion

- ☐ A comprehensive safety training program for all transit agency transit workers and contractors designated as directly responsible for safety in the agency's public transportation system, including refresher training, as necessary
- ☐ The comprehensive safety training program includes maintenance personnel and de-escalation training
- ☐ Communication of safety and safety performance information throughout the transit agency's organization that conveys, at a minimum:
  - o Information on hazards and safety risks relevant to transit workers' roles and responsibilities, and

- o Safety actions taken in response to reports submitted through an transit worker safety reporting program

Additional Information
- ☐ Definition of terms used in the PTASP
- ☐ List of acronyms used in the PTASP
- ☐ Certification of compliance with Part 673 in the Transit Award Management System (TrAMS),[26] including name of the individual or entity that certifies compliance and date of certification

ANALYSIS

Compliance with FTA requirements. The PTASP transmitted with Proposed Motion 2024-0192 is the third one Metro has developed since the FTA first published its PTASP rule in 2018. The 2024 PTASP updates safety targets and senior management roles and responsibilities and replaces the Executive Safety Committee with the BIL Committee. Assuming Council approval of the proposed motion, Metro will submit the PTASP to the FTA, affirming, as required, that the transmitted PTASP complies with the FTA's rule.

Council staff analysis has verified that Metro's transmitted PTASP appears to comply with the substantive requirements in the FTA rule.

Transit Agency information
- ☐ **Name and address of the transit agency**
  The transmitted PTASP includes Metro's name, address, and affiliation with King County. (Cover)

- ☐ **Mode(s) of transit service covered by the PTASP**
  The transmitted PTASP states that it covers fixed route bus services and non-fixed route bus services, and states that light rail transit and streetcar services are not included, as those are operated by Metro under contract to a different agency.[27] (Pages 4-6, Section 1.3)

- ☐ **Mode(s) of transit service provided by the transit agency (directly operated or contracted service)**
  The transmitted PTASP states that Metro provides fixed route and non-fixed route bus service. This includes both services operated by Metro and services operated by contractors. (Pages 4-6, Section 1.3)

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[26] The Transit Aware Management System (TrAMS) is the Federal Transit Administration's platform to award and manage federal grants (link)

[27] As noted above, the transmitted PTASP does not include Metro's water taxi service, as this is regulated by the Coast Guard, not the FTA. Because water taxi is not a service regulated by the FTA, the transmitted PTASP is silent on water taxi. However, as noted above in this staff report, Metro staff state that Metro's Safety Management System does cover all Metro services, not simply those included within the FTA's PTASP rule.

- **FTA funding types the agency receives**
  A list of the FTA funding types Metro receives is included in the Introduction. (Page x (the introductory pages use small Roman numerals for pagination))

- **Transit service provided by the agency on behalf of another entity**
  The transmitted PTASP notes that Sound Transit is the owner of ST express bus routes and Link light rail, which Metro operates under contract for Sound Transit, and that SDOT is the owner of Seattle streetcar service, which Metro operates under contract for the City of Seattle. The plan notes that those services are covered within the owner agencies' plans. (Pages 4-6, Section 1.3)

- **Name of the Accountable Executive, who must sign the PTASP**
  The transmitted PTASP identifies the Accountable Executive as the General Manager and includes space for the General Manager's name and signature, as required (Page vi). The PTASP also describes the General Manager's role and responsibilities relative to the Safety Management System (SMS). (Page 6, Section 2.1.2)

- **Name of the Chief Safety Officer**
  The transmitted PTASP identifies the Chief Safety Officer as the Director of Metro's Safety, Security, and Quality Assurance Division (Page iii) and includes space for the Chief Safety Officer's name and signature (Page vi). The PTASP also describes the Chief Safety Officer's role and responsibilities relative to the SMS. (Page 9, Section 2.2.1)

Plan Development, Approval, and Updates

- **Name of entity that drafted the PTASP**
  The transmitted PTASP includes Metro's name and describes the purpose of the plan. (Page ix)

- **Safety Committee approval of the PTASP and date of approval**
  The transmitted PTASP includes verification that Metro's Safety Plan Review Committee has reviewed and approved the PTASP and includes signatures and dates for each member's approval. (Page iii)

- **Accountable Executive's signature and date**
  The transmitted PTASP includes the name and signature of the Accountable Executive, who is identified as being the General Manager. (Page vi)

- **Board of Directors' approval and date**
  Proposed Motion 2024-0192 instructs the Executive to include a signed copy of the signature report of the motion after adoption with the PTASP when it is submitted to the FTA as proof of approval, with date of approval, from the King County Council, which functions as Metro's Board of Directors.

  The Concurrences and Approval page in the transmitted PTASP notes that this approval is included in that way and identifies the King County Council as Metro's

"Board of Directors equivalent." (Page vi) The PTASP also describes the County Council's role with respect to Metro. (Page 6, Section 2.1.1)

☐ **Certification of compliance with the FTA PTASP rule**
The transmitted PTASP includes a Concurrences and Approval page to certify compliance. (Page vi)

☐ **Process and timeline for conducting an annual review and update**
The transmitted PTASP notes that it is considered a "living document in that it is continually edited and updated." (Page 18, Section 4.1.1)

The plan also describes the regulatory requirements for annual review, as well as required revisions when a system expansion or major project affects the system. It describes how Metro will comply with these requirements. (Page 18, Section 4.1.1)

☐ **Verification that the PTASP addresses all applicable requirements**
The transmitted PTASP states that the Accountable Executive and Chief Safety Officer verify that the PTASP addresses all applicable requirements of the Public Transportation Safety Program and the National Public Transportation Safety Plan. (Page vi)

Safety Performance Targets
☐ **Fatalities**
☐ **Injuries**
☐ **Safety events**
☐ **System reliability**
The transmitted PTASP notes that Metro complies with the safety performance criteria and state of good repair standards in the National Public Transportation Safety Plan developed by the US Department of Transportation and FTA under MAP-21.[28] The plan describes how each of the safety performance targets is set and measured, as well as how these targets have been coordinated with the PSRC. The plan then lists the safety performance targets for fatalities, injuries, safety events, and system reliability for each mode (fixed route bus and non-fixed route bus), as required. (Pages 1-6, Sections 1.1-1.3)

☐ **Specification that performance targets are made available to the State and MPO and that there is coordination**
The PTASP states that Metro distributes and makes available safety performance targets to regulatory agencies, PRSC, and other stakeholders to aid in the planning process and that Metro coordinates safety performance targets with stakeholders to the maximum extent possible. (Page 3, Section 1.2)

Risk Reduction Program
☐ **Risk reduction program for transit operations, including reducing the number and rates of safety events, injuries, and assaults on transit**

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[28] MAP-21 is the Moving Ahead for Progress in the 21st Century Act, a funding and authorization bill governing US federal surface transportation spending that was passed by Congress in 2012.

workers, and a reduction of vehicular and pedestrian safety events involving buses.

The PTASP describes Metro's Safety, Security, and Quality Assurance Division[29] and the role it plays. (Page 8, Section 2.4) The plan also describes Metro's hazard management program, and the tools and techniques Metro uses to identify and analyze hazardous conditions, including collisions, including evaluating collisions from the perspective of the equipment used and the route followed, not simply the role of the bus operator. (Pages 19-20, Section 5) The transmitted PTASP states that Metro ensures that safety programs are appropriate, compliant with applicable regulations, properly implemented, and that agency staff are trained in the program. (Page 10, Section 2.4.2)

Public Health

☐ **Strategies to minimize exposure to infectious diseases.**

The PTASP describes the training and personal protective equipment staff are provided to provide hazard control. (Page 27, Section 6.6.5) Metro's safety training includes information on pathogens and other safety risks. (Page 46, Section 11)

Development and Implementation of a Safety Management System

☐ **Transit agency's establishment and implementation of an SMS that is appropriately sized and scaled**

The transmitted PTASP identifies and describes the four SMS components that apply to all facets of agency actions, including safety policy, safety risk management, safety assurance, and safety promotion, and how the PTASP and all agency safety actions are organized around those components. The PTASP also identifies the tasks to be accomplished in each category. (Pages ix-xii, Introduction, SMS Implementation Strategy)

Safety Management Policy

☐ **Written statement of Safety Management Policy, including the agency's safety objectives**

The transmitted PTASP refers to Metro's safety management policy and identifies tasks and their status related to safety policy. (Page xi, SMS Implementation Strategy, Page 44, Section 10)

☐ **Transit worker safety reporting program**

The transmitted PTASP describes a transit worker safety reporting program as a fundamental source for safety assurance input, and notes that no action will be taken against any transit worker who discloses a safety concern through the safety reporting program, unless disclosure indicates, beyond any reasonable doubt, the transit worker's direct involvement in an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures. (Page 1, Section 1)

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[29] Ordinance 19741 updated KCC 2.16.038 to create the Safety, Security, and Quality Assurance Division within the Metro Transit Department.

- **Communication of the Safety Management Policy throughout the agency's organization**

  The transmitted PTASP notes that the primary safety communication responsibility of Metro's management under these requirements is to "communicate the Safety Management Policy actively and personally to all employees and contractors." The plan notes that this is primarily carried out through Metro's committee process and describes the responsibilities and membership of each of Metro's committees. The plan also states that each Division Director must visibly endorse the Safety Management Policy in their areas of control. (Page 44, Section 10)

- **Authorities, accountabilities, and responsibilities necessary for the management of safety, as they relate to the development and management of the agency's Safety Management System (SMS) for the Accountable Executive, Chief Safety Officer, agency leadership, and key staff**

  The transmitted PTASP describes the responsibilities of Metro's General Manager (aka Accountable Executive); Deputy General Manager and Chief of Staff; Assistant General Managers, Division Directors, and Deputy Directors; Directors, Section Managers, Managers, and Immediate Supervisors; other people leaders; and frontline employees. The PTASP also describes the responsibilities of Metro's Safety, Security, and Quality Assurance Division, including the Division Manager (aka Chief Safety Officer), Metro Transit Safety, Metro Transit Security, Metro Transit Quality Assurance, agency leadership teams, and committees of leadership. (Pages 6-14, Section 2)

Safety Risk Management

- **Safety hazard identification**

  The transmitted PTASP states that all transit workers, departments, and contractors are required to identify, analyze, and report safety hazards. The plan describes reactive and proactive hazard identification, predictive identification, the regulatory data required to be used in hazard identification, and the transit worker reporting systems Metro has established to identify and report safety hazards. (Pages 19-20, Section 5)

- **Safety risk assessment**

  The transmitted PTASP describes the processes Metro has established to establish priorities for corrective action and resolution of identified hazards, including the semi-quantitative risk model Metro uses to perform risk assessments within the agency, and identify the likelihood and severity of hazards. (Pages 20-28, Section 6)

- **Safety risk mitigation**

  The transmitted PTASP describes immediate and long-term mitigations, as well as layering mitigations, hazard tracking, monitoring, and responsibilities. (Pages 33, Section 6)

Safety Assurance

☐ **Activities to monitor the transit agency's system for compliance with, and sufficiency of, the agency's procedures for operations and maintenance**
The transmitted PTASP includes a section on safety assurance that includes information on safety performance monitoring and measurement, rules and procedure compliance activities, annual compliance assessments, internal safety audits, internal safety and security audit program, safety performance monitoring and measurement, internal controls, and monitoring of safety performance measures. (Pages 35-39, Section 7)

☐ **Activities to monitor the transit agency's operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended**
The transmitted PTASP describes Metro's procedures to monitor safety performance measures, including the required monthly reporting by each division and functional area. The plan then describes the internal safety reviews that are conducted to "identify non-compliances and mitigations, identify hazards, and implement corrective actions to reduce risk to the agency, and to identify any existing mitigations that may be ineffective, inappropriate, or were not implemented as intended as required." (Page 38, Section 7.3.4)

☐ **Activities to conduct investigations of safety events, including the identification of causal factors**
The transmitted PTASP describes Metro's procedures to conduct hazard investigation, as hazards are reported or identified. (Page 37, Section 7.3.2)

☐ **Activities to monitor information reported through any internal safety reporting programs**
The transmitted PTASP includes a section on safety performance monitoring and measurement, which includes information on information monitoring. (Page 37, Section 7.3.2)

☐ **Management of change**
The transmitted PTASP includes a section on management of change, which is described as "a process for identifying and assessing changes that may introduce new hazards or impact the transit agency's safety performance." The section describes Metro's actions related to safety and security certification, system modification, configuration management, and procurement. (Pages 40-42, Section 8)

☐ **Continuous improvement**
The transmitted PTASP includes a section on continuous improvement, which is described as the process by which Metro examines its safety performance to identify safety deficiencies and carries out a plan to address the identified safety deficiencies. The plan lists three goals for continuous improvement: identify the causes of sub-standard performance of the SMS; determine the implications of sub-standard performance; and eliminate or mitigate such causes. The plan then

describes the annual internal controls that are used to manage this process. (Pages 42-43, Section 9)

Safety Promotion

☐ **A comprehensive safety training program**
The transmitted PTASP describes the competencies and training for Metro employees, which includes information on safety training metrics that are used to track safety training. (Pages 46-47, Section 11)

☐ **The comprehensive safety training program includes maintenance personnel and de-escalation training**
The transmitted PTASP states that Metro ensures frontline transit workers are provided with training. (Page 46, Section 11)

☐ **Communication of safety and safety performance information**
The transmitted PTASP includes a section on safety communication as an essential element to safety promotion and describes the communication avenues Metro uses through its staff and committees. (Pages 44-45, Section 10)

Additional information

☐ **Definitions**
Each section of the transmitted PTASP defines the terms and concepts that are used. The language is based on the FTA's rule.

☐ **Acronyms**
The transmitted PTASP includes a list of abbreviations. (Pages vii-viii)

☐ **Certification of compliance with Part 673 in TrAMS**
Each section of the transmitted PTASP defines how the plan complies with the requirements of 49 Code of Federal Regulations (CFR) 673.

Council oversight of Metro safety policy. The PTASP transmitted with Proposed Motion 2024-0192 was developed specifically to meet the requirements of the FTA's rule. As such, it is limited to the FTA's required elements and to the Metro services required to be included in the PTASP. Broader issues of safety policy are addressed through Metro's adopted policy documents.[30]

- **Strategic Plan for Public Transportation.** Safety is one of the goals in Metro's adopted Strategic Plan for Public Transportation, which lists, as an objective, to provide a safe and secure experience for passengers, community, and Metro transit workers; as strategies, to promote safety and security equitably in operations and facilities and to ensure Metro is prepared to provide safe and ongoing transportation during all hazards and crises; and as measures, customer safety satisfaction, assaults and disturbances, preventable collisions, and emergency preparedness.[31]

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[30] Ordinance 19367
[31] Ordinance 19367, Attachment A, King County Metro Strategic Plan for Public Transportation, 2021-2031, p. 8.

- **Service Guidelines.** Metro's Service Guidelines, which provide implementation guidance for designing, modifying, and evaluating service, identify safety as one of Metro's key values. The Service Guidelines address safety in terms of operating paths and appropriate vehicles for specific routes, noting that buses cannot operate safely on all streets, that services should operate in locations and with vehicles that are appropriate to permit safe operation while also accommodating demand, and that safe access to transit is a goal.[32]

- **Metro Connects.** Metro's long-range plan identifies safety as Metro's foremost goal, and states that the long-range plan, provides a vision for bringing more and better mobility services to King County through a regional, innovative, and integrated mobility network that is safe, equitable, and sustainable.[33]

Metro's Mobility Framework, which was developed during 2019, identifies ensuring safety as one of the 10 guiding principles for the framework, recommending that Metro support investments to increase safety, including bus safety features, a safety app or other technology, and amenities such as lighting, real-time arrival signs, and informational campaigns.[34]

In addition, Metro's Safety, Security, and Fare Enforcement (SaFE) Reform Initiative, which engaged internal and external stakeholders to develop a set of recommended actions[35] to achieve "safe, accessible, and equity transit that is co-created to support community well-being," is in the process of being implemented.

Next steps for the PTASP. After receiving Council approval of its PTASP, Metro must submit it to the FTA for federal review.

The FTA requires that each transit agency must review its PTASP at least once a year and certify its compliance with the FTA's rule. Each time the PTASP is updated, it must be signed by the Accountable Executive (Metro's General Manager) and reviewed and approved by the Board of Directors (King County Council).

<u>INVITED</u>

- Rebecca Frankhouser, Chief Safety Officer, Metro Transit Department

<u>ATTACHMENTS</u>

1. Proposed Motion 2024-0192 and its attachment
2. Transmittal Letter

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[32] Ordinance 19367, Attachment B, King County Metro Service Guidelines, pp. 1, 25, 36.
[33] Ordinance 19367, Attachment C, Metro Connects, King County Metro Long-Range Plan, p. 1.
[34] Motion 15618, Attachment A, King County Metro Mobility Framework Recommendations Summary, October 2019, p. 3.
[35] Motions 16128, 16554

KING COUNTY

Signature Report

Motion

Proposed No. 2024-0192.1   **Sponsors** Dembowski

1   A MOTION related to public transportation, approving the

2   King County Metro Agency Safety Plan 2024, in

3   accordance with the Federal Transit Administration's

4   Public Transportation Agency Safety Plan regulations and

5   the Bipartisan Infrastructure Law.

6   WHEREAS, Federal Transit Administration ("FTA") regulations, set forth in 49

7 C.F.R. Part 673, require all direct and primary recipients of FTA funding to establish a

8 Public Transportation Agency Safety Plan ("PTASP") within one calendar year after July

9 19, 2019, and

10   WHEREAS, 49 C.F.R. Part 673.11(a)(1) requires that the PTASP and any

11 subsequent updates thereto be signed by the Accountable Executive and approved by the

12 agency's Board of Directors or an Equivalent Authority, and

13   WHEREAS, in November 2021, the Bipartisan Infrastructure Bill ("the BIL"),

14 which imposed additional requirements for the development of PTASPs by transit

15 agencies, was signed into law, and

16   WHEREAS, the King County Metro Transit department, as a transit provider and

17 direct recipient of FTA funding, is required to comply with the requirements in 49 C.F.R.

18 Part 673.11(a)(1) and the BIL, and

1

19   WHEREAS, in accordance with 49 C.F.R. Part 673.11(a)(1), the general manager

20   of the King County Metro transit department signed, and the King County council

21   approved by Motion 16329, the King County Metro Agency Safety Plan dated December

22   2023, and

23   WHEREAS, consistent with new requirements imposed by the BIL, the King

24   County Metro transit department developed the King County Metro Agency Safety Plan

25   2024, which updates the King County Metro Agency Safety Plan dated December 2023,

26   and

27   WHEREAS, in accordance with 49 C.F.R. Part 673.11(a)(1), the King County

28   Metro Public Transportation Agency Safety Plan 2024 has been signed by the King

29   County Metro transit department general manager as the Accountable Executive;

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

31   The King County council hereby approves the King County Metro Public

32   Transportation Agency Safety Plan 2024, which is Attachment A to this motion.

33   The King County executive is requested to transmit a copy of Attachment A to

34   this motion, with a copy of the final, signed Signature Report of this motion

2

35 attached to Attachment A to this motion as Appendix A, to the Federal Transit

36 Administration.

                                            KING COUNTY COUNCIL
                                            KING COUNTY, WASHINGTON

                                            _____

                                            Rod Dembowski, Chair

ATTEST:

_____

Melani Pedroza, Clerk of the Council

APPROVED this _____ day of _____, _____.

                                            _____

                                            Dow Constantine, County Executive

Attachments: A. King County Metro Public Transportation Agency Safety Plan 2024

3

King County Metro Public Transportation Agency Safety Plan

2024

King County Metro Transit Department

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REVISION SUMMARY

Date	Revision #	Changes
2020	1.0	First Issue
2023	2.0	Incorporation of new safety policy; addition of Public Transportation Agency Safety Plan Review Committee information; update of Safety, Security and Quality Assurance responsibilities; update of safety targets; and addition of new safety risk management matrix.
2024	3.0	Removal of Agency Safety Plan references and replaced with Public Transportation Agency Safety Plan; update to format providing more consistency, useability, and better comprehension; update of safety targets; update to Senior Management roles and responsibilities related to PTASP implementation; Removed Executive Safety Committee and replaced with the Bipartisan Infrastructure Law (BIL) Committee.

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN REVIEW COMMITTEE APPROVAL

King County Metro Transit Department and its labor partners are mutually committed to providing a safe workplace and increasing employee engagement on safety and security matters. The Public Transportation Agency Safety Plan Review Committee is a joint effort to review Metro's Public Transportation Agency Safety Plan in advance of formal adoption through the King County Council. This committee ensures the Metro Public Transportation Agency Safety Plan is making sufficient progress toward compliance with the requirements of 49 U.S. Code § 5329, chiefly that it reflects the specific safety objectives, standards, and priorities of the transit agency, and incorporates SMS principles and methods tailored to the size, complexity, and scope of the system. In future reviews this committee will become the Bipartisan Infrastructure Law (BIL) Committee.

By signing this document, the members of the Public Transportation Agency Safety Plan Review Committee verify that this document addresses all applicable requirements of the
Public Transportation Safety Program and the National Public Transportation Safety Plan regulations.

_____   4/11/2024
Signature   Date

Rebecca Frankhouser, Chair
Director and Chief Safety Officer
Safety, Security, and Quality Assurance
King County Metro

_____   4/4/2024
Signature   Date
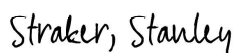
Gay Boyce, SMS Executive
Transit Superintendent - Quality Assurance
Safety, Security, and Quality Assurance
King County Metro

_____   4/3/2024
Signature   Date

Johnathon L. Futch, Committee Member
Transit Operator
Bus Operations Division
King County Metro

_____   4/3/2024
Signature   Date

Stanley Straker, Committee Member
Transit Mechanic
Vehicle Maintenance Division
King County Metro

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CONCURRENCES AND APPROVAL

King County Metro Transit Department Public Transportation Agency Safety Plan

Version 3.0 dated January 2024

By signing this document, the Accountable Executive and the Safety, Security, and Quality Assurance Director and Chief Safety Officer verify that the Public Transportation Agency Safety Plan addresses all applicable requirements of the Public Transportation Safety Program and the National Public Transportation Safety Plan.

Signature	4/11/2024
	Date

Rebecca Frankhouser
Director and Chief Safety Officer
Safety, Security, and Quality Assurance
King County Metro

Signature	5/7/2024
	Date

Michelle Allison
General Manager/Accountable Executive
King County Metro

(See Motion attached at end of Public Transit Agency Safety Plan)
King County Council
(Board of Directors equivalent)

LIST OF ABBREVIATIONS

Abbreviations	Meanings
BIL	Bipartisan Infrastructure Law
CAP	Corrective Action Plan
CSO	Chief Safety Officer
DOSH	Division of Occupational Safety and Health
EHS	Employee Health and Safety
ESC	Executive Safety Committee
EMG	Extended Management Group
FMEA	Failure Mode and Effects Analysis
FMECA	Failure Mode and Effects and Criticality Analysis
FTA	Federal Transit Administration
HAR	Hazard Assessment Report
ICS	Incident Command System
KCM	King County Metro
LMS	Learning Management System
LCC	Link Control Center
MCP	Maintenance Control Plan
MLT	Metro Leadership Team
MBR	Monthly Business Review
N/A	Not Applicable/Not Available
NIMS	National Incident Management System
NPTSP	National Public Transportation Safety Plan
NTD	National Transit Database
NTSB	National Transportation Safety Board
OS	Operations Safety
OSFR	Operator Service and Facilities Reports
PPE	Personal Protective Equipment
PTASP	Public Transportation Agency Safety Plan
QA	Quality Assurance
SSC	Safety and Security Certification
SSCRC	Safety and Security Certification Review Committee
SSDMP	Safety and Security Data Management Program
SSaM	Safety and Security Management
SACAP	Safety Assurance Corrective Action Plan
SMS	Safety Management System
SPT	Safety Performance Targets
SRM	Safety Risk Management
SSQA	Safety Security and Quality Assurance
SSQASLT	Safety Security Quality Assurance Senior Leadership Team
SEM	Security and Emergency Management
SOP	Standard Operating Procedures

SoGR	State of Good Repair
SLT	Strategic Leadership Team
SSEPP	System Security and Emergency Preparedness Plan
TAMP	Transit Asset Management Plan
TCC	Transit Control Center
TSSA	Transit Safety and Security Academy
TSA	Transportation Safety Administrator
USDOT	U.S. Department of Transportation
L&I	Washington State Department of Labor and Industries
WSDOT	Washington State Department of Transportation

INTRODUCTION

The King County Metro (KCM) Public Transportation Agency Safety Plan (PTASP) is a comprehensive document intended to ensure the safety of customers, employees, contractors, emergency responders, and the general public. This plan provides information on KCM's Safety Management System (SMS). During the SMS implementation process, acceptance of this Public Transportation Agency Safety Plan by the Federal Transit Administration (FTA) does not constitute approval or acceptance of any process or component of the SMS. KCM employees and contractors are required to comply with the policies and procedures as they are being implemented during the SMS phases in this plan.

The KCM Accountable Executive function is carried out by the General Manager. The KCM General Manager meets the requirements of 49 Code of Federal Regulations (CFR) 673.5 and 49 CFR 673.23(d)(1). See Section 2 (Organizational Roles and Responsibilities) of this plan for more information on the General Manager's role and responsibilities relative to SMS.

The KCM Chief Safety Officer (CSO) meets the requirements of 49 CFR 673.5 and 49 CFR 673.23(d)(2). The Chief Safety Officer must maintain training consistent with the requirements of 49 CFR 672: Public Transportation Safety Certification Training Program. Additionally, the CSO must attain the Transit Safety and Security Program (TSSP) Certificate in Rail and Bus. See Section 2 (Organizational Roles and Responsibilities) of this plan for more information on the Chief Safety Officer's role and responsibilities relative to SMS.

KCM is committed to developing forward-thinking innovation in managerial and technical safety processes. To that end, this PTASP establishes SMS principles as its foundation. The four SMS components that apply to all facets of the Authority include the following.

> Section I: Safety Policy–- Aligns all divisions of KCM under an SMS to prioritize safety in management decision making.

- Safety Management Policy Statement
- Organizational Roles and Responsibilities
- Integration with Public Safety and Emergency Management
- Safety Management System Documentation and Records

> Section II: Safety Risk Management–- Processes that identify hazards and evaluate and resolve risks.

- Hazard Identification and Analysis
- Safety Risk Assessment

> Section III: Safety Assurance–- Ensure all objectives are met through effective data collection and assessment.

- Safety Performance Monitoring and Measurement
- Management of Change
- Continuous Improvement

> Section IV: Safety Promotion–- Encourage workplace and public confidence in, knowledge of, and engagement with KCM's commitment to ensuring safety.

- Safety Communication

- Competencies and Training

These four components are the means of achieving the highest level of safety for KCM's customers, employees, contractors, emergency responders, and the general public. SMS is a comprehensive, collaborative approach that brings management and labor together to build on KCM's existing safety foundation. The system has been designed to control risk, detect, and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more carefully. SMS is about applying resources to risk. It's based on ensuring that KCM has the organizational infrastructure to best support decision-making—and the assignment of resources— at all levels.

King County Metro receives the following FTA funding types:

- Section 5307 Urbanized Area Formula Program
- Section 5307 Passenger Ferry Grant Program
- Section 5339 Bus and Bus Facilities
- Section 5337 High-Intensity Fixed Guideway
- Section 5337 High-Intensity Motor Bus
- Section 5309 Fixed Guideway Modernization
- Section 5309 New Starts
- Section 5310 Enhanced Mobility for Seniors and People with Disabilities
- Section 5312 Low and No Emission

SMS IMPLEMENTATION STRATEGY

In alignment with the Federal Transit Administration (FTA)'s SMS regulations, KCM will implement its SMS to include Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.

Once completed, each of the four components involves concrete tasks and activities that will signify that the objectives of that SMS implementation have been achieved. Below are tasks and activities to be completed in each phase of SMS implementation.

Component 1: Safety Policy

Tasks to be completed for Safety Policy include:

- Create a process to update and sign the safety policy [COMPLETE]
- Create a Public Transportation Agency Safety Plan Review Committee with Labor partners – in future reviews this will be the Bipartisan Infrastructure Law (BIL) Committee [COMPLETE]
- Create an SMS Liaison role for SMS implementation support for each division [COMPLETE]
- Conduct a review of existing safety programs at KCM compared to new federal and state regulations
- Conduct a gap analysis to determine activities necessary to implement SMS successfully
- Ensure the KCM Public Transportation Agency Safety Plan meets regulatory requirements under federal regulations
- Establish a system that tracks and documents all tasks from Safety Assurance
- Establish a system that tracks and documents all tasks from Safety Risk Management
- Create a policy on making updates to the Public Transportation Agency Safety Plan
- Create a web-based platform to house and share SMS documentation

Component 2: Safety Risk Management

Tasks to be completed for Safety Risk Management include:

- Identify SMS accountabilities of KCM management [COMPLETE]
- Improve criteria and guidance for hazard identification/analysis tools and activities [COMPLETE]
- Finalize the Safety Risk Management Policy [COMPLETE]

Component 3: Safety Assurance

Tasks to be completed for Safety Assurance include:

- Identify Safety Assurance inputs
- Create a report processing program [COMPLETE]
- Review and enhance the process to ensure that no service delivery operations are initiated before changes have been evaluated for safety impact
- Develop Corrective Action Plan documentation to capture all corrective actions from Safety Assurance [COMPLETE]
- Develop and execute training on Safety Assurance Corrective Action Plans
- Develop a strategy to compile, analyze and find trends in data coming from the

system [COMPLETE]
- Determine how to review and track the trends at a division level (safety meeting structure)
- Develop a process to identify Safety Risk Management triggers and Corrective Action Plans at the division level [COMPLETE]
- Determine how the information will be disseminated from the divisions to accountable executive and senior leaders
- Refine safety performance indicators and targets for continuous improvement [COMPLETE]

Component 4: Safety Promotion

Tasks to be completed for Safety Promotion include:

- Create, deliver, and document Initial SMS Basic Training
- Create, deliver, and document training for people accepting risk
- Create, deliver, and document training for people performing risk assessments
- Create a process for housing all SMS records in a Learning Management System [COMPLETE]
- Develop the infrastructure for safety performance communication throughout KCM
- Establish an SMS Steering Committee and SMS Transition Team for the implementation of SMS
- Promote the employee safety reporting program to frontline employees
- Set up communication platforms for the successful distribution of Safety Risk Management processes from division leaders to frontline staff
- Measure employee perceptions of safety and culture at KCM, communicate the results, and take actions related to safety culture improvement

SECTION I: SAFETY POLICY

1 Safety Policy

The KCM safety policy statement is memorialized in King County Department Policies and Procedures. Specifically, the Safety Policy documents KCM's commitments in section IV of that document as follows.

KCM is committed to the following:

A) Support the management of safety through the provision of appropriate resources that will result in an organizational culture that fosters safe practices, encourages effective employee safety reporting and communication, and actively manages safety with the same attention as given to other management systems of the organization.
B) Integrate the management of safety among the primary responsibilities and accountabilities of all managers and employees.
C) Clearly define, for all managers, supervisors, and employees the expectations which they will be accountable for in the delivery and performance management of the organization's safety management systems.
D) Establish and operate hazard identification and analysis and safety risk evaluation activities.
E) Promote an employee safety reporting program as a fundamental source for safety assurance inputs. Ensure that no action will be taken against any employee who discloses a safety concern through the employee safety reporting program, unless disclosure indicates, beyond any reasonable doubt, the employee's direct involvement in an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures.
F) Comply with legislative and regulatory requirements.
G) Whenever possible, meet or exceed industry standards and best practices.
H) Ensure that sufficient, skilled, and trained human resources are available to implement SMS.
I) Ensure that all staff are provided with adequate and appropriate safety-related information, training, and equipment; are competent in safe practices; and are allocated tasks commensurate with their skills.
J) Establish and measure Metro Transit's safety performance against realistic and data-driven safety performance indicators and safety performance targets.
K) Continually improve Metro Transit's safety performance through management processes that use data to ensure that appropriate safety management action is taken and is effective.
L) Ensure externally supplied systems and services to support Metro Transit operations are delivered and maintained to meet the organization's safety performance standards.
M) Create processes, practices, and procedures that build a pro-equity organization and workplace culture where all employees feel safe and can thrive.

1.1 Safety Performance Targets

Under MAP-21, the U.S. Department of Transportation (USDOT) and the FTA have established safety performance criteria and state of good repair standards in the National Public Transportation Safety Plan (NPTSP) that all transit agencies must meet, at a minimum. Accordingly, the Public Transportation Agency Safety Plan (PTASP) provides for safety performance objectives that meet or exceed those federal performance criteria and state of good repair standards. The Accountable Executive reviews the Public Transportation Agency Safety Plan (PTASP) annually for approval.

1

The Public Transportation Agency Safety Plan (PTASP) provides strategic and management performance objectives to affirm and execute its commitment to provide a safe, reliable, and sustainable regional transportation service, and ensures compliance with federal, state, and local regulations and appropriate industry best practices. It establishes collaborative and progressive system safety, oversight, and management processes for modes that KCM operates (including bus, light rail, and streetcar activities) to demonstrate its dedication to safety.

The following describes KCM's overarching goals. The specific targets relative to each goal are provided in the tables following these descriptions.

1.1.1 Safety Performance Measure: Fatalities

KCM fatality rates vary across transportation modes due to distinct operating environments and the inherent safety and risk exposure associated with each. KCM's total number of fatalities (including suicides and trespasser strikes) and rate of fatalities are tracked, and KCM is committed to reducing the number of fatalities across its system to zero. KCM has partnered with several community outreach programs to ensure the goal is met.

1.1.2 Safety Performance Measure: Injuries

Any harm to persons that requires immediate medical attention away from the scene, because of a reportable event, is considered a reportable injury. KCM reports to the National Transit Database (NTD) anytime a person is transported away from the scene for medical attention and reports this event as an injury, whether or not the person appears to be injured.

If an individual seeks medical care several hours after an event or in the days following an event, that individual is not reportable as an injury. A reportable injury requires that the individual receive medical attention at a location other than the location at which the event occurred. This distinction serves to exclude minor first aid or other minor medical assistance received at the scene.

1.1.3 Safety Performance Measure: Safety Events

The safety performance measure captures events that meet NTD reporting thresholds occurring on the KCM system or infrastructure, at a revenue or maintenance facility, during the performance of maintenance activities or involving a transit revenue vehicle. The NTD reporting thresholds include fatalities, injuries requiring immediate medical attention away from the scene, derailment, substantial damage, and evacuation for life safety reasons.

1.1.4 Safety Performance Measure: System Reliability

The system reliability measure expresses the relationship between safety and asset condition. The rate of vehicle failures in service, defined as the mean distance between major mechanical failures, is measured as vehicle revenue miles operated divided by the number of major mechanical failures[1]. KCM continues to invest and plan for a highly reliable, safe operation of its public transportation system. As

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[1] Major Mechanical System Failures: Major mechanical system failures prevent a vehicle from completing or starting a scheduled revenue trip because actual movement is limited or because of safety concerns. Examples of major bus failures include breakdowns of brakes, doors, engine cooling systems, steering, axles, and suspension.

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KCM introduces new vehicles across all its transportation modes, it is anticipated that there may be a burn-in period for the vehicles, resulting in a decrease in reliability. As such, KCM will strive to maintain current system reliability targets during this period.

1.2 Annual Safety Performance Report and Coordination with Stakeholders

KCM distributes and makes available safety performance targets to regulatory authorities, the Puget Sound Regional Council, and other stakeholders to aid in the planning process. KCM coordinates safety performance targets with stakeholders to the maximum extent possible, to assist with the selection of safety performance targets.

1.3 Safety Performance Targets

In keeping with SMS philosophy, each division/functional area has established Safety Performance Targets (SPT) for its safety-critical functions. These are detailed in divisional and functional area annual safety goals and performance measures documentation. Safety Performance Targets are established in coordination with the Puget Sound Regional Council per the requirements of 49 CFR 673.15(a). The Safety Performance Targets are listed in the tables below.

1.3.1 Fixed Route Bus

Note: Sound Transit is the owner of ST Express routes, and KCM is the contract operator. Safety performance targets for owner agencies are maintained within their own Public Transportation Agency Safety Plan.

Table 1.1 Safety performance targets, fixed route bus: fatalities

Fatalities	Total Number of Fatalities	Fatality Rate by Vehicle Revenue Miles
Baseline data source	NTD – 5-year baseline	NTD – 5-year baseline
Target-setting methodology	Aspirational	Aspirational
Time period	3-year rolling average	3-year rolling average
Denominator	Total events	Per million miles
Goal	0	0

Note: NTD = National Transit Database

Table 1.2 Safety performance targets, fixed route bus: injuries

Injuries	Total Number of Injuries	Injury Rate by Vehicle Revenue Miles
Baseline data source	NTD – 5-year baseline	NTD– 5-year baseline
Target-setting methodology	Percentage	Percentage
Time period	3-year rolling average	3-year rolling average
Denominator	Total events	Per million miles
Goal	5% reduction: 133	5% reduction: 3.88

Note: NTD = National Transit Database

Table 1.3 Safety performance targets, fixed route bus: safety events

Safety Events	Total Number of Safety Events	Safety Event Rate by Vehicle Revenue Miles
Baseline data source	NTD – 5-year baseline	NTD – 5-year baseline
Target-setting methodology	Percentage	Percentage
Time period	3-year rolling average	3-year rolling average
Denominator	N/A	Per million miles
Goal	5% reduction: 192	5% reduction: 5.58

Note: NTD = National Transit Database

Table 1.4 Safety performance targets, fixed route bus: average distance between major mechanical failures

Average Distance Between Major Mechanical Failures	
Baseline Data Source	NTD-VM – 5-year baseline
Target-setting methodology	FTA guidelines (according to Metro's Vehicle Maintenance Data Management Group)
Time period	3-year rolling average
Denominator	Miles
Goal	>6000 miles between trouble calls

Note: NTD-VM = National Transit Database – Vehicle Maintenance

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1.3.2 Non-Fixed Route Bus

Table 1.5 Safety performance targets, non-fixed route bus: fatalities

Fatalities	Total Number of Fatalities	Fatality Rate by Vehicle Revenue Miles
Baseline data source	NTD – 5-year baseline	NTD – 5-year baseline
Target-setting methodology	Aspirational	Aspirational
Time period	3-year rolling average	3-year rolling average
Denominator	N/A	Per million miles
Goal	0	0

Note: NTD = National Transit Database

Table 1.6 Safety performance targets, non-fixed route bus: injuries

Injuries	Total Number of Injuries	Injury Rate by Vehicle Revenue Miles
Baseline data source	NTD – 5-year baseline	NTD – 5-year baseline
Target-setting methodology	Aspirational	Aspirational
Time period	3-year rolling average	3-year rolling average
Denominator	N/A	Per million miles
Goal	0	0

Note: NTD = National Transit Database

Table 1.7 Safety performance targets, non-fixed route bus: safety events

Safety Events	Total Number of Safety Events	Safety Event Rate by Vehicle Revenue Miles
Baseline data source	NTD – 5-year baseline	NTD – 5-year baseline
Target-setting methodology	Aspirational	Aspirational
Time period	3-year rolling average	3-year rolling average
Denominator	N/A	Per million miles
Goal	0	0

Note: NTD = National Transit Database

Table 1.8 Safety performance targets, non-fixed route bus: average distance between major mechanical failures

Average Distance Between Major Mechanical Failures	
Baseline data source	Access Data Management
Target-setting methodology	Percentage
Time Period	3-year rolling average
Denominator	Breakdowns per 100,000
Goal	<1

1.3.3 Light Rail Transit

Sound Transit is the owner of Link Light Rail, and KCM is the contract operator. Safety performance targets for owner agencies are maintained within their own Agency Safety Plan.

1.3.4 Streetcar

Seattle Department of Transportation is the owner of Seattle Streetcar, and KCM is the contract operator. Safety performance targets for owner agencies are maintained within their own Agency Safety Plan.

2 Organizational Roles and Responsibilities

2.1 Executive Leadership

2.1.1 King County Council (Board of Directors)

King County is governed by a nine-member elected Council and managed by an elected County Executive. Councilmembers are elected to one of nine geographic council districts and must live in the district they serve. Council members serve four-year terms, and the positions are non-partisan. Each councilmember represents about 240,000 constituents. As the legislative branch of county government, the King County Council sets policies, enacts laws, and adopts budgets that guide an array of services, including those provided by KCM.

2.1.2 General Manager (Accountable Executive)

The KCM General Manager is the Agency's Accountable Executive. The General Manager is responsible for reviewing and approving the Public Transportation Agency Safety Plan, ensuring there is sufficient human and capital resources to develop and maintain it, adopting safety performance objectives, reviewing ongoing safety data reports, reviewing summary reports related to safety events, and overseeing KCM's SMS. The Accountable Executive may delegate risk management decisions to senior management; however, the Accountable Executive is ultimately responsible for accepting or rejecting safety risks, or hazards, at KCM.

Specifically, the KCM General Manager (Accountable Executive) has the responsibility to:

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- Review and approve the Public Transportation Agency Safety Plan
- Adopt safety performance objectives, review ongoing safety data reports, and review summary reports related to safety events
- Oversee implementation and administration of Metro Transit's SMS
- Consider safety a top priority when proposing investments and requesting resources from the King County Council
- Advocate for adequate funding for the implementation of safety and security programs and the Safety Management System (SMS)
- Ensure that financial and personnel resources align with agency performance goals, metrics, and values
- Approve and sign Metro Transit policies
- Ensure that safety and health training sufficient to job duties is provided for all employees
- Hold managers and directors accountable for the implementation and administration of SMS within their areas of responsibility
- Foster system-wide accountability at all levels
- Ensure the involvement of safety personnel in long range decision-making processes with system impact such as construction of new facilities; procurement of vehicles, tools, and equipment; strategic planning and operations; and strategy and direction for safety programs and priorities

2.1.3 Deputy General Manager and Chief of Staff

The KCM Deputy General Manager and Chief of Staff have the responsibility to:

- Ensure that the Safety Management System is implemented and executed within their areas of responsibility
- Assume the duties of the General Manager as designated by the General Manager with all the authority and responsibilities to ensure that there are no lapses in the Safety Management System

2.1.4 Assistant General Managers, Division Directors, and Deputy Directors

The KCM Assistant General Managers, Division Directors, and Deputy Directors are responsible to:

- Fully support this program and its proper implementation
- Create a positive safety culture where employees are engaged in safety practices and processes
- Resolve hazards and safety concerns within their purview
- Ensure that SMS is implemented and executed within their area(s) of responsibility
- Ensure that the performance of SMS is measured and documented in all areas
- Ensure that everything needed for employees to perform job duties is communicated to the Accountable Executive and considered in resource requests
- Provide time necessary for employees to receive sufficient training
- Establish accountability and corrective actions

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2.2 Leadership

2.2.1 Directors, Section Managers, Managers, and Immediate Supervisors

KCM Directors, Section Managers, Managers, and Immediate Supervisors are responsible to:

- Ensure that SMS is implemented and executed within their areas of responsibility
- Ensure that performance of SMS is measured and documented in all areas of their responsibility
- Ensure that everything needed for employees to perform job duties is communicated to the Accountable Executive and considered in resource requests
- Provide time necessary for employees to receive sufficient training
- Work on hazard identification analysis, tracking, and mitigation as safety concerns are brought forward
- Provide onsite safety orientation to all new or transferred employees
- Hold and document required safety meetings
- Ensure the maintenance of a safe workplace in conformity with Metro Transit safety programs
- Report safety and security concerns and ideas

2.2.2 Other People Leaders

Other people leaders have the responsibility to:

- Ensure that the Safety Management System is implemented and executed within their areas of responsibility
- Ensure the maintenance of a safe workplace in conformity with Metro safety programs
- Follow safety practices and procedures as necessary to maintain a safe work environment
- Report safety and security concerns and ideas to supervisors and/or safety and security staff

2.3 Frontline Employees

Frontline employees have the responsibility to:

- Understand this policy and their role in safety
- Report all safety concerns
- Follow safety practices and procedures as necessary to maintain a safe work environment and be in conformance with applicable regulations, policies, and training
- Report safety and security concerns and ideas to supervisors or anonymously through data collection systems

2.4 Safety, Security, and Quality Assurance

The mission of the Safety, Security, and Quality Assurance (SSQA) Division is to provide leadership and the highest level of support and customer focus to continuously improve Metro's safety culture and security practices, in order to best protect Metro employees, patrons, and the communities we serve from unintentional and intentional harm.

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Security and Emergency Management: Committed to delivering quality security and emergency management services to staff, customers, and the community. Partner with others to provide a safe and secure environment that reduces crime, builds trust, and enhances resiliency throughout the KCM network.

Employee Health and Safety: Serve as subject matter experts to develop and administer compliant safety programs in response to employee workplace hazards through risk-based hazard management (e.g., training, investigations, and inspections).

Operations Safety: Serve as subject matter experts in operations safety and enhance the safety culture at KCM through hazard and accident investigation, data collection, risk analysis, and employee engagement.

Quality Assurance: Serve as subject matter experts in areas of Safety Management Systems, auditing, safety and security data acquisition and analysis, and training. Quality Assurance provides necessary support for KCM to fully stand up its safety and security programs.

2.4.1 Chief Safety Officer - Safety, Security, and Quality Assurance

The General Manager has delegated to the Director of Safety, Security, and Quality Assurance the role of Chief Safety Officer. This includes the authority and responsibility to govern, administer, oversee, and monitor the Public Transportation Agency Safety Plan and resulting safety programs, policies, rules, implementation, and procedures. The Safety, Security, and Quality Assurance Chief Safety Officer reports directly to the General Manager.

The Safety, Security, and Quality Assurance Chief Safety Officer will:

- Ensure that SMS is designed and implemented within the strategic vision and direction of the Accountable Executive and meets all regulatory requirements
- Communicate safety and security information and performance to the General Manager
- Ensure that resource needs are communicated upward within senior leadership and division leadership
- Collaborate with leadership and key SMS personnel to ensure safe work practices
- Interface with federal, state, and local authorities, and with industry professional organizations
- When an immediate and serious safety risk exists, order hazardous conditions corrected to acceptable levels or eliminated altogether
- Order the cessation of unsafe activities or operations that are evaluated as creating immediate and serious safety risks within the system
- Oversee Metro Transit's safety certification activities
- Conduct or direct mandatory internal safety reviews to determine compliance with SMS
- Perform or direct announced or unannounced audits, reviews, inspections, or assessments for the purpose of identifying and eliminating unsafe practices, operations, or conditions not immediately corrected by KCM management

The Safety, Security, and Quality Assurance Chief Safety Officer has several direct reports, including members of the Safety, Security, and Quality Assurance Senior Leadership Team (SSQASLT).

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2.4.2 Metro Transit Safety

The purpose of Metro Transit Safety is the administration of KCM's operational and employee safety programs: ensuring that the programs are appropriate, compliant with applicable regulations, properly implemented, and that agency staff are trained in the program. Metro Transit Safety is also responsible for incident investigations, hazard management, ergonomics, and wellness. Metro Transit Safety leadership is empowered to order the cessation of unsafe activities or operations that create immediate and serious safety risks.

Metro Transit Safety will:

- Develop, implement, and administer safety programs
- Provide guidance to agency staff in working to achieve safety performance objectives
- Perform announced or unannounced audits, reviews, inspections, or assessments for the purpose of identifying and eliminating unsafe practices, operations, or conditions not immediately corrected by Metro Transit
- Ensure training to this policy is consistent across the organization
- Review and monitor the effectiveness of SMS

2.4.3 Metro Transit Security

The purpose of Metro Transit Security is to deliver quality security and emergency management services to KCM, customers, and the community. Through partnerships, Transit Security works to reduce crime, build trust, and enhance KCM's resiliency. Transit Security is responsible for fare enforcement, security monitoring and panic stations, campus patrols, physical security, onboard camera system, fixed structure camera system and access controls, workplace violence/transit worker assaults, sensitive security information, security training, and threat and vulnerability assessment and mitigation.

2.4.4 Metro Transit Quality Assurance

The purpose of Quality Assurance is to administer the Safety and Security Data Management Program (SSDMP). This is done by building the reporting and analytics practice through integrating safety and security data into business intelligence and critical decision-making processes, and applying data mining, quantitative analysis, and statistics to aid KCM in its decision-making. Quality Assurance is also responsible for the KCM safety and security audit program, agency safety and security training, the Transit Safety and Security Academy (TSSA), and SMS implementation. Administration of the KCM PTASP is provided within KCM by the Safety, Security, and Quality Assurance Chief Safety Officer through the Quality Assurance work group.

2.5 Agency Leadership Teams

Effective implementation of SMS requires senior management's commitment to safety. At KCM, employees may access agency leadership by elevating issues through their work unit as directed by their managers/directors. As appropriate, division directors will elevate issues beyond their division through the Chief of Staff for Metro Leadership Team discussion.

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2.5.1 Metro Leadership Team

The Metro Leadership Team's (MLT) focus is maximizing Metro's capacity and capability to achieve Metro's long-term strategic and operational goals in alignment with Metro's vision/mission. It is a decision-making body and working forum to:

1. Establish parameters for and develop biennial department budget
2. Align goals, objectives, and expectations to achieve Metro's vision/mission
3. Develop and manage enterprise-wide initiatives and operational policies
4. Address internal/external obstacles to vision/mission, including legal, resource, political, and reputational
5. Identify operational/organizational challenges (financial, labor, performance, structural, cultural), opportunities, and patterns; and determine solutions and resolutions through shared decision-making (informed by MBR)
6. Grow, model, and cascade leadership competencies
7. Make decisions on recommendations from cross-functional teams
8. Represent, communicate, and implement decisions within divisions

MLT decisions allow successful deployment of Metro's long-term strategic and operational goals, including:

1. Biennial budget planning
2. Cross-functional decisions with operational impacts
3. Decisions that impact organizational efficiencies and functioning
4. Service-level planning and delivery
5. Operational capacity planning and delivery
6. Enterprise service-level planning and delivery
7. Enterprise initiatives
8. Future of Work
9. Business Transformation

The MLT is owned by the General Manager and facilitated by the Chief of Staff. The frequency of these meetings is twice weekly. Members of the MLT include:

- General Manager
- Deputy General Manager
- Chief of Staff
- Assistant General Manager for Employee Services
- Assistant General Manager for Finance and Administration
- Assistant General Manager for Strategy and Partnerships
- General Counsel
- Safety, Security and Quality Assurance Director/Chief Safety Officer
- Capital Division Director
- Mobility Division Director
- Bus Operations Division Director
- Marine Division Director
- Rail Division Director
- Transit Facilities Division Director

- Vehicle Maintenance Division Director

2.5.2 Deputy General Manager's Forum

The Deputy General Manager's (DGM) Forum is a space for operational leaders to coordinate current and emerging issues. It is a working forum to daylight and discuss:

- Current operational issues that may impact near term service delivery
- Employee and labor issues
- Items that may need additional clarity from communications or employee services

DGM is a forum to address current constraints and challenges from an operating perspective and help bring voice to future MLT discussions. The Deputy General Manager's Forum is owned by the Deputy General Manager and facilitated by the Safety, Security, and Quality Assurance Chief Safety Officer. The group meets weekly. Members of the Deputy General Manager's Forum include:

- Deputy General Manager
- Safety, Security, and Quality Assurance Director/Chief Safety Officer
- Capital Division Director
- Mobility Division Director
- Bus Operations Division Director
- Marine Division Director
- Rail Division Director
- Transit Facilities Division Director
- Vehicle Maintenance Division Director

2.5.3 Monthly Business Review

The focus of the Monthly Business Review (MBR) is to monitor progress on Metro's long-term goals and desired outcomes. It is a working forum to:

- Review metrics, gauge progress, validate performance, measure proximity to targets, and reveal where actions can improve
- Identify performance issues and elevate them for resolution at MLT
- Make recommendations to address organizational performance challenges

The MBR is owned by the Assistant General Manager for Finance and Administration and facilitated by the Business Intelligence Team. The group meets monthly. Members of the MBR include:

- Metro Leadership Team members
- Deputy Directors
- Section Managers
- Superintendents

2.5.4 Extended Management Group

The Extended Management Group (EMG) is a forum to develop shared leadership experiences through:

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- Training or facilitated conversations pertaining to information, skills, and resources
- Announcements of critical policy changes and new procedures
- Discussion of successes, challenges, and needs

The EMG is not a decision-making body. It is a forum for sharing organizational information that should be cascaded down into attendees' respective work groups. The EMG is owned by the Assistant General Manager for Employee Services and facilitated by the EMG Design Team. The frequency of these meetings is monthly with an expanded quarterly meeting. Members of the EMG include:

- MLT members
- Deputy Directors
- Section Managers
- EEO Officer
- EMG Design Team (volunteer group of representatives)

2.5.5 Division Leadership Teams

Division Leadership Teams focus on maximizing divisional capacity and capability. These teams manage divisional performance by implementing decisions with allocated resources. Division Leadership Teams:

1. Inform and address operational and cultural issues within their own divisions
2. Establish divisional priorities in alignment with departmental goals and objectives
3. Discuss and develop recommendations to be elevated
4. Consult with and problem-solve management issues

Division Leadership Team decisions are focused on the deployment and management of resources and implementation of established strategies/priorities. The Division Leadership Teams are owned by the Division Directors and facilitated by designees. The frequency of these meetings varies by division. Members of the Division Leadership Teams include Division Leadership.

2.5.6 Public Transportation Agency Safety Plan Review Committee

King County Metro Transit and its labor partners are mutually committed to providing a safe workplace and increasing employee engagement on safety and security matters. The Public Transportation Agency Safety Plan Review Committee is a joint effort to review Metro Transit's PTASP in advance of formal adoption by the King County Council. In future reviews this committee will become the Bipartisan Infrastructure Law (BIL) Committee.

The Metro Transit Public Transportation Agency Safety Plan Review Committee provides a structure which facilitates transparent decision-making, communication, and collaboration between Metro and its labor partners while meeting the requirements of the FTA under the Bipartisan Infrastructure Law.

Specifically, this committee is responsible for:

- Ensuring that all members are adequately trained in Safety Management Systems
- Ensuring that the Metro Transit Agency Safety Plan is making sufficient progress toward compliance with the requirements of 49 U.S. Code § 5329, chiefly that it reflects the specific

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safety objectives, standards, and priorities of the transit agency, and incorporates SMS principles and methods tailored to the size, complexity, and scope of the system

- Approving the Metro Transit Safety Plan

3 Integration with Public Safety and Emergency Management

KCM develops, maintains, and implements all security and emergency management documentation as required by 49 CFR 673.11(a)(6), hereby incorporated by reference as recommended by the FTA. Security and Emergency Management functions are subject to the requirements of Safety Risk Management, the same as all other safety-critical functions at the agency. Documentation of hazard and risk assessments (threat and vulnerability assessments) is maintained by the Safety, Security, and Quality Assurance Director. Corrective action arising out of security and emergency management functions, including After Action Reports, is the responsibility of the Superintendent of Security in coordination with the other areas and departments.

The following section describes the process used to develop an approved and coordinated schedule for Emergency Management program activities, which includes meetings with external agencies; emergency planning responsibilities and requirements; the process used to evaluate emergency preparedness such as annual emergency field exercises, after action reports and implementation of findings; revision and distribution of emergency response procedures; familiarization training for public safety organizations; and employee emergency management training.

3.1 Security and Emergency Management Programs and Plans

The purpose of Emergency Management is to ensure that KCM systems, including employees, facilities, passengers, and operations personnel, as well as local emergency responders, planning organizations, and mutual aid partners within service area communities, can respond to and recover from any emergency incident or disaster. Through effective safety management, Emergency Management assists in the implementation of KCM safety commitments by using the industry's best practices and federal standards to:

- Establish a formal process of verifying compliance with emergency management requirements
- Ensure collaboration with external agencies in the preparation of emergency responses
- Establish emergency management responsibilities and ensure tasks and activities are documented, understood, and can be executed effectively by the applicable parties, including external agencies, employees, and contractors
- Establish communication protocols, backup communication systems, and maintenance of records
- Establish a formal process of evaluating the effectiveness of emergency response procedures, including any revisions
- Ensure that system-wide accessibility and functional-needs considerations are addressed during emergencies

Emergency Management provides a comprehensive framework to ensure KCM employees, facilities, and equipment, as well as emergency responders, planning organizations, and mutual aid partners, can collaborate on response and recovery efforts during any incident. The effective application of safety management principles to the emergency management process further supports the coordination and integration of programs that are necessary to build, sustain, and improve all interagency activities before, during, and after an emergency.

The Safety, Security, and Quality Assurance Director, in conjunction with the Superintendent of Security and the Superintendent of Safety, are jointly responsible for emergency planning, training and drills, and

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for coordinating the Public Transportation Agency Safety Plan with the System Security and Emergency Preparedness Plan (SSEPP) and other related plans. The Superintendent of Safety reviews and coordinates planning, training, and drills with the Superintendent of Security. The following agency-wide programs and plans have been put in place to manage the public safety and emergency management functions.

- Emergency Management Program
- Security and Emergency Preparedness Plan
- Emergency Operations Plan
- Emergency Exercise Program
- Inclement Weather Program

3.1.1 National Incident Management System

KCM uses and trains to the National Incident Management System (NIMS) for emergency response. Supervisors and technicians are trained in NIMS Introduction, Introduction to Incident Command System (ICS), ICS for Single Resources and Initial Action Incidents, ICS 100, ICS 200, and NIMS 700. Managers and supervisors may receive additional training in ICS 300 and ICS 400.

3.1.2 Continuity of Operations

Emergency plans include operating procedures to manage Continuity of Operations scaled to the level of emergency. KCM's goal is to continue operations in the event of a major emergency or significant disaster, and, as able, to provide transportation for emergency operations in coordination with the Seattle and King County Emergency Operations Centers.

3.1.3 Coordination with City/County and Responder Familiarization

KCM regularly coordinates with local and county jurisdictions for training, emergency planning, and familiarization. Fire and police department familiarization is conducted as needed by personnel from the Security and Emergency Management group prior to the annual drill. Familiarization includes the identification of all elements of the system that may impact response or the safety of responders, operators, or the public.

3.2 Emergency Procedures

While KCM has taken every precaution to avoid emergency events and situations, it is inevitable that incidents/accidents will occur.

Emergencies and disasters, as well as system failure recovery operations, are handled by the Transit Control Center (TCC) and Link Control Center (LCC) under Metro's Continuity of Operations Plan and other written/verbal instructions issued by the Division Directors. The Security and Emergency Management group collaborates with local emergency responders and coordinates hands-on training with KCM equipment. Additionally, local responders are invited to participate in the development of drills and other events.

Emergency procedures are reviewed annually by the Manager of Security and Emergency Management, the Safety, Security, and Quality Assurance Chief Safety Officer, and division directors and updated as

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needed. Procedure revisions and updates are incorporated into evacuation procedures and Standard Operating Procedures (SOPs) are developed for sign-off and distribution.

3.3 Drills and Exercises

KCM performs a minimum of one tabletop and/or one field exercise emergency drill per year. The Safety, Security, and Quality Assurance Director, or designee, will coordinate drills and exercises with the Director of Bus Operations Division, the Director of Vehicle Maintenance Division, the Director of Rail Division, the Mobility Division Director, and the Marine Division Director. Documentation of drills is maintained for seven years. Drill critiques are held after each drill or actual emergency event. Documentation of the event or exercise is recorded in the After-Action Report, which includes recommendations for improvement.

3.3.1 After Action Reports

A report detailing the events that occurred during the event or exercise, and observations and findings requiring action, is prepared by the Superintendent of Security and Emergency Management (or a designee) and presented to Executive Management within thirty days. Implementation of findings is required and is the responsibility of the division directors with review and tracking by the Safety, Security, and Quality Assurance Director through the Corrective Action Plan (CAP) process. Changes to procedures shall follow standard agency processes for alteration, review, and approval. Action items pertaining to outside agencies are forwarded to the appropriate contact for their consideration. The division directors are responsible for ensuring recommendations are implemented or explaining the alternate practice.

4 Safety Management System Documentation and Records

The Public Transportation Agency Safety Plan is a controlled document managed by the Safety, Security, and Quality Assurance Chief Safety Officer in accordance with the KCM document control protocol. Per the requirements of 49 CFR 673.31, KCM maintains critical files, important records, and other information as dictated by regulatory compliance and good operating practice. These files are maintained using hard copy and/or electronic files. All records are maintained in structured systems that provide legibility, original dates, revision dates, and easy retrieval. KCM is required to maintain all versions of documents related to this Agency Safety Plan, including those associated with the implementation of the SMS, and results from SMS processes and activities, for a minimum of three years after they are created.

KCM acknowledges that not all divisions and functional areas have yet developed full documentation to support the requirements of the Public Transportation Agency Safety Plan; however, per FTA guidance, each division and functional area is creating a document inventory, identifying all documentation needing development or revision to conform to the Public Transportation Agency Safety Plan, as well as developing a corrective action plan to close the document gaps.

4.1 Agency Plans and Programs

Agency plans lay out an objective and vision, while programs contain specific steps. Both plans and programs may be applied agency wide.

4.1.1 Public Transportation Agency Safety Plan (PTASP)

The Public Transportation Agency Safety Plan is considered a living document in that it is continually edited and updated. Updates to the PTASP reflect changes to operating or maintenance procedures, policies, rules, and/or the operating environment; they may also be made in response to regulatory requirements, audit findings, investigations, or other reviews. The PTASP annual review and update process ensures that executive management has reviewed and approved the Public Transportation Agency Safety Plan before any changes are submitted to internal and/or external stakeholders.

The PTASP is reviewed on an annual basis (once per year) as required by regulation. When a revision is required, the Safety, Security, and Quality Assurance Chief Safety Officer is responsible for initiating, developing, and revising the PTASP on behalf of KCM. Review of the PTASP is conducted with the division directors in each affected functional areas and safety. The final draft, including all changes, is approved by the General Manager via the Policy Statement and Authority signature found in section 1 of the PTASP.

The PTASP must be revised when a system expansion or major project affects the system, such as a new station or transit center, additional routes, or rail lines, new or expanded operations and maintenance facilities, or significant system-wide equipment modifications or replacement. The revised PTASP should be submitted to the Washington State Department of Transportation (WSDOT) Program Manager or other regulatory authority as required at least 180 days prior to when the system expansion or major project goes online, including before the opening of a new transit center or station or additional route or rail line begins passenger service, and before construction or testing is completed.

The revised Public Transportation Agency Safety Plan, or letter certifying that the Public Transportation Agency Safety Plan does not require revision, is submitted to the FTA, or other regulatory authority as required, annually on or before March 1, or 180 days prior to system expansion or major project completion. The FTA must formally accept or provide comments on the Public Transportation Agency Safety Plan in writing. If the submittal requires revisions based on FTA comments, the revised plan must be submitted within 60 calendar days of notification.

The Public Transportation Agency Safety Plan will be delivered to the FTA in electronic format via email. Once the Agency Safety Plan has been approved by the FTA, KCM will distribute the plan to stakeholders using methods established in the Safety Communication Policy.

4.1.2 Transit Asset Management Plan

The KCM Transit Asset Management Plan (TAMP) describes the capital asset inventory; condition of inventoried assets; TAMP performance measures, targets, and prioritization of investments aligned with the agency's TAMP and State of Good Repair (SoGR) policy, strategic goals, and objectives; as well as the strategies, activities, and resources required for delivering the plan (including decision support tools and processes); and other agency-wide approaches to continually improve TAMP practices.

SECTION II: SAFETY RISK MANAGEMENT

5 Hazard Management

A hazard is any real or potential condition that can cause injury, illness, or death; damage to, or loss of, facilities, equipment, rolling stock, or infrastructure; or damage to the environment. A real condition is one that currently exists on the system; a potential condition is one that does not currently exist on the system but could be introduced if infrastructure or operational changes are made.

Safety Risk Management (SRM) provides a decision-making process for identifying hazards and mitigating risk based on a thorough understanding of the organization's systems and operating environment. Part of the decision-making process includes management accepting risk in the operation when it is assessed to be at an acceptable level. By performing SRM, an organization is fulfilling its commitment to consider risk in its operation and to reduce it to an acceptable level. The SRM process is a way to integrate acceptable risk into processes, products, and services or to improve controls that are not effective. By using SRM, an agency can work toward allocating resources to minimize hazardous conditions and maximize the safety of the system. This is achieved through the following steps:

- Identification and analysis of a hazard
- Evaluation of the level of risk introduced by the hazard
- Resolution or reduction of hazards to an acceptable risk level through mitigation(s)
- Tracking the effectiveness of mitigation(s)

SRM policy defines the tools and techniques used, as well as the responsibilities of employees, in identifying, analyzing, and reporting safety hazards. Following the identification of a hazard, it must be assessed to determine the level of risk to the system. The SRM policy defines the level of risk that is considered acceptable to the agency; hazards exceeding that level of risk (the most serious hazards) must be mitigated to an acceptable level. SRM policy describes the methods of controlling hazards to mitigate a hazard to an acceptable level. Finally, SRM policy describes the processes for tracking hazards (once the hazards have been mitigated and/or accepted) to ensure that any mitigations effectively controlled the hazard and did not create any unintended hazardous conditions.

SRM processes should be continually applied to manage hazards throughout the life cycle of a system. Hazards should be identified prior to system configuration changes and eliminated through design (whenever possible) to prevent the introduction of hazards into the system. SRM processes provide a crucial tool for determining the safety impacts of engineering change proposals, construction change orders, operational changes, and the issuance of temporary permits and certificates. Additionally, ongoing operations must be continually monitored to identify and control operational risks.

5.1 Data Sources

Hazard identification is used to identify and analyze hazardous conditions on the system and the methods by which identified hazards are formally reported. This section describes the processes employed to proactively search for hazardous conditions on the system.

KCM uses several internal and external methods for KCM employees, contractors, and the public to report hazardous conditions. They include:

- Employee safety committees
- Direct employee hazard reporting in the Safety and Security Management (SSaM) system
- Operator Service and Facilities Reports (OSFR)
- Safety analysis (conducted by KCM Safety)
- Testing, inspection, and audits
- Safety rules compliance monitoring
- Safety event (accidents, incidents, and near misses) investigations
- Customer reports
- Washington State Department of Labor and Industries (L&I), Division of Occupational Safety and Health (DOSH) directives, narratives, reports, and hazard alerts
- State Safety Oversight Agency (SSOA), Federal Transit Administration, and National Transportation Safety Board advisories (NTSB)

5.2 Hazard Analysis

Hazard analyses used for hazard identification and assessment encompass all areas within the KCM operating system. They include:

- Existing elements of the system, continually reviewed as part of ongoing safety risk management processes
- Safety analyses conducted by consultants and contractors on new construction or procurement programs
- Proposed engineering changes
- Vehicles, infrastructure, equipment, and subsystems
- Operating and maintenance rules and procedures, including normal, abnormal, and emergency rules and procedures
- Aggregated safety event (accidents, incidents, and near misses) data
- Safety data sources
- Hazards identified on similar transit systems

6 Safety Risk Assessment

A safety risk assessment is required to establish priorities for corrective action and resolution of identified hazards. For each identified hazard, all potential consequences that could occur while operating with the exposed hazardous condition need to be defined. The consequences or outcomes will fall into one of the severity categories:

- Injury/Death
- Damage
- Environmental Damage

Safety risk assessments need to be based on a thorough understanding of the system, which is why the system description is an essential step of the SRM process. Without a proper system description, important details that could cause the system to break down may be overlooked.

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A semi-quantitative risk model will be used to perform risk assessments within the agency. A semi-quantitative risk model uses qualitative data to express risk values. Data from KCM or other similar public transportation agencies should be used (accident statistics, failure data, error data, etc.) to determine the safety risk. When data is not available, expertise and SME judgment will be used. When the best estimate for safety risk must be based on reasonable expert judgment, effective risk management can be accomplished by having the Hazard Assessment Report facilitator conduct a disciplined analysis (see Section 9.1).

6.1 Likelihood

The likelihood that a hazard will occur during the planned life expectancy can be described in potential occurrences per unit of time, events, population, terms, or activity. Likelihood components may be determined by using qualitative or quantitative analysis.

Qualitative analysis is a more subjective approach and relies more heavily on personal experience and understanding of the system. It is a less time-intensive method and does not require as much technical expertise. Therefore, qualitative analysis may be preferable when analyzing simple systems with few inter-dependencies. A qualitative hazard likelihood may be derived from research, analysis, and evaluation of historical safety data from similar systems.

Quantitative analysis is a more objective approach, which is a more time-intensive method that requires more technical expertise. Quantitative analysis is well suited for complex systems with numerous interdependencies and where large data sets are available.

The likelihood assessments shall consider the actual size of the fleet inventory, or take items in the specific system under consideration, based on the current system configuration. Additionally, the frequency of human-induced fault conditions shall be estimated based on systematic review of task and procedure complexity, human-machine interfaces, employee proficiency, and historical data of human-induced error-rates in similar operations (e.g., 1/1000 errors per transaction, for given tasks).

Once a likelihood description level is determined for the hazard's consequence, the corresponding likelihood score will be used to calculate the safety risk.

Table 6.1 Likelihood of a consequence

Description Level	Specific Individual Item	Fleet or Inventory Mean Time Between Events (MTBE)	Specific Individual Item (with Rate)	Likelihood Score
Likelihood Levels				
Frequent	Likely to occur often in the life of an item	Continuously experienced MTBE less than 10^3 operating hours	Likely to occur often in the life of an item. Probability of occurrence greater than or equal to 10^{-3}	10
Probable	Will occur several times in the life of an item	Will occur frequently. MTBE greater than or equal to 10^3 operating hours and less than 10^5	Will occur several times in the life of an item. Probability of occurrence less than 10^{-3} but greater than or equal to 10^{-5}	5
Occasional	Likely to occur sometime in the life of an item	Will occur several times. MTBE greater than or equal to 10^5 operating hours and less than 10^6 operating hours	Likely to occur sometime in the life of an item. Probability of occurrence less than 10^{-5} but greater than or equal to 10^{-6}	3
Remote	Unlikely, but possible to occur in the life of an item	Unlikely, but can reasonably be expected to occur. MTBE greater than or equal to 10^6 operating hours and less than 10^8 operating hours	Unlikely, but possible to occur in the life of an item. Probability of occurrence less than 10^{-6} but greater than or equal to 10^{-8}	2
Improbable	So unlikely, it can be assumed occurrence may not be experienced in the life of an item	Unlikely to occur, but possible. MTBE greater than 10^8 operating hours	So unlikely, it can be assumed occurrence may not be experienced in the life of an item. Probability of occurrence less than 10^{-8}	1

6.2 Severity

Consequence severity is defined as the qualitative measure of the outcomes resulting from a hazardous condition. The appropriate severity category will be determined by matching the definition of the categories with the potential and actual outcomes. After determining the severity description level, the corresponding severity score will be used to determine the final risk rating.

Table 6.2 Severity of a consequence

Description	Severity Levels			Severity Score
	Severity Categories			
	Injury	Damage	Environment	
Catastrophic	Loss of life, or the severe injury of more than one person	Total loss of equipment or system, with an estimated monetary loss more than $5,000,000	Massive environmental effect with permanent implications	100
Critical	Severe injury requiring long-term rehabilitation or significant medical intervention	Damage with a monetary loss between >$1,000,000 and $5,000,000	Significant environmental impact with long lasting effects	70
Major	Injuries requiring medical transport or hospital admission	Damage with a monetary loss between >$250,000 and $1,000,000	Major environmental impact lasting months	40
Marginal	Injury requiring first aid only	Damage with monetary loss between >$10,000 and $250,000	Minor environmental damage lasting weeks	10
Negligible	No injury/No first aid required	Damage with monetary loss below $10,000	Less than minor environmental damage	1

6.3 Safety Risk Matrix

Based on the evaluated severity score and likelihood score assigned to each outcome, a corresponding value will be calculated to determine the risk score.

Likelihood Score x Severity Score = Risk Score

The Safety Risk Matrix can be used to determine the risk score and risk level.

Table 6.3 Safety Risk Matrix

	Catastrophic (100)	Critical (70)	Major (40)	Marginal (10)	Negligible (1)
Frequent (10)	High 1000	High 700	High 400	Medium 100	Low 10
Probable (5)	High 500	High 350	Serious 200	Medium 50	Low 5
Occasional (3)	High 300	Serious 210	Serious 120	Medium 30	Low 3
Remote (2)	Serious 200	Serious 140	Medium 80	Low 20	Low 2
Improbable (1)	Medium 100	Medium 70	Medium 40	Low 10	Low 1
Eliminated	Eliminated	Eliminated	Eliminated	Eliminated	Eliminated

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In addition to the Safety Risk Matrix, Table 6.4 indicates the required actions to take based on the risk level assessed.

Table 6.4 Safety Risk Matrix required action based off risk level

Risk Score	Risk Level	Risk Level Type	Risk Ownership and Sign Off Authority	Mitigation Actions Required	Operation Impact	Monitoring	Management Review
300 and above	High	Unacceptable	GM level	Immediately mitigate to Serious Level prior to starting operation	Stop the Operation	90-day monitoring plan required	Safety Review and Hazard Management Working Group reviews and closes out report
120 – 299.9	Serious	Unacceptable	Director level or higher in area(s) of risk/change	Mitigation plan needs to begin implementation within 30 days to bring risk to acceptable levels	Operation permitted with the execution of high priority mitigation strategy	90-day monitoring plan required	Safety Review and Hazard Management Working Group reviews and closes out report
21-119.9	Medium	Acceptable	Section manager level or higher in area(s) of risk/change	Mitigation recommended	Operation permitted	Monitoring recommended	Hazard Management Working Group reviews and closes out report
.1-20.9	Low	Acceptable	Superintendent level or higher in area(s) of risk/change	Mitigation not required	Operation permitted	Monitoring not required	Different facilitator reviews and closes out report
0	Eliminated	Acceptable	N/A	N/A	N/A	N/A	N/A

6.4 Unacceptable Risk Levels

6.4.1 High Risk Level

Hazards with a risk score above 300 are High Risk level and are unacceptable in the operation. If High Risk hazards are identified, any affected operating area must be immediately halted. Prior to starting the operation, actions need to be taken to at least bring the risk level to Serious Risk, then permanently to acceptable levels. Most often, when taking immediate action, short-term mitigations are being implemented and those actions will need to be followed by permanent long-term mitigations. Short-term mitigations may include (but are not limited to) a stop-work order for maintenance or construction tasks, red-tagging or sequestering vehicles or equipment, or a stop to any affected revenue service. All of which needs to be documented in the Hazard Assessment Report.

When high risks are identified during a change, or prior to implementation, rework of the planned change needs to be altered before implementation to ensure risk is at acceptable levels. When there is an initial risk assessment made that meets the High-Risk level, the Hazard Assessment Report needs to be signed off on and risk ownership belongs to the General Manager.

All assessments that indicated an initial High Risk will need to be monitored for at least 90 days after the mitigations are implemented. All High-Risk hazards will need to be reviewed by the Safety, Security, and Quality Assurance Chief Safety Officer or designee, as well as undergo review and closure from the Hazard Management Working Group. High-Risk levels are represented by the color red.

6.4.2 Serious Risk Level

Hazards with a risk score above 120 and below 300 have a Serious Risk level. Serious hazards that are discovered in the operation must have a mitigation strategy in place within 30 days of identifying the hazard. If the mitigation plan takes longer than 30 days to fully implement, short-term mitigations need

to be enacted within that 30-day window to ensure the risk is brought down to satisfactory levels while the permanent long-term mitigation plan is executed. The final mitigation strategy will need to bring Serious Risk level down to an acceptable level. All of which needs to be documented in the Hazard Assessment Report.

When Serious Risks are proactively identified, rework of the planned change needs to be altered to bring the risk to acceptable levels before implementing the change. The Hazard Assessment Report needs to be signed off on, and ownership will belong to the director level or higher in the area of risk.

All hazards with an initial risk level of Serious need a monitoring plan in effect for at least 90 days after mitigation actions are implemented. All Serious hazards will need to be reviewed by the Safety, Security, and Quality Assurance Chief Safety Officer, or designee, as well as undergo review and closure from the Hazard Management Working Group. Serious Risk levels are represented by the color orange.

6.5 Acceptable Risk Levels

6.5.1 Medium Risk Level

Hazards with a risk score greater than 21 and below 120 have a Medium Risk level. Medium hazards may be accepted in an "as-is" condition by a section manager (or higher) in the area of risk. However, whenever reasonably practical, Medium Risk should be mitigated to a Low or Eliminated level to lower the risk. Reactive hazards with a risk level of Medium should be formally accepted within 60 days of identification of the hazard. For all Medium hazards that are proactively identified, acceptance of the Hazard Assessment Report is required prior to implementation.

For all hazards with an initial risk level of Medium, a monitoring plan is recommended, but not required. To maintain quality and effectiveness, in addition to the section manager sign off, the Hazard Management Working Group will review, sign off and close out the report. Medium Risk levels are represented by the color yellow.

6.5.2 Low Risk Level

Hazards with a risk score greater than .1 and below 21 have a Low Risk level. For all reactive Low Risk level hazards, the "as-is" condition can be accepted by a superintendent level (or higher) in the area of risk. The hazard may be eliminated entirely if management decides to mitigate the risk to a lower level. When the initial risk is proactively identified from a change, implementation is permitted but should be signed off prior to closing the Hazard Assessment Report.

Closing out a Hazard Assessment Report with an initial risk level of Low will need to be reviewed and closed out by a qualified facilitator other than the facilitator conducting the Hazard Assessment Report.

6.5.3 Eliminated Risk

Hazards which have been mitigated may be classified as Eliminated, provided that the mitigating measures entirely remove the possibility of the hazardous condition and its occurrence. The initial risk will never be assessed as Eliminated; this is solely reserved for the mitigation risk assessment.

Once a hazard has been identified during the mitigation process, there is the ability to remove the hazard completely. When this occurs, the risk is removed and a risk level of Eliminated will be assigned.

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6.6 Hazard Resolution

The method of hazard mitigation to be employed can be determined by conducting a thorough analysis of the system, considering the possible tradeoffs between various alternatives and the system safety requirements. In general accordance with Federal Transit Administration, American Public Transportation Association, and other industry best practices, several different means can be employed to resolve identified hazards. These include design changes, the installation of controls and warning devices, and the implementation of special procedures.

With a semi-quantitative risk model, all controls used to mitigate risk will be assigned a reduction control factor to calculate the predicted residual risk. This allows for the facilitator to have a more quantifiable approach to address how each type of control impacts the hazard. After the controls have been determined for the hazard, each will be assigned a control type with a corresponding multiplier. Then the highest initial risk score is multiplied by each control factor (CF) multiplier. This calculation will result in the mitigated risk score. The mitigated risk score will be used to determine the mitigated risk level of High, Serious, Medium, Low, or Eliminated.

Highest Risk Score x (CF x CF x CF) = Mitigated Risk Score

In order of preference, the means to be used in resolving hazards at King County Metro are:

6.6.1 Elimination

The concept of elimination is simple: remove the hazard so that it is no longer present in the operation. The problem with elimination is that the implementation is not as simple as the definition. Completely eliminating a hazard from the operation is not usually an option. For example, driving on the road is a hazard that a transit organization cannot eliminate, as buses need to operate on the roads. However, if Elimination is available, it is the option that must be chosen.

When the mitigation strategy has a control that eliminates the hazard, the risk level will go to Eliminated, since the reduction factor is 100%, and the control factor multiplier would be 0.

6.6.2 Substitution

Substitution controls are the second most effective method for lowering risk in the operation. Substitution controls may be implemented in the existing process but would be used most effectively during the design stage. Substitution controls replace something that produces the hazard with something that does not produce the hazard or lessens the hazard (i.e., replacing a toxic compound with a less hazardous product). The condition of a toxic compound still exists here, but the risk impact of that compound has been lowered significantly. Whenever substitution controls are used for mitigation, evaluation for substitute risk is required, since new/different hazards could be introduced.

When the mitigation strategy uses substitution controls, there will be an 80% to 90% reduction in risk, which would make the control factor multiplier 0.1-0.2.

6.6.3 Safety Devices (Software and Engineering Controls)

Hazards that cannot be eliminated or controlled through design selection shall be controlled to an acceptable level with fixed, automatic, or other protective safety design features or devices. Examples of

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safety devices include protective enclosures, software implementation, and machine guards. Care must be taken to ascertain that the operation of the safety device reduces the loss or risk and does not introduce an additional hazard. Safety devices shall also permit the system to continue to operate in a limited manner. Provisions shall be made for periodic functional checks of safety devices. When introducing safety device controls, substitute risk needs to be assessed.

When the mitigation strategy uses engineering controls, there will be a 50%-70% reduction in risk, with a control factor multiplier of 0.3-0.5.

6.6.4 Administrative (Training, Procedures, Warning, and Awareness Means)

When neither design nor safety devices can effectively eliminate or control an identified hazard, various administrative controls will be used to lower the likelihood of a condition. Warning devices shall be used to detect the condition and generate an adequate warning signal. Warning signals and their application shall be designed to minimize the likelihood of incorrect personnel reaction to the signals and should be standardized within similar systems. When introducing warning device controls, substitute risk needs to be assessed.

In addition to warning devices, procedures and training are administrative controls that can be used to control the hazard. Administrative controls have a reduction factor of 20%-30%, and the control factor multiplier is 0.7-0.8.

6.6.5 Personal Protective Equipment (PPE)

Personal protective equipment (PPE) is the least desirable, and least effective, hazard control. PPE is susceptible to user error or non-compliance and may not effectively protect employees in all circumstances. PPE should only be used when there are no viable alternative measures, or as part of a layered approach to controlling a hazard. Often the use of PPE is required by regulations or specified by the original equipment manufacturer.

When PPE is used to control risk, there will be a 5%-10% reduction in risk, with a control factor multiplier of 0.9-0.95.

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Table 7.1 Hierarchy of controls

Hierarchy of Controls				
Control Type	**Example**	**Reduction Factor**		**Examples**
Elimination	• Design a task, step, equipment, material, or tool to be eliminated before it is put into production or use • Eliminate human interaction • Replace/eliminate a reaction step, etc. • Eliminate pinch points (increase clearance)	Severity and Likelihood Reduction		
		100%	Multiplier 0	• Elimination (e.g., human interaction) may also eliminate exposure
Substitution	• Automated materials handling (robots, conveyors) to greatly reduce human interaction • Replace with a less toxic compound • Greatly reduce speed, noise, weight (energy)	Severity Reduction		
		90% Substitution with little or no hazard	Multiplier 0.1	• Replace oil with water • Replace lifting 75 lbs. with 5 lbs.
		80% Substitution with something that still has some hazards	Multiplier 0.2	• Replacing flammable with non-combustible • Replacing lifting 75 lbs. with 20 lbs. • Automation: Automate material handling where humans have been removed except for upset conditions.
Safety Devices (Engineering)	• Barriers • Interlocks • Presence sensing devices (light curtains, safety mats) • Fixed machine guards, emergency stops • Pressure relief valves • Nonskid floor coatings, local exhaust ventilation, containerization • Two hand controls • New software, patches, or upgrades	Likelihood Reduction		
		70% Isolation and guards with interlocks	Multiplier 0.3	• Engineering controls like guards, that also have interlocks
		60% Engineering control redundancy or multiple engineering controls	Multiplier 0.4	• Failsafe modes of operation
		50% Single engineering control	Multiplier 0.5	• Two hand control, light curtains, or physical barrier
Administrative	• Safety work procedures • Safety Inspection • Training • Lights, beacons, and strobes • Computer warnings • Worker's rotation • Alarms (gas meter, fire) • Barrier tape, tags, floor markings • Signs and labels • Beeper, horns, sirens, etc. • Buddy system, attendants, observers, supervision, schedule limits • Lockout-Tagout	Likelihood Reduction Only		
		40% Engineering control that requires administrative intervention to initiate	Multiplier 0.6	• Lockout-Tagout where a physical device like a lock requires human intervention to initiate
		30% Training, plus warnings, signs, plus inspection/ observations	Multiplier 0.7	• Training, plus inspection to verify that controls are being practiced
		20% Training, warning signs	Multiplier 0.8	• If there is a warning light, operators need to be trained to be aware of what it means
Personal Protective Equipment (PPE)	• Ear plugs, gloves, respirator • Safety glasses, face schedule	Likelihood Reduction Only		
		10% Multiple PPE	Multiplier 0 .9	• Multiple PPE must be for the same hazard, e.g., gloves and arm guards
		5% Single PPE	Multiplier 0.95	• Must be specific to the hazard

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6.7 Mitigation Strategies

6.7.1 Immediate and Long-Term Mitigations

In many cases, implementing a permanent long-term mitigation, or mitigations, may not be immediately possible. In such cases, immediate short-term or express priority mitigations will be developed to reduce the hazard to an acceptable level of risk in the appropriate timeframe for the identified hazard, while a permanent long-term mitigation is developed and implemented.

6.7.2 Layering Mitigations

The risk matrix and the mitigated risk assessment will be applied to the predicted substitute risk which will need to be assessed to acceptable levels. A hazard's predicted residual risk is the level of risk that would be present after the mitigation is fully implemented. The mitigation plan should reduce the likelihood, severity, or both. The predicted substitute risk is the risk that may be introduced to the system after the mitigation strategy has been fully implemented, as mitigations may create new unintended hazardous conditions. After the mitigation plan is documented, additional risk assessments need to be completed for predicted residual/substitute risks persisting in the system.

- **Predicted residual risk** will have mitigated risk assessments – these will be determined using the control factor formula in conjunction with Table 6.4 to categorize the risk score to the corresponding risk level. All mitigations need to bring the risk to acceptable levels.
- **Predicted substitute risk** will use the risk matrix to complete the mitigated risk assessment and will also need to be assessed to acceptable levels.
- **A hazard with predicted residual or substitute risks** that are Unacceptable (High and Serious) cannot be accepted into the system and must be mitigated to a lower level of risk.
- **Hazards that have predicted residual or substitute risk** that are assessed at satisfactory levels will need risk acceptance on the Hazard Assessment Report signed off on prior to implementation of the mitigation plan.

6.8 Hazard Tracking

Resolution of all identified hazards will be monitored by KCM Safety. KCM's data collection system, SSaM, shall be used for tracking the hazard resolution process. The SSaM Hazard Assessment Report will be used to track the identified risks in the system. The Hazard Log or risk register will compile all identified hazards from the Hazard Assessment Report. (Paper copies of the Hazard Assessment Report will be used and stored on SharePoint while the SSaM system is being developed.) The Hazard Assessment Report will be initiated for reactive and proactive SRM triggers.

At a minimum, the Hazard Log will include the following:

- SRM trigger
- Date hazard identified
- Source of identification
- System description
- Policy/procedures potentially affected by hazard
- Environment or facility potentially affected by hazard
- Service or resources potentially affected by hazard

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- Equipment potentially affected by hazard
- SRM panel participation log
- Hazard identification with hazard classification
- Initial safety risk level (severity/likelihood)
- Mitigation corrective action plans (elimination or control)
- Responsible party for each proposed action
- Estimated dates of completion
- Predicted residual and substitute risk identified
- Mitigation safety risk level (severity/likelihood)
- Follow up activity (monitor effectiveness, unexpected hazards)
- Hazard Assessment Report signoff
- Status (open or closed)

6.8.1 Hazard Classification System

KCM will classify hazards to identify potential systemic deficiencies contributing to the occurrence of hazardous conditions. The classification system will be based on the Federal Transit Administration Sample Hazard Classification System (Version 1), which classifies hazards into the following categories:

- Organizational
  - o Resourcing
  - o Procedural
  - o Training
  - o Supervisory
- Technical
  - o Operational
  - o Maintenance
  - o Design
  - o Equipment
- Environmental
  - o Weather
  - o Natural

6.9 Mitigation Corrective Action Plans

Mitigation corrective action plans shall be developed for all hazards that require or have a mitigation strategy. High and Serious Risk levels require mitigation to acceptable levels, while Medium and Low Risk levels can have a mitigation strategy if it is determined to lower the risk further. The mitigation corrective action plans will be incorporated into the Hazard Assessment Report and accessed through the CAP Log in SSaM.

6.10 Risk Ownership and Sign Off Authority

Once the Hazard Assessment Report (HAR) is completed, and the findings and mitigations are documented, the results need to be delivered to the appropriate management official for sign off and acceptance. The appropriate management official will sign off the risk assessments, mitigation plan, and the complete documented report, thereby accepting the remaining risk in the operation. Sign off is still required for Hazard Assessment Reports without identified hazards, to ensure the change has been

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assessed correctly. When an individual accepts safety risk, it does not mean that the safety risk is eliminated. Some safety risk remains; however, the individual has determined that the prediction of the remaining safety risk is acceptable. By accepting risk, the management official is deciding to authorize the operation without additional mitigation other than what is laid out in the hazard report. Hazard assessments and the risks will need to be accepted prior to closing out the report and implementing the mitigation plan or change.

When there is an initial risk assessment made that meets the High-Risk level, the corresponding Hazard Assessment Report needs to be signed off by, and risk ownership belongs to, the General Manager. When there is a Serious Risk level, the Hazard Assessment Report needs to be signed off by, and ownership will belong to, the Director level or higher in the area of risk. For a Medium level risk, the Section Manager owns the risk and signs off. Finally, when there is an initial risk assessment of Low, the Hazard Assessment Report needs to be signed off by a Superintendent level (or higher) in the area of risk, and ownership belongs to the acceptor.

6.11 Monitoring

Hazard monitoring will be conducted to verify that mitigations have adequately controlled the hazards. Hazard monitoring activities will include reviews of safety data that occur during the Safety Assurance process. These reviews can occur at safety committees, safety and security working groups, and the Monthly Business Review (MBR); safety event data will be reviewed to determine if implemented mitigations have reduced safety events.

Hazard monitoring plans will be developed in the Hazard Assessment Report discussion section, and how monitoring will be incorporated into the Safety Assurance process will be determined. Once the type of monitoring is documented (e.g., monitoring employee reports, adding audit steps, performing management observations), the Hazard Assessment Report can be sent over for sign off. Hazard monitoring plans will provide specific requirements for performing follow-up activities to ensure that a given hazard has been adequately mitigated.

6.11.1 Closing Out Hazard Assessment Report

Depending on the elements incorporated into the Hazard Assessment Report, closing the document will occur after implementation and monitoring are complete. If additional information becomes available on the hazard after closure, a new Hazard Assessment Report will be created, and the old hazard report can be referenced. The new Hazard Assessment Report will supersede the previous hazard report in the system.

If a Hazard Assessment Report is created for a system change, and that system change is halted, the Hazard Assessment Report will be marked as "No longer implementing," and the report will be closed. These reports will remain in the system for reference only.

No Hazard Assessment Reports can be closed out by the Risk Owner after signoff occurs. Hazards with an initial risk of High, Serious, or Medium will be closed out by the Hazard Management Working Group. Hazard Assessment Reports with the initial risk of Low will be closed out by an SRM facilitator who was not involved with the original Hazard Assessment Report.

6.12 Responsibilities

6.12.1 Facilitator

Depending on the issue or change under consideration, a Hazard Assessment Report may be conducted by an individual or team within KCM Safety and Security. Safety and Security may also delegate this authority out to the divisions with Safety and Security's oversight and support. Facilitators will document and lead the discussion, and an adequate SRM panel of representatives should be present to address the scope and complexity of the system. SRM facilitators do not make safety risk acceptance decisions, which is a management function; however, they are responsible for coordinating the SRM panel, communicating the results of the assessment within their organization, and ensuring management sign off and risk acceptance. Facilitators will need to be trained in how to successfully conduct a Hazard Assessment Report through the SRM process.

6.12.2 Risk Owner

The review and approval of SRM documentation and ownership of any safety risk is designed to maintain and assure the quality of the SRM process. Review and approval are also required for Hazard Assessment Reports without identified hazards. The Risk Owner for all "no hazard" Hazard Assessment Reports will be a superintendent or higher in the area of the change. Depending on the hazard and risk level, the Hazard Assessment Report signoff authority will be responsible for reviewing the report and all its elements prior to implementation.

By signing off on the SRM document, the acceptor is confirming the following are understood and accepted:

- The system analysis, hazard identification, and initial risk assessments
- The mitigation plan actions that will be implemented
- The predicted residual and substitute risk(s) associated with the hazard(s) and the mitigation risk assessment(s)
- The monitoring plan associated with the hazard report

Risk Owners are accountable for the following:

- Ensuring that the documented mitigation corrective action plans are complete and implemented
- Ensuring that all monitoring activities are being recorded as specified (when required)
- Ensuring that performance data needed for the monitoring activities is being collected and analyzed according to the monitoring plan
- Determining the need to reconvene an SRM panel if performance data indicates that the mitigation controls are inadequate

6.12.3 Hazard Management Working Group

To ensure quality and compliance, Hazard Assessment Reports will be discussed and reviewed on a periodic basis by the Hazard Management Working Group. This group will also be responsible for signing off all medium level risks and higher. This working group will be made up of functional area-appointed

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representatives (SMS Liaisons), the Transit Safety Manager, and the Transit Security Manager. Representation from contract owners will be encouraged but not required.

Ideally, the review process should occur after a Hazard Report has been signed off but before it is implemented. However, when that timeframe is not possible, the review should at least occur prior to a Hazard Report close out.

6.12.4 SMS Liaison

The SMS Liaisons are the SMS advocates for their respective divisions. They are responsible for ensuring all Hazard Assessment Reports assigned to their divisions are signed off and closed out. They will participate in the SRM Panel and/or find the proper individuals to participate.

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SECTION III: SAFETY ASSURANCE

7 Safety Performance Monitoring and Measurement

7.1 Safety Data Acquisition and Analysis

KCM divisions/functional areas are each responsible to identify, collect, and analyze data on their safety critical functions. This information will be used for four purposes:

1. To ensure all divisions/functional areas establish and achieve performance targets related to their daily operations, such as rules and procedure compliance; accuracy of procedures and documentation; safety events; proper management of change; and completion of safety-critical tasks in a timely manner.

2. To ensure that system-wide performance measures are being met through monitoring data in the appropriate division/functional area.

3. To ensure through wide distribution and sharing of safety data and analyses that all divisions/functional areas are aware of trends, hazards, and safety performance in all other areas.

To ensure that risk-based mitigations or strategies are identified and recommended through frontline engagement via the Public Transportation Agency Safety Plan Review Committee (in future reviews this committee will become the Bipartisan Infrastructure Law (BIL) Committee). Such actions are taken to reduce the likelihood and severity of consequences identified through risk assessment; to identify mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; and to identify safety deficiencies for purposes of continuous improvement.[2]

Sources of data at KCM include, but are not limited to:

- Employee reporting systems, including self-reporting
- Field reports and observations from supervisors and managers
- Preventive maintenance and other scheduled inspections
- Drills, exercises, and after-action reviews from events
- Internal safety and security audits, and internal controls, reports, and activities
- Quality assurance and quality control inspections, audits, and other activities
- Customer and public comments, complaints, and recommendations
- Employee, passenger, and public reports of injury
- Planning and scheduling data collection
- Key performance indicators
- Incident reports and investigations (hazards, collisions, derailments, security, etc.)
- National Transportation Data (NTD) collection and reporting
- Safety activities (job briefings, awareness campaigns, division/functional area meetings)
- Safety and security certification, system modification, and procurement activities
- Drug and alcohol compliance programs
- Training and Neogov reporting
- Rules and procedures compliance activities

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[2] Meets the requirements set forth in the BIL (49 U.S. Code § 5329(d)(5)

- Safety and Security committee activities and reports
  - Committee membership: Metro Transit Chief Safety Officer, Metro Transit SMS Executive, and two members designated by ATU 587
- Transit asset management activities

The frequency with which data is analyzed, the process of development of annual performance targets and objectives related to Safety Management System compliance, how progress is monitored toward those objectives, how data on progress is shared system-wide, and how corrective actions for deficiencies or non-compliance are addressed is the focus of the Safety Management System.

KCM always seeks to broaden and refine the focus of its monitoring activities to ensure safety risk mitigations are included in ongoing data capture. The agency requires all division/functional areas to observe normal operations—including in the field—and to gather voluntary, de-identified data and information through its employee reporting program. Such processes are followed to ensure that hazards are identified as soon as possible, and that data is collected from the activities to analyze trends and prevent re-occurrences and future adverse consequences.

Each division/functional area submits its data reports to the Safety, Security, and Quality Assurance Director/Chief Safety Officer and the Director in its area for review and verification. Division leadership is expected to discuss data and safety performance at the to-be-established Bipartisan Infrastructure Law (BIL) Committee. The meeting (via Metro Leadership Team meetings) is designed to ensure that deficiencies and lapses are appropriately addressed in terms of risk and resources system wide.

7.2 Rules and Procedure Compliance Activities

A robust SMS requires ongoing safety assurance activities, including continuous performance monitoring performed in the field with real-time assessment and data analysis, to provide management with timely information as to safety management and performance and meet the requirements of 49 CFR 673.27(b).

KCM division policies establish procedures for the development, revision, maintenance, management, and enforcement of rulebooks and procedures. The future Bipartisan Infrastructure Law (BIL) Committee will provide oversight and executive management review of this process to ensure the consistency and integrity of the rules and procedures compliance process. The Standard Operating Procedure (SOP) requires that the division/functional area maintain accurate compliance records. Records shall be kept both on observations and on action taken to correct observed deficiencies.

Personnel responsible for rules compliance shall be properly trained and refreshed as needed in rules compliance tasks, activities, and proper documentation. It is incumbent upon those performing rules and procedures compliance to report results through their chain of command in as close to real-time as possible, especially for needed corrective action.

7.2.1 Annual Compliance Assessments

To accurately identify practical drift, the division/functional area must conduct a procedures compliance assessment at least once annually. Each division/functional area will have standard operating procedures for this process.

Each division/functional area is required to enter its data on rules and procedures compliance in a database so that analysis and trending can be performed. The Safety, Security, and Quality Assurance Director/Chief Safety Officer or designee will perform oversight and assurance on rules and procedures

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compliance, and verify hazard assessment, corrective action, and reporting compliance. The Bipartisan Infrastructure Law (BIL) Committee has oversight of this process and will discuss compliance activities and outcomes in the future Bipartisan Infrastructure Law (BIL) Committee meetings.

7.3 Internal Safety Audits (Reviews)

KCM requires internal safety reviews to monitor compliance with its Safety Management System.

7.3.1 Internal Safety and Security Audit Program

Each division/functional area will be reviewed for compliance with the PTASP—and all of the division/functional area internal requirements—once every three years. Non-compliances, deficiencies, and failures of the Safety Management System require corrective action to be developed and implemented by the division/functional area.

7.3.2 Safety Performance Monitoring and Measurement

A transit agency must establish activities to address the following:

- Monitor its system for compliance with, and sufficiency of, the agency's procedure for operations and maintenance
- Monitor its operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended
- Conduct investigations of safety events to identify causal factors
- Monitor information reported through any internal safety reporting programs

Under these requirements, each division/functional area will conduct a review of applicable safety standards as part of its internal controls process. The process will be fully documented in the internal controls report, and corrective action will follow all requirements for the internal control process.

7.3.3 Internal Controls

The FTA's guidance documentation for implementation of 673.27(a) states: "Each transit agency must conduct an annual review of the effectiveness of its safety risk mitigations."

Pursuant to this requirement, each division/functional area must annually audit its own Safety Management System compliance; that is, each division/functional area must audit its safety policy compliance to ensure that hazards are identified and addressed through the SRM process, which results in safety risk mitigations monitored through the Safety Assurance process by persons trained and qualified to do so. Methods can include safety promotion activities, including communication about progress toward safety targets. This program is called "internal controls." Each division/functional area must have a procedure to perform internal controls, which is implemented by its properly trained and qualified key SMS personnel, with the assistance of SMEs if needed, and the oversight of the Safety, Security, and Quality Assurance Chief Safety Officer to ensure integrity and compliance.

Internal controls must be performed annually prior to the start of the revision process of the PTASP, so that any appropriate necessary modifications to the PTASP can be incorporated during the revision process. This requirement aligns with the expectation that the FTA has expressed in its guidance documentation that continuous improvement (49 CFR 673(d)(1) activities should be completed in conjunction with the annual review and update of the safety plan.

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7.3.4 Monitoring of Safety Performance Measures

Monitoring of the systemwide Safety Performance Measures, identified in Section 1 of this document, requires each division/functional area that collects data directly applicable to the Performance Measures to report these measures through directors monthly at the Monthly Business Review. This activity should be documented as part of the SOPs required of each division/functional area.

Each division/functional area is required to monitor employee reporting in its area and report out monthly on activities related to employees who report safety issues directly to their division/functional area for investigation and remediation. The Safety, Security, and Quality Assurance Chief Safety Officer or designee will conduct monthly assessments of the anonymous hazard and safety reports and any reports that the Safety, Security, and Quality Assurance Chief Safety Officer receives directly, unless anonymity would be compromised where it was specifically requested. Division/functional area monitoring information will be provided to the Accountable Executive regularly for each area under the Directors' control and discussed at the Monthly Business Review on a rotational basis.

Internal safety reviews are designed to monitor all activities and functions, identify non-compliances and mitigations, identify hazards, and implement corrective actions to reduce risk to the agency, and to identify any existing mitigations that may be ineffective, inappropriate, or were not implemented as intended as required under 49 CFR 673(b)(2).

Any division/functional area that has a non-compliance, deficiency, or defect in its safety management program must develop a corrective action through its key SMS personnel and implement it according to the approved time frame.

7.4 Maintenance and Support Areas

7.4.1 Preventive, Predictive, and Corrective Maintenance

For each area requiring maintenance activities, the Maintenance Control Plan will describe, as applicable:

- All inspections, their intervals and requirements, and their documentation, verification, and distribution
- The standards (regulatory, industry, and internal) for all aspects of maintenance
- Procedures for all aspects of maintenance and where to find them (OEM manuals, Maintenance Management of Information System, etc.)
- Testing processes and procedures for all maintenance activities
- Standards and requirements for scheduled maintenance, deferred maintenance, and determination (destruction/condemnation/disposal)
- Sources of reporting for deficiencies
- Equipment and small/large tools required to perform the maintenance activities
- Minimum training requirements for personnel engaged in maintenance activities

7.4.2 Hazard Management, Quality Assurance, and Quality Control

For all maintenance and support areas, the Maintenance Control Plan will describe:

- Procedures and documentation of how hazards are managed in daily activities
- Defects and issues found in inspections

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- Work order opening, tracking, and closing
- Failure trend analysis of hazards associated with the maintenance activities in the area
- Quality assurance and control procedures and activities applicable to:
    o Production
    o Procedures
    o Parts and supplies
    o Equipment
    o Documentation
    o Data collection and analysis
    o Schedules
    o Lifecycle assessment
    o Transit asset management

7.4.3 Lifecycle Planning

For all maintenance and support areas, the Maintenance Control Plan (MCP) will describe procedures and activities supporting lifecycle planning as appropriate. Input from the division/functional area must be incorporated into the acquisition process for new equipment, the rehabilitation programs for facilities and equipment under its care and control, the determination of equipment/facility useful life, and the disposal process. The MCP will also include the process and activities of each division/functional area for reliability and maintainability studies, which are mandatory for new systems and equipment and rehabilitations, as the process of decision-making for allocation of resources for safety must be fully documented, and lifecycle planning is a critical aspect of that decision-making process.

7.4.4 Engineering

For all maintenance areas, the Maintenance Control Plan will describe all procedures and activities for which engineering support is required. This includes changes to equipment design, function, and configuration; support in the acquisition process; testing and assessment procedures; changes in procedures, parts, fabrication, or methodologies for maintenance; reliability and maintainability studies and assessments; lifecycle planning; failure trend analysis; hazard identification and analysis, including Failure Mode and Effects Analysis (FMEA), Failure Mode Effects and Criticality Analysis (FMECA), and other engineering assessments; and division/functional area configuration management support activities, including as-built, schematics, and other diagrams.

The Maintenance Control Plan sections on engineering must describe how engineering documentation is developed and maintained, by whom it is authorized, its review and revision intervals, and where it is archived and maintained for the entire agency to review.

7.4.5 Transit Asset Management Plan

For all applicable maintenance and support areas, the Maintenance Control Plan will describe procedures and activities required to support transit asset management and the development and maintenance of the Transit Asset Management Plan (TAMP).

7.5 Public Health

Metro Transit considers mitigation strategies related to exposure to infectious diseases through its Safety Risk Management process. Mitigations will be determined consistent with guidance and best

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practices identified by the Centers for Disease Control and Prevention and Federal/State health authorities.

8 Management of Change

Change management is a process for identifying and assessing changes that may introduce new hazards or impact the transit agency's safety performance. The FTA indicates that a transit agency must determine how a change may impact its safety performance and then evaluate the proposed change through its Safety Risk Management process (under development) to analyze the proper mitigations needed to address risk associated with the change. The ESC is responsible for ensuring that change is properly managed at all levels, and for guiding decision making and resource allocation.

A robust SMS requires that the agency understand that all change introduces risk, and that risk must be managed appropriately through the Safety Risk Management process. Change can introduce new hazards or have an impact on the suitability or effectiveness of existing mitigations. Each department and functional area must, both proactively and through its safety assurance activities, ensure it identifies all change, evaluates it appropriately, and implements mitigations so that risk is managed to acceptable levels during and after the change. The change management policy will be designed to ensure that operations may not continue or proceed in the changed environment until the change is evaluated to determine the impact on safety; and if there is increased safety risk, the risk is mitigated to an acceptable level.

All change management at KCM will be managed by this process through documented procedures, which are implemented through the key SMS personnel.

The activities the FTA has identified to ensure that change is properly recognized include the following:

- Monitoring service delivery activities (including field observations)
- Monitoring operational and maintenance data
- Assessing external information
- Assessing the employee safety reporting program
- Conducting evaluations of the SMS
- Conducting safety audits, studies, reviews, and inspections
- Conducting safety surveys
- Conducting safety investigations

The following areas are specialized sources of risk associated with change.

8.1 Safety and Security Certification

Safety and Security Certification (SSC) is an FTA-defined process of verifying that certifiable elements and items comply with a formal list of safety and security requirements developed for major construction, rehabilitation, or vehicle procurement projects. Certifiable elements are those project elements that, as determined through hazard analyses and/or threat and vulnerability assessments, can adversely affect the safety and security of customers, employees, emergency responders, or the public. The requirements are defined by design criteria, contract specifications, applicable codes, and industry safety, and security standards. SSC is applied to projects that may reasonably be expected to pose hazards or security risks to KCM passengers, employees, and emergency response personnel.

SSC is accomplished through a collaborative effort between the Safety, Security, and Quality Assurance Chief Safety Officer or designee and the applicable project team, which may include representatives from other KCM departments, as well as project contractors.

The safety and security certification process will ensure that:

- Design and operating hazards and security vulnerabilities are identified, evaluated, and properly controlled or mitigated prior to the commencement of passenger service
- All safety and security critical elements are evaluated for compliance with all identified safety and security requirements during the design, construction, installation, testing, and start-up phases of a project
- All systems are operationally safe and secure for customers, employees, emergency personnel, and the public, prior to entering (or re-entering after modification) revenue service or being returned to use by KCM personnel

The Safety and Security Certification Review Committee (SSCRC) is accountable to the ESC for the overall conduct and implementation of the Safety and Security Certification program, and for approval of certification documentation in accordance with the SSCP. The makeup of the committee varies with the nature of the project as described in the SSCP and may include SMEs.

8.2 System Modification

Physical changes to the system that are not governed by the Safety and Security Certification process often fall under the engineering modification process. This includes evaluation and assurance that a proposed modification does not create unacceptable or undesirable risks in a system, vehicle, equipment, or facility previously certified under the System safety and security certification process.

Departments and functional areas that contemplate or require a physical change must follow the requirements of the change management policy, which will define the process for initiating, evaluating, processing, and implementing modifications or improvements to systems, vehicles, facilities, and equipment.

IT systems requiring physical changes will be subject to a different process for assessing and addressing the risk associated with change. Configuration changes proposed for the agency will be risk rated through any contractor performing work and will be approved by the Bipartisan Infrastructure Law (BIL) Committee.

8.3 Configuration Management

Configuration management encompasses the administrative activities concerned with the creation, operation, maintenance, documentation, controlled change, and quality systems of the agency. The Configuration Management Program will ensure that the documentation of KCM property, vehicle, equipment, and systems design elements, as well as systemwide documentation, is accurate and current. This program will ensure that all documentation of required tasks, processes, and activities are reviewed and revised as needed or on an annual basis. This review and revision will coincide with the review and revision of the ASP. All changes to documentation are implemented, as required, through the Safety Risk Management process and fully documented. Furthermore, all documentation is maintained in accordance with the relevant requirements of 49 CFR 673 and 674. Specifically, documentation in all forms, including versions, revisions, supersessions, and obsolescence, is preserved

for a minimum of three years from the date of creation. However, there is an exception for risk assessment and safety training documentation, which is maintained indefinitely.

The KCM Configuration Management Program establishes authority and responsibility to manage the risk associated with changes to the configuration of all KCM infrastructure and facilities. Documentation is controlled and tracked for all configuration issues. This includes document and version control, access to and maintenance of documentation, and a document inventory tracking the status of all documentation managed by the department or functional area.

8.4 Procurement

The FTA's guidance documentation for 49 CFR 673.25(b)(1) indicates that "the FTA expects each transit agency to develop measures to ensure that the safety principles, requirements, and representatives are included in the transit agency's procurement process."

The division/functional area baseline risk assessments should establish the acceptable risk associated with existing processes and procurement criteria. When the agency must make new procurements; changes to existing materials, vendors, and contracts; or makes changes to the procurement process itself, KCM (in partnership with impacted labor procurement committee representatives) must make these changes to the system per the Safety Risk Management process of this Plan.

The process established for procurement follows the same steps as other change:

- The division/functional area must assess whether the change (procurement) will carry risk and if that risk must be mitigated in order to implement the change.
- A risk assessment following the principles and procedures delineated in Section 2 must be performed and documented through a qualified and certified individual in the department or area, supported by SMEs and end users where appropriate, including the Safety, Security, and Quality Assurance Chief Safety Officer, engineers, end users, and impacted labor procurement committee representatives.
- Once risk is established, mitigations, as needed, must be in place before the change can be made.
- The change (procurement) can be implemented.

Procurement maintains internal documentation of the required tasks and activities to effect procurements within statutory and internal requirements, including the requirements of this section.

9 Continuous Improvement

Continuous Improvement is the process by which KCM examines its safety performance to identify safety deficiencies and carries out a plan to address the identified safety deficiencies. It consists of formal activities designed to evaluate the effectiveness of the Safety Management System, and specifically, it will:

- Identify the causes of sub-standard performance of the Safety Management System
- Determine the implications of sub-standard performance of the Safety Management System in operations
- Eliminate or mitigate such causes

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Safety Management System key elements are proper management of all activities through the Safety Risk Management process; proper change management; compliance activities, including those contained in Section 3; and performance auditing. The FTA considers the auditing process to be the primary means of evaluating Safety Management System performance.

Annual internal controls are primary in this process because they are performed and completed prior to the beginning of the revision process for the PTASP. Once deficiencies in the Safety Management System are identified, corrective action must be implemented.

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<u>**SECTION IV: SAFETY PROMOTION**</u>

A robust Safety Management System depends on ongoing management commitment to addressing risk through training and communication. Safety Promotion is the component of SMS that demonstrates this commitment to ensure all employees are properly trained to perform their tasks and activities safely and to encourage and motivate employees in all divisions to communicate openly about safety.

10 Safety Communication

Effective safety communication is an essential element of safety promotion. The purpose of safety communication is to:

- Ensure that personnel are aware of the SMS
- Convey safety-critical information
- Explain why safety actions are taken
- Explain why safety procedures are introduced or changed
- Provide feedback on employee-reported hazards and safety concerns

The feedback loop is discussed in the Safety Risk Management section as it relates to the employee reporting program. Other important safety communications avenues are described in this section.

The primary safety communication responsibility of Executive Management at KCM, under the requirements of 673.23(c), is to communicate the Safety Management Policy actively and personally to all employees and contractors. Any changes to the Safety Management Policy must be approved and distributed through the future Bipartisan Infrastructure Law (BIL) Committee to all employees. This is primarily implemented through the committee process, but every Division Director is also required to visibly endorse the Safety Management Policy to employees in the area they control.

10.1 Communication Avenues

KCM uses multiple means to communicate safety information, why and what actions have been taken, and why procedures are implemented or modified, including:

- Special Orders
- Safety Advisories and Safety Directives
- Safety Bulletins (distributed as needed)
- Safety Blitzes
- Safety Data Analysis Report (SDAR) (distributed monthly by KCM Safety)

10.1.1 Accountable Executive Briefing

At least monthly, the Safety, Security, and Quality Assurance Chief Safety Officer provides a safety briefing to the General Manager and members of the ESC. Topics include, but are not limited to, accidents, outside inspections, recent hazard management activity, safety training status, base safety committee meetings, regulatory issues, major projects, regular duties, security, emergency management, and any high-level safety risks and/or activities that have been conducted or are ongoing.

10.1.2 Management Leadership Team Briefing

Every month, the Safety, Security, and Quality Assurance Chief Safety Officer provides a briefing of safety and security activities to members of the Management Leadership Team. Topics include regulatory agency activities and hazard management activities.

10.1.3 Monthly Business Review

Every month, members of the safety and security workgroups provide updates to division leaders on trends and statistics including accidents/incidents, on-the-job injuries, fare enforcement, fare violation, and safety training.

10.2 Safety Committees

10.2.1 Bipartisan Infrastructure Law (BIL) Committee

King County Metro Transit and its labor partners are mutually committed to providing a safe workplace and increasing employee engagement on safety and security matters. The BIL Committee consists of an equal number of frontline employee representatives selected by the labor organization representing the plurality (majority) of the frontline workforce and management representatives.

The BIL Committee provides a structure that facilitates transparent decision-making, communication, and collaboration between Metro and its labor partners while meeting the requirements of the FTA under the Bipartisan Infrastructure Law. Specifically, this committee is responsible for the following:

1. Review and endorse the Metro Transit Safety Plan annually.
2. Identify, recommend, and analyze risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the agency's safety risk assessment.

The BIL Committee meets monthly regarding risk assessment and mitigations and briefs the Accountable Executive quarterly to report on progress.

10.2.2 Employee Safety Committees

Employee Safety Committees are front-line level safety committees established to address local safety issues through the Safety Risk Management process and to assist in developing effective safety programs. The Employee Safety Committees establish and foster a close working relationship with employees, unions, and management regarding safety issues. Employees are trained that they can report any perceived safety issue or hazard to their Employee Safety Committee representative for investigation and resolution if they choose to do so. SMEs also serve as advisors to the Employee Safety Committees. Membership is determined by each individual committee charter and will include local supervision, union representation, and non-management employees. Unresolved hazards from the Employee Safety Committee shall be forwarded directly to the future Bipartisan Infrastructure Law (BIL) Committee.

In addition, employees can report hazards directly via the anonymous reporting avenues established by KCM.

11 Competencies and Training

The FTA has provided in its guidance documentation for 49 CFR 673.29 the expectation that each transit agency will establish a comprehensive safety training program. To fulfill this requirement, KCM is developing a system-wide training policy and program. This training program includes requisite information on the training responsibilities for all divisions, including:

- Public Transportation Agency Safety Training Program (industrial safety, respirators, blood-borne pathogens, Safety Management Systems, hazard management, etc.)
- Division and functional area responsibilities for training, training functions at KCM, and areas responsible for providing training, including all on-the-job training and technical training programs for supervisors
- Vendor-provided training programs controlled by KCM
- Required initial training by division, area, and position (including training matrices)
- Technical and administrative training requirements, certifications, and qualifications (internal and external) by position
- Required refresher training by division, area, and position
- Contractor training requirements
- KCM Public Transportation Agency Safety Training Plan, including training records creation, access, and maintenance
- Training Quality Assurance Program (to be developed), including continuous improvement, gap analysis, and feedback and assessments (student and trainer)
- Train-the-trainer program (to be developed)

Division Directors in each area are responsible to ensure that training requirements are documented and implemented in the areas under their control. They are also responsible for ensuring that any training provided under their leadership meets the requirements of the KCM Public Transportation Agency Safety Training Plan.

Division leadership is responsible for ensuring that all employees know and understand their training duties and responsibilities, and that training requirements are met.

All employees are responsible to attend all required training and to communicate their training needs, deficiencies in the training programs, and hazards associated with their training.

11.1 Safety Training Metrics

Upon implementation of an agency-wide learning management system, the following metrics will be used to track safety training:

- Numbers trained by division
- Numbers trained by method of delivery
- Total number of safety training hours delivered monthly
- Percentage of employee trainings completed
- Metric to reflect satisfaction with trainings

The management of safety is the highest priority of KCM. KCM is committed to safety from the highest levels of management to frontline employees. KCM will ensure that all transit service delivery activities take place under a balanced allocation of organizational resources, to achieve the highest level of safety

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performance and meet established standards. KCM is committed to developing, implementing, maintaining, and constantly improving its processes.

King County

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May 30, 2024

The Honorable Dave Upthegrove
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember Upthegrove:

This letter transmits a proposed Motion that, if approved, would approve the 2024 King County Metro (KCM) Public Transportation Agency Safety Plan (PTASP) in accordance with the Federal Transit Administration's Public Transportation Agency Safety Plan regulations and the Bipartisan Infrastructure Law.

The enclosed PTASP is an update to the 2023 document. The updated PTASP is a comprehensive document which helps to ensure the safety of our customers, employees, contractors, emergency responders, and the public, as required by the Federal Transit Administration (FTA). The PTASP is required for all operators of public transportation systems that are recipients and sub-recipients of FTA grant funds, which includes King County Metro.

The enclose PTASP has been updated in coordination with the Agency Safety Committee, reflective of the Bipartisan Infrastructure Bill (BIL) passed in early 2022. The BIL included PTASP requirements. Approval of the plan is required per the FTA PTASP regulation at 49 CFR Part 673 as authorized by the Moving Ahead for Progress in the 21st Century Act (MAP–21) and as updated in the BIL.

The PTASP provides information on KCM's Safety Management System (SMS). The SMS is a comprehensive, collaborative approach that brings management and labor together to build on KCM's existing safety foundation to minimize risk, detect and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more carefully. SMS applies resources to risk and is based on ensuring that KCM has the organizational infrastructure to support decision-making at all levels regarding the assignment of resources. Operators of public transportation systems that are subject to this requirement must develop and implement SMS processes as part of their agency safety plans.

Thank you for your consideration of this proposed Motion and the attached plan. The important work reflected in the plan will help King County Metro continue to be a safe public transit system for our employees, passengers, and the region at large.

Please note that the approved PTASP is due to the FTA upon approval.

If your staff have any questions, please contact Rebecca Frankhouser, Director/Chief Safety Officer, Safety, Security, and Quality Assurance Division, Metro Transit Department, at (206) 477-3976.

Sincerely,

for

Dow Constantine
King County Executive

Enclosure

cc: King County Councilmembers
            ATTN: Stephanie Cirkovich, Chief of Staff
                   Melani Hay, Clerk of the Council
        Karan Gill, Chief of Staff, Office of the Executive
        Penny Lipsou, Council Relations Director, Office of the Executive
        Michelle Allison, General Manager, Metro Transit Department
        Rebecca Frankhouser, Division Director, Safety, Security, and Quality Assurance,
            Metro Transit Department

Metropolitan King County Council
Transportation, Economy & Environment Committee

STAFF REPORT

Agenda Item:	8	Name:	Mary Bourguignon
Proposed No.:	2024-B0073	Date:	June 18, 2024

SUBJECT

Today's briefing will provide background about the County's goal to transition to a zero-emission revenue transit fleet by 2035.

Council staff will summarize the legislative history that informed the 2035 goal. Staff from the Auditor's Office will present their audit on transit electrification capital project management and delivery. Metro staff will respond to the audit and share information on Metro's current and upcoming initiatives toward achieving a zero-emission fleet.

SUMMARY

In early 2020, the Council adopted the goal[1] of transitioning to a zero-emission revenue transit fleet by 2035.

Over the next decade, this transition will necessitate purchasing more than 1,000 buses, retrofitting each of Metro's bus bases to accommodate charging infrastructure or other alternative fuel sources, and retooling Metro's scheduling processes and technology to correspond to the capacity, range, abilities, and charging needs of zero-emission buses. To facilitate that work, the 2023-2024 biennial budget[2] included a $250 million capital investment for Metro to purchase 120 battery-electric buses and continue the conversion of Metro's bases. The recently transmitted third omnibus supplemental budget ordinance[3] includes $14 million to test four hydrogen fuel cell buses in addition to electrification to achieve a zero-emission fleet.

To monitor the 2023-2024 capital investment for electrification, the Council included a proviso[4] in the 2023-2024 budget ordinance asking the Auditor to evaluate Metro's progress in managing and delivering transit electrification capital projects.

This staff report provides background and legislative history on the County's zero-emission policies for transit to provide context for the Auditor's work.

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[1] KCC 18.22.010.A.1, KCC 28.94.085.A.1 (Ordinance 19052)
[2] Ordinance 19546
[3] Proposed Ordinance 2024-0191
[4] Ordinance 19546, Section 9, Proviso P1

BACKGROUND

2012 Strategic Climate Action Plan. In 2012, the Council adopted King County's first cross-functional Strategic Climate Action Plan (SCAP).[5] The 2012 SCAP summarized King County's goals, objectives, strategies, and actions to reduce greenhouse gas (GHG) emissions and prepare for the effects of climate change. It included goals and objectives for both government operations and services the county provided in the community.

The 2012 SCAP identified five goal areas for action, one of which was transportation and land use. The SCAP noted that public transit was the most important service the county could provide to reduce community-level GHG emissions, as the inventory of GHG emissions conducted at that time showed that nearly 25% of local GHG emissions resulted from on-road passenger travel.[6]

The SCAP noted, however, that providing transit service was also a significant source of GHG emissions due to the emissions discharged from Metro buses. The SCAP balanced the competing objectives of increasing transit ridership and decreasing GHG emissions from buses by identifying strategies to make transit use easier, more accessible, and more affordable, as well as strategies to replace existing diesel-powered buses with cleaner alternatives, such as low-emission diesel-electric hybrid buses, zero-emission electric trolleybuses, and zero-emission battery-electric buses.

Metro's response and first test of zero-emission vehicles. In response to the 2012 SCAP, Metro developed a Sustainability Plan, which tracked progress[7] in the areas of energy efficiency and conservation; climate pollution reduction; water conservation; waste management; and ridership growth. As part of this effort, Metro identified three sustainability focus areas – environmental, social, and economic – noting that equity and social justice initiatives, such as the launch of the ORCA LIFT low-income fare[8] in 2015, could encourage transit ridership and therefore promote sustainability goals.

Metro also focused on efforts to reduce GHG emissions from its revenue bus fleet. Specifically, Metro purchased 11 short-range battery-electric buses between 2016 and 2018 and deployed them on routes in East King County[9] to test the feasibility of battery-electric technology for public transit. These initial battery-electric buses had a range of approximately 25 miles and were supported by layover charging at Eastgate Park & Ride, as well as base charging at Metro's Bellevue Base.

Council guidance and zero-emission studies. During this same time, the Council provided guidance on Metro's work to reduce or eliminate GHG emissions.

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[5] Ordinance 17270, Motion 13777. The most recent SCAP was adopted in 2020 (Motion 15866).
[6] The Regional Transportation Plan 2022-2050 adopted by the Puget Sound Regional Council indicates that regionally, as of 2015, on-road vehicle travel accounted for 35% of GHG emissions (p. 136) (link). The King County 2020 SCAP (Motion 15866) estimated that, as of 2015, personal transportation accounted for 12% and commercial transportation for 10% of total GHG emissions in King County (p. 27) (link).
[7] Metro Transit 2014 Sustainability Plan Progress Report (link)
[8] KCC 4A.700.490
[9] King County Metro, May 2022, Moving to a Zero-Emission Bus Fleet Transition Plan (link)

In April 2016, the Council asked Metro to transmit a feasibility report for achieving a carbon-neutral or zero-emission fleet, expressing the Council's support for this goal, "so long as costs for such a system do not decrease service levels such that the service area experiences an increase in greenhouse gas emissions or transit access is not materially impacted." [10]

In April 2017, the Council adopted Metro's feasibility report that had been requested in 2016. The report recommended transitioning to a 100% zero-emission fleet as early as 2034, or by 2040 at the latest. The report found that battery-electric buses with a range of 140 miles would satisfy 70% of Metro's service needs without changing service profiles.[11]

The 2017 feasibility report recommended that Metro focus fleet electrification efforts in South King County, based on air pollution vulnerability, and expand over time, with all bases to be converted for electric charging by 2040. The report estimated a 30-year fleet replacement cost of $1.915 billion (in 2016 dollars) compared with $1.617 billion to maintain Metro's existing fleet practices.

Following Metro's 2017 feasibility report and the appropriation authority the Council approved in late 2018 for electrification efforts during the 2019-2020 biennium,[12] Metro leased 10 extended-range battery-electric buses for testing and then, in January 2020, announced its first, large-scale purchase of 40 long-range battery-electric buses.[13] The buses were to be deployed from a new test charging facility at Metro's South Base that would be configured to provide different types of electric charging infrastructure to allow for compatibility with multiple bus manufacturers.[14]

2020 "jump start" zero-emission fleet goal. In early 2020, the Council adopted the goal of transitioning to a zero-emission revenue bus fleet by 2035.[15] This "jump start" ordinance, which stated that it sought to "accelerate the adoption of electric vehicles" by Metro, other County agencies, and King County residents, listed goals for Metro to achieve, including:

- 100% zero-emission revenue bus fleet by 2035[16]
- 67% zero-emission ADA paratransit fleet by 2030[17]
- 100% zero-emission rideshare fleet by 2030[18]
- 125 chargers installed at King County-owned park and ride lots by 2030.[19]

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[10] Motion 14633
[11] Motion 14854
[12] Ordinance 18835 included $20 million for base expansion and reconfiguration, $28 million for base-supportive projects, and $127 million for new battery-electric buses.
[13] Executive Constantine announces purchase of up to 120 battery-electric buses from New Flyer of America, Inc., January 30, 2020 (link)
[14] Charged up and ready to go! Metro's battery bus fleet celebrates opening of charging facility and beginning of battery-electric bus service, March 30, 2022 (link)
[15] KCC 18.22.010.A.1, KCC 28.94.085.A.1 (Ordinance 19052)
[16] KCC 18.22.010.A.1, KCC 28.94.085.A.1
[17] KCC 18.22.010.A.2, KCC 28.94.085.A.2
[18] KCC 18.22.010.A.3, KCC 28.94.085.A.3
[19] KCC 18.22.010.A.4

The jump start ordinance stated that its intent was that Metro "should reduce the overall carbon emissions from transportation <u>as quickly as possible while achieving the goals of Metro Connects</u>."[20] [*emphasis added*] It stated that, if the Executive planned to do something other than pursue the stated "vehicle electrification goals," the Executive must notify the Council in writing "and include a description of any deviation from the vehicle electrification goals."[21,22]

The 2020 SCAP update[23] added to this goal by setting an overall 80% GHG reduction target for King County by 2030, on the way to the goal of a 100% zero-emission revenue bus fleet by 2035.

The jump start ordinance[24] required Metro to develop an implementation plan to evaluate the implications of meeting the zero-emission goals set by the ordinance.

Metro's **Zero-Emission Battery Bus Preliminary Implementation Plan**,[25] which was transmitted in September 2020, analyzed two scenarios: to reach full electrification of Metro's fleet by 2035 (the goal set in the jump start ordinance) or five years later, by 2040. The implementation plan analyzed the impact of converting to a zero-emission fleet compared with the cost of continuing current operations, evaluating both a moderate and a favorable case for zero-emission conversion.

The moderate case, which was based on higher assumed maintenance costs for battery-electric buses than the existing diesel-electric hybrid fleet, concluded that moving to a zero-emission fleet would be 53% more expensive than existing practices, or 42% more expensive when social benefits were factored in, for an additional cost of $574 million or 237,000 annual transit service hours over 19 years.

The favorable case concluded that moving to a zero-emission fleet would be six percent more expensive than existing practices, but one percent less expensive when social benefits were factored in. That is, if battery-electric bus costs were to decrease over time following advances in technology, the study estimated that the lifecycle and societal costs of zero-emission and existing fleets would be roughly equivalent, with no opportunity cost to convert to a zero-emission fleet.

The study also evaluated potential options for Metro's Access paratransit and rideshare (vanpool, vanshare) fleets, noting that vehicle options were, as of 2020, not yet easily available for either fleet. In addition, charging could be a challenge for the rideshare fleet since those vehicles were parked at riders' homes each night. The study concluded by evaluating options to install electric charging technology at County-owned park-and-

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[20] The Metro Connects long-range plan was updated in 2021 (Ordinance 19367, Attachment C)
[21] KCC 28.94.085.B
[22] When Ordinance 19052 was passed in 2020, it was assumed that Metro would use battery-electric technology to meet the zero-emission goal. As part of the 2023-2024 third omnibus budget ordinance, however, the Executive has proposed $14 million for Metro to test hydrogen fuel cell buses as a new component of the zero-emission conversion strategy. The Executive provided notice of this new approach in the transmittal letter for Proposed Ordinance 2024-0191.
[23] Motion 15866
[24] Ordinance 19052
[25] 2020-RPT0142 (link)

ride lots, noting that Metro owned 22 lots with 8,500 spaces and, at that time, had electric chargers at three lots (Issaquah Highlands, South Kirkland, and Burien). The study noted that park-and-ride lots were not the most efficient location for vehicle charging since people who used those lots were typically away from their vehicle all day while at work, thus preventing someone else from using the charger.

The 2021-2022 biennial budget[26] provided appropriation authority for approximately $150 million in capital investments and $52 million in operating expenses to cover the purchase and operation of 40 battery-electric buses and charging infrastructure at South Base, as well as to begin work to design charging infrastructure at the Interim and South Annex bases.

2022 zero-emission transition plan. In 2022, Metro completed a zero-emission bus fleet transition plan,[27] in response to a Federal Transit Administration (FTA) requirement to apply for federal zero-emission funds. This transition plan outlined Metro's planned timeline and strategy, as of 2022, to achieve a zero-emission revenue fleet by 2035. The plan focused on electrification as the technology Metro would use to achieve a zero-emission fleet.

- **Fleet purchase plan.** As of 2022, Metro's revenue bus fleet comprised approximately 1,400 vehicles, including 174 electric trolley buses and 51 battery electric buses.[28] Metro indicated that it was planning to purchase 30 additional trolley buses, replace the existing 174 trolleys, and purchase 1,160 additional battery-electric buses. Table 1 shows Metro's bus purchase plan as of 2022.

Table 1. Metro Bus Purchase Plan (2022)[29]

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	TOTAL
BEBs*		110	10		235	10	190	55	155	115	35	245	**1,160**
Trolleys				30						174			**204**
TOTAL													**1,364**

*BEB = Battery-electric bus

- **Base conversion plan.** To accommodate the planned zero-emission fleet, Metro must convert its bases to add charging infrastructure. As of 2022, Metro's plan was to convert its bases sequentially, with each base expected to require 18 to 24 months for conversion, and with a permanent reduction in capacity of 10% to 15% due to the installation of charging infrastructure within the yard. As of 2022, Metro's timeline for reopening each base with new charging infrastructure was:
  - 2025: Interim Base
  - 2028: South Annex Base
  - 2028: Central Base
  - 2030: East Base
  - 2030: Atlantic Base
  - 2032: South Base

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[26] Ordinance 19210, as amended by Ordinances 19318 and 19479
[27] King County Metro, Moving to a Zero-Emission Bus Fleet: Transition Plan, May 2022 (link)
[28] Battery-electric buses, as of 2022, included 11 short-range Proterra buses and 40 longer-range New Flyer buses. The remaining (non-trolley) buses in the fleet as of 2022 were diesel-electric hybrids.
[29] Source: King County Metro, Moving to a Zero-Emission Bus Fleet: Transition Plan, May 2022 (link)

- o 2034: Ryerson Base
- o 2035: North Base
- o 2035: Bellevue Base

- **Layover charging.** Metro's 2022 plan called for a mix of on-base and on-route charging. Metro had begun pursuing five initial layover sites in South King County to support electrification of the fleet operating out of the Interim and South Annex Bases, with the goal of eventually seeking candidate locations for layover charging across the system, a process that will require electrical infrastructure investments in multiple jurisdictions.

2023-2024 budget investments. While Metro's last several biennial budgets included significant investments in transitioning to a zero-emission fleet, including the purchase of 40 battery-electric buses and the development of the South Base test charging facility, the 2023-2024 budget was the first to move beyond the pilot phase. Under federal funding rules, the life span of a bus is 12 years, meaning that any bus purchased after 2023 would still be expected to be in service in 2035. As a result, Metro's plan to meet the 2035 zero-emission fleet goal assumed that Metro would purchase only zero-emission buses beginning with the 2023-2024 biennium.

Rather than continuing to fund relatively small numbers of battery electric buses for testing purposes as had been the case in past biennia, the 2023-2024 biennial budget[30] included $1.3 million in Metro's operating budget and $248.5 million in its capital budget to purchase 120 battery electric buses, two 150-passenger battery electric water taxi vessels, and 19 paratransit battery electric minibuses. It also appropriated funding to invest in technical applications to manage battery-electric bus charging and dispatching and to continue the work of converting each of Metro's bases to use electric charging infrastructure, a process that Metro has stated will involve the rolling closure and reopening of each base between 2025 and 2036.

The recently transmitted third omnibus supplemental budget ordinance[31] includes $14 million to test four hydrogen fuel cell buses in addition to electrification to achieve a zero-emission fleet.

To monitor the 2023-2024 capital investment for electrification, the Council included a proviso[32] in the 2023-2024 budget ordinance asking the Auditor to evaluate Metro's progress in managing and delivering transit electrification capital projects. The Auditor has completed that report and will present its findings at today's meeting. That will be followed by a presentation from Metro on its response to the audit and its plans for next steps toward the zero-emission goal.

INVITED

- Ben Thompson, Audit Director, King County Auditor's Office
- Luc Poon, Principal Management Auditor, King County Auditor's Office
- Elise Garvey, Principal Management Auditor, King County Auditor's Office

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[30] Ordinance 19546
[31] Proposed Ordinance 2024-0191
[32] Ordinance 19546, Section 9, Proviso P1

- Mark Ellerbrook, Director, Capital Division, Metro Transit Department
- Huoi Trieu, Strategic Planning Manager II, Metro Transit Department

<u>ATTACHMENTS</u>

1. Auditor's report

KING COUNTY AUDITOR'S OFFICE

Kymber Waltmunson, County Auditor

Zero Emissions: Metro Transit Working to Mitigate Risks to County's Ambitious 2035 Goal

Luc Poon, Elise Garvey

June 18, 2024 | TRANSPORTATION, ECONOMY, AND ENVIRONMENT COMMITTEE

Summary

📈 Positive progress amid market risks

🔌 Metro exploring diversifying technologies

⚠️ Shift to ZE requires emergency planning

📅 Tight timelines require improved project planning and coordination

Positive progress on zero emissions (ZE)

- Coordinated, focused department-wide effort

  - Strategic ZE leadership team

  - Culture change efforts

- Consultant helping assess path to ZE

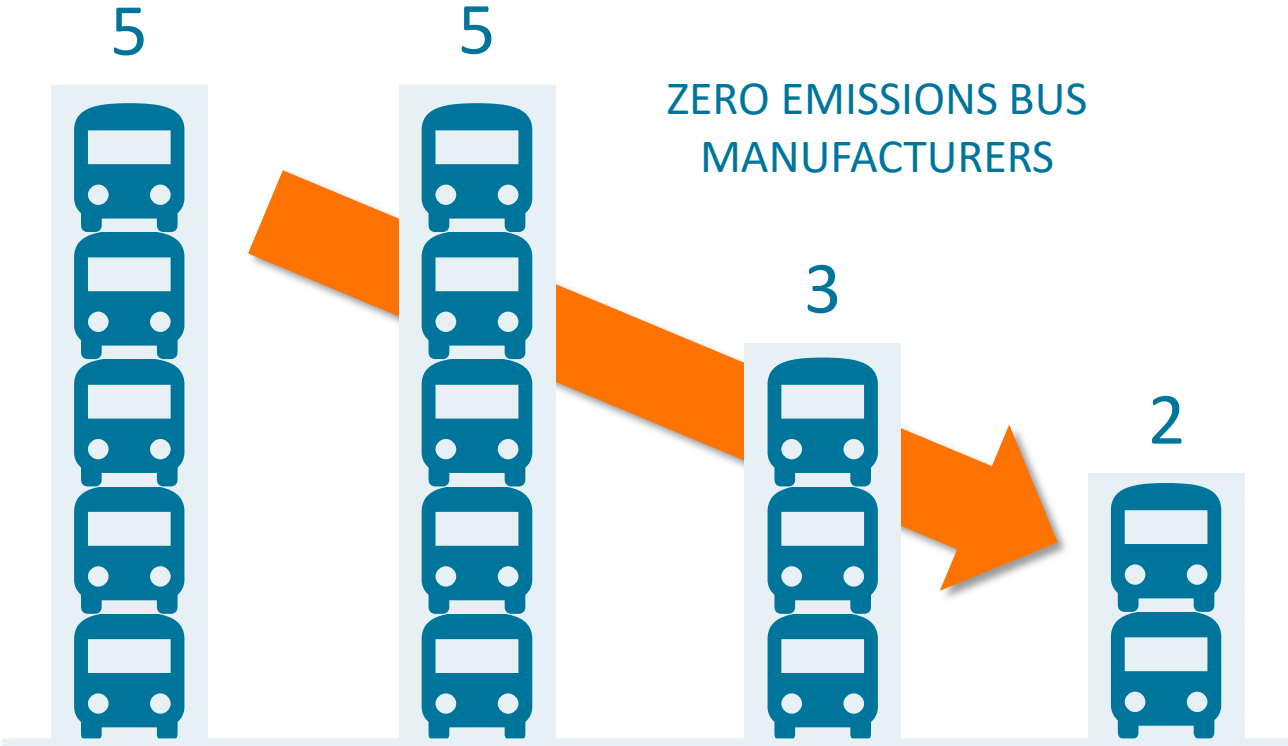- Peer engagement to share lessons learned

KCAO 3

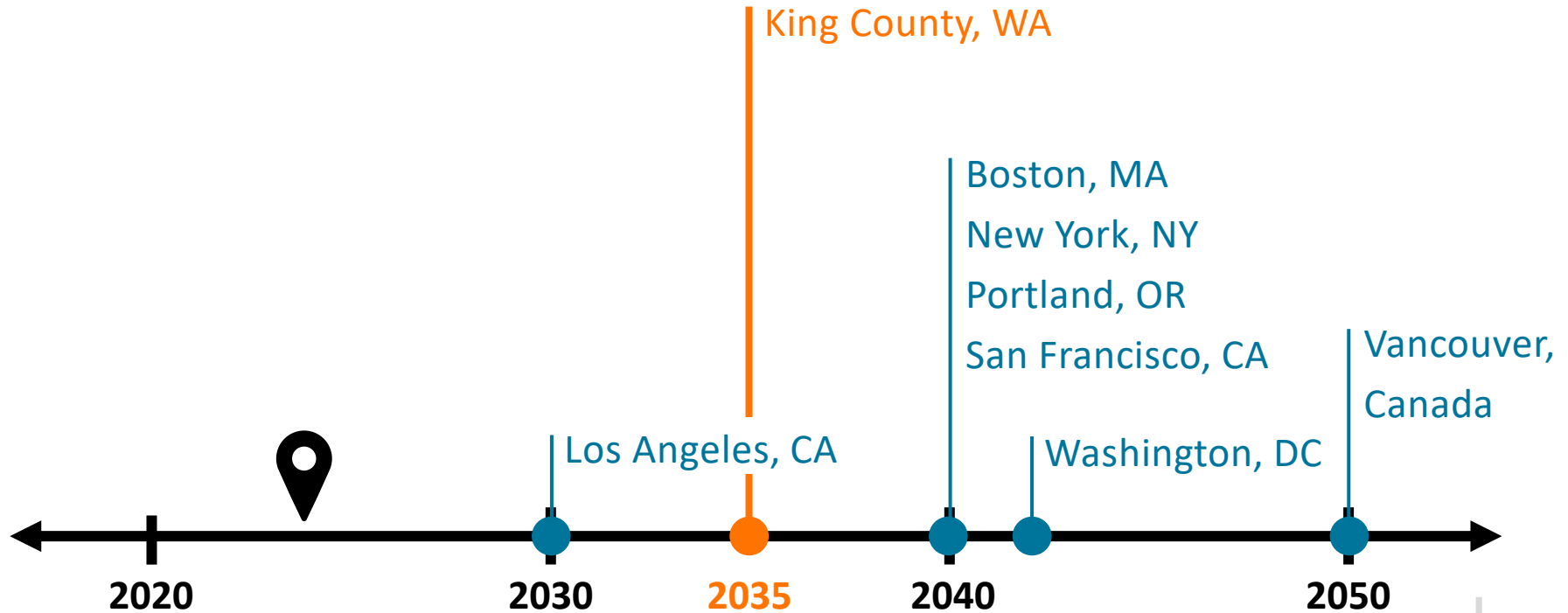# Market risks create barriers to 2035 goal

1. Current tech does not meet all service needs

2. Difficult to ensure enough electricity supply

3. Increasing demand for ZE buses

4. ZE bus manufacturers leaving market

Number of manufacturers declining

5   5

ZERO EMISSIONS BUS MANUFACTURERS

3

2

2021   2022   2023   2024

KCAO 5

King County goal more ambitious than most

King County, WA — 2035

Los Angeles, CA — 2030

Boston, MA
New York, NY
Portland, OR
San Francisco, CA — 2040

Washington, DC — ~2041

Vancouver, Canada — 2050

2020 2030 2035 2040 2050

Diversifying propulsion systems

- Current plan includes battery-electric buses and trolleys

- Researching hydrogen fuel cell technology
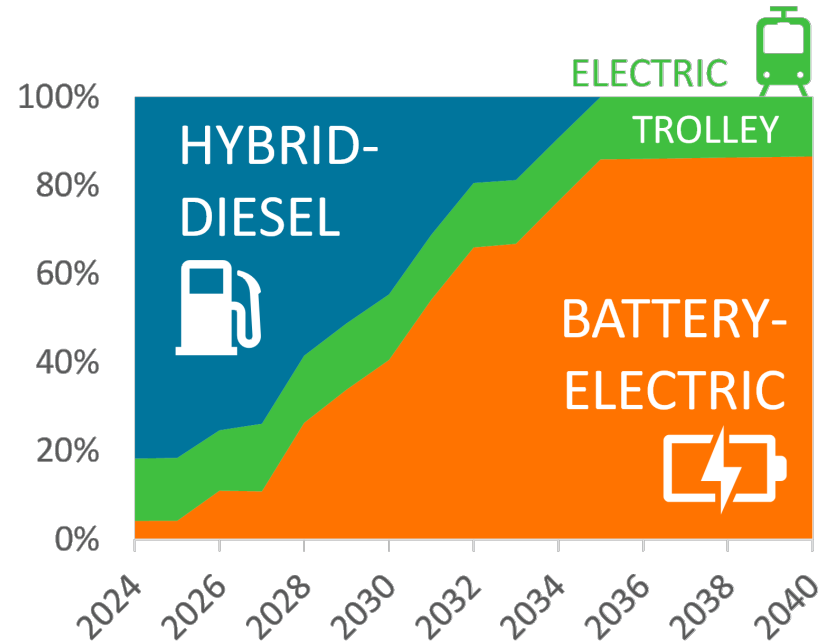
Emergency role with new propulsion

- Responsibilities could include operational support and evacuation

- Metro Transit has not planned how to fulfill role using electric or other ZE propulsion

KCAO 8

Recommendation

Clarify emergency responsibilities with zero-emission fleet and incorporate strategies into capital project planning as needed

KCAO 9

Extensive capital work for electrification

A Gantt-style timeline chart spanning 2023 to 2038, showing phases of PLANNING and CONSTRUCTION for the following projects:

- Interim
- South Annex
- Central/Atlantic
- East Base
- Ryerson
- Bellevue Base
- North Base
- South Base

Plan for collaborative delivery needed

- Capital Division taking steps to use methods

- Lacks formal strategy to bring its efforts together

- Wastewater Treatment put plan together

- Plan could help achieve benefits and state certification

Recommendations

Implement a strategy to maximize the benefits of using collaborative delivery methods, which could include pursuing state certification

Formalize processes to achieve benefits

Improved engagement, but lacks formal plans for working with:

- Metro Transit government relations

- Metro Transit Safety, Security, and Quality Assurance

- County procurement

Engagement can help mitigate risks

Can help mitigate known risks, such as:

- Delays from processes in other jurisdictions

- Project elements that are less safe to operate

- Delays in the procurement of goods and services

Recommendations

Implement a structure for working with

- Government relations staff

- Safety, Security, and Quality Assurance

- Procurement and Payables

KCAO 15

Summary

Positive progress amid market risks

Metro exploring diversifying technologies

Shift to ZE requires emergency planning

Tight timelines require improved project planning and coordination

Thank you

Full report available online at

KingCounty.gov/Auditor

Questions?

King County

TRANSPORTATION, ECONOMY AND ENVIRONMENT COMMITTEE

June 18, 2024

Agenda Item No. 9
Briefing No. 2024-B0074

Salmon Recovery Briefing

Materials for this item will be available before the meeting.