Motion 16963

King County Metro Public Transportation Agency Safety Plan

2025
Updated March 17, 2026

King County Metro Transit Department

201 Jackson St., Seattle, WA 98104

Table of Contents

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 Committee.
2025	4.0	Streamlined language for clarity and readability; standardized abbreviations and section titles for consistency; updated references to reflect current practices and regulatory requirements; clarified roles and responsibilities, including updates to the BIL Committee; simplified formatting and tables to improve usability and comprehension.

Public Transportation Agency Safety Plan Review

Bipartisan Infrastructure Law Committee Approval

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

The members of the BIL Committee verify that the PTASP addresses all applicable requirements of the Public Transportation Safety Program and the National Public Transportation Safety Plan (NPTSP) regulations.

BIL Committee Members

Rebecca Frankhouser, Chair
Director/Chief Safety and Security Officer (CSO)
Safety, Security, and Quality Assurance (SSQA) Division
King County Department of Metro Transit

Jacqueline Korte, SMS Executive
Senior Quality Assurance Auditor
SSQA Division
King County Department of Metro Transit

Michael Mackay, Committee Member
Transit Operator
Bus Operations Division
King County Department of Metro Transit

Arvin Vulliet, Committee Member
Transit Mechanic
Vehicle Maintenance Division
King County Department of Metro Transit

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Concurrences and Approval

MTD PTASP

Version 4.0 - March 2026

By signing this document, the Accountable Executive and the SSQA Director/ CSO verify that PTASP addresses all applicable requirements of the Public Transportation Safety Program and the NPTSP.

_____ _____

Signature Date

Rebecca Frankhouser
SSQA Director/CSO
King County Department of Metro Transit

_____ _____

Signature Date

Michelle Allison
General Manager/Accountable Executive
King County Department of Metro Transit

(See Motion attached at the end of the PTASP)
King County Council
(Board of Directors equivalent)

List of Abbreviations

Abbreviations	Meanings
APTA	American Public Transportation Association
ATU	Amalgamated Transit Union
BIL	Bipartisan Infrastructure Law
CAO	Chief Administrative Officer
CAP	Corrective Action Plan
CDC	Center for Disease Control
CF	Control Factor
CFR	Code of Federal Regulations
CPTED	Crime Prevention Through Environmental Design
CSO	Chief Safety and Security Officer
DOSH	Division of Occupational Safety and Health
EEO	Equal Employment Opportunity
EMG	Extended Management Group
FMCSA	Federal Motor Carrier Safety Administration
FTA	Federal Transit Administration
HR	Human Resources
ITP	Individual Training Plan
L&I	Washington State Department of Labor and Industries
LMS	Learning Management System
MAP-21	Moving Ahead for Progress in the 21st Century Act
MBR	Monthly Business Review
MLT	Metro Leadership Team
MTBE	Mean Time Between Events
MTD	King County Metro Transit Department
N/A	Not Applicable
NPTSP	National Public Transportation Safety Plan
NTD	National Transportation Database
NTSB	National Transportation Safety Board
OSFR	Operator Service and Facilities Reports
OSHA	Occupational Safety and Health Administration
OSONOC	Other Safety Occurrence Not Otherwise Classified
PPE	Personal Protective Equipment
PTASP	Public Transportation Agency Safety Plan
PTSCTP	Public Transportation Safety Certification Training Program
SaFE	Safety, Security and Fare Enforcement
SCC	Safety and Security Certification
SDOT	Seattle Department of Transportation
SLT	Senior Leadership Team
SME	Subject Matter Experts
SMS	Safety Management System
SoGR	State of Good Repair
SPT	Safety Performance Targets
SRM	Safety Risk Management

SRMWG	Safety Risk Management Working Group
SSaM	Safety and Security Management System
SSDMP	Safety and Security Data Management Program
SSOA	State Safety Oversight Agency
SSQA	Safety, Security, and Quality Assurance
ST	Sound Transit
TSA	Transportation Safety Administrators
TSI	Transportation Safety Institute
USCG	United States Coast Guard
USDOT	United States Department of Transportation
VRM	Vehicle Revenue Miles

Introduction

The MTD PTASP is a comprehensive document intended to ensure the safety of customers, employees, contractors, emergency responders, and the public. This plan provides information on MTD's SMS.

During the SMS implementation process, acceptance of this PTASP by the Federal Transit Administration (FTA) does not constitute approval or acceptance of any process or component of the SMS. MTD employees and contractors are required to comply with this plan.

The MTD Accountable Executive function is carried out by the General Manager. The MTD General Manager meets the requirements of 49 Code of Federal Regulations (CFR) 673.5 and 49 CFR 673.23(d)(1). See Section 1.5.1.2 of this plan for more information on the General Manager's role and responsibilities related to SMS.

The MTD CSO function is carried out by the SSQA Director. See Section 1.5.4.4 of this plan for more information on the CSO's role and responsibilities related to SMS.

The PTASP is reviewed and revised annually (once per year). The CSO is responsible for initiating revision of the PTASP. Review of the PTASP is conducted with the Metro Leadership Team (MLT) and SSQA, and with labor partners through the BIL Committee. The final draft, including all changes, is submitted to the King County Council for approval via the General Manager. Once approved, the PTASP is distributed to MTD employees and other stakeholders. The revised PTASP should be maintained and available for review by regulatory authorities or other stakeholders as required.

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.

MTD 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 MTD under SMS to prioritize safety in management decision making.

- Safety Management Policy Statement
- Authorities, accountabilities and responsibilities for management of safety
- Safety Risk Reduction Program

Section II: Safety Risk Management (SRM) – Processes that identify hazards, evaluate and resolve risk.

- Hazard identification
- Safety risk assessment
- Safety risk mitigation

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 MTD's commitment to ensuring safety.

- Safety communication
- Competencies and training

These four components are the means of achieving the highest level of safety for MTD'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 MTD'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 MTD has the organizational infrastructure to best support decision-making and the assignment of resources at all levels.

The PTASP Rule, 49 U.S.C. §5329, requires transit operators who receive 5307 funding to develop an Agency Safety Plan rooted in SMS principles and methodology in accordance with 49 C.F.R. Part 673.

MTD 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 5339 Low and No Emissions Program
- Section 5337 High-Intensity Fixed Guideway
- Section 5337 High-Intensity Motor Bus
- Section 5309 New Starts/Small Starts

- Section 5310 Enhanced Mobility for Seniors and People with Disabilities
- Section 5312 Transportation Innovation Program

SMS Implementation Strategy

In alignment with the FTA's SMS regulations, MTD will implement its SMS to include Safety Policy, SRM, 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:

- COMPLETE
    - Create a process to update and sign the safety policy
    - Create a BIL Committee (formerly the Public Transportation Safety Plan Review Committee) with Labor partners
    - Create an SMS Liaison role for SMS implementation support for each division
    - Conduct a review of existing safety programs at MTD compared to new federal and state regulations
    - Conduct a gap analysis to determine activities necessary to implement SMS successfully
    - Ensure the MTD PTASP meets regulatory requirements under federal regulations
    - Create a report processing program
- IN PROGRESS
    - Establish a system that tracks and documents all tasks from Safety Assurance
    - Establish a system that tracks and documents all tasks from SRM
    - Create a policy on making updates to the PTASP
    - Create a web-based platform to house and share SMS documentation

Component 2: SRM

Tasks to be completed for SRM include:

- COMPLETE
    - Identify SMS accountabilities of MTD management

    - Improve criteria and guidance for hazard identification/analysis tools and activities
    - Finalize the SRM Section

Component 3: Safety Assurance

Tasks to be completed for Safety Assurance include:

- COMPLETE
    - Create a report processing program [COMPLETE]
    - Develop Corrective Action Plan (CAP) documentation to capture all corrective actions from Safety Assurance
    - Develop a strategy to compile, analyze and find trends in data coming from the system
    - Develop a process to identify SRM triggers and CAPs at the division level
    - Refine safety performance indicators and targets for continuous improvement
- IN PROGRESS
    - Identify Safety Assurance inputs
    - Review and enhance the process to ensure that no service delivery operations are initiated before changes have been evaluated for safety impact
    - Develop and execute training in Safety Assurance CAPs*
    - Determine how to review and track the trends at a division level (safety meeting structure)
    - Determine how the information will be disseminated from the divisions to accountable executive and senior leaders

Component 4: Safety Promotion

Tasks to be completed for Safety Promotion include:

- COMPLETE
    - Create a process for housing all SMS records in a Learning Management System (LMS)
    - Establish an SMS Steering Committee and SMS Transition Team for the implementation of SMS
    - Promote the employee safety reporting program to frontline employees

- IN PROGRESS
    - Create, deliver, and document Initial SMS Basic Training[1]
    - Create, deliver, and document training for people accepting risk[1]
    - Create, deliver, and document training for people performing risk assessments[1]
    - Create, deliver, and document training on CAPs[1]
    - Develop the infrastructure for safety performance communication throughout MTD
    - Set up communication platforms for the successful distribution of SRM processes from division leaders to frontline staff
    - Measure employee perceptions of safety and culture at MTD, communicate the results, and take actions related to safety culture improvement

[1] See Section 4.2 Competencies and Training.

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1 Section I: Safety Policy

1.1 Safety Management Policy Statement

The MTD safety policy statement is memorialized in King County Department Policies and Procedures.

MTD 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 employees.
C. Clearly define for all employees the expectations which they will be accountable for in the delivery and performance management of the organization's SMS.
D. Establish and operate hazard identification and analysis and safety risk assessment activities.
E. Promote a non-punitive 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 employees are available to implement SMS.
I. Ensure that all employees 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 MTD's safety performance against realistic and data-driven safety performance indicators and safety performance targets (SPT).
K. Continually improve MTD'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 MTD 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.

1.2 Safety Performance Targets

Under the Moving Ahead for Progress in the 21st Century Act (MAP-21), the United States Department of Transportation (USDOT) and the FTA have established safety performance criteria and state of good repair (SoGR) standards in the NPTSP that all transit agencies must meet, at a minimum. Accordingly, the PTASP provides for safety performance objectives that meet or exceed those federal performance criteria and SoGR. The Accountable Executive reviews the PTASP annually for approval.

The 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 to demonstrate its dedication to safety.

Table 1 describes MTD's overarching goals. The specific targets relative to each goal are provided in the tables following these descriptions.

Table 1.1 Safety Performance Measures

Safety Performance Measure		Description
1	Major Events*	This includes all safety and security major events as defined by the National Transportation Database (NTD).
2	Major Event Rate*	This includes all safety and security major events as defined by the NTD, divided by Vehicle Revenue Miles (VRM).
3	Collisions**	This includes all collisions reported to the NTD.
4	Collision Rate*	This includes all collisions reported to the NTD, divided by VRM.
5	Pedestrian Collision Rate	This includes all collisions "with a person," as defined by the NTD, divided by VRM.
6	Vehicular Collision Rate	This includes all collisions "with a motor vehicle," as defined by the NTD, divided by VRM.
7	Fatalities	This includes all fatalities as defined by the NTD.
8	Fatality Rate	This includes all fatalities as defined by the NTD, divided by VRM.
9	Transit Worker Fatality Rate	This includes all transit worker fatalities as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM.
10	Injuries*	This includes all injuries as defined by the NTD.
11	Injury Rate*	This includes all injuries as defined by the NTD, divided by VRM.
12	Transit Worker Injury Rate	This includes all transit worker injuries as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM.
13	Assaults on Transit Workers*	This includes all assaults on transit workers as defined by the NTD.
14	Rate of Assaults on Transit Workers*	This includes all assaults on transit workers as defined by the NTD, divided by VRM.
15	System Reliability	This includes Major Mechanical System failures as defined by the NTD.

* Indicates Safety Performance Measure that is also part of the Safety Risk Reduction Program.
** Indicated Safety Performance Measure that is only part of the Safety Risk Reduction Program.

1.2.1 Major Events

SPTs for major events include all safety and security events as defined by the NTD and targets were set by reviewing the previous three years of data.

Table 1.2 SPT, Major Events

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Major Events	149 events
Non-Fixed Route Bus	Major Events	0 events

1.2.2 Major Event Rate

SPTs for Major Event Rate includes all safety and security major events as defined by the NTD, divided by VRM. Targets were set by reviewing the previous three years of data.

Table 1.3 SPT, Major Event Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Major Event Rate	3.52 events per million miles
Non-Fixed Route Bus	Major Event Rate	0.00 events per 100,000 miles

1.2.3 Collision

Collisions are vehicle accidents in which there is an impact of a transit vehicle with another transit vehicle, a non-transit vehicle, a fixed object, a person or persons (suicide/attempted suicide included), an animal, a rail vehicle, a vessel, or a dock. SPT for collisions were set by reviewing the previous three years of data.

Table 1.4 SPT, Collisions

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Collisions	1721 collisions
Non-Fixed Route Bus	Collisions	329 collisions

1.2.4 Collision Rate

MTD Collison rate includes all collisions reported to the NTD, divided by VRM. Targets were set by reviewing the previous three years of data.

Table 1.5 SPT, Collision Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Collision Rate	37.05 collisions per million miles
Non-Fixed Route Bus	Collision Rate	0.33 collisions per 100,000 miles

1.2.5 Pedestrian Collision Rate

A pedestrian is not a driver of a motor vehicle and is either walking or using a wheelchair, bicycle, or other micromobility device. A pedestrian collision is an event that occurs when a transit revenue vehicle makes contact with a pedestrian. This SPT is calculated by taking the total number of pedestrian collisions divided by VRM, and the target was set using the previous three years of data.

Table 1.6 SPT, Pedestrian Collision Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Pedestrian Collision Rate	0.72 pedestrian collisions per million miles
Non-Fixed Route Bus	Pedestrian Collision Rate	0.00 pedestrian collisions per 100,000 miles

1.2.6 Vehicular Collision Rate

A vehicle collision is an event that occurs when a transit revenue service vehicle collided with another vehicle. This SPT is calculated by taking the total number of vehicle collisions divided by VRM, and the target was set using the previous three years of data.

Table 1.7 SPT, Vehicular Collision Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Vehicular Collision Rate	23.76 vehicular collision per million miles
Non-Fixed Route Bus	Vehicular Collision Rate	0.37 vehicular collisions per 100,000 miles

1.2.7 Fatalities

A fatality is a death confirmed within 30 days of a safety event and excludes trespassing and suicide-related fatalities. Please note: A safety event means a collision, derailment, fire, hazardous material spill, act of nature, evacuation, or Other Safety Occurrence Not Otherwise Classified (OSONOC) occurring on transit right-of-way, in a transit revenue facility, in a transit maintenance facility, or involving a transit revenue vehicle and meeting established NTD thresholds.

Table 1.8 SPT, Fatalities

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Fatalities	2 fatalities
Non-Fixed Route Bus	Fatalities	0 fatalities

1.2.8 Fatality Rate

MTD fatality rates vary across transportation modes due to distinct operating environments and the inherent safety and risk exposure associated with each. MTD's rate of fatalities is monitored and measured by the total number of fatalities divided by VRM. Targets were set by reviewing the previous three years of data.

Table 1.9 SPT, Fatality Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Fatality Rate	0.04 fatalities per million miles
Non-Fixed Route Bus	Fatality Rate	0.00 fatalities per 100,000 miles

1.2.9 Transit Worker Fatality Rate

MTD Transit work fatality rate includes all transit worker fatalities as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM. Targets were set by reviewing the previous three years of data.

Table 1.10 SPT, Transit Worker Fatality Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Transit Worker Fatality Rate	0.00 transit worker fatalities per million miles
Non-Fixed Route Bus	Transit Worker Fatality Rate	0.00 transit worker fatalities per 100,000 miles

1.2.10 Injuries

Any damage or harm to people as a result of an event that requires immediate medical attention away from the scene. It does not include harm resulting from a drug overdose, exposure to the elements, illness, natural causes, or occupational safety events occurring in administrative buildings. MTD reports to the 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. Targets were set by reviewing the previous three years of data.

Table 1.11 SPT, Injuries

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Injuries	196 injuries
Non-Fixed Route Bus	Injuries	0 injuries

1.2.11 Injury Rate

MTD injury rate includes all injuries as defined by the NTD, divided by VRM. Targets were set by reviewing the previous three years of data.

Table 1.12 SPT, Injury Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Injury Rate	4.60 injuries per million miles
Non-Fixed Route Bus	Injury Rate	0.00 injuries per 100,000 miles

1.2.12 Transit Worker Injury Rate

SPT for transit worker injury rate includes all transit worker injuries as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM. Targets were set by reviewing the previous three years of data.

Table 1.13 SPT, Transit Worker Injury Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Transit Worker Injury Rate	14.31 injuries per 100 FTEs
Non-Fixed Route Bus	Transit Worker Injury Rate	Start collecting reliable data

1.2.13 Assaults on Transit Workers

An assault on is a circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker. Targets were set by reviewing the previous three years of data.

Table 1.14 SPT, Assaults on Transit Workers

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Assaults on Transit Workers	73 assaults on transit workers
Non-Fixed Route Bus	Assaults on Transit Workers	Start collecting reliable data

1.2.14 Transit Worker Assault Rate

MTD transit worker assault rate includes all assaults on transit workers as defined by the NTD, divided by VRM. Targets were set by reviewing the previous three years of data.

Table 1.15 SPT, Transit Worker Assault Rate

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	Rate of Assaults on Transit Workers	1.73 assaults on transit workers per million miles
Non-Fixed Route Bus	Rate of Assaults on Transit Workers	Start collecting reliable data

1.2.15 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 VRM operated divided by the number of major mechanical failures[2]. MTD continues to invest and plan for a highly reliable, safe operation of its public transportation system.

As MTD 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, MTD will strive to maintain current system reliability targets during this period.

Table 1.16 SPT, System Reliability

Route Type	Safety Performance Measure	SPT
Fixed Route Bus	System Reliability	6000 miles between road calls
Non-Fixed Route Bus	System Reliability	9.56 road calls per 100,000 miles

[2] 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.

1.2.16 Light Rail Transit

Sound Transit (ST) is the owner of Link Light Rail, and MTD is the contract operator. SPT for owner agencies are maintained within their own PTASP.

1.2.17 Streetcar

Seattle Department of Transportation (SDOT) is the owner of Seattle Streetcar, and MTD is the contract operator. SPTs for owner agencies are maintained within their own PTASP.

1.3 Annual Safety Performance Report and Coordination with Stakeholders

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

1.4 Safety Performance/Risk Reduction Program Targets

In keeping with SMS philosophy, each division/functional area has established SPT for its safety-critical functions. These are detailed in divisional and functional area annual safety goals and performance measures documentation.

MTD partners with labor through the BIL Committee. This committee is responsible for setting safety risk reduction targets for major events, major event rate, collisions, collision rate, fatalities, fatality rate, injuries, injury rate, assaults on transit workers, and transit worker assault rate (see additional roles and responsibilities in Section 1.5).

Note: ST is the owner of ST Express routes and Link Light Rail, and MTD is the contract operator. SDOT is the owner of Seattle Streetcar and MTD is the contract operator. SPT for owner agencies are maintained within their PTASP.

If MTD does not meet one of the SPT, it must:

A. Assess associated safety risk
B. Mitigate associated safety risk based on the results of a safety risk assessment (including these mitigations in a plan to address deficiencies and in the PTASP)
C. Allocate its safety set-aside in the following fiscal year to safety related projects eligible under Section 5307 that are reasonably likely to assist the agency in meeting the SPT in the future

Safety Set Aside: The Bipartisan Infrastructure Law requires allocation of not less than 0.75% of assistance received by MTD under Section 5307 to safety related projects that directly relate to meeting that target.

1.5 Authorities, Accountabilities, and Responsibilities for Management of Safety

1.5.1 Executive Leadership

1.5.1.1 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 260,000 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 MTD.

1.5.1.2 General Manager (Accountable Executive)

The MTD General Manager is the Agency's Accountable Executive. The General Manager is responsible for reviewing and approving the PTASP, 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 MTD'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 MTD.

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

A. Review and approve the PTASP
B. Adopt safety performance objectives, review ongoing safety data reports, and review summary reports related to safety events
C. Oversee implementation and administration of MTD's SMS
D. Consider safety a top priority when proposing investments and requesting resources from the King County Council
E. Advocate for adequate funding for the implementation of safety and security programs and the SMS
F. Ensure that financial and personnel resources align with agency performance goals, metrics, and values
G. Approve and sign MTD policies

H. Ensure that safety and health training sufficient for job duties is provided for all employees
I. Hold MLT members (senior leaders) accountable for the implementation and administration of SMS within their areas of responsibility
J. Foster system-wide accountability at all levels
K. 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
L. Implement safety risk mitigations for the safety risk reduction program that are included in the PTASP
M. Receive and consider all other safety risk mitigations recommended by the BIL Committee
N. Risk ownership and sign off authority for high level risk

If the BIL Committee recommends a mitigation unrelated to the Safety Risk Reduction Program, and the Accountable Executive decides not to implement; the Accountable Executive must prepare a written statement explaining their decision. The explanation must be submitted and presented to the BIL Committee and Board of Directors (King County Council) or equivalent entity.

1.5.1.3 Deputy General Manager, Chief Administrative Officer and Chief of Staff

The MTD Deputy General Manager, Chief Administrative Officer (CAO) and Chief of Staff have the responsibility to:

A. Ensure that the SMS is implemented and executed within their areas of responsibility
B. 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 SMS

1.5.1.4 Assistant General Manager and Division Directors

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

A. Fully support this program and its proper implementation
B. Create a positive safety culture where employees are engaged in safety practices and processes
C. Ensure that SMS is implemented and executed within their area(s) of responsibility

D. Ensure that the performance of SMS is measured and documented in all areas
E. Ensure that everything needed for employees to perform job duties is communicated to the Accountable Executive and considered in resource requests
F. Provide time necessary for employees to receive sufficient training
G. Ensure training requirements are documented and implemented in the areas under their control.
H. Ensure completion of CAPs by holding responsible managers accountable for the implementation of mitigations.
I. Brief Accountable Executive on any risk determined to be unacceptable (see Section 2.2.3.1).
J. Keep Accountable Executive apprised of the status of Corrective Actions; escalate when resources or support is needed to complete.
K. Risk ownership and sign off authority for serious level risk within their purview

1.5.2 Leadership

1.5.2.1 Deputy Directors, Managing Directors, Section Managers, Managers, Superintendents/Supervisors, and other Immediate Supervisors

Leaders at this level have the responsibility to:

A. Ensure that SMS is implemented and executed within their areas of responsibility
B. Ensure that SPTs are measured and documented in all areas of their responsibility
C. Ensure that everything needed for employees to perform job duties is communicated to the Director and considered in resource requests
D. Ensure time is allocated for employees to receive sufficient training
E. Participate in hazard identification, safety risk assessments, and track CAPs
F. Ensure onsite safety orientation is provided to all new or transferred employees
G. Ensure required safety meetings are held and documented
H. Ensure the maintenance of a safe workplace in conformity with MTD safety programs
I. Report on safety and security concerns and ideas

1.5.2.2 SMS Liaison

The SMS Liaison serves as a key coordinator between their division and SSQA, collaborating to ensure that SMS processes are integrated into daily operations. This role actively promotes communication, alignment, and partnership between divisions to create a proactive safety culture. Liaisons will be a part of their division's hazard identification, risk management, and compliance with safety protocols. The Liaison work supports the growth of the SMS through engagement, education, and the creation and implementation of strategic safety initiatives.

The required training for the SMS Liaison includes Transportation Safety Institute (TSI) SMS Awareness training, TSI SMS Safety Assurance, TSI SMS Principles for Transit, and SSQA SRM Training.

Key Responsibilities for the SMS Liaisons:

A. Communication and Coordination:
    a. Ensure that division leadership and staff are informed of SMS updates, policies, procedures, and any changes to safety protocols.
    b. Facilitate regular communication between their division and the SMS Liaisons, including participation in SMS Liaison Forum.
B. Hazard Identification and Reporting:
    a. Encourage and support employees in their division in identifying and reporting hazards.
    b. Advocate and support all identified hazards within the division are logged and tracked in the SMS reporting system.
C. SRM:
    a. Participate in the applicable Safety Risk Management Working Groups (SRMWG).
    b. Assist the division in conducting safety risk assessments in accordance with the SRM process.
    c. Help facilitate discussions on risk levels, potential consequences, and mitigation strategies.
    d. Support the implementation of controls and mitigations as required by CAPs.
D. Safety Training:
    a. Ensure that division staff are trained in basic SMS principles.
    b. Promote a continuous learning environment where safety training is prioritized.

E. Monitoring and Compliance:
    a. Oversee the division's compliance with the PTASP and SPT.
    b. Conduct periodic reviews of division safety activities to ensure alignment with SMS objectives.
    c. Share any continuous improvement ideas with the SMS Liaison team and assist in implementing SMS improvements.
F. Data Collection and Reporting:
    a. Work with the SMS Liaison Team to collect and analyze safety data, incidents, and trends.
    b. Participate in the development of safety performance metrics and tracking progress of CAPs.
G. Fostering Safety Culture:
    a. Promote the SMS across the division.
    b. Encourage a proactive approach to identifying and mitigating risks before they become incidents.
    c. Lead initiatives that promote employee engagement in the SMS process and create a positive safety culture

1.5.2.3 Superintendents, Supervisors, Immediate Supervisors, and Other People Leaders

Leaders at this level have the responsibility to:

A. Ensure that the SMS is implemented and executed within their areas of responsibility
B. Ensure the maintenance of a safe workplace in conformity with MTD safety programs
C. Follow safety practices and procedures as necessary to maintain a safe work environment
D. Report on safety and security concerns and ideas to supervisors and/or safety and security staff

1.5.3 Frontline Employees

Frontline employees have the responsibility to:

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

1.5.4 SSQA Division

At MTD, the SSQA Division is dedicated to creating a community free from harm, where all can thrive. This vision is achieved through strong leadership, a deep commitment to customer service, and a relentless focus on enhancing MTD's safety culture and security practices. The division plays a critical role in protecting MTD employees, passengers, and the communities we serve. This is accomplished through multiple lines of business, each contributing to the division's overarching goal of ensuring a safe, secure, and supportive transit environment. The division's lines of business include:

1.5.4.1 MTD Transit Safety

The purpose of MTD Transit Safety is the administration of MTD'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. MTD Transit Safety is also responsible for incident investigations, hazard management, ergonomics, and wellness.

1.5.4.1.1 Drug & Alcohol Program

The King County Drug & Alcohol Program oversees policies and programs to prevent substance abuse in the workplace, ensuring Compliance with federal regulations (FTA, Federal Motor Carrier Safety Administration (FMCSA), United States Coast Guard (USCG)) and agency compliance with non-safety sensitive policies.

Drug & Alcohol program employees have responsibility to:

A. Develop, implement, and update the Drug & Alcohol Policy
B. Conduct pre-employment, random, reasonable suspicion, post-accident, return to duty, and follow-up drug and alcohol testing
C. Provide supervisor training required under FTA regulations, including drug awareness (90 minutes), reasonable suspicion (4-hour initial and 2.5-hour refresher), and post-accident (60 minutes).
D. Ensure confidentiality and testing protocols are in place and followed
E. Oversee the Medical Review Officer and contracted labs, collection, and after-hours support
F. Oversee contract operator drug & alcohol programs, including supervision of program audits

1.5.4.1.2 Operations Safety

The MTD Operations Safety workgroup ensures the safe and compliant operation of MTD's bus, rail, streetcar, water taxi, and contracted services, focusing on risk mitigation and incident prevention.

Operations Safety staff have responsibility to:

A. Investigate collisions including root cause, organizational accident, breakdowns in investigations and determining corrective actions.
B. Identify route and facility hazards
C. Participate in equipment procurement including design criteria based on lessons learned and data
D. Provide training on operations safety policies/procedures such as re-read and accident review board, rail recertification, superintendent and chief accident training
E. Develop operational safety policies and procedures
F. Coordinate safety campaigns and safety awareness teams

1.5.4.1.3 Employee Health & Safety

The Employee Health & Safety workgroup develops programs to protect employees from workplace hazards, promoting well-being and compliance with occupational safety regulations.

Employee Health & Safety staff have the responsibility to:

A. Conduct ergonomic assessments
B. Support regulatory inspections and investigations such as Washington Department of Safety and Health
C. Administer Accident Prevention Plan programs and policies including but not limited to permit-required confined spaces, fall protection, electrical safety, and good faith challenge
D. Conduct job hazard analyses and hazard assessments

1.5.4.1.4 Wellness Program

The Wellness Program implements initiatives to support employees' physical, mental, and emotional health, fostering a positive work environment and enhancing productivity.

Wellness program staff have the responsibility to:

A. Bring awareness and access to health and wellness resources through outreach, events, and engagement, such as the annual Metro Wellness Fair
B. Provide support and education on health and wellness topics, such as injury prevention and emotional wellbeing

C. Resource workgroup-specific wellness programs, services, or training such as Onsite preventative health services (mobile dental clinics, blood pressure checks, Hemoglobin A1C screenings, etc.)
D. Coordinate Wellness Champion pilot program

1.5.4.2 MTD Transit Security

The purpose of Metro Transit Security is to deliver quality security and emergency management services to MTD, customers, and the community. Through partnerships, Transit Security works to reduce crime, build trust, and enhance MTD's resiliency.

1.5.4.2.1 Physical Security

The Physical Security workgroup manages ensures the protection of people, facilities, infrastructure, and assets. Physical Security staff have the responsibility to:

A. Conduct after action reviews
B. Administer video management system
C. Provide incident management training
D. Oversee contract security including park and ride patrols, transit center and terminal security, onboard security, and fare enforcement
E. Administer access control program
F. Conduct Crime Prevention Through Environmental Design (CPTED) assessments

1.5.4.2.2 Life Safety & Emergency Management

The Life Safety & Emergency Management workgroup administers the workplace violence prevention program and leads emergency preparedness, evacuation planning, and incident response coordination.

Life Safety & Emergency Management staff have the responsibility to:

A. Emergency Evacuation Program
B. Emergency Exercise and Drill Program
C. Readiness/Preparedness Program
D. Emergency Operations and Response (All-Hazards, Inclement Weather) Program
E. MTD (Bus) System Security and Emergency
F. Emergency Management Liaison and Partner program
G. Regional Emergency Management Planning Initiatives and Programs
H. Continuity of Operations Planning
I. Regional Hazard Mitigation Planning
J. Preparedness Program

K. Resiliency Planning
L. De-Escalation Training
M. Floor Warden Training
N. CPR/AED Program

1.5.4.3 SSQA Division Support

1.5.4.3.1 Safety & Security Services

Safety & Security Services provides frontline employees and leadership with on-site operational support, facility inspections, committee participation, and data-driven technical assistance.

Safety & Security Support Services staff have the responsibility to:

A. Provide onsite support for front-line and management staff at worksites
B. Training
C. Employee suggestions
D. Safety and Security Management System (SSaM) and video support
E. Safety and security committee meetings and huddles

1.5.4.3.2 SSQA Data Services

SSQA Data Services 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 MTD in its decision-making.

Data employees have the responsibility to:

A. SSaM database
B. Business Intelligence Reporting
C. Monthly Business Review (MBR)

1.5.4.3.3 SSQA Training Support Services

Training employees have the responsibility to oversee MTD's:

A. First of its kind, Safety & Security Academy
B. Adult Learning Program
C. Educational Content Development and Instructor Coaching
D. SMS Implementation

1.5.4.3.4 Programs, Projects and Initiatives

1.5.4.3.4.1 Safety, Security and Fare Enforcement Reform Initiative

Safety, Security and Fare Enforcement (SaFE) Reform focuses on equitable and community-driven security practices, enhancing non-transit resources for customers in crisis, including support related to fares, homelessness, and mental health.

SaFE Reform staff have the responsibility to:

A. Lead the SaFE Reform Initiative, ensuring pilots (SaFE Ambassadors, Behavioral Health Support, Fare Enforcement relaunch) are designed, managed, and aligned with MTD's safety goals.
B. Provide visible, non-law enforcement presence that improves rider confidence and safety.
C. Coordinate with Bus Operations, Labor, Human Resources (HR), and jurisdictional partners for smooth implementation of SaFE Reform Initiatives.
D. Administer fare adjudication: oversee violation processing, resolution pathways, and outreach to riders.
E. Connect riders with reduced fare options and community resources to prevent future violations.
F. Maintain records and track outcomes related to SaFE Reform.
G. Collaborate with community members and organizations to understand safety needs and connect riders with resources.
H. Support public education campaigns (e.g., Code of Conduct refresh, outreach activities).

1.5.4.3.4.2 Transit Worker Safety Reporting Program

MTD employs a comprehensive employee safety reporting program as a cornerstone of its SMS, promoting and supporting a proactive safety culture among its workforce. Through SSaM, employees are encouraged to report vehicle accidents, security incidents, or any unsafe events, ensuring that potential hazards are promptly identified and addressed.

This program emphasizes the importance of frontline employees serving as the eyes and ears of the transit system, with the responsibility to report safety issues. MTD also offers an option for anonymous reporting, ensuring that employees can share concerns without fear of retaliation. By integrating employee feedback into its safety protocols, MTD enhances the well-being of its employees and ensures a safer transit environment for all passengers.

1.5.4.4 Director/CSO

The General Manager has delegated to the Director of SSQA the role of CSO. This includes the authority and responsibility to govern, administer, oversee, and monitor the PTASP and resulting safety programs, policies, rules, implementation, and procedures. The CSO has a direct line of communication to the General Manager.

Director/CSO has the responsibility to:

A. Obtain and maintain the FTA Public Transportation Safety Certification Training Program (PTSCTP) consistent with the requirements of 49 CFR 672.
B. Ensure that SMS is designed and implemented within the strategic vision and direction of the Accountable Executive and meets all regulatory requirements
C. Communicate safety and security information and performance to the General Manager
D. Ensure that resource needs are communicated upward within senior leadership and division leadership
E. Collaborate with leadership and key SMS personnel to ensure safe work practices
F. Interface with federal, state, and local authorities, and with industry professional organizations
G. When an immediate and serious safety risk exists, order hazardous conditions corrected to acceptable levels or eliminated altogether
H. Order the cessation of unsafe activities or operations that are evaluated as creating immediate and serious safety risks within the system
I. Oversee MTD's safety and security certification (SSC) activities
J. Conduct or direct mandatory internal safety reviews to determine compliance with SMS
K. 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 MTD management
L. The CSO has several direct reports, including members of the SSQA Senior Leadership Team (SLT).

1.5.5 Agency Leadership Teams

Effective implementation of SMS requires senior management's commitment to safety. At MTD, 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 MLT discussion.

1.5.5.1 MLT

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

A. Establish parameters for and develop the biennial department budget
B. Align goals, objectives, and expectations to achieve MTD's vision/mission
C. Develop and manage enterprise-wide initiatives and operational policies
D. Address internal/external obstacles to vision/mission, including legal, resource, political, and reputational. The MLT is responsible for ensuring that change is properly managed at all levels, and for guiding decision making and resource allocation.
E. Identify operational/organizational challenges (financial, labor, performance, structural, cultural), opportunities, and patterns; and determine solutions and resolutions through shared decision-making (informed by MBR)
F. Grow, model, and cascade leadership competencies
G. Make decisions on recommendations from cross-functional teams
H. Represent, communicate, and implement decisions within divisions including but not limited to CAPs and Hazard Assessment Reports
I. Make cross-functional decisions with operational or enterprise impacts and service level planning and delivery
J. Determine Future of Work and Business Transformation

1.5.5.1.1 MLT Members

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:

A. General Manager
B. Deputy General Manager (Operations)
C. CAO
D. Chief of Staff
E. General Counsel
F. Assistant General Manager for Employee Services
G. Assistant General Manager for Finance and Administration
H. CSO/SSQA Division Director
I. Operational Division Directors

1.5.5.2 Deputy General Manager's Forum

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

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

Deputy General Manager forum is a place to address current constraints and challenges from an operating perspective and help bring voice to future MLT discussions.

1.5.5.2.1 Deputy General Manager's Forum Members

The Deputy General Manager's Forum is owned by the Deputy General Manager and facilitated by the CSO. The group meets weekly. Members of the Deputy General Manager's Forum include:

A. Deputy General Manager
B. CSO
C. Mobility Division Director
D. Bus Operations Division Director
E. Marine Division Director
F. Rail Division Director
G. Transit Facilities Division Director
H. Vehicle Maintenance Division Director
I. Metro Transit Chief of Police

1.5.5.3 CAO Forum

CAO is a forum to develop actionable strategies for the administrative operations of the organization. This forum is intended to:

A. Vet and approve new Metro administrative policies and procedures.
B. Develop shared approaches and best practices for building teams, supporting workflows, and building effective collaboration and teamwork.
C. Support participants through peer coaching, shared problem solving, and a focus on growing the people side of the business.
D. Develop a shared understanding of how to invest in and grow future leaders, build relationships, and bring fun to the workplace

1.5.5.4 MBR

The focus of the MBR is to monitor progress on MTD's long-term goals and desired outcomes. It is a working forum to:

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

1.5.5.4.1 MBR Members

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:

A. MLT members
B. Deputy Directors
C. Section Managers
D. Superintendents

1.5.5.5 Extended Management Group

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

A. Training or facilitated conversations pertaining to information, skills, and resources
B. Announcements of critical policy changes and new procedures
C. 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.

1.5.5.5.1 EMG Members

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:

A. MLT members
B. Deputy Directors
C. Section Managers
D. Superintendents
E. Equal Employment Opportunity (EEO) Officer
F. EMG Design Team (volunteer group of representatives)

1.5.5.6 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:

A. Inform and address operational and cultural issues within their own divisions
B. Establish divisional priorities in alignment with departmental goals and objectives
C. Discuss and develop recommendations to be elevated
D. Consult and problem-solve management issues

Division Leadership Team decisions focus 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 Team are determined by the Division Director.

1.5.5.7 BIL Committee

MTD and its labor partners are mutually committed to providing a safe workplace and increasing employee engagement on safety and security matters. The BIL Committee is a joint effort to review MTD's PTASP in advance of formal adoption by the King County Council and provides a structure which facilitates transparent decision-making, communication, and collaboration between MTD and its labor partners while meeting the requirements of the FTA under the BIL. It includes equal representation from management and Amalgamated Transit Union (ATU) 587 (labor union that represents the plurality of MTD employees). Labor members are selected by labor union President/Bargaining Agent or designee. All BIL Committee members complete TSI Principles of SMS, SMS Safety Assurance, and SMS Awareness training.

Specifically, this committee is responsible to:

A. Participate in the review and revisions to the PTASP.
B. Ensure the PTASP 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.
C. Submit the PTASP for formal adoption through the King County Council.
D. Agree that disputes are resolved within the BIL Committee resolution process.

E. Identify and recommend safety risk mitigations to reduce likelihood and severity of consequences identified through Metro's hazard assessments.[3]
F. Identify safety risk mitigations that may be ineffective, inappropriate or were not implemented as intended.[3]
G. Identify safety deficiencies for the purpose of continuous improvement.[3]

1.5.5.8 SMS Liaison Forum

The SMS Liaisons will coordinate and integrate SMS initiatives across all divisions, acting as a bridge between operational workgroups, SSQA, and management.

This forum is responsible for:

A. Relaying key information and promoting SMS initiatives within their divisions
B. Actively participate in meetings and discussions
C. Continuously seek ways to improve safety processes
D. Track the progress of SMS initiatives
E. Report updates during meetings and ensure improvements are effectively implemented within their divisions.

Meeting participants include divisional SMS Liaisons and the SSQA assigned facilitator.

[3] These include any instances where MTD did not meet an annual safety risk reduction performance target

2 Section II: SRM

2.1 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, environmental or operational changes are made.

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:

A. Identification and analysis of a hazard
B. Evaluation of the levels of risk introduced by the hazard
C. Resolution or reduction of risks to an acceptable risk level through mitigation(s)

SRM 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. SRM defines the level of risk that is considered acceptable to the agency; hazards that present risk that exceeds acceptable levels (the most serious hazards) must be mitigated to an acceptable level. SRM describes the methods of controlling hazards to mitigate a hazard to an acceptable level. Finally, SRM describes the processes for tracking hazards (once the hazards have been mitigated and/or accepted) to ensure that any mitigation 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.

2.1.1 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.

MTD uses several internal and external methods for MTD employees, contractors, and the public to report hazardous conditions, either real or potential. They include:

A. Employee safety committees
B. Direct employee hazard reporting in the SSaM system
C. Operator Service and Facilities Reports (OSFR)
D. Safety analysis (conducted by MTD Safety)
E. Testing, inspection, and audits
F. Safety rules compliance monitoring
G. Safety event (accidents, incidents, and near misses) investigations
H. Customer reports
I. Washington State Department of Labor and Industries (L&I), Division of Occupational Safety and Health (DOSH) directives, narratives, reports, and hazard alerts
J. State Safety Oversight Agency (SSOA), FTA, and National Transportation Safety Board (NTSB) directives, advisories, bulletins, reports, etc.

2.1.2 Hazard Analysis

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

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

I. SSC activities

2.2 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 interacting with the exposed hazardous condition need to be defined. 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.

A semi-quantitative risk model will be used to perform risk assessments within the agency. Data from MTD or other sources should be used (accident statistics, failure data, error data, etc.) to determine the safety risk. When data is not available, expertise and subject matter expert (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 through a disciplined analysis.

2.2.1 Likelihood

The likelihood of a hazard occurring over a system's expected life can be expressed in terms of time, events, population, or activity. It may be assessed using qualitative or quantitative methods.

Qualitative analysis is a subjective, less resource-intensive method that relies on expert judgment and historical data. It is best for simple systems with limited interdependence.

Quantitative analysis is more objective, data-driven, and suitable for complex systems. It requires greater technical expertise and more time.

Likelihood assessments should reflect the actual fleet size or system configuration and estimate human error rates based on task complexity, human-machine interaction, staff proficiency, and historical data.

Once likelihood levels are assigned to each hazard consequence, they are used to calculate the overall safety risk.

Table 2.1 Likelihood of a consequence

Likelihood Levels				
Description Level	**Specific Individual Item**	**Fleet of Inventory Mean Time Between Events (MTBE)**	**Specific Individual Item (with Rate)**	**Likelihood Score**
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**

2.2.2 Severity

Consequence severity is defined as the qualitative measure of the consequences 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 2.2 Severity of a consequence

Severity Levels				
Description	**Severity Categories**			**Severity Score**
	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

2.2.3 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 2.3 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

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

Table 2.4 Safety Risk Matrix required action based off initial 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	General Manager	Immediately mitigate to Serious Level prior to starting operation	Stop the Operation	90-day monitoring plan required for mitigations	Accountable Executive needs to be briefed and SRMWG 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 for mitigations	Accountable Executive needs to be briefed and SRMWG 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 plan for mitigations recommended	SRMWG 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 plan for mitigations not required	Different facilitator reviews and closes out report
0	Eliminated	Acceptable	Not Applicable (N/A)	N/A	N/A	N/A	N/A

2.2.3.1 Unacceptable Risk Levels

2.2.3.1.1 High Risk Level

Consequences of a hazard with a risk score above 300 are High Risk level and are unacceptable in the operation. If High Risk hazards are identified, the operation associated with the risk 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.

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 indicate 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 Director/CSO or designee, as well as undergo review and closure from the SRMWG. High-Risk levels are represented by the color red.

2.2.3.1.2 Serious Risk Level

Consequences of a hazard 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.

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 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 Director/CSO, or designee, as well as undergo review and closure from the SRMWG. Serious Risk levels are represented by the color orange.

2.2.3.2 Acceptable Risk Levels

2.2.3.2.1 Medium Risk Level

Consequences of a hazard 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 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 SRMWGs will review, sign off and close out the report. Medium Risk levels are represented by the color yellow.

2.2.3.2.2 Low Risk Level

Consequences of a hazard 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.

Closing out a hazard assessment 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.

2.2.3.2.3 Eliminated Risk

Consequences of a hazard which have been mitigated may be classified as Eliminated, provided that the mitigating measures entirely remove the possibility of the consequence occurring from the hazardous condition. 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.

2.2.4 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 FTA, American Public Transportation Association (APTA), 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 (CF) 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 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:

2.2.4.1.1 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 CF multiplier would be 0.

2.2.4.1.2 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 CF multiplier 0.1-0.2.

2.2.4.1.3 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 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 CF multiplier of 0.3-0.5.

2.2.4.1.4 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 CF multiplier is 0.7-0.8.

2.2.4.1.5 Personal Protective Equipment

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 CF multiplier of 0.9-0.95.

Table 2.5 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
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

2.2.5 Mitigation Strategies

2.2.5.1 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.

2.2.5.2 Layering Mitigations

The risk matrix and the mitigated risk assessment will be applied to the predicted residual risk and 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.

A. Predicted residual risk will have mitigated risk assessments – these will be determined using the CF 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.
B. Predicted substitute risk will use the risk matrix to complete the mitigated risk assessment and will also need to be assessed to acceptable levels.
C. 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.
D. Hazards that have predicted residual or substitute risk that are assessed at satisfactory levels will need risk acceptance on the hazard assessment prior to implementation of the mitigation plan.

2.2.6 Hazard Tracking

A hazard assessment will be initiated for reactive and proactive SRM triggers. Resolution of all identified hazards will be monitored by SSQA. The hazard log or risk register will compile all identified hazards and mitigations.

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

A. SRM trigger
B. Date hazard identified Source of identification System description
C. Policy/procedures potentially affected by hazard Environment or facility potentially affected by hazard Service or resources potentially affected by hazard
D. Equipment potentially affected by hazard
E. SRM panel participation log
F. Hazard identification with hazard classification
G. Initial safety risk level (severity/likelihood)
H. Mitigation CAPs (elimination or control)
I. Responsible party for each proposed action
J. Estimated dates of completion
K. Predicted residual and substitute risk identified Mitigation safety risk level (severity/likelihood)
L. Follow up activity (monitor effectiveness, unexpected hazards)
M. Hazard assessment signoff
N. Status (open or closed)

2.2.6.1 Hazard Classification System

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

A. Organizational
    a. Resourcing
    b. Procedural
    c. Training
    d. Supervisory
B. Technical
    a. Operational
    b. Maintenance
    c. Design
    d. Equipment
C. Environmental
    a. Weather
    b. Natural

2.2.7 Mitigation CAPs

Mitigation CAPs 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 CAPs will be accessed through the CAP Log in SSaM.

2.2.8 Risk Ownership

Once the hazard assessment is completed, and the findings and mitigations are documented, the results need to be delivered to the appropriate staff for risk acknowledgment and ownership of any residual risk. When an individual takes ownership of 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. 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 needs to be acknowledged, and risk owned by the General Manager.

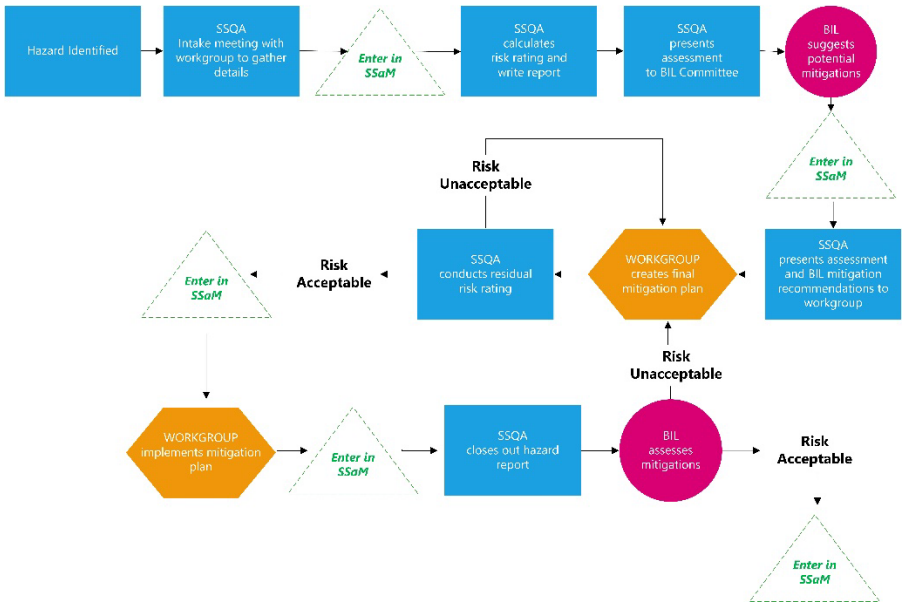
When there is a Serious Risk level, the hazard assessment report needs to be signed off by, and ownership will belong to, the Director level or higher in the area of risk. For a Medium level risk, the Section Manager owns the risk and signs off. Finally, when there is an initial risk assessment of Low, 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.

2.2.9 Monitoring

Hazard monitoring plans will be developed in the hazard assessment. Once the type of monitoring is documented (e.g., monitoring employee reports, adding audit steps, performing management observations), monitoring will be conducted through Safety Assurance. Monitoring of the mitigation implementation may also be conducted depending on the risk level.

The following chart illustrates the SRM workflow.

Illustration 2.1 SRM Monitoring



2.2.10 Responsibilities

2.2.10.1 Facilitator

Depending on the issue or change under consideration, a hazard assessment may be facilitated by an individual or team that is qualified through MTD SRM training. 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. They are responsible for coordinating the SRM panel, documenting the assessment and guiding the assessment through the SRM Workflow.

2.2.10.2 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 without identified hazards. The Risk Owner for all “no hazard” hazard assessment will be a superintendent (or equivalent) or higher in the area of the change. Depending on the hazard and risk level, the hazard assessment signoff authority will be responsible for reviewing the report and all its elements prior to implementation.

By signing off on the hazard assessment the risk owner is confirming the following are understood and accepted:

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

2.2.10.2.1 Risk Owner Accountabilities

Risk Owners are accountable for the following:

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

2.2.10.3 *S*RMWG

Hazard assessments will be discussed and reviewed on a periodic basis by the SRMWG. These work groups will be made up of Transportation Safety Administrators (TSA), Chiefs and Superintendents (or equivalent) for specific work locations. Representation from contract owners will be encouraged but not required.

Ideally, the review process should occur after a hazard assessment 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 assessment close out.

2.2.10.4 SMS Liaison

The SMS Liaisons are the SMS advocates for their respective divisions. They are responsible for ensuring all hazard assessments assigned to their divisions are signed off and closed out. They will participate in the hazard assessment and/or find the proper individuals to participate.

3 Section III: Safety Assurance

3.1 Safety Data Acquisition and Analysis

MTD divisions are responsible to identify, collect, and analyze data on their safety critical functions in order to ensure:

A. Performance targets are established 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.
B. System-wide performance measures are being met through data monitoring.
C. Distribution and sharing of safety data and analyses to identify trends, hazards, and safety performance.
D. Risk-based mitigations or strategies reduce the likelihood and severity of consequences.

3.1.1 Sources of Data

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

A. Employee reporting systems, including self-reporting
B. Field reports and observations from supervisors and managers Preventive maintenance and other scheduled inspections Drills, exercises, and after-action reviews from events
C. Internal safety and security audits
D. Customer and public comments, complaints, and recommendations Employee, passenger, and public reports of injury
E. Planning and scheduling data collection Key performance indicators
F. Incident reports and investigations (hazards, collisions, derailments, security, etc.)
G. NTD reporting
H. Safety activities (job briefings, awareness campaigns, etc.)
I. Safety and security certification, system modification, and procurement activities
J. Drug and alcohol compliance programs
K. LMS
L. Rules and procedures compliance activities
M. Safety and Security committee activities and reports

Metro's goal is to continuously improve assurance activities. Divisions review and discuss data and safety performance at MBRs to ensure that trends and deficiencies are identified and appropriately addressed.

3.1.2 Monitoring Safety Performance Measures

Safety Performance Measures, identified in Section I (Policy) of this document, are monitored through department and division level MBRs. Safety Performance Measures are established annually by SMEs and the BIL committee and formally adopted in the PTASP.

The Director/CSO or designee reviews safety data regularly with MTD leadership, including the Accountable Executive, for awareness and to ensure safety risks are mitigated.

3.1.3 Monitoring of Internal Safety Reviews

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 safety or security finding of non-compliance must develop a corrective action and implement it within the designated timeline. The Director/CSO or designee reviews overdue Internal Safety Review mitigations regularly with MTD leadership, including the Accountable Executive, for awareness and to ensure mitigations are resourced and progress made.

3.1.4 Public Health

Metro Transit considers mitigation strategies related to exposure to infectious diseases through its SRM process. Mitigations will be determined consistent with guidance and best practices identified by the Centers for Disease Control (CDC) and Prevention and Federal/State health authorities, as applicable.

3.2 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 SRM process to analyze the proper mitigations needed to address risk associated with the change.

Each department and functional area must, both proactively and through its safety assurance activities, ensure it identifies all change (such as route changes, procedures,

infectious disease prevention, etc.), evaluates it appropriately, and implements mitigations so that risk is managed to acceptable levels during and after the change.

The FTA has identified activities to ensure that change is properly recognized, including:

A. Monitoring service delivery activities (including field observations)
B. Monitoring operational and maintenance data
C. Assessing external information
D. Assessing the employee safety reporting program
E. Conducting evaluations of the SMS
F. Conducting safety audits, studies, reviews, and inspections
G. Conducting safety surveys
H. Conducting safety investigations

The following are SRM activities.

3.2.1 Safety and Security Certification

SSC is an FTA-defined process to verify that safety and security requirements are developed for major construction, rehabilitation, or vehicle procurement projects. Certifiable elements are determined through hazard analyses and/or threat and vulnerability assessments. These are elements that may 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 accomplished through a collaborative effort between the Director/CSO or designee and the applicable project team, which may include representatives from other MTD departments, as well as project contractors/consultants.

3.2.2 System Modification

Physical changes to the system that are not governed by the SSC 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 SSC process.

3.2.3 Configuration Management

Configuration management encompasses the administrative activities concerned with the creation, operation, maintenance, documentation, controlled change, and quality systems of the agency. Configuration Management ensures that the documentation of MTD property, vehicle, equipment, and systems design elements, as well as systemwide documentation, is accurate and current.

3.2.4 Procurement

New procurements, changes to existing materials, vendors, and contracts; or changes to the procurement process itself, follows the same steps as other changes.

3.3 Continuous Improvement

Continuous improvement involves regularly evaluating safety performance, identifying areas for enhancement, and implementing corrective actions to reduce risk. It ensures that lessons learned from incidents, audits, and performance trends drive proactive changes that strengthen the overall safety culture.

4 Section IV: Safety Promotion

Safety Promotion is focused on building a strong safety culture through communication, training and engagement. Its purpose is to ensure all employees understand their safety responsibilities, are trained to perform their duties safely, and feel encouraged to communicate openly about safety.

4.1 Safety Communication

Safety communication ensures that critical safety information such as policies, procedures, lessons learned, and emerging risks, is effectively shared across all levels of the organization. It fosters a transparent, informed workforce and supports proactive safety behaviors through timely, clear, and accessible messaging.

4.1.1 Communication Avenues

MTD uses multiple communication channels to ensure employees are aware of safety actions, procedural changes and the reasons behind them. Communication methods include but are not limited to:

A. Data visualization
B. Policies
C. Bulletins
D. Advisories and safety directives
E. Safety emphasis campaigns
F. Employee Safety and Security Committees

4.2 Competencies and Training

MTD's training requirements ensure that all employees have the knowledge and skills to perform their duties safely and understand their role relative to SMS. Training may include, but is not limited to:

A. Safety training - respirators, blood-borne pathogens, de-escalation, fall protection, first aid/CPR, etc.
B. Initial and refresher training – position-specific instruction covering on-the-job, technical and administrative requirements, as well as any required certification and qualifications (internal and external)
C. Vendor and contractor training – programs approved and controlled by MTD, as well as all required contractor training such as roadway worker protection
D. SMS-related training - Safety concern identification and reporting, SMS for people leaders, etc.

E. Ongoing competency training for safety and security staff - PTSCTP for designated personnel (see Section 4.2.1), certified safety professional, certified industrial hygienist, etc.
F. Pathways program – classroom instruction and on-the-job training through the Transit Safety and Security Academy for front line workers that are interested in pursuing careers in safety, security, emergency management, safety auditing, etc.

4.2.1 PTSCTP

SSQA staff participate in the PTSCTP. As the contract operator of Link Light Rail and Seattle Streetcar, SSQA staff who are directly responsible for safety oversight of a rail fixed guideway public transportation system are reported as PTSCTP Rail designed personnel. Staff who are directly responsible for safety oversight of bus transit are reported as PTSCTP Bus designed personnel.

PTSCTP designated personnel enroll in an Individual Training Plan (ITP) and complete courses required under the PTSCTP curriculum within three (3) years of their initial enrollment. This is accomplished by emailing a request to ftasafetypromotion@dot.gov and include the agency the individual works for, job title/role within the agency, contact phone number, and ITP Bus and/or Rail training track.

SSQA staff that are PTSCTP designated include the following positions:

A. Director/CSO
B. Deputy Director
C. Transit Safety Manager
D. Transit Security Manager
E. Rail Safety Strategic Planning Manager
F. Superintendent, Drug & Alcohol
G. Superintendent, Emergency Management
H. Superintendent, Employee Health & Safety
I. Superintendent, Operations Safety
J. Superintendent, Physical Security
K. Superintendent, SSQA Services
L. TSA, Employee Health & Safety
M. TSA, Operations Safety
N. SMS Manager
O. Training Manager

4.2.1.1 PTSCTP Courses

The following courses are provided through the TSI and are required for Bus and Rail PTSCTP curriculum:

A. SMS Awareness
B. SMS Safety Assurance
C. SMS Principles for Transit
D. Transit Rail System Safety
E. Transit Rail Incident Investigation
F. Fundamentals of Bus Collision Investigation
G. Transit Bus System Safety
H. Effectively Managing Transit Emergencies

4.2.1.2 PTSCTP Recertification

Upon completion of the PTSCTP curriculum, designated personnel must complete recertification every two (2) years. Recertification requires successful completion of training specified by the FTA or designated by the CSO that is not less than 1 hour in length. This training must include at least one hour of safety oversight training.

Authorized recertification training courses include but are not limited to the following. Courses not included below must be submitted and approved by the Director/CSO.

A. Advanced Principles of Track Maintenance (Railway Education Bureau)
B. Advanced Problems in Bus Collision Investigation (TSI)
C. Advanced Rail Incident Investigation (TSI)
D. Basic Principles of Track Maintenance (Railway Education Bureau)
E. Curbing Transit Employee Distracted Driving (TSI)
F. Electrical Safety (Railway Education Bureau)
G. Emergency Response Plan Workshop (TSI)
H. Fatigue & Sleep Apnea Awareness (TSI)
I. Occupational Safety and Health Administration (OSHA) 30-hr
J. Reasonable Suspicion and Post-Accident Testing Determination Seminar-A (TSI)
K. Safety, Security, and Emergency Management Considerations for FTA Capital Projects (TSI)
L. Substance Abuse Management and Program Compliance