
ASSET MANAGEMENT FOR CORPORATE FACILITIES AND EQUIPMENT

Effective Date: June 28, 2019

Approved By: MVRD Board

Policy No. FN-030

PURPOSE

To establish asset management principles and a framework that balances asset performance, risk and the cost to operate and maintain cross departmental capital assets not covered under a separate *Asset Management Policy*.

POLICY

Metro Vancouver operates and maintains structures and equipment which are used by multiple departments in providing services to the region.

This Policy outlines Metro Vancouver's commitment and methodology to manage these facilities and equipment in a manner that minimizes asset failure risks and impact to staff and tenants and optimizes the life cycle value of assets to consistently meet asset performance targets and enable integrated, evidence-based decision making to continuously provide quality services.

ASSET MANAGEMENT PRINCIPLES

The methodology for managing capital assets supported by this Policy is guided by the following principles:

- a) **Integrated:** a comprehensive approach that examines the combined implications of managing all aspects of the asset life cycle. This includes interdependencies of assets or asset systems.
- b) **Risk-based:** manage asset risk relative to defined performance targets and asset criticality and focus expenditures and priorities based on risk and associated cost and benefit.
- c) **Sustainable:** a long-term approach to estimating asset investment and activities, which will better enable assets to meet future challenges, including changing demographics, legislative requirements and technological, financial and environmental factors.
- d) **Fiscally responsible:** ensure activities and decisions are aimed at reducing the life cycle cost of asset ownership, while achieving defined asset performance targets.
- e) **Systematic:** a formal, consistent, repeatable and methodical approach to the management of assets.
- f) **Innovative:** continuous improvement in Asset Management by examining new tools, technologies, practices and solutions.

ASSET CLASSES

This Policy is applicable to the management of assets which are used by multiple departments and other departmental assets not covered under a separate *Asset Management Policy*. Asset classes include:

1. Head Office Building and supporting systems
2. Lake City Operations Centre and supporting systems
3. Corporate Fleet and Equipment
4. IT Equipment
5. Air Quality Monitoring Equipment
6. Air Quality Monitoring Station Buildings and supporting systems
7. Other corporate assets

ASSET DATA AND INFORMATION

To measure performance of assets supported by this Policy, we will maintain an asset and equipment registry with comprehensive and accurate asset data and information. Data will be organized in a structured manner so that it can be stored, analyzed and reported at an adequate level for different business needs. Integrity of the data shall be constantly monitored, updated and maintained to provide accurate asset information.

The Asset Registry will include at a minimum, the following:

- Asset and Major Equipment groupings (e.g. major building elements/systems: boiler, elevator, curtain wall, Air Quality Trailers, etc.)
- Asset and Major Equipment details (e.g. serial number, vehicle identification number description, grouping, expected service life)
- Asset and Major Equipment criticality and risk information
- Financial information (e.g. estimated replacement cost)
- Condition assessment (state of good repair) and/or estimated remaining service life

ASSET PERFORMANCE AND LIKELIHOOD OF FAILURE

Departments responsible for assets covered by this Policy will manage and renew each asset element in accordance with clearly defined asset performance metrics and targets.

Performance Criteria	Performance Criteria Definition	Key Performance Indicator (KPI)	Performance Target
Condition	Condition of asset/component	Asset Condition Assessment	The performance target for the Equipment Condition Assessment is all assets and critical components to be ranked as 'good'
Reliability	Asset performing below targeted performance	Asset performance vs Designed Performance	Frequency of work requests generated to maintain asset.

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Performance Criteria	Performance Criteria Definition	Key Performance Indicator (KPI)	Performance Target
Obsolescence	Asset is obsolete; technology is no longer supported and cannot be maintained or replaced	Asset with obsolete technology	Obsolete assets replaced when they are no longer functional
Functionality	Current functionality of the asset	Asset functionality vs as-designed functionality	Asset functioning as designed

Departments responsible for assets covered by this Policy will use a condition grading system in accordance with the table below. Condition information will be stored in an Equipment Registry based on system groupings or individual components to capture and maintain the condition data. Staff will develop equipment specific descriptions based on the table below to enable assignment of condition grades for applicable assets and asset subcomponents.

Condition Score	Description
1 Good	In good state of repair, normal operations.
2 Fair	Defects are apparent service/replacement is planned.
3 Poor	Failure likely, service/replacement is required.

ASSET CRITICALITY AND CONSEQUENCE OF FAILURE

Asset criticality is a measure of the asset's relative consequence of failure. It is considered in planning asset replacement, rehabilitation, operations and maintenance strategies as well as alternative risk mitigation strategies (e.g. emergency preparedness and response planning). High criticality asset elements (i.e. parkades, elevators, construction and other heavy equipment) have the potential for significant impact on services. Protection from failure of critical assets is managed through a process of redundancy and backups. Failure of low criticality assets (i.e. individual light fixtures, air monitoring stations, pool cars, etc.) will have low impact on services. However, if multiple low critical assets fail, and redundancy is lost they can become critical (e.g. all of the fan coils on a floor fail). As there is less tolerance for asset failure of high criticality assets, they will be monitored more frequently and have higher priority for asset inspection and improvement work than medium or low criticality assets.

The criteria outlined below will be considered and ranked when determining asset criticality (consequence of failure):

Consequence of Failure Criteria (Criticality)	
Health & Safety	Life safety
Regulatory Requirement	Building code compliance, equipment/vehicle standards (vehicle insurability)
Occupancy/Service Impact	Impact to staff , operations, visitors and tenants, interruption of air monitoring service
Asset Life Cycle	Reduced asset life expectancy

ASSET RISK AND LIFECYCLE MANAGEMENT STRATEGIES

Managing risks associated to the assets is essential for maintaining expected service levels. Risk is the combination of likelihood and consequence of a failure event occurring.

Key performance indicators and asset performance targets will be monitored to identify the likelihood of failure of an asset. When asset data and information indicates that an asset is failing to meet performance target(s), staff will identify the relative consequence if the asset fails (asset criticality), assess the risk and identify options to address the risk. Risk mitigation options could include asset replacement, rehabilitation, modified operations and maintenance strategies.

In evaluating different options, economic, social and environmental benefits will be considered for each option. Total asset life cycle costs including capital investment, expenditures related to operations and maintenance of the asset costs will be considered.

ASSET MANAGEMENT PLANS

Departments responsible for assets covered by this Policy will have an *Asset Management Plan* to summarize asset performance data and information, including a summary of performance risks. The *Asset Management Plan* will be organized by asset class and will outline the risk mitigation strategies, including capital investments, operating and maintenance strategies.

The *Asset Management Plan* will be updated on a regular schedule at a minimum of every 5 years.

CONTINUOUS IMPROVEMENT

All Departments affected by this Policy will examine, monitor, identify and address asset management improvement opportunities to enhance asset management tools, technologies and business practices.