



# Asset Management Update

## C/CAG Stormwater Committee Meeting

January 16, 2025





# AGENDA

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1. Asset Management (AM) Requirements
  2. AM Plan Template Purpose
  3. Accomplishments
  4. Review of AM Plan Template
  5. Next Steps
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# Provision C.21 Requirements

Develop and implement plan to ensure the satisfactory condition of all “hard assets”\*

*Include:*

- Description of asset categories
- Inventory of existing hard assets
- O&M, Rehab, & Replace Plan
- Reporting strategy

*\*Hard assets are publicly-owned structural controls that protect water quality (primarily stormwater treatment measures and trash control measures)*

# Asset Management Plan

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Serve as a long-range O&M planning document that provides a rational framework for:

- Identifying and categorizing assets;
- Characterizing the conditions of assets;
- Prioritizing O&M activities based on consideration of risk;
- Managing and analyzing asset data; and
- Determining current and future costs.

Purpose

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# Accomplishments

- ❖ Established and met with Asset Management Work Group
- ❖ Developed draft Asset Management Plan Template
- ❖ Received and discussed input on draft template
- ❖ Completed final draft template

# Review of Asset Management Plan Template

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1.0 Executive Summary

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2.0 Terminology and Definitions

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3.0 Introduction

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4.0 Stormwater Quality Asset Inventory

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5.0 Asset Management O&M Plan

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6.0 Stormwater Quality Asset Data Management

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7.0 Current and Future Costs and Funding Sources

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8.0 Asset Management Reporting Strategy

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9.0 References

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## **3.0**

# **Introduction**

Introduces the plan and provides:

- Agency Description
  - MRP Requirements Overview
  - Asset Management Plan Purpose
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# 4.0 Stormwater Quality Asset Inventory

**Table 1. Asset Hierarchy Definitions (excerpt)**

Control Type	Asset Category	Asset Class
<b>LID/GI</b>	Biotreatment Systems	<ul style="list-style-type: none"> <li>- Bioretention with underdrain (unlined)</li> <li>- Planter box/lined bioretention</li> <li>- Tree well biofilter</li> <li>- Silva cell</li> <li>- Green Roof</li> </ul>
	Infiltration	<ul style="list-style-type: none"> <li>- Infiltration trench</li> <li>- Subsurface infiltration system</li> <li>- Pervious pavement ≥ 3,000 sq ft</li> </ul>
	Capture and use systems	<ul style="list-style-type: none"> <li>- Above-ground cisterns</li> <li>- Below-ground cisterns</li> </ul>
<b>Non-LID Treatment Systems</b>	High flow rate media systems	<ul style="list-style-type: none"> <li>- Vault-based media filter</li> <li>- Other non-LID treatment measure</li> </ul>
	Others	<ul style="list-style-type: none"> <li>- Extended detention basin</li> <li>- Vegetated swale (filter strip)</li> <li>- Wetlands</li> <li>- Hydromodification vault</li> <li>- Hydromodification basin</li> <li>- Water Quality Pond</li> </ul>
<b>Trash Controls</b>	Full Trash Capture systems/devices	<ul style="list-style-type: none"> <li>- Hydrodynamic separator</li> <li>- GSRD - Gross solids removal device</li> <li>- Netting devices</li> <li>- CPS - Connector pipe screen</li> <li>- Inlet filter</li> </ul>
	Partial Trash Capture Devices	<ul style="list-style-type: none"> <li>- ARS - Auto retractable screen</li> </ul>



# 5.0 Asset Management O&M Plan



# 5.1 Asset Condition Assessments

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1  
Excellent

- New asset or no noticeable issues.
- No action required.

2  
Good

- Minor noticeable issues and currently adequate.
- Observe for future maintenance need.

3  
Moderate

- Noticeable issues that may impact functionality.
- Prioritize inspection and maintenance.

4  
Poor

- Functionality is inadequate and intervention is needed.
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## 5.2 Risk Evaluation

- **Likelihood of failure\*** - measure of the probability that an asset will fail due to certain considerations such as asset condition, function, location, or age.
- **Consequence of failure\*** - measure of the magnitude of impact (e.g., on public safety, water quality) an asset will have if it fails.

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*\*Required per Provision C.21.b.i.(3)(iii)*



## 5.3 O&M Strategy

- **Prioritization and Scheduling**
  - Frequencies will need to consider:
    - Asset Condition
    - Risk Assessment
    - O&M Responsibility
    - Geographical Locations
- **Adaptive Management**
  - Periodically reassess and update as-needed based on changing conditions



# 6.0 Stormwater Quality Asset Data Management

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## Fixed data:

- Asset Unique Identifier
- Asset Category
- Asset Type
- Address
- Locations
- Tributary drainage area
- Owned by (Public only)
- Maintained by (Public only; Department, contractor, etc.)
- Date construction completed or installed



## Data changing over time:

- Date of last maintenance
  - Maintenance activities performed
  - Inspection date
  - Condition
  - Likelihood of failure
  - Next maintenance type (e.g. Routine)
  - Next maintenance date
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# 7.0 Current / Future Costs & Funding Sources

- Consider costs related to:
  - Prioritizing and scheduling O&M activities;
  - Evaluating the current condition;
  - Carrying out the routine maintenance; and
  - Conducting reevaluation of risk and prioritization
- Report annually with Provision C.20



# 8.0 Asset Management Reporting Strategy

Category or type of water quality control	Control Type, Asset Category
Relevant design information	Asset Class (e.g. bioretention with underdrain)
Location	Lat/Long, polygon, address, etc.
Tributary drainage area	Size of area, description? (e.g. drains north side of street)
Condition based on periodic inspections	Score or description
Operation and maintenance need	Routine maintenance, rehabilitation, replacement, etc.
Cost	Evaluation or forecast in plan and C.20 reporting



# Next Steps

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<b>Due Date</b>	<b>Step</b>	<b>Who</b>
January 16, 2025	Present Final Asset Management Plan Template	Stormwater Committee
January – June 2025	Development of Asset Management Plan based on Template	Individual Permittees
June 30, 2025	Complete Asset Management Plan	Individual Permittees
July 1, 2025	Begin implementation of Asset Management Plan	Individual Permittees
September 30, 2025	Submit Asset Management Plan and Asset Inventory	Individual Permittees
September 30, 2026	Report on implementation with September 2026 Annual Report	Individual Permittees

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# Questions?

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