



SAN MATEO COUNTYWIDE  
**Water Pollution  
Prevention Program**

Clean Water. **Healthy Community.**

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# **ASSET CONDITION ASSESSMENT GUIDANCE**

SAN MATEO COUNTYWIDE WATER  
POLLUTION PREVENTION PROGRAM

**JULY 2026**

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# Asset Management Background

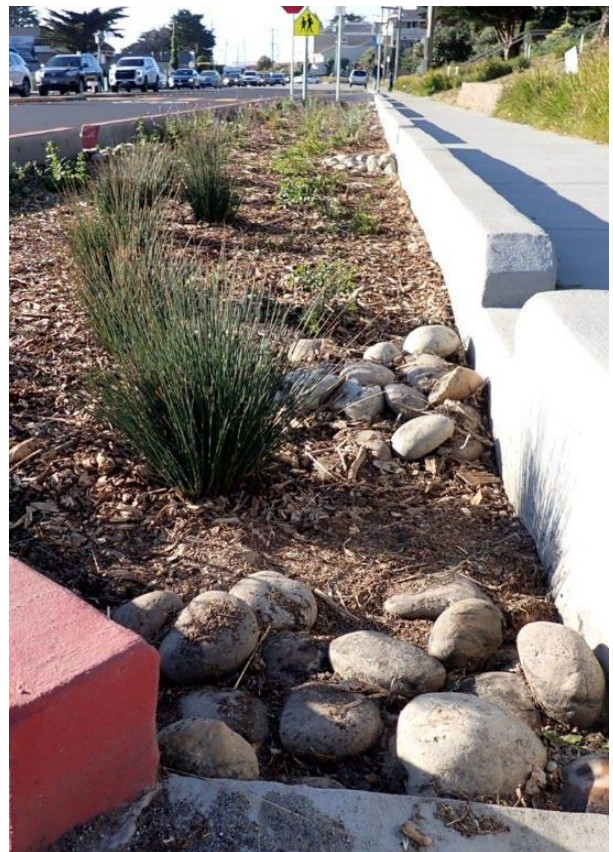
## OVERVIEW

## What Is Asset Management?

**“Asset management is maintaining a desired level of service for what you want your assets to provide at the lowest life cycle cost<sup>1</sup>.”** It has been widely used across infrastructure disciplines for decades, including sanitary sewers, potable water conveyance, and storm drain systems. While the application of asset management to stormwater quality assets is relatively new, many municipalities are already performing elements of asset management without necessarily framing it in that way.

An asset management program provides a structured framework to organize existing activities, establish consistent data collection processes, and apply analyses that support better decision making. The goal is to deliver the right levels of service at the lowest lifecycle cost — directing resources where they are most needed rather than applying a uniform approach that may not reflect actual conditions. Given that revenue sources for stormwater quality programs are limited for many agencies, this kind of targeted efficiency is especially valuable.

Asset management can be applied to both long-term asset replacement planning (i.e., capital improvement plans) as well as near-term ongoing inspections and maintenance. The latter activities are largely the focus for stormwater quality asset management as they inform necessary maintenance activities for assets which typically are not yet needing replacement.



<sup>1</sup> Asset Management: A Best Practices Guide. EPA. 2008. <https://www.epa.gov/sites/default/files/2015-04/documents/epa816f08014.pdf>

# Asset Management Plan

Asset Management Plans are the foundational documents written to serve as a framework for implementing an asset management program. They identify and categorize assets, establish an approach to characterizing asset conditions, outline how operation and maintenance (O&M) activities will be prioritized, and describe how asset data will be managed and analyzed over time. They also include current and projected cost evaluations, which the Municipal Regional Permit (MRP) requires to be updated as the program is implemented so that funding needs can be compared against available resources.

# Benefits of Asset Management

The benefits of asset management begin with collecting the right data and allowing that data to drive decisions about where to direct resources. Over time, this approach reduces lifecycle costs and improves financial planning. For example, understanding current spending alongside actual asset conditions allows an agency to assess whether its current investment level is appropriate and to project future costs based on the work that will realistically be needed.

*Asset management enables agencies to direct resources where they are most needed — rather than applying a uniform approach that may cost more and accomplish less.*

## Asset management fits into every phase of a project’s lifecycle:

| PLANNING                                                                                                        | DESIGN                                                                                                                         | CONSTRUCTION                                                                                                               | OPERATIONS                                                                                          |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Informs financial commitments by connecting cost-per-square-foot maintenance data with anticipated asset sizes. | Lessons from assessments and O&M activities can inform the design process for better performing and easier to maintain assets. | As assets are newly installed, the baseline data associated with them should be added to inventories for ongoing tracking. | Utilizes asset management for more efficient, targeted maintenance practices based on program data. |

## REGULATORY CONTEXT

# MRP Requirements

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Provision C.21 of the MRP required each permittee to develop and implement an Asset Management Plan to ensure the satisfactory condition of all **hard assets** constructed to comply with MRP provisions, including C.3, C.10, and C.12. The MRP defines hard assets, in the stormwater context, as publicly-owned structural controls that serve a water quality function. Examples provided in the MRP to illustrate this concept include bioretention areas, pervious pavement systems, and full trash capture devices.

Permittees were required to develop Asset Management Plans by **June 30, 2025**, and begin implementing them by **July 1, 2025**. At a minimum, the Plan was required to include:

- A description of asset categories.
- An inventory of existing assets, including all LID/GI systems and trash capture devices.
- An Operation, Maintenance, Rehabilitation, and Replacement Plan (O&M Plan) covering prioritization and scheduling, condition evaluation, and cost forecasting through the end of the current permit term.
- A strategy for annual reporting to the Regional Water Quality Control Board.

## GUIDANCE

# Document Overview

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Provision C.21 applies to LID/GSI, Non-LID, and Trash Control assets. However, this document focuses primarily on LID/GSI and Non-LID assets for guidance on conducting condition assessments. The following sections include an overview of condition assessments, a discussion of the parameters to evaluate and an approach to scoring, how to prepare for and conduct an assessment, data collection, and post-assessment considerations. This document also includes an appendix with guidance on condition assessment scoring for each parameter.

## PURPOSE &amp; APPROACH

## What Are Condition Assessments?

Condition assessments are visual inspections of publicly-owned stormwater quality assets. Unlike traditional compliance inspections, which focus on identifying specific issues requiring corrective action, condition assessments are intended to provide a broader picture of overall asset health; capturing both positive and negative observations to generate an aggregated condition score.

The primary purpose of conducting condition assessments is to generate a score that reflects the overall state of each asset. These scores can then be used to identify trends over time which can inform maintenance frequencies and resource allocation. If an asset consistently scores well, the current maintenance regime may be sufficient or may be reduced. Whereas, if it scores poorly, additional attention or budget reallocation may be warranted.

**Condition Assessment Purposes:**

1. Generate a condition score based on aggregated observations — both good and bad — to reflect the overall state of each asset.
2. Identify trends and set frequencies. Consistently poor-scoring assets may require more frequent visits; well-maintained assets may need less attention, freeing resources for greater needs.

Condition assessments differ from the Provision C.3.h inspections with which most stormwater staff may be familiar. C.3.h inspections typically evaluate a regulated project site for compliance by identifying individual issues and the corrective actions needed to resolve them.

Condition assessments, for the purpose of asset management, focus on consistently applying results to the same asset over time so as to allow for trends to be established. Condition assessments take a higher-level view than C.3.h inspections, scoring the overall condition of each individual asset based on observable attributes (good and bad) relevant to its function and performance.

This distinction matters because condition assessments are not primarily about fixing problems in the moment; they are part of a process to build a data record that reveals how assets are performing over time and where resources are most needed.

## When to Conduct Assessments

Condition assessments can be conducted alongside existing C.3.h inspections at publicly-owned properties. Doing so can make efficient use of time already spent in the field. When pairing a condition assessment with a compliance inspection, assessors should still capture specific issues observed; the broader condition assessment scoring does not replace issue documentation for compliance inspections.

Condition assessments can also be integrated into work order processes, with properly-trained maintenance staff completing assessments as part of routine site visits.

## How Often to Conduct Assessments

Condition assessment frequencies have not been established. Currently, the MRP requires permittees to report on “*condition based on periodic inspections*”. Defining what “periodic” means is part of the asset management planning process. Much like maintenance, assessment frequencies should be set based on the need for each asset. Those that score well and appear to be in relatively stable condition would require less frequent assessments than those that score poorly or have more variable observed conditions.



## Who Should Conduct Assessments

Assessments should be conducted by staff trained in both C.3 inspections and condition assessments and who are familiar with green stormwater infrastructure, particularly bioretention systems and their components since they make up the majority of most non-trash-related publicly-owned stormwater quality asset inventories. Maintenance staff may also conduct assessments provided they have been trained on the purpose and function of green stormwater infrastructure and the condition assessment process.

## EVALUATION FRAMEWORK

## Scoring and Parameters to Evaluate Asset Condition

With each assessment, parameters associated with the type of asset can be scored using a numeric rating system. Per the SMCWPPP Asset Management Plan Template, it is recommended to use a 1–4 scoring level rubric (see Table 1). Assessors may elect to use a different scoring system as long as it provides an overall understanding of asset condition.

Table 1. Condition assessment scoring rubric

| SCORE | CONDITION | DESCRIPTION                                                                                                                                            |
|-------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Excellent | <ul style="list-style-type: none"> <li>— New asset or no noticeable issues.</li> <li>— No action required.</li> </ul>                                  |
| 2     | Good      | <ul style="list-style-type: none"> <li>— Minor noticeable issues and currently adequate.</li> <li>— Observe for future maintenance need.</li> </ul>    |
| 3     | Moderate  | <ul style="list-style-type: none"> <li>— Noticeable issues that may impact functionality.</li> <li>— Prioritize inspection and maintenance.</li> </ul> |
| 4     | Poor      | <ul style="list-style-type: none"> <li>— Functionality is inadequate and intervention is needed.</li> </ul>                                            |

During a condition assessment, each parameter will be assessed and assigned one of the scores above. To determine an overall condition score for each asset, the assessor can take one of two approaches:

- **AVERAGE:** The sum of parameter scores can be averaged and grouped to develop an overall asset condition score.
- **SUM:** The sum of parameter scores can be used to assign an overall asset condition score. This approach lends itself more to weighting scores based on level of importance. Additional groupings would need to be determined for associating totals with overall scores.

The parameters used to evaluate the condition of LID/GI and Non-LID assets are shown in the following two pages and include plant health, weeds, mulch, trash/debris, erosion/sedimentation, structure, drainage and standing water, and clogging and blockage. Only applicable parameters should be rated for each asset class, and separate score ranges will need to be applied.



### Plant Health

Evaluates the overall condition of vegetation, including density, stress, pruning, and weed presence. Scores range from fully healthy, well-spaced plants that have 90-100% coverage at maturity to more than 25% dead or distressed plants and less than 50% coverage at maturity.

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### Weeds

Evaluates the extent of unwanted, invasive, or nuisance vegetation within the bioretention system. Scores range from completely weed-free conditions to heavy infestations exceeding 25% coverage where invasive species are established and weeds have seeded and spread.

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### Mulch

Assesses mulch coverage, depth, and type throughout the system. Top scores require at least 3 inches of proper mulch with no bare soil, while poor conditions involve little to no mulch, extensive bare spots, or the wrong mulch type.

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### Trash / Debris

A straightforward assessment of litter accumulation ranging from almost completely clean to significant litter requiring immediate removal.

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### Erosion / Sedimentation

Evaluates the presence and effectiveness of cobble, splash pads, and flow dissipaters, as well as evidence of erosion, channelization, and sediment buildup. Poor conditions indicate missing or inappropriate energy dissipation, significant erosion, and sediment reaching the overflow structure.



### Structure

Inspects physical components such as irrigation, curbs, fences, check dams, and drains for damage and biotreatment soil loss. Scores range from no damage with sealed cleanout caps to major structural failure causing inadequate system performance.



### Drainage & Standing Water

Assesses soil compaction and the presence of standing water or mosquitoes. Poor ratings apply when standing water persists more than 48 hours after rain, soils are fully compacted, and mosquito larvae or water-tolerant nuisance species are present.



### Clogging & Blockage

Identifies whether inlets, outlets, and overflow structures are clear and unobstructed. Excellent and Good scores demonstrate no obstructions. Moderate scores indicate partial obstruction, and Poor reflects full blockage of one or more critical flow points.

## The Condition Assessment Process

### FOUR-STEP FRAMEWORK

## Define, Train, Collect, Calibrate

The following outlines the recommended process for establishing a program for conducting condition assessments of stormwater quality assets. This four-step framework is designed to ensure that scoring is consistent, defensible, and comparable across assessors and jurisdictions.

### FOUNDATION

## 01

### Define

Establish a clear and consistent scoring system before anyone goes into the field. Using a shared framework ensures that every assessor is working from the same guidance. The goal is to replace subjective judgment (“it looks good”) with observable, describable criteria that produce similar results regardless of who is doing the scoring.

This matters because without defined scoring, one assessor may rate an asset as excellent while another rates a similar asset as poor — not because the conditions are different, but because the scoring criteria are.

### PREPARATION

## 02

### Train

All assessors should complete training that includes classroom and field components before conducting independent condition assessments. A classroom session can be used to align the team on concepts, terminology, and scoring definitions. The field session provides hands-on practice applying the framework to real assets.

Together, these two sessions build the shared foundation that makes subsequent data collection and calibration effective.

**FIELD WORK**

# 03

## Collect

Each assessor goes into the field and scores assets independently — without coordinating or comparing scores with other team members. Assessors record a condition score based on their own qualitative visual observations.

The independence of this step is intentional. Addressing variation between assessors is what makes the calibration step productive. Comparing notes before calibration undermines that purpose.

**ALIGNMENT**

# 04

## Calibrate

The team comes together to compare scores and discuss differences.

Where assessors have scored the same asset differently, the group works through the reasoning behind each score. Assets are re-scored as needed to reflect shared, calibrated judgment.

Perfect alignment is not the goal. The value of calibration is in the conversation — it surfaces assumptions, clarifies definitions, and builds team confidence. This process has been used successfully to bring assessors reliably closer together with their scoring.



## FIELD GUIDANCE

## Conducting an Assessment

### ***Starting an Assessment: Follow the Raindrop***

When beginning any stormwater quality inspection or condition assessment, a useful practice is to “follow the raindrop” — starting by identifying where runoff enters the system and how it exits. A system that cannot receive or discharge runoff is not functioning at a basic level, regardless of its other conditions.

For this reason, it is recommended to begin by assessing inlets, outlets, and overflow structures for clogging or blockage. Unobstructed flow paths are the foundation of a functioning asset, and identifying issues here early helps frame the rest of the assessment.

It is important to walk the entirety of the asset’s length and width so that all areas can be observed effectively. While it may be possible to see most of the asset from a single location, details relevant to the assessment scoring process can be missed without a thorough tour. This is especially critical when conducting a condition assessment at an asset for the first time.



### **Cost Consideration: Tracking Time and Resources**

As assessments are conducted, it can be helpful to collect time and material information. For example, logging the time spent conducting each assessment can help inform average times based on project locations or asset sizes which can guide staffing plans. This data can also provide insight into time variations driven by system type, site complexity, accessibility, and the number of parameters evaluated

In addition, recording travel time to and from each site, along with any mobilization efforts or materials used, provides a more complete picture of the true labor and resource investment needed for condition assessments. As this information accumulates, it can be used to develop reliable average assessment durations and mobilization estimates by system type.

## FIELD DATA

## Data Collection: Going Beyond Condition Assessment Data

When conducting condition assessments, other data points can be collected in the field. If data are currently unavailable in the asset inventory, collecting them during an assessment can be more efficient than scheduling a separate trip. The types of data that may be collected include asset attributes and likelihood and consequence of failure indicators (see page 15).

### Asset Attributes Data

|                                        |                                                                                                                                        |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| ● Control Type:                        | The highest-level functional grouping of assets in the asset hierarchy.                                                                |
| ● Asset Category:                      | Groups of assets that generally function similarly.                                                                                    |
| ● Asset Class:                         | Specific classifications that group assets in the hierarchy (e.g., bioretention with underdrain).                                      |
| ● Asset Name:                          | The assigned name for the asset, ideally matching those provided on plans to maintain consistency in documentation.                    |
| ● Manufacturer:                        | For non-LID proprietary devices, manufacturer information that is not documented on plans.                                             |
| ● GPS Coordinate (Latitude/Longitude): | Geolocation of the asset marked by a point for long-term location tracking and consistent assessment records.                          |
| ● Asset Photo:                         | A representative photo serving as a reference when identifying the correct asset in the field.                                         |
| ● Site Operator:                       | The party responsible for maintenance oversight of the asset(s).                                                                       |
| ● Size:                                | The area of the asset, typically in square feet, to support cost-per-square-foot O&M cost calculations and level-of-effort estimation. |

## Measuring Size in the Field

In some cases, GSI asset sizes may not have been included on project plans or recorded elsewhere. Asset sizes can be estimated using mapping tools like GIS or Google Earth, though asset locations are not always clear from aerial imagery.

The condition assessment offers another opportunity to determine and record asset size. The most accurate approach is to measure with a measuring tape or measuring wheel. Alternatively, the asset can be estimated by measuring the length of your stride and walking the length and width of the asset, then multiplying those values together for the overall area in square feet.



## Likelihood and Consequence of Failure Data

Evaluating risk can inform prioritization strategies for efficient use of limited resources. The MRP requires that Permittees account for likelihood and consequence of failure as part of the Asset Management Plan. Likelihood of failure is the measure of the probability that an asset will fail due to certain considerations such as asset condition, function, location, or age. Consequence of failure is a measure of the magnitude of impact (e.g., on public safety, water quality, and permit compliance) an asset will have if it fails. The following is a list of potential likelihood and consequence of failure parameters that could be scored in the field during a condition assessment.

|                          |                                                                                                                                                    |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| ● Irrigation:            | Denotes whether irrigation systems are present, which can be an indicator of performance risk.                                                     |
| ● Mechanical Conveyance: | Documents the presence of pumps or other mechanical conveyance structures, which have a higher likelihood of failure than gravity-operated assets. |
| ● Pedestrian Impacts:    | Documents the presence of human impacts such as vegetation trampling and unplanned pathways through vegetated assets.                              |
| ● Animal Impacts:        | Documents the presence of impacts from animals, such as gophers, that can contribute to overall asset degradation.                                 |
| ● Public Impact:         | Specifies whether the asset is in a location that would have a consequence of failure associated with the public perception or safety.             |

## MAINTENANCE CLASSIFICATION

## Maintenance Need and Descriptions

“Maintenance need” is a required reporting field for Provision C.21 Annual Reporting. It is recommended that Permittees assign one of the overarching maintenance need descriptors in Table 2 to each asset following a condition assessment:

Table 2. “Maintenance Need” definitions

| NEED TYPE             | DESCRIPTION                                                                                                                                                              |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Routine</b>        | Ongoing inspection, maintenance, and repair activities conducted during regularly-scheduled visits, including minor repairs that do not warrant a corrective work order. |
| <b>Corrective</b>     | Remedial actions performed to restore an asset or component to a specified condition, not including rehabilitation or replacement.                                       |
| <b>Rehabilitation</b> | Restorative activities pertaining to the majority of the system, including excavation and/or construction of new components.                                             |
| <b>Replacement</b>    | Removal of all or a majority of an asset and reconstruction of the same or similar asset to fulfill its intended purpose.                                                |

## Maintenance Descriptions

While not required for scoring condition or assigning maintenance need, it is recommended that additional information regarding specific maintenance activities be recorded on an assessment form. Adding information about why a parameter scored the way it did can guide maintenance staff in addressing issues that may improve future scores.

*For example, if the Weeds parameter receives a Moderate or Poor score, the maintenance description may read: “Remove weeds throughout asset.” Descriptions should be concise but comprehensive, using periods, commas, or semicolons between each activity to make the information easier to extract for later analysis.*

## QUALITY ASSURANCE

## Post-Condition Assessment Considerations

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### Scoring QA/QC and Maintenance Actions

Once field assessments are complete, a quality review process should be conducted to ensure that scores accurately reflect observed conditions and corresponding maintenance needs. This begins by comparing each parameter's assigned score against the maintenance needs identified during inspection, then cross-referencing those scores with applicable maintenance descriptions to confirm alignment.

Assessment photos should be reviewed as a critical reference point, providing visual documentation that either supports or calls into question the scores recorded in the field. Where discrepancies are identified between scores, photos, and maintenance needs, corrections should be made to bring all elements into agreement. Once scores are finalized, appropriate maintenance activities can be formally assigned based on the confirmed condition of each asset.

### Determining Current Costs and Frequencies

Establishing a reliable baseline of current maintenance costs and frequencies is an essential step following condition assessments. This process can begin with a review of C.20 cost reporting data to understand what expenditures have already been recorded for relevant maintenance activities. Coordination with maintenance staff may be necessary to confirm how frequently each type of activity is currently being performed, as field practices may differ from documented schedules.

From those conversations and records, the hours involved and the applicable actual or average labor rates and material costs should be determined. All existing cost and frequency information gathered through this process can then be classified as "Routine," establishing a baseline against which future escalated needs can be compared.

### Estimate, Adjust, and Track Costs

With a routine cost baseline established, potential future costs can be estimated by applying multipliers that reflect the level of maintenance intervention required. Where assessment scores indicate a change in maintenance demand, frequencies should be adjusted accordingly — increased where conditions are deteriorating and reduced where interventions are not needed or

have restored performance. These frequency adjustments work in tandem with the cost multipliers to produce a complete picture of projected maintenance expenditure across the asset inventory.

As maintenance activities are carried out, actual costs and activity records should be tracked on an ongoing basis. Case study locations, selected based on documented maintenance descriptions, can serve as the foundation for developing average costs over time, allowing the cost model to be continuously refined and better calibrated to real-world conditions.

An example of how one might start estimating costs associated with different maintenance levels is provided in Table 3. For assets designated as only requiring routine maintenance, the cost would be the same as the baseline. For those assets that require corrective actions, an assumption is made that the time and effort amounts would be doubled from the baseline (i.e., Routine) to account for the additional activities. Rehabilitation activities would be significantly higher than routine and corrective actions and therefore they are assumed to be four times the amount of time and effort as the baseline activities. Replacement costs are assumed to be the original cost of the asset escalated to today's dollars, since all or most of the asset would need to be reconstructed.

*Table 3. Maintenance cost multipliers*

| MAINTENANCE TYPE      | MULTIPLIER | NOTES                                                                                |
|-----------------------|------------|--------------------------------------------------------------------------------------|
| <b>Routine</b>        | <b>1×</b>  | No change from the baseline cost.                                                    |
| <b>Corrective</b>     | <b>2×</b>  | Addresses identified deficiencies.                                                   |
| <b>Rehabilitation</b> | <b>4×</b>  | Significant restoration of function or condition.                                    |
| <b>Replacement</b>    | <b>—</b>   | Calculated separately using current installation costs escalated for future pricing. |

# Clogging and Blockage

**EXCELLENT**

Score: 1

- Unobstructed inlets, outlets, and overflow structures

**GOOD**

Score: 2

- Unobstructed inlets, outlets, and overflow structures

**MODERATE**

Score: 3

- Partial obstruction of one or more inlets, outlets, or overflows

**POOR**

Score: 4

- Full obstruction of one or more inlets, outlets, or overflows

# Erosion and Sedimentation



## EXCELLENT

Score: 1

- Presence of appropriately sized and placed clean cobble, splash pads/aprons, and/or flow dissipaters
- No channels formed around inlet(s)
- No evidence of gullies, rills, or sheet erosion
- No sediment accumulation



## GOOD

Score: 2

- Still fully functional but showing signs of potential impacts of sediment accumulation and clogging
- Minor erosion occurring but restricted to one inlet and not affecting the basin functionality
- Erosion not apparent at a majority of inlets
- Minor sediment accumulation



## MODERATE

Score: 3

- Function impacted by sediment accumulation and clogging
- Moderate erosion with some evidence of channelization and scour or loss of biotreatment soil mix
- Moderate erosion at a majority of inlets
- Moderate sediment accumulation



## POOR

Score: 4

- Function heavily impacted by sediment accumulation
- Inappropriate or missing cobble or flow dissipaters
- Significant erosion at inlets and/or loss of biotreatment soil mix
- Evidence of sediment and soil getting into overflow structure
- Evidence of “bathtub ring” of mulch

# Trash and Debris



## EXCELLENT

Score: 1

- Effectively no trash is observed
- There may be some trash in the area, but it is not obvious at first glance
- One individual could easily clean up all the trash observed while walking at a normal pace



## GOOD

Score: 2

- Predominantly free of trash, except for a few littered areas
- Some trash is noticeable at first glance
- The trash observed could be collected by one or two individuals, but would require walking at a slower than normal pace



## MODERATE

Score: 3

- Predominantly littered, except for a few clean areas
- Trash is widely/evenly distributed and/or small accumulations are noticeable
- It would take multiple people to remove all the trash in the area, frequently requiring individuals to stop walking to remove the trash



## POOR

Score: 4

- Trash is continuously seen throughout the assessment area and there is a strong impression of lack of concern for litter
- Large piles of trash may be observed
- It would take a large number of people consistently needing to stop to remove trash

# Plant Health



## EXCELLENT

Score: 1

- Vegetation 100% coverage (at maturity), properly spaced, healthy and properly pruned
- Plants are not blocking important lines of sight (safety)



## GOOD

Score: 2

- Fewer than 10% of plants show signs of distress and at least 90% plant coverage at maturity
- Most plants are appropriately spaced
- Less than 25% of plants are over-pruned or overgrown



## MODERATE

Score: 3

- 10-25% of plants are distressed or dead
- At least 50% plant coverage at maturity
- 25–50% of plants are over pruned or overgrown



## POOR

Score: 4

- More than 25% of plants are distressed or dead
- Less than 50% plant coverage at maturity
- Over 50% of plants are over-pruned or overgrown

Weeds



**EXCELLENT**

Score: 1

– No weeds



**GOOD**

Score: 2

– Sporadic weeds (under 5% coverage)



**MODERATE**

Score: 3

– Moderate weed infestation (5-25% weed coverage)



**POOR**

Score: 4

– Weed infestation covering 25% or more

# Mulch



## EXCELLENT

Score: 1

- No exposed areas of bare earth.
- Mulch depth is  $\geq 3$  inches
- Proper type of mulch is used (composted wood mulch is recommended when wood mulch is specified)



## GOOD

Score: 2

- Some sporadic bare spots present (0-10%)
- Mulch layer is 2-3 inches in depth



## MODERATE

Score: 3

- Moderate number of small bare spots with no large, continuous bare spots (10-20%)
- Mulch layer is less than 2 inches in depth
- Mulch has degraded/ decomposed or is heavily compacted across the system



## POOR

Score: 4

- Little to no mulch is present
- Significant number of bare spots or large, continuous bare spots (more than 20%)
- Wrong type of mulch is used (gorilla hair, micro-bark, etc.)

# Structure



## EXCELLENT

Score: 1

- Cleanout present and cap is sealed
- No evidence of structural damage
- No biotreatment soil loss



## GOOD

Score: 2

- Evidence of minor structural damage not impacting performance
- Minor biotreatment soil loss but currently adequate



## MODERATE

Score: 3

- Evidence of significant structural damage that may be impacting performance
- Noticeable biotreatment soil loss that may be impacting performance



## POOR

Score: 4

- Evidence of major structural damage that causes inadequate performance
- Major biotreatment soil loss that impacts performance

# Drainage and Standing Water



## EXCELLENT

Score: 1

- Adequate infiltration throughout the system and no standing water observed 6 or more hours after the last rain event
- No signs of soil compaction and soil is well-aerated
- No evidence of mosquitoes (adult or larvae)



## GOOD

Score: 2

- Evidence that infiltration rates may be reduced but no standing water observed 6 or more hours after the last rain event
- Some signs of soil compaction
- No evidence of mosquitoes (adult or larvae)



## MODERATE

Score: 3

- Evidence of reduced infiltration present with some standing water present more than 12 hours after the last rain event
- Clear signs that soil is compacted over majority of system
- No evidence of mosquito larvae present



## POOR

Score: 4

- Evidence of little to no infiltration and significant standing water observed more than 48 hours after the last rain event
- Clear signs that soil is compacted throughout entire system
- Evidence of mosquito larvae
- Species present that grow in saturated conditions (e.g. cattails)

# Condition Assessment Data Collection Form

## SITE AND ASSET INFORMATION

|                             |                            |
|-----------------------------|----------------------------|
| DATE<br>_____               | INSPECTOR<br>_____         |
| PROJECT NAME / ID<br>_____  | RESPONSIBLE PARTY<br>_____ |
| LOCATION / ADDRESS<br>_____ |                            |
| ASSET CLASS<br>_____        | ASSET ID / NAME<br>_____   |

## CONDITION SCORE GUIDE

|               |          |              |          |
|---------------|----------|--------------|----------|
| 1 = EXCELLENT | 2 = GOOD | 3 = MODERATE | 4 = POOR |
|---------------|----------|--------------|----------|

## ASSESSMENT PARAMETERS

| Parameter                                             | 1                        | 2                        | 3                        | 4                        | Comments |
|-------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------|
| Clogging and Blockage                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Erosion and Sedimentation                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Trash and Debris                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Plant Health                                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Weeds                                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Mulch                                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Structure                                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Drainage and Standing Water                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Overall Condition Score<br>(Average parameter scores) |                          |                          |                          |                          |          |

# Condition Assessment Data Collection Form

## RISK CONSIDERATIONS\*

| Parameter                                                                             | 1                        | 2                        | 3                        | 4                                                                                | Comments |
|---------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|----------------------------------------------------------------------------------|----------|
| Pedestrian Impacts                                                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                         |          |
| Animal Impacts (e.g. gophers)                                                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                         |          |
| <b>IRRIGATION PRESENT</b><br><input type="checkbox"/> Yes <input type="checkbox"/> No |                          |                          |                          | <b>PUMP INCLUDED</b><br><input type="checkbox"/> Yes <input type="checkbox"/> No |          |

\*Not to be included in overall condition assessment score.

## MAINTENANCE NEED AND RECOMMENDED ACTIONS

| Maintenance Need                 |                                     |                                         |                                      |
|----------------------------------|-------------------------------------|-----------------------------------------|--------------------------------------|
| <input type="checkbox"/> Routine | <input type="checkbox"/> Corrective | <input type="checkbox"/> Rehabilitation | <input type="checkbox"/> Replacement |

### Recommended Maintenance Actions:

## ADDITIONAL NOTES

**REMINDER:** Take photographs documenting overall asset conditions and any issues noted above.

## SIGN-OFF

|                                     |                                |
|-------------------------------------|--------------------------------|
| <b>INSPECTOR SIGNATURE</b><br><hr/> | <b>DATE COMPLETED</b><br><hr/> |
|-------------------------------------|--------------------------------|