

Calgary



# Water Managed Sites

Tier 2 Irrigation Site Assessment Report

March 1, 2025

## TIER 2 - IRRIGATION SITE ASSESSMENT AND AUDIT REPORT

### OVERVIEW

The following report is a collection of site data, field measurements, observations and maintenance recommendations. Through this data gathering, in compliance with The City of Calgary Water Managed Sites Program and the Water Utility Bylaw 40M2006 – Schedule E – Outdoor Water Use Restrictions, a basic irrigation schedule that will assist the site water manager or property owner in managing overall irrigation usage, can be developed.

Criteria and Requirements are subject to change, following up-to-date City of Calgary Water Managed Sites Program and regularly posted recommendations for Distribution Uniformity (DU) results levels, as per industry standards and Best Management Practices (BMPs). Therefore, the Auditor must obtain and adhere to current City of Calgary criteria and requirements.

DU calculations are based on AI Landscape Irrigation Auditor, Current Edition Handbook recommended audit guidelines.

\*For recommended assessment and audit guidelines, visit the Canadian Prairie Chapter of the Irrigation Association (CPCIA) website at: [Audit Guidelines](#)

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## Tier 2 Water Managed System Qualifying Criteria, Equipment and Hardware Requirements

### Tier 2 Qualifying Criteria and Requirements

#### **Small ICIs and Single -Family Residential including:**

- i. Single-Family or Two-Family Residence (Duplex)
- ii. Institutional, Commercial, Industrial, Hospitals, Homeowner Associations, Multi -family Condominiums and Townhouses.

#### **Public Spaces, Large ICIs and Multi -family Sites including:**

- i. Sports Fields, Athletic Fields, Schools/Universities and Golf Courses.
- ii. Institutional, Commercial, Industrial, Hospitals, Homeowner Associations, Multi -family Condominiums and Townhouses.

**\* A Catch Can Audit, and DU Calculations are not required under Tier 2.**

### Equipment and Hardware Requirements

To qualify to be Certified as a Water Managed Site, the irrigation system is required to have the following Equipment and Hardware installed and enabled:

1. Dedicated Water Meter or Totalizer installed at the point of connection.
2. Dedicated Testable Cross Connection Control Assembly installed on the irrigation mainline, downstream from the Water Meter or Totalizer. (**ONLY** DCVA or RP type devices are accepted.)
3. Flow Sensor installed and enabled downstream from the Cross Connection Control Assembly.
4. Electric Master Valve installed upstream from any irrigation emission components.
5. Local Irrigation Interruption Device installed and enabled, such as: Rain Switch and or, Soil Moisture Sensor and or, Weather Station.
6. Automatic Smart Irrigation Controller with near -real time weather and/or soil moisture adjustment and remote management capability.

## Irrigation Site and CLIA Information

### Irrigation Site Information – Tier 1

Irrigation Site Assessment date (YYYY-MM-DD): \_\_\_\_\_

Site Type (select all that apply):

- Park
- Playground
- Residential lot
- Green Space
- Commercial/Industrial/Institutional lot
- Golf course
- Sports field
- Other \_\_\_\_\_

Name of site (if applicable): \_\_\_\_\_

Name of registered owner of site: \_\_\_\_\_

Site Address: \_\_\_\_\_

### Certified Landscape Irrigation Auditor (CLIA) Information

CLIA name:

CLIA phone number:

CLIA email:

Name of employer:

Employer's address:

*Note: For Irrigation Site Assessment and Audit results, please refer to the Auditor's Observations section.*

I Certify the above Irrigation Site has been assessed and audited in accordance with The City of Calgary Water Services Bylaw 40M2006, and the AI Landscape Irrigation Auditor, Current Edition Handbook recommended audit guidelines.

**CLIA signature:** \_\_\_\_\_ **CLIA/membership expiry date:** (yyyy-mm-dd)

The City of Calgary reserves the right to visit audited sites for visual inspection a part of the application review for certification of Water Managed Sites.

## Equipment and Hardware Checklist

Equipment/Hardware	Installed & Enabled	Qty. on Site
<b>Water Meter/Totalizer</b>	<input type="checkbox"/>	
<b>Cross-connection Control</b>	<input type="checkbox"/>	
<b>Flow Meter/Sensor</b>	<input type="checkbox"/>	
<b>Electric Master Valve</b>	<input type="checkbox"/>	
<b>Local Irrigation Interruption Device (one device type required)</b>		
<b>Rain Switch/Rain -Freeze Sensor/Tipping Bucket</b>	<input type="checkbox"/>	
<b>Soil Moisture Sensor</b>	<input type="checkbox"/>	
<b>Weather Station</b>	<input type="checkbox"/>	
<b>Automatic Smart Irrigation Controller with Remote Management Capability (one adjustment type required)</b>		
<b>Near-real Time Weather Adjustment</b>	<input type="checkbox"/>	
<b>Soil Moisture Adjustment</b>	<input type="checkbox"/>	

<b>Notes</b>

## Equipment and Hardware Information

### Water Meter/Totalizer 1

Meter number:

Meter Type:

Unit of measure:

Size of meter (inches):

Meter location:

Meter reading start of season:

Meter reading end of season:

### Water Meter/Totalizer 2

Meter number:

Meter Type:

Unit of measure:

Size of meter (inches):

Meter location:

Meter reading start of season:

Meter reading end of season:

### Water Meter/Totalizer 3

Meter number:

Meter Type:

Unit of measure:

Size of meter (inches):

Meter location:

Meter reading start of season:

Meter reading end of season:

## Equipment and Hardware Information

### Cross Connection Control 1

Type of Assembly:

- DCVA
- RP
- Other \_\_\_\_\_

Manufacturer:

Model number:

Serial number:

Size (inches):

CCC assembly location:

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Date installed: (yyyy-mm-dd)

Last Pass Test Date: (yyyy-mm-dd)

### Cross Connection Control 2

Type of Assembly:

- DCVA
- RP
- Other \_\_\_\_\_

Manufacturer:

Model number:

Serial number:

Size (inches):

CCC assembly location:

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Date installed: (yyyy-mm-dd)

Last Pass Test Date: (yyyy-mm-dd)

## Equipment and Hardware Information (continued)

### Flow Sensor

Manufacturer	Model Number	Size (inches)	Location
Manufacturer	Model Number	Size (inches)	Location
Manufacturer	Model Number	Size (inches)	Location

### Master Valve

Manufacturer	Model Number	Size (inches)	Location
Manufacturer	Model Number	Size (inches)	Location
Manufacturer	Model Number	Size (inches)	Location

### Local Irrigation Interruption Device (Rain Switch / Rain-Freeze Sensor / Tipping Bucket / Weather Station)

Type	Manufacturer and Model Number	Location
Type	Manufacturer and Model Number	Location
Type	Manufacturer and Model Number	Location

### Soil Moisture Sensor

Manufacturer	Model Number	Location
Manufacturer	Model Number	Location
Manufacturer	Model Number	Location



# Sprinkler System Review

Abbreviation Key: S = Spray R = Rotor MR = Multi-stream Rotary D = Drip

<b>Controller ID/Name</b>				
Station #				
Sprinkler Type				
Station Flow Rate ( gpm)				
<b>Sprinkler System Review Checklist</b>				
<input type="checkbox"/>	No visible or detected broken/kinked/leaking pipes or fittings.			
<input type="checkbox"/>	System operating pressure within manufacturer recommended range.			
<input type="checkbox"/>	Valves are functioning properly from the controller.			
<input type="checkbox"/>	No missing/broken/leaking sprinkler heads.			
<input type="checkbox"/>	No low head drainage.			
<input type="checkbox"/>	Sprinkler head spacing is even.			
<input type="checkbox"/>	No sunken/tilted sprinkler heads.			
<input type="checkbox"/>	No mismatched sprinkler heads and nozzles.			
<input type="checkbox"/>	No missing/broken/clogged/misaligned nozzles.			
<input type="checkbox"/>	No spray pattern deflected or blocked.			
<b>Drip/Micro System Review Checklist</b>				
<input type="checkbox"/>	No visible or detected broken/kinked/leaking tubing or fittings.			
<input type="checkbox"/>	No missing/clogged/broken emitters.			
<input type="checkbox"/>	No missing/clogged/broken micro heads/nozzles.			
<input type="checkbox"/>	System operating pressure within manufacturer recommended range.			
<input type="checkbox"/>	Filter does not need servicing.			
<b>Notes</b>				

# Irrigation Zone Map

**Must include the following:**

- POC location
- Controller location
- Sensor location
- Station Areas
- Station Irrigation Type (Spray/Rotor/etc)

