

Urban Water Use Objective Cut Sheet

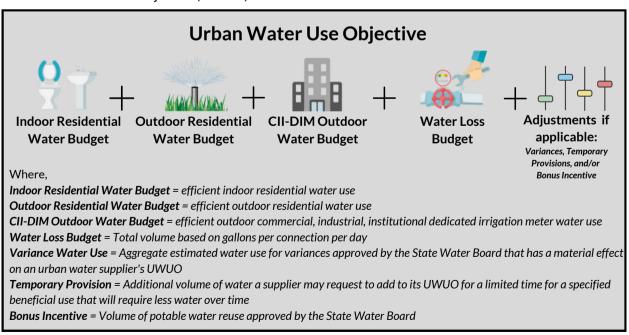
Commercial, Industrial, Institutional Dedicated Irrigation Meter (CII-DIM) Standard

The Background

SB 606 and AB 1668, signed in 2018 and referred to as the Long-Term Framework legislation, are intended to make conservation a California way of life. The legislation tasked the California Department of Water Resource (DWR) with providing regulation recommendations to the State Water Resources Control Board (State Water Board) that include water use efficiency **Standards** and **Performance Measures** for urban retail water suppliers¹. Both are intended to improve water efficiency at an urban retail water supplier level. Standards establish quantitative requirements, such as annual water use relative to water budgets, that must be tracked and reported. Performance Measures are more qualitative in nature and will require implementation of various conservation measures and programs, for example. **This cut sheet summarizes the State Water Board's adopted regulation as released on July 26, 2024**².

In total, three water use standards (indoor residential; outdoor residential; and commercial, industrial, and institutional dedicated irrigation meter (CII-DIM)) and one water loss standard, are used to calculate each respective efficient use volume. The sum of these volumes establishes an overall water budget known as an Urban Water Use Objective (UWUO).

Equation 1: Urban Water Use Objective (UWUO)



^{1.} Wholesale water providers are not subject to legislation requiring adherence to an Urban Water Use Objective.

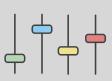
^{2.} State Water Board Text of Regulation (July 26, 2024).











Adjustments to an UWUO can be made via variances, temporary provisions, and/or a bonus incentive for potable reuse, where applicable per supplier. A variance or temporary provision must receive prior approval by submitting a request to the State Water Board no later than October 1 that includes information showing how the request is warranted and protects beneficial water uses₃

<u>Urban retail suppliers must comply with their UWUO by January 1, 2027 and every January 1st thereafter</u> Suppliers that exceed their UWUO may be required by the State to enact policies and programs to achieve water savings.

A note on reporting: Reporting on this regulation began in 2024. The report, submitted to the State Water Board, must include a supplier's calculated UWUO as well as their annual water use for the prior state fiscal year, amongst other qualitative information.

The Basics - Commercial, Industrial, Institutional Dedicated Irrigation Meter (CII-DIM) Standard

The CII-DIM Water Use Standard (CII-DIM Standard) is a set of landscape efficiency factors (LEF) for calculating efficient outdoor use for CII accounts with large landscapes and dedicated meters (or equivalent technologies). An LEF is an aggregate (or supplier-level) factor that accounts for irrigation efficiencies and existing plant water needs. It varies per landscape type and year as presented in Table 1. The LEF values are used to calculate the annual maximum allowed outdoor water use (in gallons) for the aggregate area of all CII-DIM landscape types in Table 1. This maximum is referred to as the CII-DIM water budget.

The **CII-DIM** water budget will go into effect beginning July 1, 2028 to allow suppliers time to identify and measure DIM accounts and/or install DIMs on CII large landscape accounts. <u>Prior to July 1, 2028, a supplier's CII-DIM</u> water budget will be equal to actual deliveries associated with landscape irrigation as described in Table 3.

In addition to the CII-DIM Standard, three CII Performance Measures require: 1) suppliers need to identify all disclosable buildings in its service area and, upon request from building owners or their agents, must also provide the last four characters of the meter serial number and for each meter, provide aggregate water use data, in monthly interval, 2) classify CII water users into 22 categories, 3) install dedicated irrigation meters (DIMs) or equivalent technologies for landscapes of CII customers that are ½ acre in size or larger (or deploy in-lieu technologies), and 3) a suite of best management practices for select CII accounts. This cut sheet examines the CII-DIM Standard only.

What qualifies as an Equivalent Technology?

Technologies that are functionally equivalent to Dedicated Irrigation Meters in terms of accuracy and supplier data accessibility.

What qualifies as an In-Lieu Technology?

Technologies that support landscape water use efficiency improvements by means other than the direct measure of water.

They include but are not limited to technologies identified in section 973.

^{3.} For a comprehensive description of information and data to submit with your request, see the <u>State Water Board Text of Regulation</u>: Section 968 (j) (July 26, 2024).

^{4.} Any system owned and operated by a supplier that lacks data needed to calculate budgets to establish an UWUO can be excluded from the overall objective. Suppliers have until July 1, 2028 to obtain the requisite data for use in the 2030 reporting year.

^{5. &}quot;Large landscapes" are landscapes with 1/2 acre or larger in size. State Board Text of Regulation: Section 965 (gg) (July 26, 2024).











In the most general terms, the annual CII-DIM water budget is calculated using Equation 2. Suppliers will begin calculating a CII-DIM water budget for each reporting year starting July 1, 2028. **Prior to this date, a supplier's CII-DIM water budget will be equal to actual deliveries reported to the State Water Board** (See Table 3 for details).

Equation 2: Annual CII-DIM Water Budget

CII-DIM Water Budget (gal/yr) = CII-DIM LAM x LEF x (ETo-Peff) x 0.62

Table 1: CII-DIM Water Budget factors

Factor	Definition
CII-DIM LAM	Landscape Area Measurement includes the following landscape types for CII accounts with DIMs Irrigable-Irrigated (II), Special Landscape Areas (SLA), and New CII-DIM accounts (New) DWR will provide CII-LAM to the supplier*
LEF	CII-DIM Standard or landscape efficiency factor (unitless). See Table 1.
ЕТо	Reference Evapotranspiration (inches per year). Provided annually by DWR.
Peff	Effective Precipitation (inches per year). Capped at 25% of total precipitation and provided annually by DWR.
0.62	Conversion Factor to generate units in gallons per year.

^{*}Suppliers must still measure the total square footage of the irrigated area of CII landscapes with DIMs and SLAs. Suppliers must describe and substantiate how the area was quantified no later than July 1, 2028 and annually thereafter.

Table 2: Outdoor CII-DIM Standard (Landscape Efficiency Factors - LEF) by landscape type and year

Compliance Date	Irrigable- Irrigated (II)	Special Landscape Areas (SLA)	New Construction (post 1/1/2019)*
July 1, 2028	0.80	1.0	0.45
July 1, 2035	0.63	1.0	0.45
July 1, 2040	0.45	1.0	0.45

^{*}Applies to CII-DIM accounts subject to MWELO. See 23 CCR Section 495 (b)(6)













Table 3: CII-DIM Water Budgets per Compliance Period

Compliance Period	CII-DIM Water Budget
Present - June 30, 2028	Supplier's actual deliveries associated with landscape irrigation reported to the Board in their electronic annual report (eAR) ⁶ .
July 1, 2028 - Onward	CII-DIM Water Budget calculated using Equation 2.

It is important to note the following as it relates to the CII-DIM Standard:

- The CII-DIM Standard applies to:
 - CII accounts with a DIM (or equivalent technology) regardless of when they were installed. This includes CII accounts with DIMs installed to comply with the CII Performance Measures.
- The CII-DIM Standard does <u>not</u> apply to the categories below nor is the water associated with these categories factored into a supplier's overall UWUO.
 - CII indoor use
 - Commercial agriculture
 - CII accounts with mixed-use-meters and with landscapes smaller than 1/2 acre
 - CII accounts with in-lieu technologies installed as part of the CII Performance Measures
- The State Water Board will not enforce outdoor water budgets for individual CII parcels; therefore, compliance is enforceable at the supplier level.

Determining Compliance

Urban retail suppliers are only required to meet their overall UWUO (see Equation 1)⁷. Because the CII-DIM water budget is only one metric that makes up a supplier's UWUO, exceeding it does not mean a supplier is out of compliance. As established, a supplier can improve their chances of remaining in compliance if they can offset their outdoor CII-DIM water use with water savings achieved indoors or outdoors for residential accounts, for example.

Individual outdoor water budgets should be calculated for each landscape type and then added together to generate the total CII-DIM water budget (See Figure 2). A residential outdoor water budget for Special Landscape Areas can be used only if the supplier submits supporting information meeting criteria listed in Data Sources. The existence of newly constructed residential landscape area shall be demonstrated by referencing annual MWELO reporting⁸.

^{8.} MWELO reporting requirements. See 23 CCR Section 495 (b)(6).

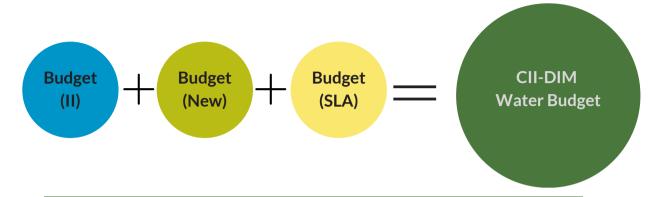


^{6.} Reporting of urban suppliers' annual water use data to the State Water Board is required under Health and Safety Code Section 116530. See also: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/ear.html

^{7.} Compliance will be measured against an overall objective with the exception of water loss which shall also be assessed individually.



Figure 2: Individual outdoor water budgets per landscape type that make up the total CII-DIM water budget



What qualifies as Special Landscape Areas on CII-DIM parcels?

- 1. Areas dedicated solely to edible plants
- 2. Recreational areas
- 3. Areas irrigated with recycled water or water features using recycled water
- 4. Slopes with live vegetation
- 5. Ponds or lakes receiving supplemental water for sustaining wildlife, recreation or other public benefit (excluding variance volumes)
- 6. Plant collections, botanical gardens, and arboretums
- 7. Public swimming pools and similar recreational water features
- 8. Cemeteries built before 2015

Alternative Compliance Pathway

A supplier shall be considered in compliance with its objective provided all of the following are met:9

- 1. A supplier serving a Disadvantaged Community (DAC) would be eligible if:
 - a. The median household income of the supplier's service area is equal to or less than the median household income of California
 - b. Complying with the UWUO would require the supplier to reduce water use by 20% or more
 - c. The supplier was making annual progress reducing annual water use by at least 1% per year
 - d. Implements a plan to help achieve objective by June 30, 2041.

2. A supplier serving non-DACs would be eligible if the supplier:

- a. Complying with the UWUO would require the supplier to reduce water use by 30% or more
- b. The supplier was making annual progress reducing annual water use by at least 2% per year
- c. Implements a plan to help achieve objective by June 30, 2041.
- d. Verifies compliance with AWWA's G-480 standards
- e. Supports the installation and maintenance of climate ready landscapes.

^{9.} State Board Text of Regulation: Section 966 (i) (July 26, 2024).











What are Climate Ready Landscapes?

Climate Ready Landscapes are designed and maintained to reduce greenhouse gas emissions and weather more extreme conditions; they save water, reduce waste, nurture soil, sequester carbon, conserve energy, reduce urban heat, protect air and water quality, and create habitat for native plants and pollinators.

Variances

Up to 3 variances categories, where applicable, can be requested annually to increase an urban water supplier's UWUO. They are listed in Table 4. A threshold must be met for each respective variance to request approval for adjusting a supplier's UWUO¹⁰.

Table 4: Variance categories that apply to the CII-DIM Water Budget and their associated thresholds

Variance Category	Threshold
A. Emergency Events (not including drought)	5% or more of UWUO (total includes water attributed to the same category for Outdoor Residential)
B. Landscape Areas Irrigated with Recycled Water w/ High TDS	5% or more of the UWUO (total includes water attributed to the same category for Outdoor Residential)*
C. Ponds & Lakes to Sustain Wildlife (required by regulations or ordinances)	Regulatory requirement = no threshold
D. Irrigating existing trees on CII Landscapes with DIMS	Beginning July 1, 2040, a supplier may include a variance for water use associated with the irrigation of existing trees on CII landscapes with DIMs.

^{*}Reduced to 1% or more of the UWUO if use detailed plant based leaching requirements

Temporary Provisions

Up to 2 categories of temporary provisions, where applicable, can be requested to increase an urban water supplier's UWUO. Each provision has a different period of applicability as detailed in Table 5.

^{10.} See the State Water Board Text of Regulation, Section 969 (e) (July 26, 2024) for methods to calculate usage volumes in gallons per Variance.











Table 5: Temporary Provision Categories that apply to the CII-DIM water budget and their associated period of applicability

Temporary Provision	Period of Applicability
A. Planting of new, climate-ready trees*	Three reporting periods (initial period = year the trees were planted)
B. Establishment of qualifying landscapes**	Three reporting periods (initial period = time irrigation begins)

^{*}Climate-ready trees are well adapted to face both present and future climatic challenges, such as heat, drought, extreme weather events, and pests within the supplier's service area.

Data Sources

The data required to calculate each urban water supplier's CII-DIM water budget include: landscape area measurement, evapotranspiration, and effective precipitation. This data will be provided by DWR. However, a supplier may, for each reporting period, use an alternative data source for evapotranspiration and effective precipitation. A supplier will need to demonstrate to DWR and the State Water Board that the data is equivalent or superior in quality and accuracy to the data provided by DWR.

To date, DWR has not provided suppliers with CII Landscape Area Measurement (CII-LAM) data. While DWR may offer CII-LAM in the future, the data will not distinguish areas serviced by mixed-use-meters or dedicated irrigation meters. Suppliers will be expected to measure and quantify the total irrigated areas of CII landscapes with DIMs, as well as any SLA's irrigated by DIMs. Measurements can be collected from aerial survey or remote sensing; however, field verification will likely be required to map actual areas irrigated by DIMs. Suppliers must complete these measurements no later than July 1, 2028. For those retail suppliers who do not have the staff to perform landscape measurements in-house, consultants are available to provide this service. In some cases, wholesalers can help cost-share the consulting expense for their retail suppliers. Please reach out to CalWEP for a list of consultants and additional information related to CII-LAM services.

A variance, temporary provision, or the inclusion of Special Landscape Areas for a given reporting year must receive prior approval by submitting a request to the State Water Board no later than October 1 that includes the following: ¹¹

- 1. Information quantifying and substantiating each request, and
- 2. A description of efforts to prioritize water for existing trees.

^{11..} State Water Board Text of Regulation; Section 968 (j) (July 26, 2024).



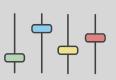
^{**}Qualifying landscapes are those that require temporary irrigation and are associated with low-impact development, ecological restoration, and mined-land reclamation projects.











Resources

The following calculators are available to help suppliers determine their CII-DIM water budget and compliance with the UWUO:

- 1. CaDC/CalWEP CII DIM Guidebook (coming soon)
- 2. State Water Resources Control Board Objective Exploration Tool
- 3. Eagle Aerial WaterView
- 4. AWE Conservation Tracking Tool California Edition

The following are resources offered by CalWEP to support our members as they help their commercial customers reduce their outdoor use (see <u>CalWEP.org</u> for more information):

- Incentive Programs:
 - <u>Direct Distribution Programs</u> for irrigation equipment and smart flow devices
 - Smart Rebates
- Training Programs:
 - Qualified Water Efficient Landscaper Training (QWEL)
 - Calscape Nursery Training
- Landscape-Centric Resources:
 - Implementation Guides (Landscape)
 - Turf Conversion Program Design Matrix
 - Watershed Approach for California Landscapes Handbook (Author: G3)
 - Wordless Sustainable Landscape Maintenance Guide (for all languages)
 - Community Based Social Marketing Guide and Customer Survey, Vol.1, Vol.2 (landscape focus)
 - Multiple Benefits of Turf Replacement Programs (Summary Doc. & Cutsheets)

