

Draft Urban Technical Methodologies

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Resources

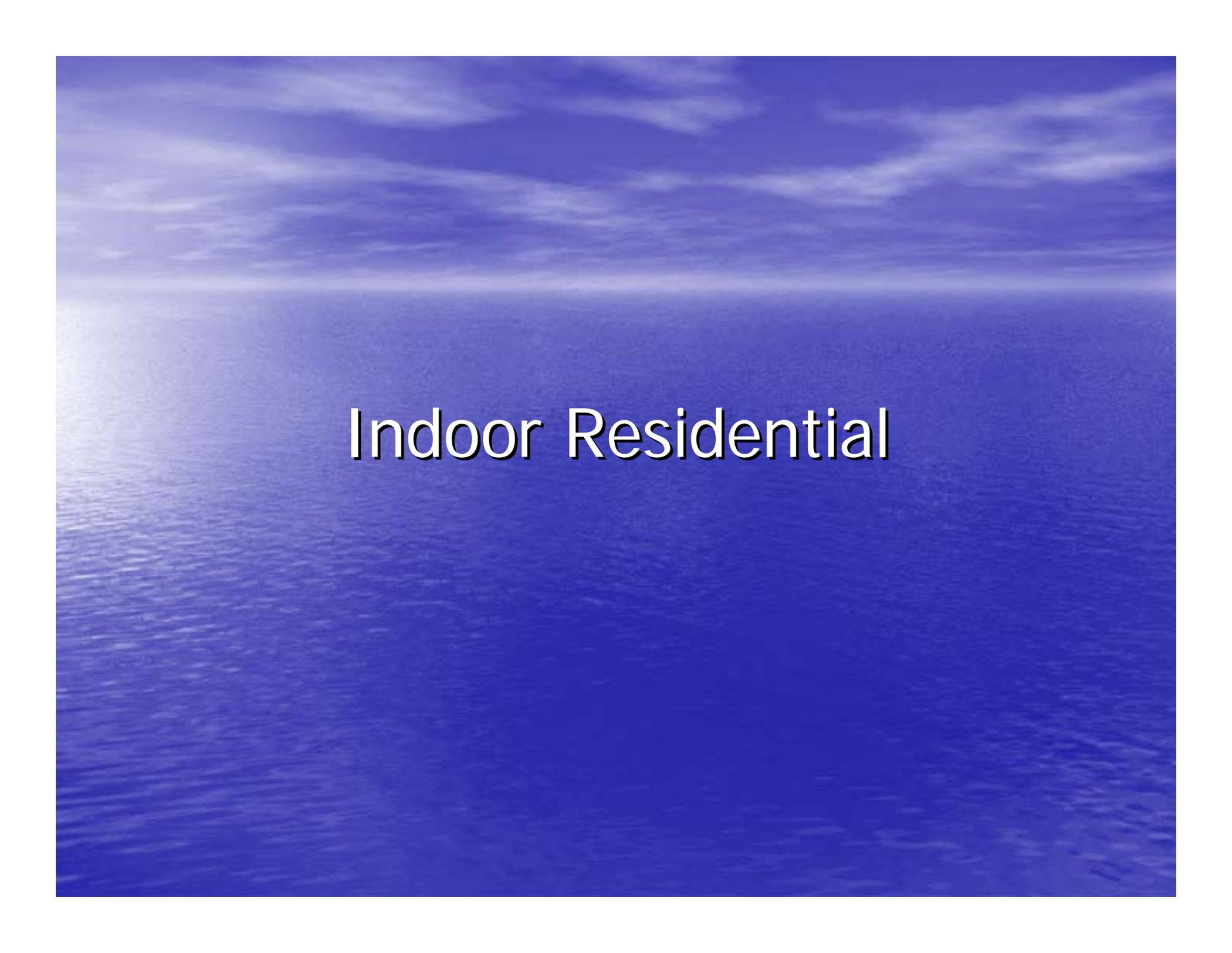
Water Use and Efficiency Branch

Water Use Target Method 2 Efficiency Standards

- Indoor Residential = 55 gallons per capita daily water use. Standard maybe adjusted by the legislature after 2016
- Residential and landscape on dedicated meters/connections with water efficiency equivalent to Model Water Efficient Landscape Ordinance
- 10% reduction in baseline commercial, industrial and institutional water use

Method 2 Efficiency Standards

- Calculated on a daily per capita water use basis
- Moving target, in 2011 suppliers make an estimate for 2020 population and landscape area to develop an initial target. Actual water use target calculated in 2020 based on actual 2020 population and landscape area.
- Interim target is halfway between baseline per capita use and 2011 initial target.
- Efficiency standards are used only to set the water use target. Water suppliers do not have to meet the standards, they only have to have a lower per capita water use than the target.



Indoor Residential

Indoor Residential Methodology Legislation

Subdivision (b) (2), Section 10608.20 of SBx7-7 states:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

Indoor Residential Methodology

- Water suppliers are not required to calculate indoor residential
- DWR will conduct a study/literature review and make recommendations to the legislature on the indoor residential efficiency standards.



Landscape Area Water Use Methodology

Landscape Area Water Use Methodology

Legislative Definition

For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

Section 10608.20 (b) (2) (B)

Landscape Area Water Use Methodology

Key Issues for Landscape Area:

- “Irrigated through dedicated or residential meters or connections” requires measurement on a parcel basis
- Must differentiate between irrigated and non-irrigated
- Must know year landscape installed
- Use ratio for parcels under 24,000 sq. ft., measure landscape for larger parcels

Landscape Area Water Use Methodology

- Remote sensing or field based measurements can be used
- Measurement has to be done on a parcel basis
- Non irrigated areas must be excluded
- Remote sensing must use 1m resolution or better and must test accuracy against field based measurements

Landscape Area Water Use Methodology

A landscape ratio can be used on areas under 24,000 sq. ft.

- Parcels should be divided into increments of 4000 sq. ft.
- The ratio should be developed using a subset of fields that are measured either with remote sensing or field measurements

Landscape Area Water Use Methodology

Water Use:

Water Use must meet Model Water Efficient Landscape Ordinance Standards based on year landscape installed.

Pre 2010:

Has an Evapotranspiration Adjustment Factor (ETAF) of 0.8

After 2010

Adjustment Factor is 0.7

Landscape Area Water Use Methodology

ETo can be calculated based on:

1. Historical tables provided with the Model Water Efficient Landscape Ordinance.
2. 2020 ETo data either from CIMIS or other equivalent data that are scientifically derived and comparable to CIMIS
3. Newly developed DWR ETo models



Baseline Commercial,
Industrial and Institutional
Water Use
Methodology

Baseline CII Water Use Methodology

Legislation

Section 10608.12

- (c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.*
- (d) "Commercial water user" means a water user that provides or distributes a product or service.*
- (h) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.*
- (i) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.*

Baseline CII Water Use Methodology

Key Points

- Base period is the same as the period used for base daily per capita.
- Supplier must have the CII data for the entire baseline period to use Method 2
- Supplier must be able to separate multi family accounts from CII accounts.
- Suppliers may exclude process water if shown to be substantial.