



WORKSHOP

Draft Interim Annual Water Use Reporting Template

Friday, November 17, 2023

9AM-11AM

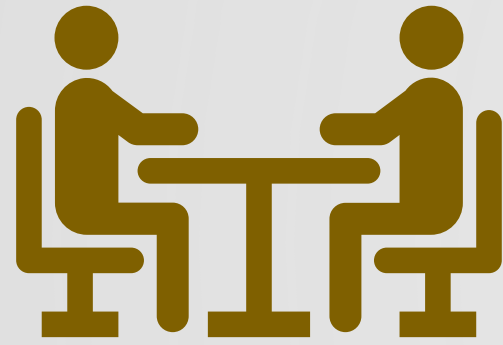
Welcome!!

We are looking forward to a productive meeting, please consider –

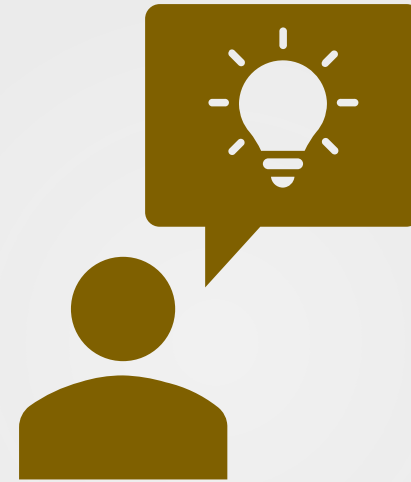
- **Remote meeting.** Remote meetings can be challenging and frustrating, especially with larger groups – please be patient and flexible. If you are having technical difficulties, please chat with [Meagan Wylie](#)
- **Logistics:**
 - We're recording
 - Live Captioning Available
 - Please have your mic muted unless speaking
- **Participation:**
 - **Chat Panel** will be used *to provide comments and ask questions*
 - **Hand Raise** will be used by *to ask questions and participate in discussion*



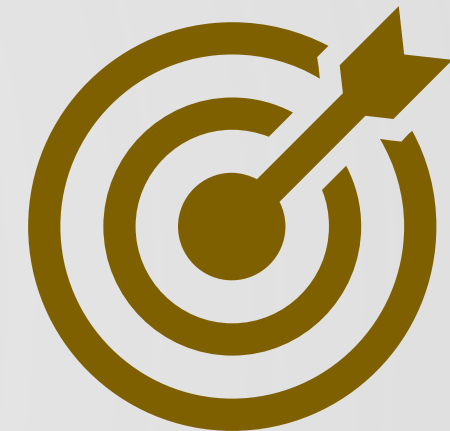
Participation Guidelines



**Listen, Learn,
Share**



**Respect Different
Perspectives**



Stay on Point

Meeting Agenda

Objective: Guide urban water suppliers through the draft interim annual water use reporting template and share technical assistance for urban water use objective reporting

- 9:00 Meeting Logistics and Agenda Review**
Meagan Wylie, Senior Facilitator, CSUS-CCP
- 9:05 Welcome**
Sabrina Cook, Ph.D., Water Use Efficiency Implementation Section Manager – DWR
- 9:10 Urban Water Use Objective Overview**
Kyle Miller- DWR
- 9:30 Draft Interim Annual Water Use Reporting Template Walk-through**
Sabrina Cook, Ph.D., Water Use Efficiency Implementation Section Manager - DWR
- 10:30 Data Resources and Availability**
Bekele Temesgen, Ph.D., Land and Water Use Section Manager - DWR
- 11:00 Adjourn**



Welcoming Remarks

Sabrina Cook, Ph. D., Water Use Efficiency Implementation Section Manager,
Water Use Efficiency Branch – DWR

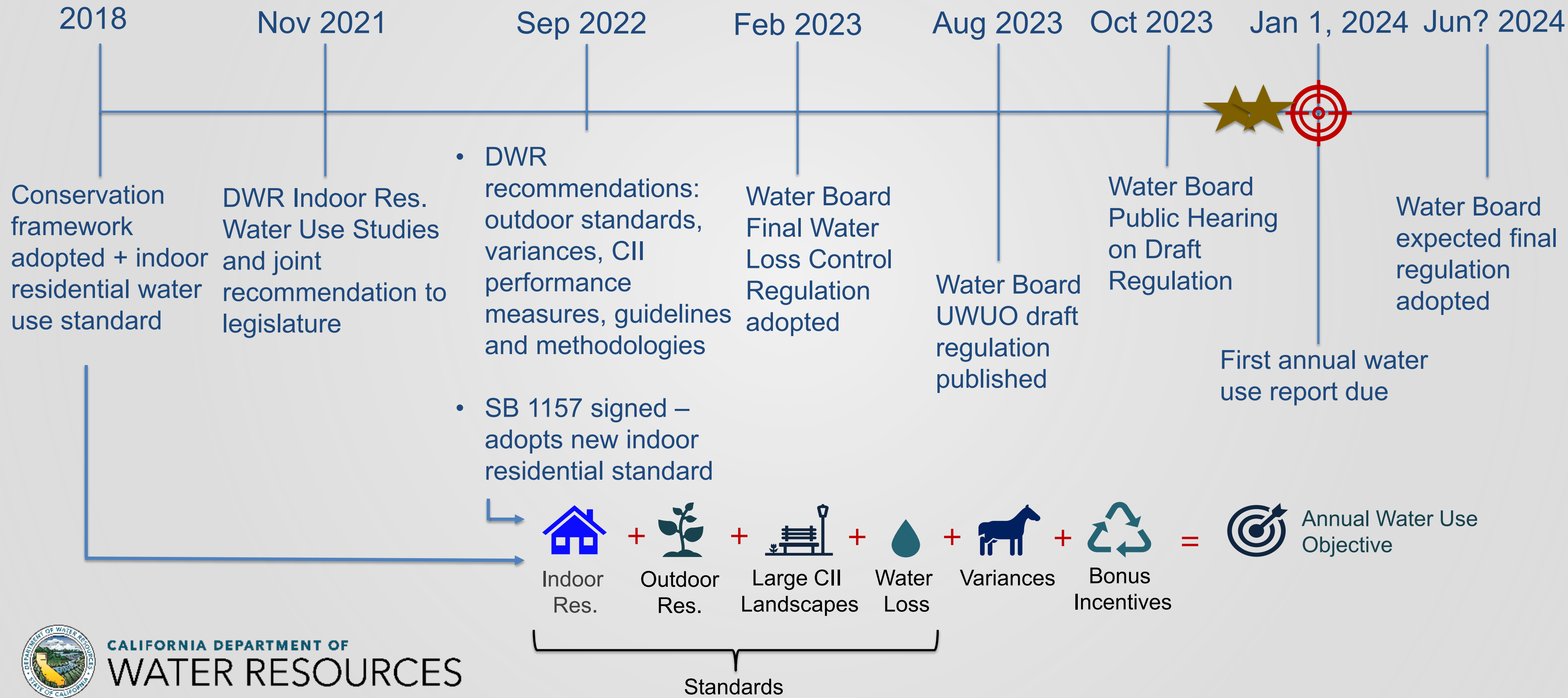


Urban Water Use Objective Overview

Kyle Miller, Urban Unit Supervisor,
Water Use Efficiency Branch – DWR



Urban Water Use Objective



Water Code Reporting Requirements

No later than January 1, 2024:

- An urban retail water supplier shall submit a report to the department (Section 10609.24(a)).
- The report shall include all of the following:
 - (1) **The urban water use objective** calculated pursuant to Section 10609.20 along with relevant supporting data.
 - (2) The actual urban water use calculated pursuant to Section 10609.22 along with relevant supporting data.
 - (3) **Documentation of the implementation of the performance measures for CII water use.**
 - (4) **A description of the progress made towards meeting the urban water use objective.**
 - (5) The validated water loss audit report conducted pursuant to Section 10608.34



Water Code Reporting Requirements contd.

Section 10609.25:

- As part of the first report submitted to the department by an urban retail water supplier no later than January 1, 2024, pursuant to subdivision (a) of Section 10609.24, **each urban retail water supplier shall provide a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027.**



Water Code Calculation Requirements

Actual Urban Water Use

Calculate actual urban water use no later than January 1, 2024 (Section 10609.22(a)).

The calculation shall be based on the urban retail water supplier's water use for the previous calendar or fiscal year (Section 10609.22 (b))

Actual water use for (Section 10609.22 (c)):

- residential +
- CII-DIM +
- aggregate water losses.

Urban Water Use Objective

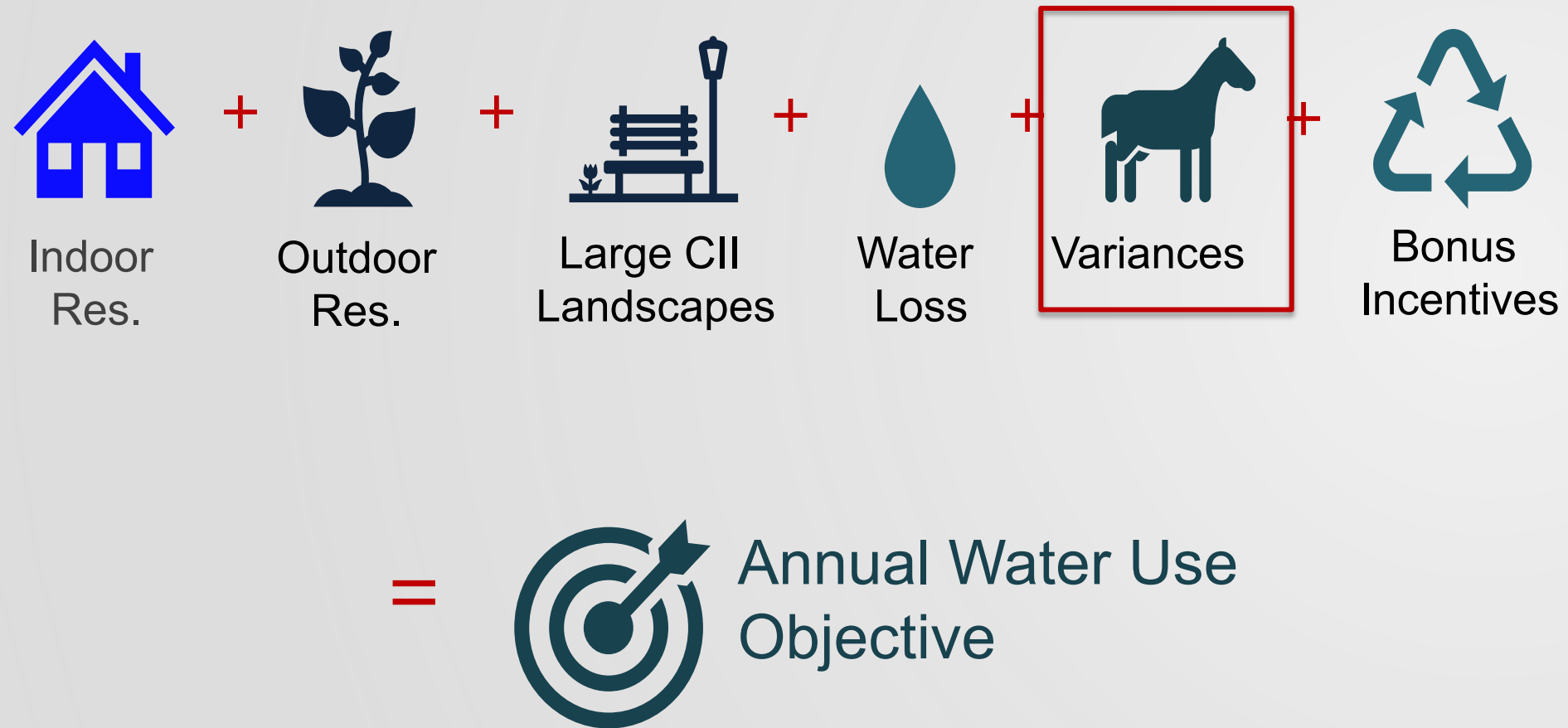
Calculate urban water use objective no later than January 1, 2024 (Section 10609.20(a)).

Efficient water use for (Section 10609.20(c)):

- indoor residential +
- outdoor residential +
- CII-DIM +
- water loss +
- *variances* +
- *bonus incentive for potable reuse water*



Variations



Variations

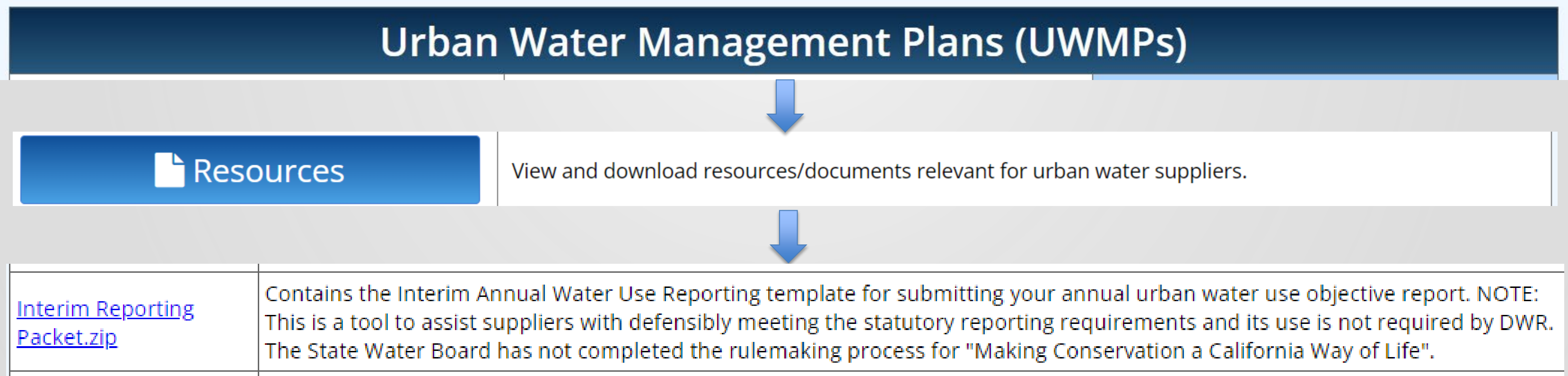
- Significant Seasonal Population
- Significant Use of Evaporative Coolers
- Use of Water for Commercial or Noncommercial Agriculture
- Significant Populations of Horses and Other Livestock
- Landscaped Areas Irrigated with Recycled Water – High TDS
- Water for Dust Control – Horse Corrals and Animal Exercising
- Water to Supplement Ponds and Lakes to Sustain Wildlife
- Use of Water During Major Emergencies



DWR Technical Assistance

Water Use Efficiency (WUE) branch developed draft interim annual water use report template (template)

- Presented at California Water Efficiency Partnership, California Data Collaborative
- Download at: <https://wuedata.water.ca.gov/>



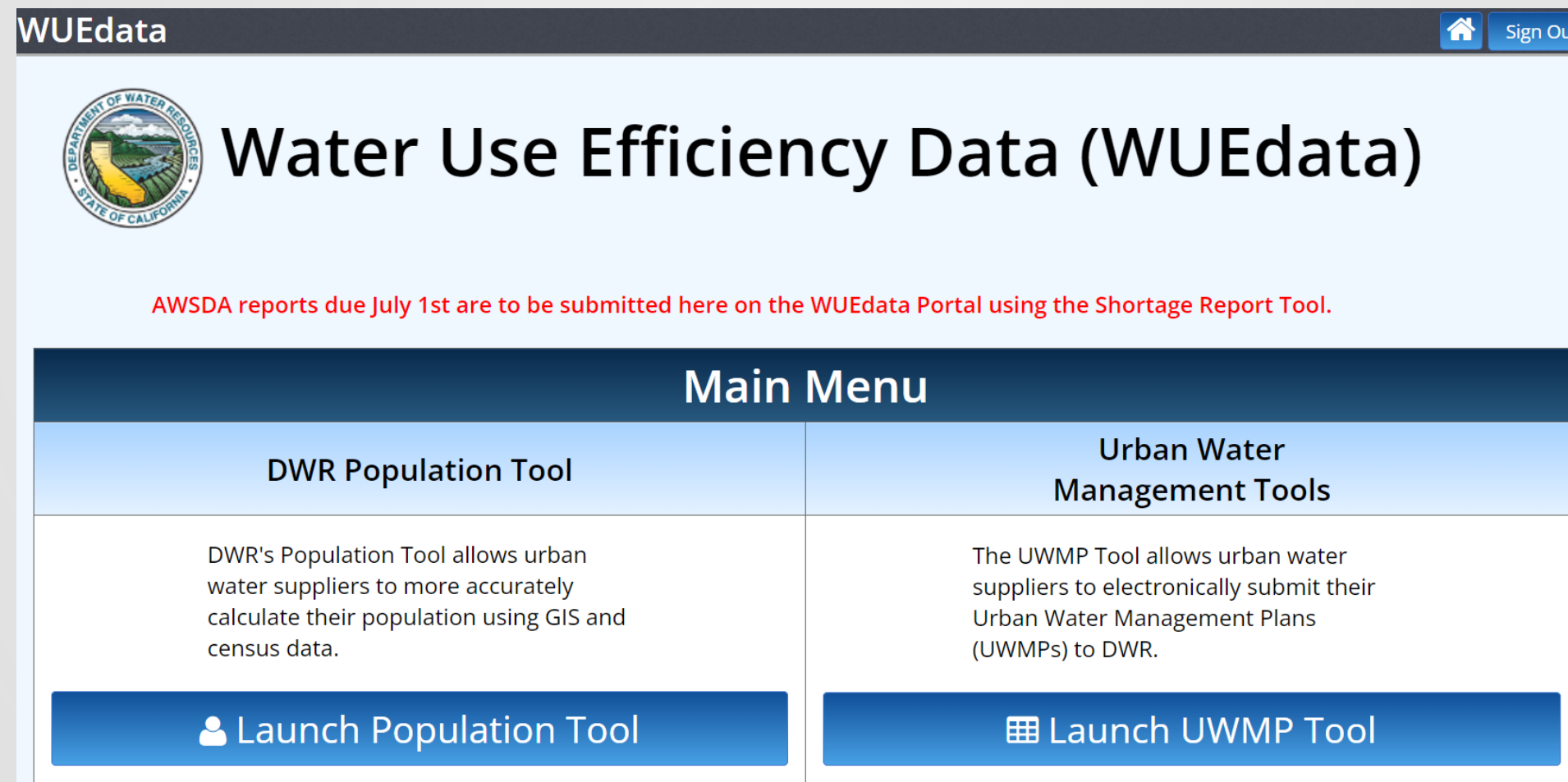
Other Technical assistance

- In-template calculators and tools:
 - unmetered residential deliveries
 - Water Loss
 - SBX7-7 Comparison
- Residential Landscape Area Measurement (LAM)
- CII-LAM
- Variance calculation workbooks and guides
- Relevant data (ET_o, P_{eff})



Submission

- WUEData Portal
 - Attachment Only (w/Water Loss Audit)
- Email if before 12/1/2023
 - WUEstandards@water.ca.gov



The screenshot shows the WUEdata portal interface. At the top, there is a dark blue header with the text 'WUEdata' on the left and a home icon and 'Sign Out' button on the right. Below the header is a light blue banner featuring the California Department of Water Resources logo on the left and the title 'Water Use Efficiency Data (WUEdata)' in large black font. Underneath the banner, a red text line states: 'AWSDA reports due July 1st are to be submitted here on the WUEdata Portal using the Shortage Report Tool.' The main content area is titled 'Main Menu' and is divided into two columns. The left column is headed 'DWR Population Tool' and contains a description: 'DWR's Population Tool allows urban water suppliers to more accurately calculate their population using GIS and census data.' Below this description is a blue button with a person icon and the text 'Launch Population Tool'. The right column is headed 'Urban Water Management Tools' and contains a description: 'The UWMP Tool allows urban water suppliers to electronically submit their Urban Water Management Plans (UWMPs) to DWR.' Below this description is a blue button with a calendar icon and the text 'Launch UWMP Tool'.



Draft Interim Reporting Template Walk-through

Sabrina Cook, Ph. D., Water Use Efficiency Implementation Section Manager,
Water Use Efficiency Branch – DWR



Where is it?

WUEdata.water.ca.gov

| Urban Water Management Plans (UWMPs) | | |
|--------------------------------------|---|--|
| View 2020 UWMPs | View 2020 UWMPs, attached documentation, and official letters from DWR to the supplier. | Number of 2020 Urban Water Management Plans (UWMPs) Submitted to DWR 425 Urban Water Suppliers* 11 Suppliers Voluntarily Reporting* 10 Regional Alliances <small>*Section 10617 of the California Water Code defines an "Urban water supplier" as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.</small> |
| 2020 UWMP Data | To download submitted data for Individual UWMP Tables , click the button to the left. To download submitted data for All UWMP Tables as a single Excel or Text File, click here . Data Definitions can be found here . | |
| View 2015 UWMPs | View 2015 UWMPs, attached documentation, and official letters from DWR to the supplier. | |
| 2015 UWMP Data | Download data submitted by water suppliers for each UWMP Table. For more information regarding table definitions and uses, see DWR's website - 2015 Urban Water Management Plans . | |
| View 2010 UWMPs | View 2010 UWMP data on the California Department of Water Resources website. | |
| View 2005 UWMPs | View 2005 UWMP data on the California Department of Water Resources website. | |
| Resources | View and download resources/documents relevant for urban water suppliers. | |

| | |
|--|---|
| 05.20.2021.XISX | and W for year heade |
| Interim Reporting Packet.zip | Contains the Interim / This is a tool to assist The State Water Board |
| Resources README | Description of what c |



Data Resources and Availability

Bekele Temesgen, Ph.D.

Manager, Land and Water Use Section

Water Use Efficiency Branch

California Department of Water Resources

Presented at the

DWR Webinar on Urban Water Use Objective Reporting

November 17, 2023



What is the Urban Water Use Objective?

- “Urban water use objective” means an estimate of aggregate efficient water use for the previous year based on adopted water use efficiency standards and local service area characteristics for that year.
- Urban Water Use Objective (UWUO) is calculated from efficient:
 - indoor residential water use
 - outdoor residential water use
 - outdoor irrigation of landscape areas with dedicated irrigation meter for Commercial, Industrial, and Institutional (CII) water use
 - water losses
 - Estimated water use in accordance with variances, as appropriate

Efficient Outdoor Water Use Estimates

Efficient outdoor water use is estimated using the following equation:

$$EOWU = (ET_o - P_{eff}) * LA * ETF * 0.62$$

Where:

EOWU = Efficient outdoor (residential and CII) water use (gallons)

ET_o = reference evapotranspiration (inches)

P_{eff} = effective precipitation (inches)

LA = irrigable landscape area (sq-ft)

ETF = Evapotranspiration factor (unit less)

0.62 = unit conversion factor

Reference Evapotranspiration (ET_o)

- ET_o is evapotranspiration (ET) from standardized grass or alfalfa surfaces over which the weather stations stand.
- Plant factors, known as landscape coefficients (K_L), are used to estimate actual ET from specific plants (ET_c).

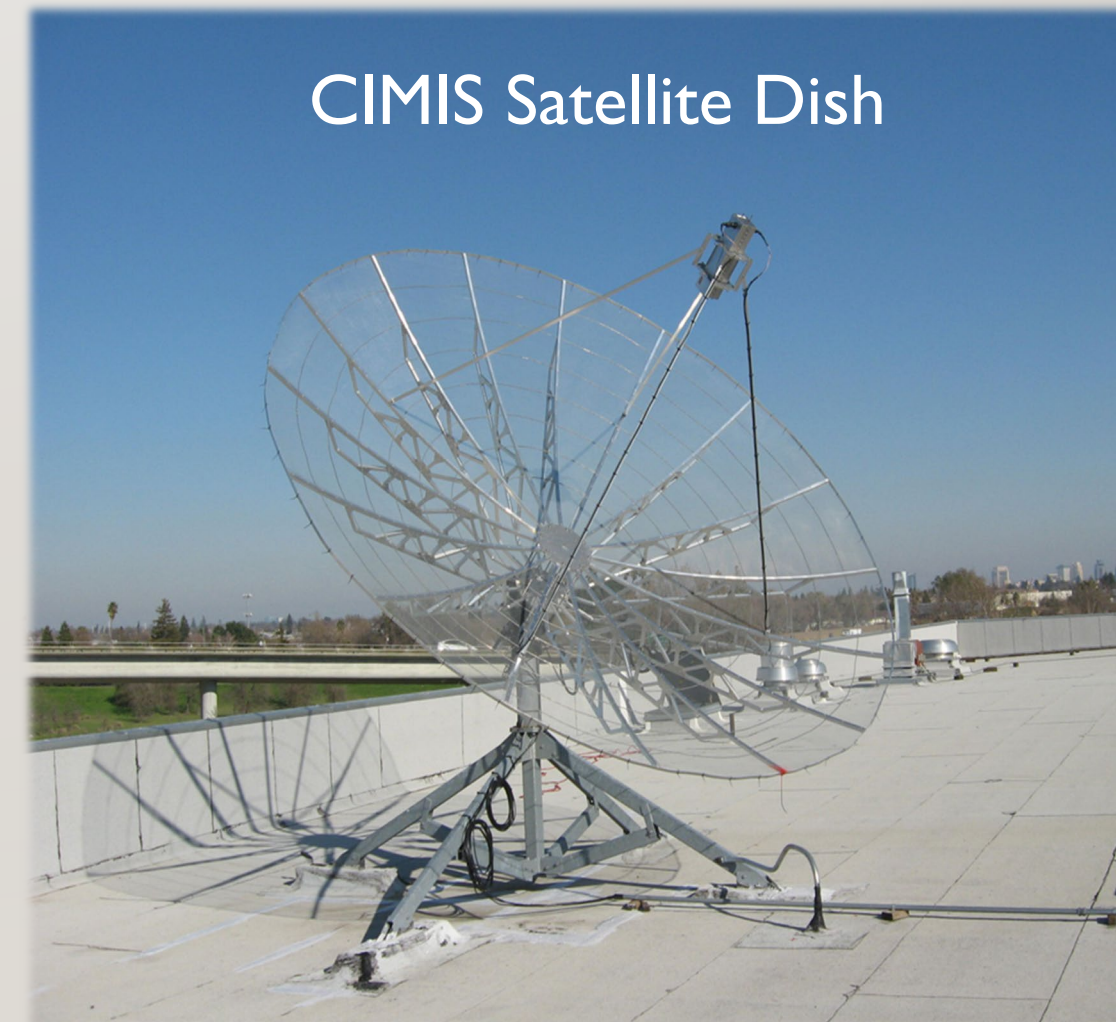
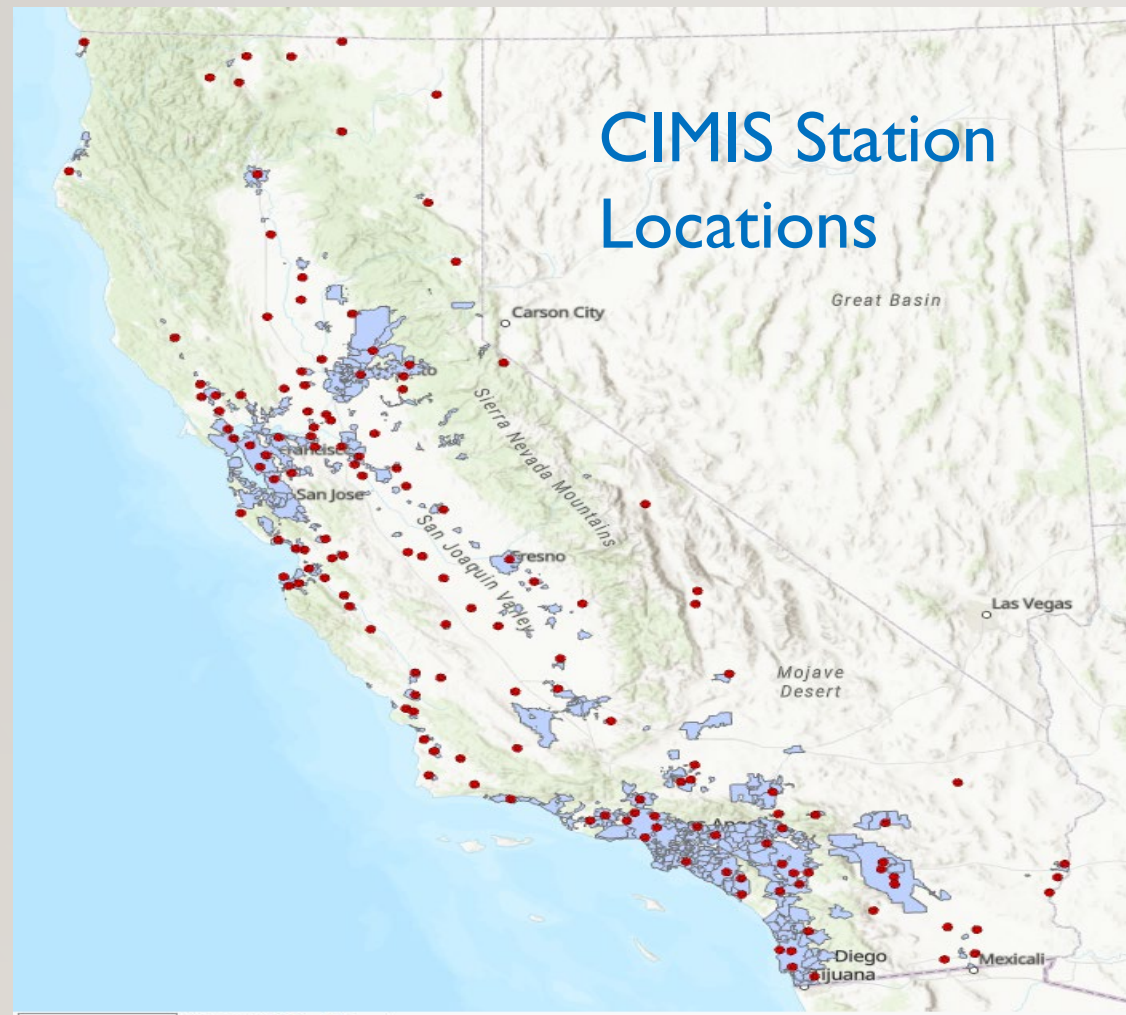
$$ET_c = ET_o \times K_L$$

- Total water requirement = $ET_o \times \left(\frac{K_L}{IE}\right)$, where IE is irrigation efficiency.

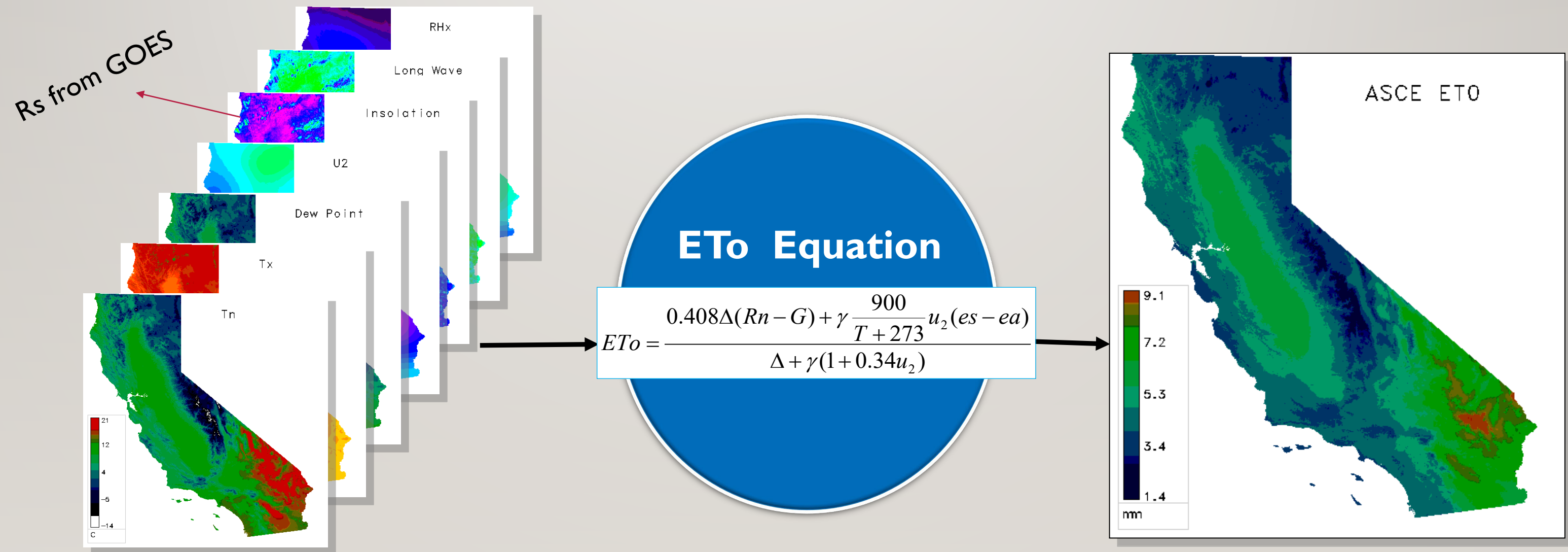
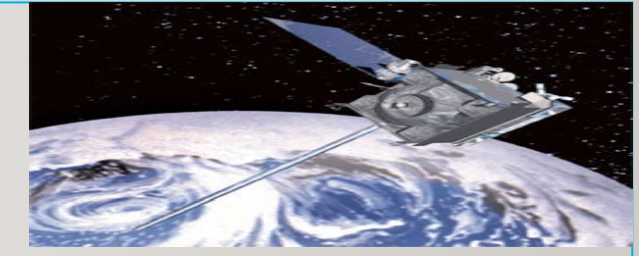


ETo Data Sources

DWR provides ETo values from the California Irrigation Management Information System (CIMIS) program (<https://cimis.water.ca.gov/>).

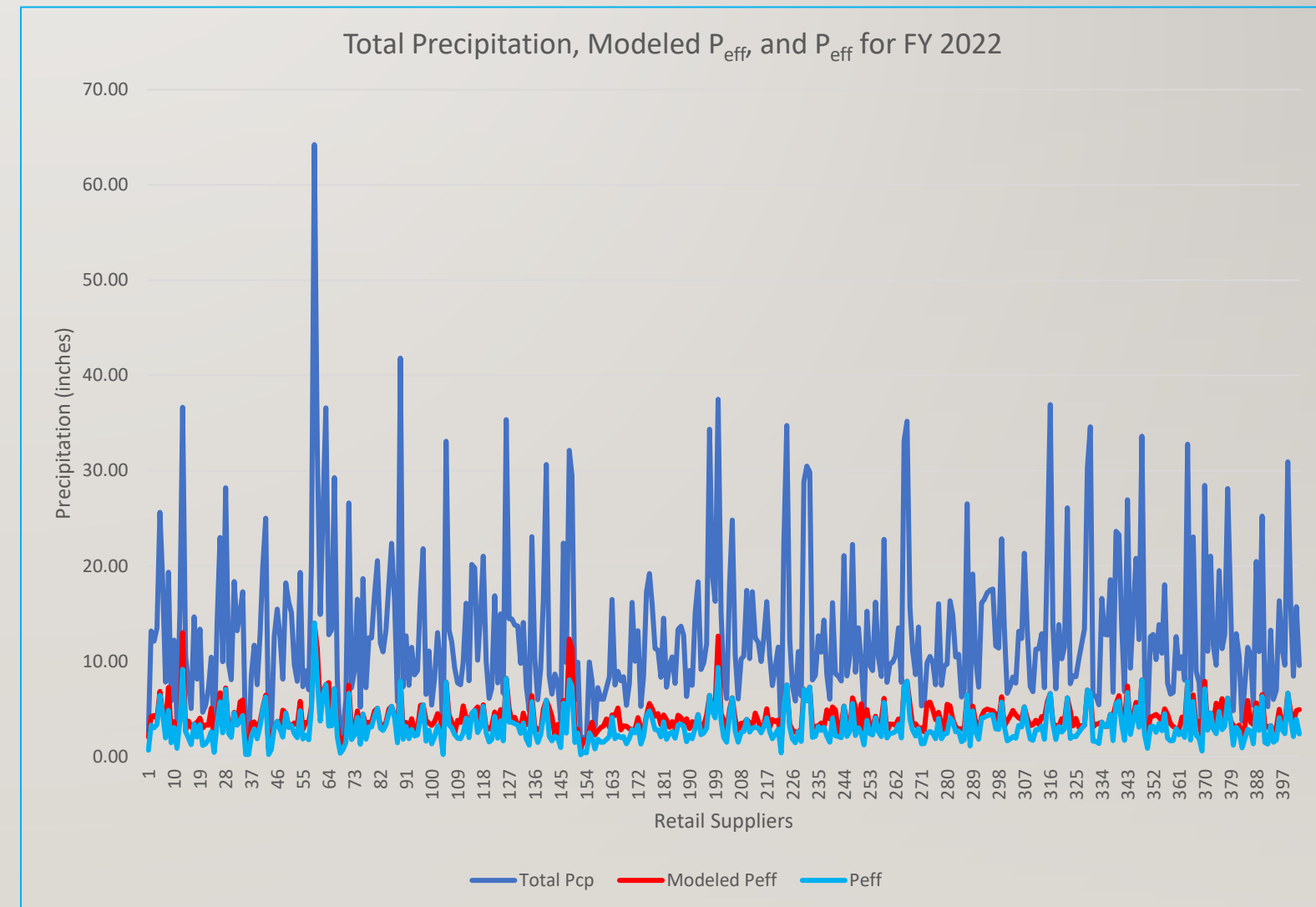


Spatial CIMIS ETo



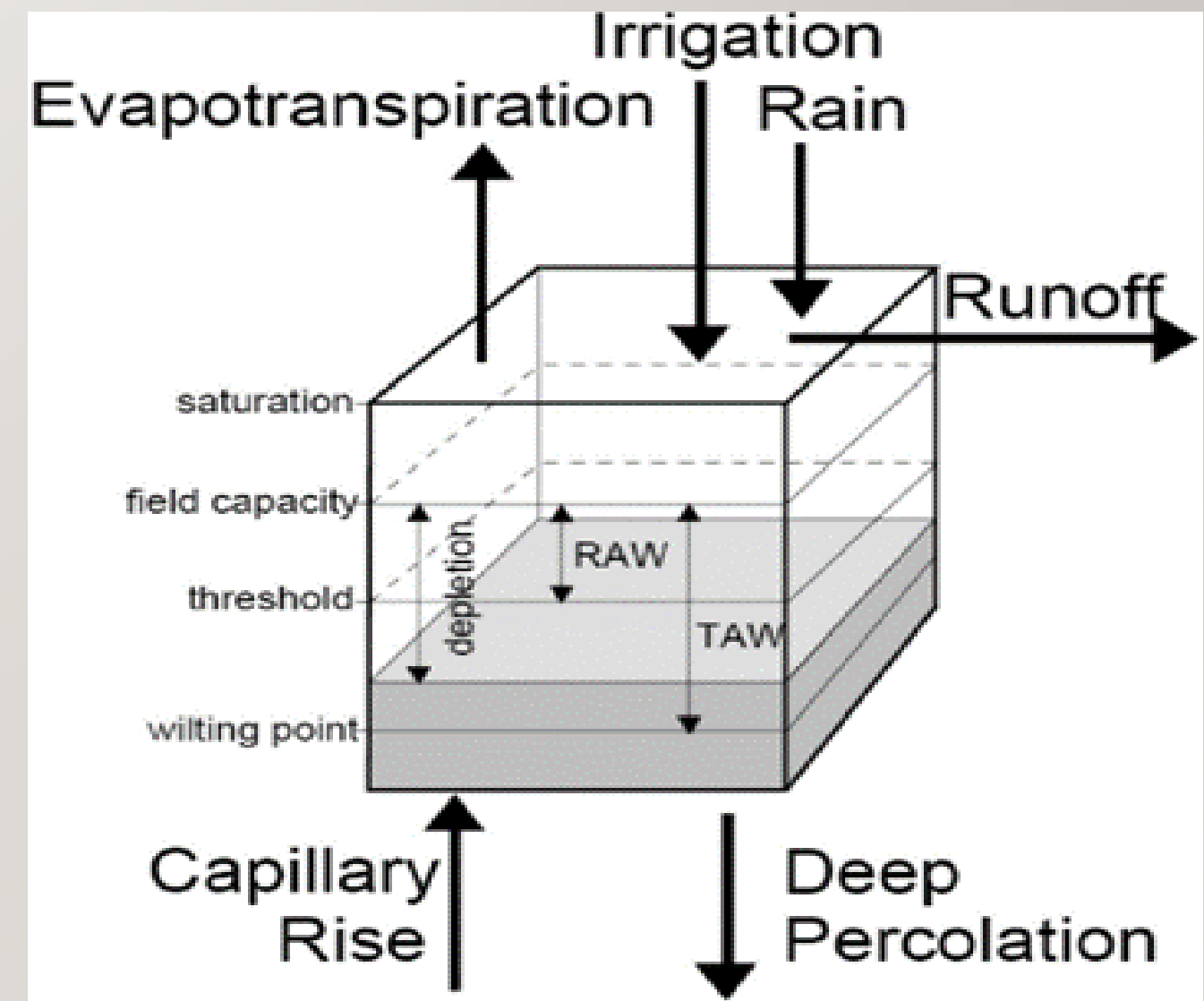
Effective Precipitation (P_{eff})

- P_{eff} is the portion of total precipitation which becomes available for plant growth.
- DWR is using a soil water balance model, known as Cal-SIMETAW, to estimate P_{eff} .
- P_{eff} from Cal-SIMETAW is capped at 25% of total precipitation to account for uncertainties.
- Annual and seasonal P_{eff} values will be provided to retail water suppliers.

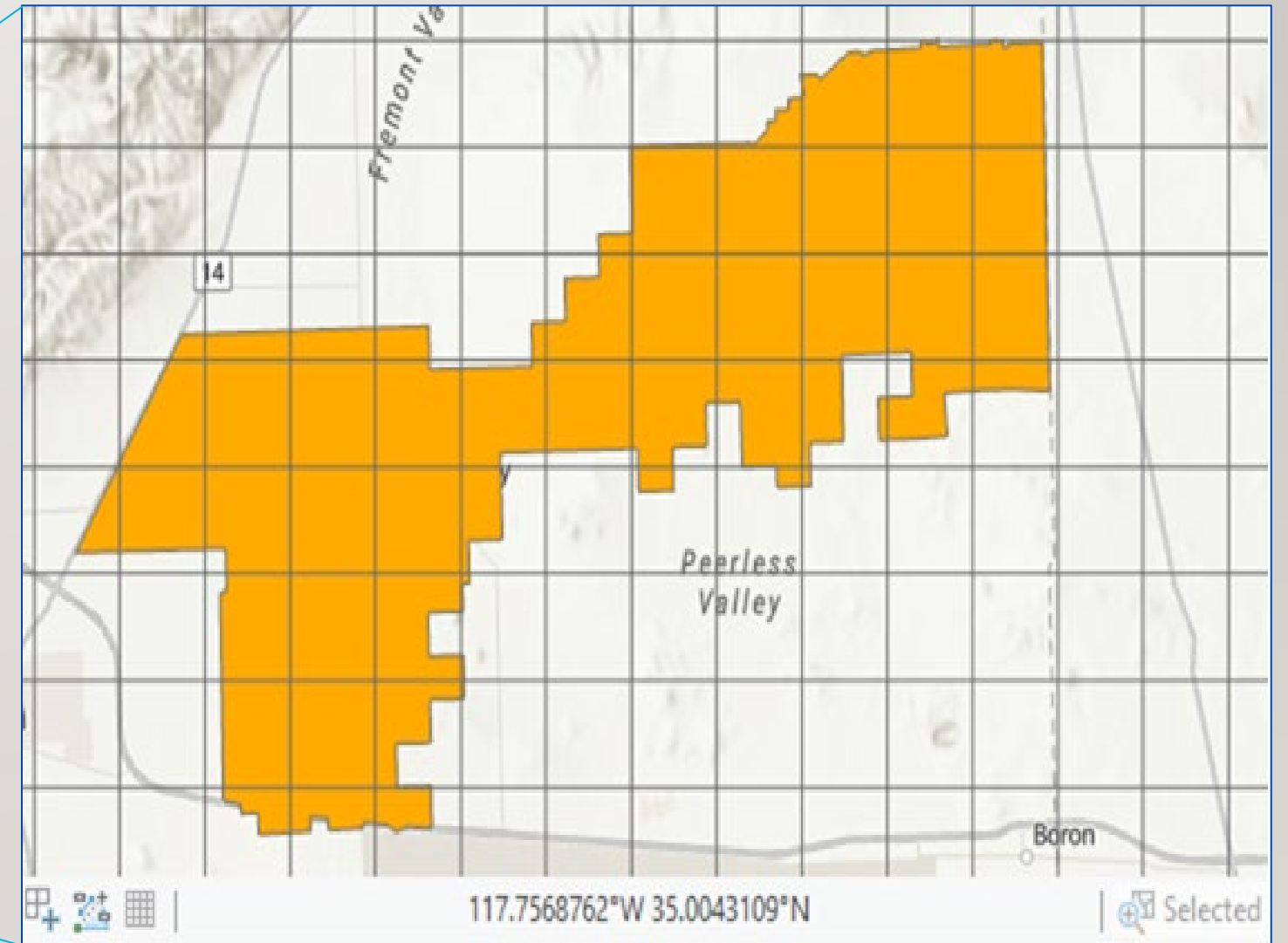
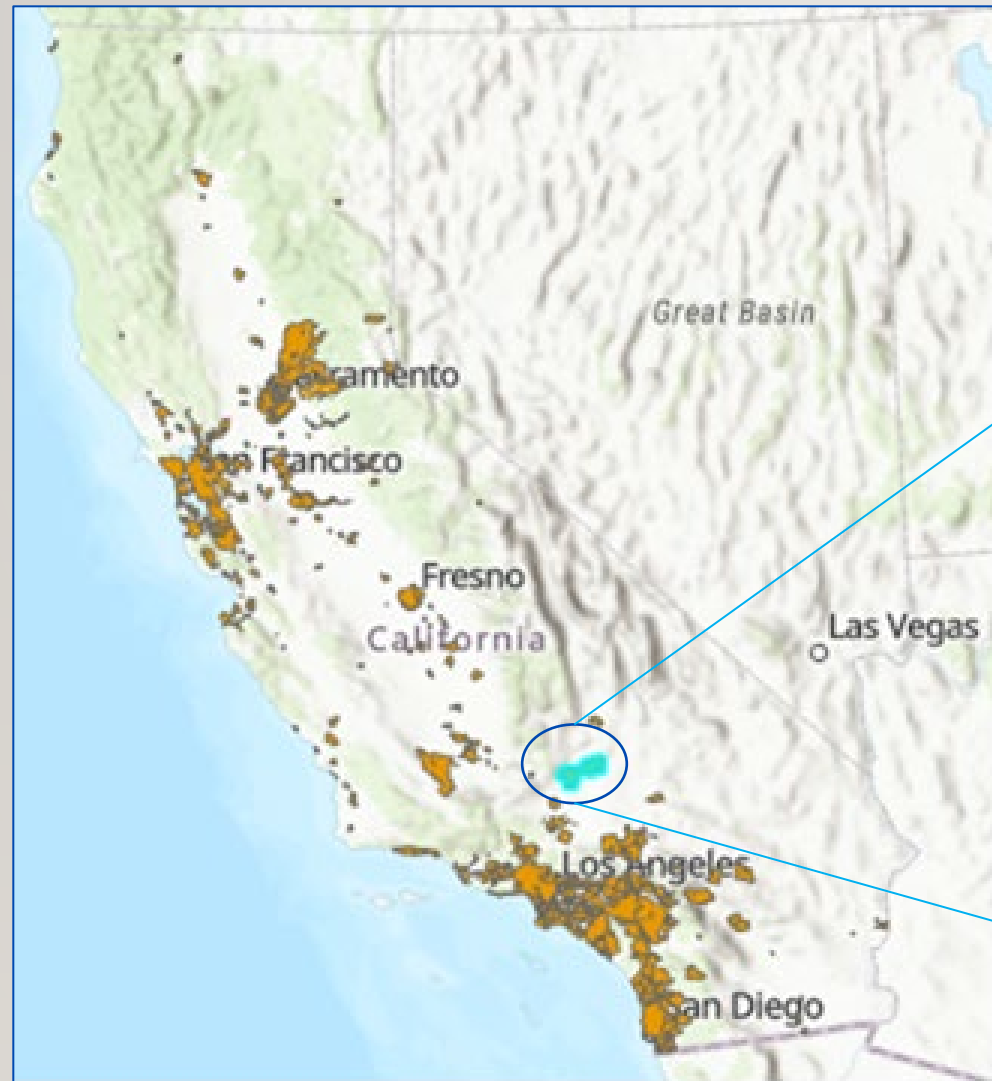


What is Cal-SIMETAW?

- Cal-SIMETAW is a daily soil water balance model that was developed by DWR and UC Davis.
- Uses the following input data to track daily soil water balance at 4-km grid:
 - Precipitation (PRISM)
 - Spatial CIMIS (DWR)
 - SSURGO Soil Data (USDA)
 - Crop Information (DWR)
- ET_c , ET_{aw} , and P_{eff} are the final model outputs.



ET_o and P_{eff} at the Service Area Level



Two Sets of ETo, P_{eff} , and ETF Data

- Annual
 - Aggregate values from January 1st through December 31st (or July 1st through June 30) of each year.
 - Used to calculate efficient outdoor water use (both residential and CII).
 - Annual ETo values are similar for suppliers with similar climates.
- Seasonal
 - Used for agricultural water use variance calculations.
 - Aggregation period varies depending on the types of crops grown.
 - ETo values can be different even for suppliers that are adjacent to each other.

Annual and Seasonal ETo, P_{eff}, and ETF Data

Annual (Calendar and Fiscal)

| | A | B | C |
|----|-------------|-------------------|--------------------|
| 1 | WDID | 2022 ETo In/Yr | 2022 Peff In/Yr |
| 2 | Supplier 1 | 69.02 | 0.53 |
| 3 | Supplier 2 | 45.63 | 2.93 |
| 4 | Supplier 3 | 49.08 | 2.94 |
| 5 | Supplier 4 | 57.47 | 2.08 |
| 6 | Supplier 5 | 56.67 | 6.01 |
| 7 | Supplier 6 | 50.72 | 2.96 |
| 8 | Supplier 7 | 54.25 | 1.54 |
| 9 | Supplier 8 | 55.78 | 4.38 |
| 10 | Supplier 9 | 68.55 | 0.79 |
| 11 | Supplier 10 | 54.22 | 2.25 |
| 12 | Supplier 11 | 69.09 | 0.81 |
| 13 | Supplier 12 | 59.42 | 2.60 |
| 14 | Supplier 13 | 33.40 | 9.23 |
| 15 | Supplier 14 | 49.28 | 2.79 |
| 16 | Supplier 15 | 51.81 | 1.44 |
| 17 | Supplier 16 | 67.79 | 1.13 |
| 18 | Supplier 17 | 54.34 | 3.47 |
| 19 | Supplier 18 | 58.26 | 2.15 |

Seasonal

| | A | B | C | D |
|----|-------------|-----------------|------------------|-----------------|
| 1 | WDID | Seasonal ETo | Seasonal Peff | Seasonal ETF |
| 2 | Supplier 1 | 3.77 | 0.59 | 0.93 |
| 3 | Supplier 2 | 1.06 | 0.27 | 1.00 |
| 4 | Supplier 3 | 1.69 | 0.25 | 0.93 |
| 5 | Supplier 4 | 3.36 | 0.61 | 1.07 |
| 6 | Supplier 5 | 3.45 | 0.31 | 1.03 |
| 7 | Supplier 6 | 3.79 | 0.55 | 1.12 |
| 8 | Supplier 7 | 3.39 | 0.62 | 1.09 |
| 9 | Supplier 8 | 3.16 | 0.43 | 0.87 |
| 10 | Supplier 9 | 2.28 | 0.62 | 1.17 |
| 11 | Supplier 10 | 1.11 | 0.17 | 1.13 |
| 12 | Supplier 11 | 4.12 | 0.28 | 1.16 |
| 13 | Supplier 12 | 2.58 | 0.50 | 1.04 |
| 14 | Supplier 13 | 2.24 | 0.08 | 1.01 |
| 15 | Supplier 14 | 2.89 | 0.32 | 1.04 |
| 16 | Supplier 15 | 2.46 | 0.30 | 1.17 |
| 17 | Supplier 16 | 6.30 | 0.57 | 1.03 |
| 18 | Supplier 17 | 4.68 | 0.48 | 1.20 |
| 19 | Supplier 18 | 3.54 | 0.59 | 1.09 |

Irrigable Landscape Area

- **CWC 10609.6. (b):** *The department shall, by January 1, 2021, provide each urban retail water supplier with data regarding the area of residential irrigable lands in a manner that can reasonably be applied to the standards adopted pursuant to this section.*
- DWR provided landscape area measurement (LAM) data to all suppliers.



Irrigable (cont.)

- DWR classified residential single family and multi-family landscapes into three classes based on irrigation status.
 - Irrigable-Irrigated (II)
 - Irrigable-Not-Irrigated (INI)
 - Not-Irrigable (NI)
- DWR, working with the state water board and interested parties, recommended Irrigable landscape area to be used in the calculation of efficient outdoor water use as:

$$LA = II + 0.20 \times INI$$

Where Exactly is the Irrigable Area in the Delivered LAM Data?

| Name | Date modified | Type | Size |
|-------------------------------------|-------------------|----------------------|------------|
| A_UID_Summary | 6/28/2023 2:37 PM | Microsoft Excel C... | 1,654 KB |
| A_UID_Summary.dbf | 6/28/2023 2:37 PM | DBF File | 5,593 KB |
| A_UID_Summary.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| A_UID_Summary.shp | 6/28/2023 2:37 PM | SHP File | 1,128 KB |
| A_UID_Summary.shx | 6/28/2023 2:37 PM | SHX File | 50 KB |
| AgLands_Mask.dbf | 6/28/2023 2:37 PM | DBF File | 6 KB |
| AgLands_Mask.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| AgLands_Mask.shp | 6/28/2023 2:37 PM | SHP File | 12 KB |
| AgLands_Mask.shx | 6/28/2023 2:37 PM | SHX File | 1 KB |
| AOI.dbf | 6/28/2023 2:37 PM | DBF File | 1 KB |
| AOI.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| AOI.shp | 6/28/2023 2:37 PM | SHP File | 9 KB |
| AOI.shx | 6/28/2023 2:37 PM | SHX File | 1 KB |
| ARROYOGRANDE013_20230613_WD_Deli... | 6/28/2023 2:38 PM | Compressed (zipp... | 62,891 KB |
| A_20230615 | 6/28/2023 2:38 PM | Adobe Acrobat D... | 159,623 KB |
| B_UID_Summary | 6/28/2023 2:37 PM | Microsoft Excel C... | 1,455 KB |
| B_UID_Summary.dbf | 6/28/2023 2:37 PM | DBF File | 3,665 KB |
| B_UID_Summary.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| B_UID_Summary.shp | 6/28/2023 2:37 PM | SHP File | 1,163 KB |
| B_UID_Summary.shx | 6/28/2023 2:37 PM | SHX File | 50 KB |
| Horse_Corral_Mask.dbf | 6/28/2023 2:37 PM | DBF File | 1 KB |
| Horse_Corral_Mask.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| Horse_Corral_Mask.shp | 6/28/2023 2:37 PM | SHP File | 1 KB |

| | | | |
|--|-------------------|--------------------|-----------|
| Horse_Corral_Mask.shx | 6/28/2023 2:37 PM | SHX File | 1 KB |
| Landscape Area Estimates Project READ... | 6/28/2023 2:38 PM | Adobe Acrobat D... | 449 KB |
| Parcels_AB_Relationship.dbf | 6/28/2023 2:37 PM | DBF File | 5,010 KB |
| Parcels_AB_Relationship.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| Parcels_AB_Relationship.shp | 6/28/2023 2:37 PM | SHP File | 1,309 KB |
| Parcels_AB_Relationship.shx | 6/28/2023 2:37 PM | SHX File | 55 KB |
| Parcels_All.dbf | 6/28/2023 2:37 PM | DBF File | 15,837 KB |
| Parcels_All.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| Parcels_All.shp | 6/28/2023 2:37 PM | SHP File | 1,316 KB |
| Parcels_All.shx | 6/28/2023 2:37 PM | SHX File | 57 KB |
| Parcels_Queried.dbf | 6/28/2023 2:37 PM | DBF File | 14,746 KB |
| Parcels_Queried.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| Parcels_Queried.shp | 6/28/2023 2:37 PM | SHP File | 1,514 KB |
| Parcels_Queried.shx | 6/28/2023 2:37 PM | SHX File | 51 KB |
| QSI_Validation_Parcels.dbf | 6/28/2023 2:37 PM | DBF File | 46 KB |
| QSI_Validation_Parcels.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| QSI_Validation_Parcels.shp | 6/28/2023 2:37 PM | SHP File | 9 KB |
| QSI_Validation_Parcels.shx | 6/28/2023 2:37 PM | SHX File | 1 KB |
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| UDL_Mask.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| UDL_Mask.shp | 6/28/2023 2:37 PM | SHP File | 157 KB |
| UDL_Mask.shx | 6/28/2023 2:37 PM | SHX File | 2 KB |
| VoidPoly.dbf | 6/28/2023 2:37 PM | DBF File | 7,054 KB |
| VoidPoly.prj | 6/28/2023 2:37 PM | PRJ File | 1 KB |
| VoidPoly.shp | 6/28/2023 2:37 PM | SHP File | 23,503 KB |

Excel File and GIS Shapefiles

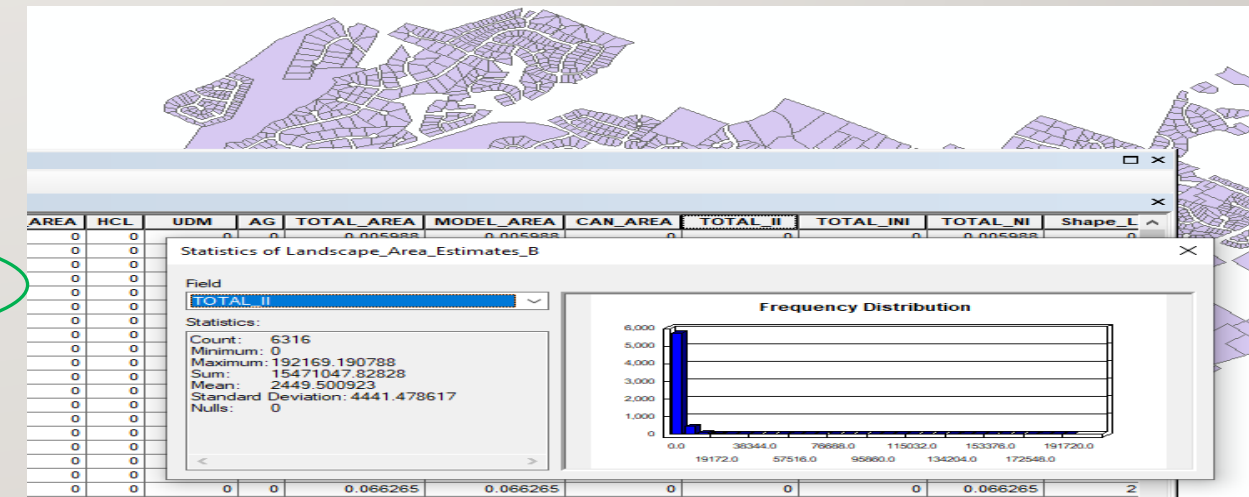
Excel File – “B_UID_Summary.csv”

Important: DO NOT use **A_UID_Summary.csv**

| M | N | O | P | Q | R | S |
|----|-------------|-------------|------------|----------|-----------|----------|
| AG | TOTAL_AREA | MODEL_AREA | CAN_AREA | TOTAL_II | TOTAL_INI | TOTAL_NI |
| 0 | 0.000863822 | 0.000863822 | 0 | 0 | 0.000864 | 0 |
| 0 | 0.001443196 | 0.001443196 | 0.0014432 | 0 | 0.001443 | 0 |
| 0 | 0.00208432 | 0 | 0 | 0 | 0 | 0.002084 |
| 0 | 0.003080876 | 0.003080876 | 0.00308088 | 0.003081 | 0 | 0 |
| 0 | 0.003770786 | 0.003770786 | 0 | 0 | 0 | 0.003771 |
| 0 | 0.00411578 | 0.00411578 | 0.00411578 | 0.004116 | 0 | 0 |
| 0 | 0.004173544 | 0.004173544 | 0.00417354 | 0.004174 | 0 | 0 |
| 0 | 0.004413566 | 0.004413566 | 0 | 0 | 0 | 0.004414 |
| 0 | 0.004455581 | 0.004455581 | 0.00023267 | 0.004456 | 0 | 0 |
| 0 | 0.004597337 | 0.004597337 | 0 | 0 | 0 | 0.004597 |
| 0 | 0.005162933 | 0.005162933 | 0.00516293 | 0.005163 | 0 | 0 |
| 0 | 0.005822915 | 0.005822915 | 0 | 0 | 0 | 0.005823 |
| 0 | 0.006515666 | 0.006515666 | 0.00651567 | 0.006516 | 0 | 0 |
| 0 | 0.006658833 | 0.006658833 | 0 | 0 | 0 | 0.006659 |
| 0 | 0.007921209 | 0.007921209 | 0 | 0 | 0 | 0.007921 |
| 0 | 0.008774428 | 0.008774428 | 0 | 0 | 0 | 0.008774 |
| 0 | 0.00927852 | 0.00927852 | 0.00131813 | 0.001318 | 0 | 0.00796 |

Sum =

GIS Shapefile – “B_UID_Summary.shp”



- **GIS Shapefile – “AOI.shp”**

| Table | | | | | | | | | | |
|-------|---------|------------|----------|------------|--------|-----------|----------|-------------|------------|-------------|
| | | | | | | | | | | |
| AOI | | | | | | | | | | |
| FID | Shape | DIST_NAME | DIST_NUM | APP_DATE | APP_BY | LAST_MOD | IMG_YEAR | TOTAL_II | TOTAL_INI | TOTAL_NI |
| 0 | Polygon | [REDACTED] | 13 | 12/21/2018 | | 6/13/2023 | 2020 | 15471047.83 | 8027123.48 | 63105572.46 |

New Excel File From DWR

- DWR will provide additional spreadsheet with a list of all retail water suppliers and the following information:

- Horse corral areas
- Agricultural areas
- Pool areas
- Total irrigation status class areas (II, INI, NI)
- Irrigable area ($II + 0.20 * INI$)

| Dist_Name | HCL_area (sq-ft) | Ag_area (sq-ft) | Pool_area (sq-ft) | Total_II (sq-ft) | Total_INI (sq-ft) | Total_NI (sq-ft) | Irrigable Area (sq-ft) |
|------------|------------------|-----------------|-------------------|------------------|-------------------|------------------|------------------------|
| Supplier01 | 0 | 0 | 274,936 | 21,647,829 | 16,538,935 | 72,866,374 | 24,955,616 |
| Supplier02 | 91,200 | 2,366,189 | 86,403 | 25,017,685 | 21,382,775 | 323,050,434 | 29,294,240 |
| Supplier03 | 47,738 | 550,538 | 56,863 | 8,267,137 | 10,840,742 | 35,604,228 | 10,435,285 |
| Supplier04 | 0 | 614,312 | 4,905,487 | 144,655,258 | 38,187,889 | 335,339,590 | 152,292,836 |
| Supplier05 | 1,319 | 5,763,723 | 70,400 | 12,275,024 | 7,697,049 | 30,060,559 | 13,814,434 |
| Supplier06 | 0 | 1,129,900 | 1,441,941 | 64,851,512 | 37,307,354 | 144,171,108 | 72,312,983 |
| Supplier07 | 93,672 | 2,224,516 | 1,262,895 | 37,446,397 | 150,627,246 | 324,731,304 | 67,571,846 |
| Supplier08 | 6,990 | 0 | 2,358,876 | 58,354,958 | 23,631,467 | 87,995,528 | 63,081,251 |
| Supplier09 | 0 | 3,221,800 | 56 | 13,031,399 | 11,812,450 | 41,579,409 | 15,393,889 |
| Supplier10 | 2,367 | 4,544,332 | 31,658 | 15,471,048 | 8,027,123 | 63,105,572 | 17,076,473 |
| Supplier11 | 2,243 | 107,934 | 40,438 | 6,601,144 | 4,926,893 | 15,273,046 | 7,586,523 |
| Supplier12 | 458,065 | 2,458,015 | 228,430 | 22,320,767 | 80,317,194 | 456,572,940 | 38,384,206 |
| Supplier13 | 0 | 1,879,325 | 321,047 | 24,307,364 | 10,008,499 | 41,238,872 | 26,309,064 |
| Supplier14 | 0 | 0 | 1,054,992 | 37,588,979 | 21,094,424 | 103,175,203 | 41,807,864 |
| Supplier15 | 0 | 5,447,691 | 5,120,394 | 163,880,870 | 10,370,350 | 269,763,943 | 165,954,940 |
| Supplier16 | 0 | 52,329 | 174,406 | 12,560,476 | 7,250,613 | 18,934,701 | 14,010,599 |
| Supplier17 | 201,846 | 243,775 | 156,667 | 17,290,005 | 17,412,954 | 94,079,152 | 20,772,596 |

Adjusting LAM for New Parcels

- Suppliers can request for adjustments in their LAM data if significant changes occurred in their service area because:
 - New parcels have been developed after the year the LAM imagery was taken.
 - New areas/systems have been acquired by the supplier after LAM was completed.
 - Vacant parcels have been reoccupied.
- Recommended approaches for estimating landscape areas for new parcels:
 - On-the-ground measurement.
 - Remote sensing approach.
 - Using service area level averages.
- DWR will announce where requests for adjustments will be sent.

Adjusting LAM (cont.)

Table 5: Percent coverage of LUC at the irrigation status level. For irrigation status definitions, please see Table A1 the appendix. For LUC definitions, please see Table A19 of the appendix.

| LUC | NI Median (%) | NI Mean (%) | II Median (%) | II Mean (%) | INI Median (%) | INI Mean (%) |
|------|------------------|----------------|------------------|----------------|-------------------|-----------------|
| 0010 | 90.4 | 86.3 | 0.0 | 1.6 | 9.6 | 12.1 |
| 1001 | 56.0 | 56.2 | 25.3 | 26.0 | 14.3 | 17.8 |
| 1004 | 53.8 | 56.1 | 32.5 | 29.6 | 8.7 | 14.3 |
| 1006 | 68.6 | 66.0 | 19.9 | 19.5 | 11.6 | 14.5 |
| 1101 | 57.3 | 55.5 | 23.4 | 23.2 | 18.2 | 21.2 |
| 1102 | 53.4 | 52.9 | 26.6 | 28.5 | 15.6 | 18.6 |
| 1103 | 60.5 | 59.9 | 26.4 | 24.6 | 14.8 | 15.5 |
| 1104 | 62.0 | 55.4 | 29.1 | 27.7 | 17.0 | 16.9 |
| 1109 | 68.6 | 63.9 | 19.9 | 22.6 | 11.6 | 13.5 |
| 1112 | 61.4 | 60.7 | 25.8 | 28.8 | 6.2 | 10.5 |
| 2044 | 76.1 | 67.9 | 22.6 | 14.7 | 18.8 | 17.4 |
| 9106 | 66.5 | 66.5 | 22.5 | 22.5 | 11.0 | 11.0 |

- Hypothetical new parcels example:

- 100 new residential parcels with a LUC of 100I and total area of 5,000,000 sq.ft.

$$II = 5,000,000 \times 0.26$$

$$= 1,300,000 \text{ sq.ft}$$

$$INI = 5,000,000 \times 0.18$$

$$= 900,000 \text{ sq.ft}$$

$$NI = 5,000,000 \times 0.56$$

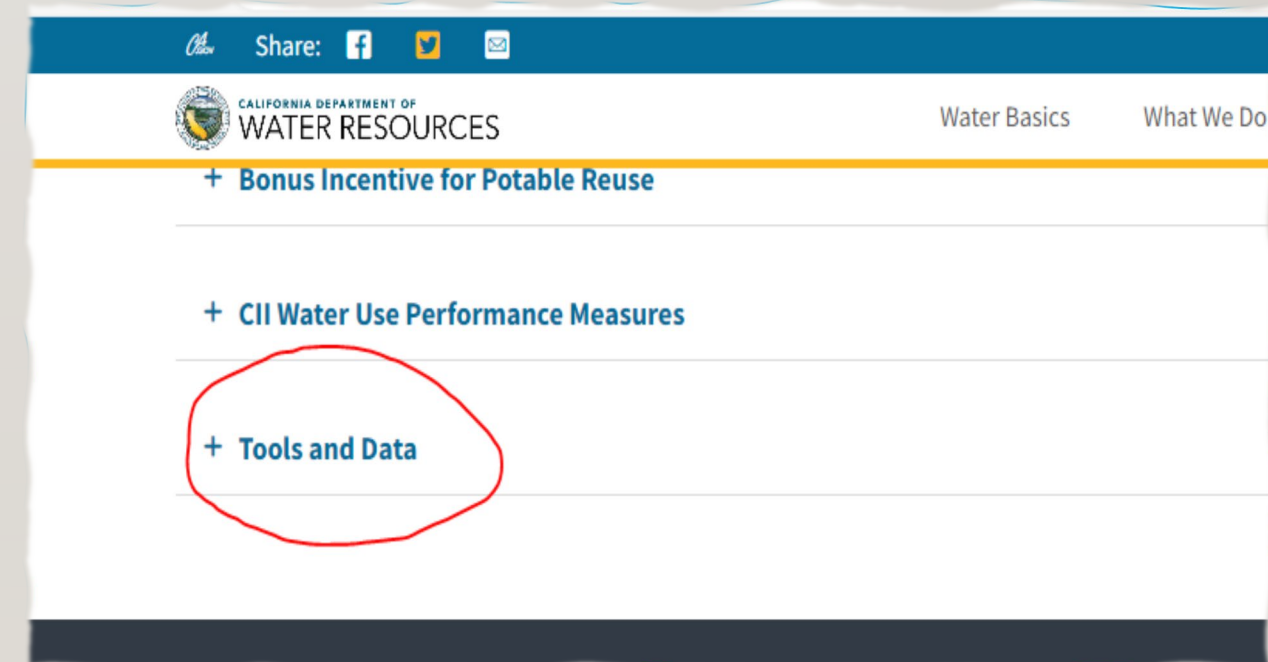
$$= 2,800,000 \text{ sq.ft}$$

DWR Data Summary

- Reference Evapotranspiration
 - Annual ETo for efficient outdoor water use calculations
 - Seasonal ETo for agricultural water use calculations
- Effective Precipitation
 - Annual P_{eff} efficient outdoor water use calculations
 - Seasonal P_{eff} for agricultural water use calculations
- Irrigable Landscape Area
 - Residential
 - Commercial, Industrial, and Institutional (CII)
- Evapotranspiration Factor (ETF)

DWR data can be accessed from:

<https://water.ca.gov/Programs/Water-Use-And-Efficiency/2018-Water-Conservation-Legislation/Urban-Water-Use-Efficiency-Standards-Variances-and-Performance-Measures>



Use of Alternative Data

- **CWC 10609. (b)(2) (D):** Provides for the use of alternative sources of data if alternative sources are shown to be as accurate as, or more accurate than, the data provided by the department.
- DWR made recommendations to the State Water Board on the use of alternative data by urban retail water suppliers.

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Water Basics What We Do Programs

Summary of Recommendations - Guidelines and Methodologies for Calculating Urban Water Use Objective

In coordination with the State Water Board, DWR developed the recommendations for urban water use efficiency standards, variances, and performance measures with the collaboration with many workgroups and input from interested parties.

- Recommendations for Urban Water Use Efficiency Standards, Variances, Performance Measures, and Annual Water Use Reporting (Report No. WUES-DWR-2021-01A)
 - Assessment of Recommended Urban Water Use Efficiency Standards in Relation to the Senate Bill X7-7 Statewide Target (Report No. WUES-DWR-2021-01A.T1)
- Recommendations for Guidelines and Methodologies for Calculating Urban Water Use Objective (Report No. WUES-DWR-2021-01B)
- Stakeholder Outreach Summary for Developing Urban Water Use Efficiency Standards, Variances, and Performance Measures (Report No. WUES-DWR-2021-20)
- Urban Water Use Efficiency Recommendation Package: Glossary and Abbreviations and Acronyms (Report No. WUES-DWR-2021-21)

9.0 Use of Alternative Data

Request for approval of an alternative data source can be made either separately for each type of data discussed here and below (i.e., landscape area, *ETo*, total precipitation, and *Pe_{eff}*) or combined. If submitting them combined, only one public process is necessary, so long as all data are included in the public process.

Submittal instructions will be posted on DWR's website. DWR will review the submittals and approve requests if the documentation is complete. DWR may require more information before approving a request and will inform the urban retail water supplier of its review outcome. The request may be returned or rejected for incomplete documentation. DWR will respond within 60 days of receipt of the package.

Questions?



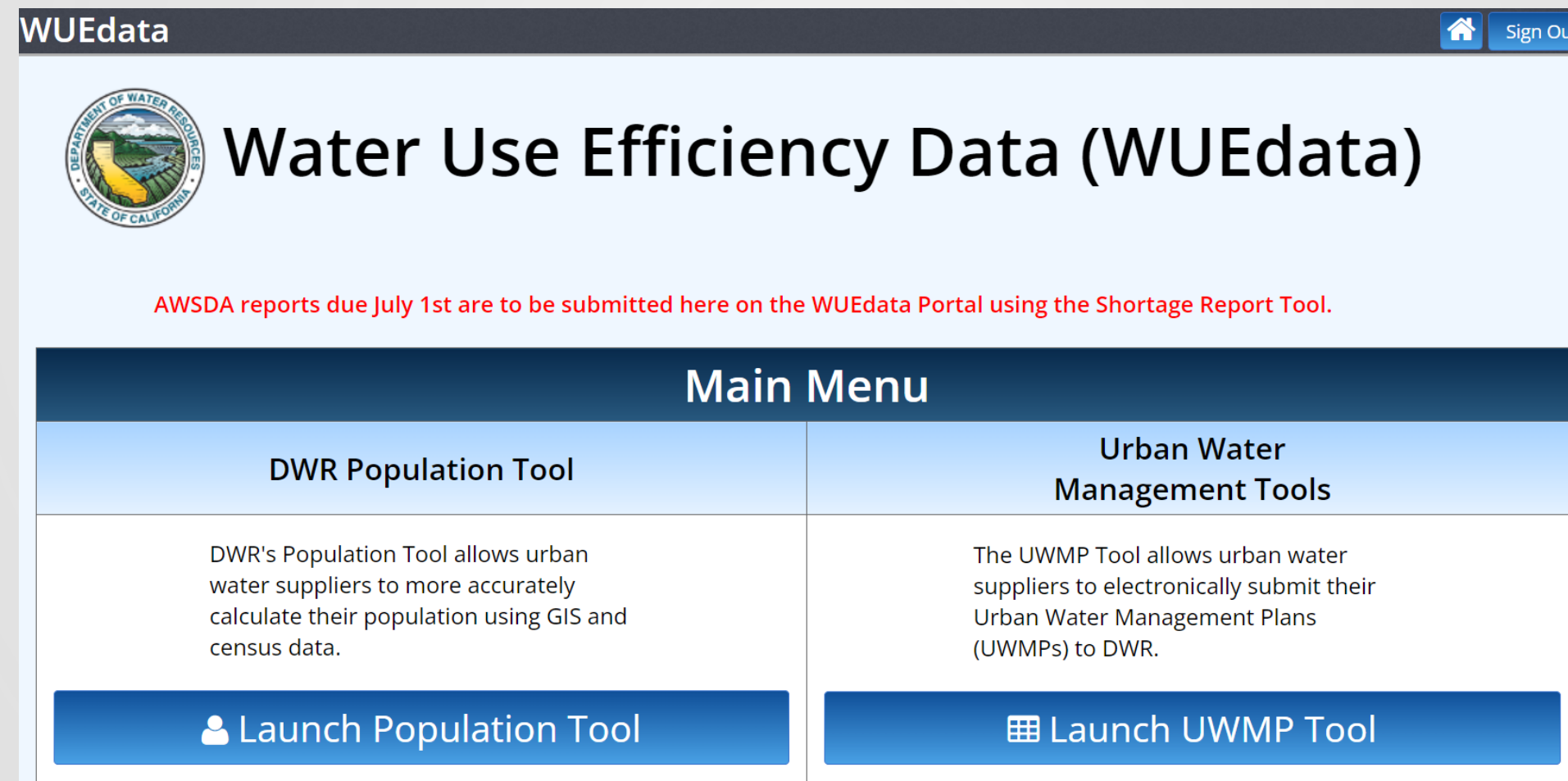
Next Steps

- Update template if needed for first annual report.
- Develop fact sheet guidance for completing template.
- Post DWR provided data to the website at: [Urban Water Use Efficiency Standards, Variances and Performance Measures \(ca.gov\)](https://www.water.ca.gov/urbanwateruseefficiency/standards-variances-and-performance-measures) under “Tools and Data”
- When Regulation is finalized, coordinate with State Water Board on updating template, if applicable, for continued reporting.
- Continued work on tools and technical assistance



Submission

- WUEData Portal
 - Attachment Only (w/Water Loss Audit)
- Email if before 12/1/2023
 - WUEstandards@water.ca.gov



The screenshot shows the WUEdata portal interface. At the top, there is a dark blue header with the text 'WUEdata' on the left and a home icon and 'Sign Out' button on the right. Below the header is a light blue banner featuring the California Department of Water Resources logo on the left and the title 'Water Use Efficiency Data (WUEdata)' in large black text. A red text notice below the banner states: 'AWSDA reports due July 1st are to be submitted here on the WUEdata Portal using the Shortage Report Tool.' The main content area is titled 'Main Menu' and is divided into two columns. The left column is titled 'DWR Population Tool' and contains a description: 'DWR's Population Tool allows urban water suppliers to more accurately calculate their population using GIS and census data.' Below this description is a blue button with a person icon and the text 'Launch Population Tool'. The right column is titled 'Urban Water Management Tools' and contains a description: 'The UWMP Tool allows urban water suppliers to electronically submit their Urban Water Management Plans (UWMPs) to DWR.' Below this description is a blue button with a calendar icon and the text 'Launch UWMP Tool'.





THANK YOU!

Contact:

WUE@water.ca.gov for general questions and comments

WUEStandards@water.ca.gov for comments, information, and questions related to UWUO Reporting

Link to download template:

[WUEdata - Water Use Efficiency Data \(ca.gov\)](https://www.water.ca.gov/water-use-efficiency-data-reports) under Urban Water Management Plans 'Resources' tab.

