Valley Water

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10 th ANNUAL LANDSCAPE SUMMIT

22nd CENTURY LANDSCAPES

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Valley Water

Understanding the Past, Present, and Future of CA Landscaping Legislation

Valley Water Landscaping Summit
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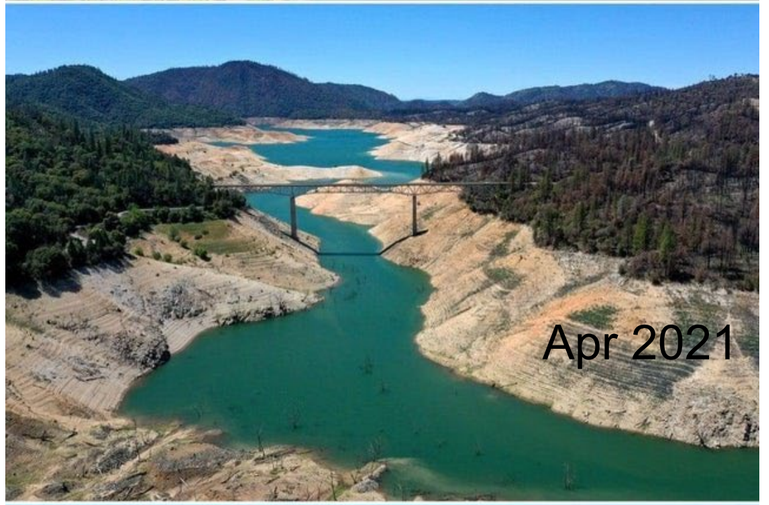
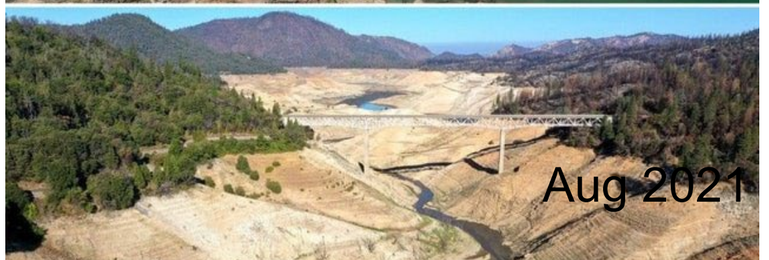
Importance of Water Conservation

- Limited Resource
- Climate Change
- Drought – Natural and Regulatory
- Demands Exceed Supply
- Saves Energy and Other Resources
- Good for Plants

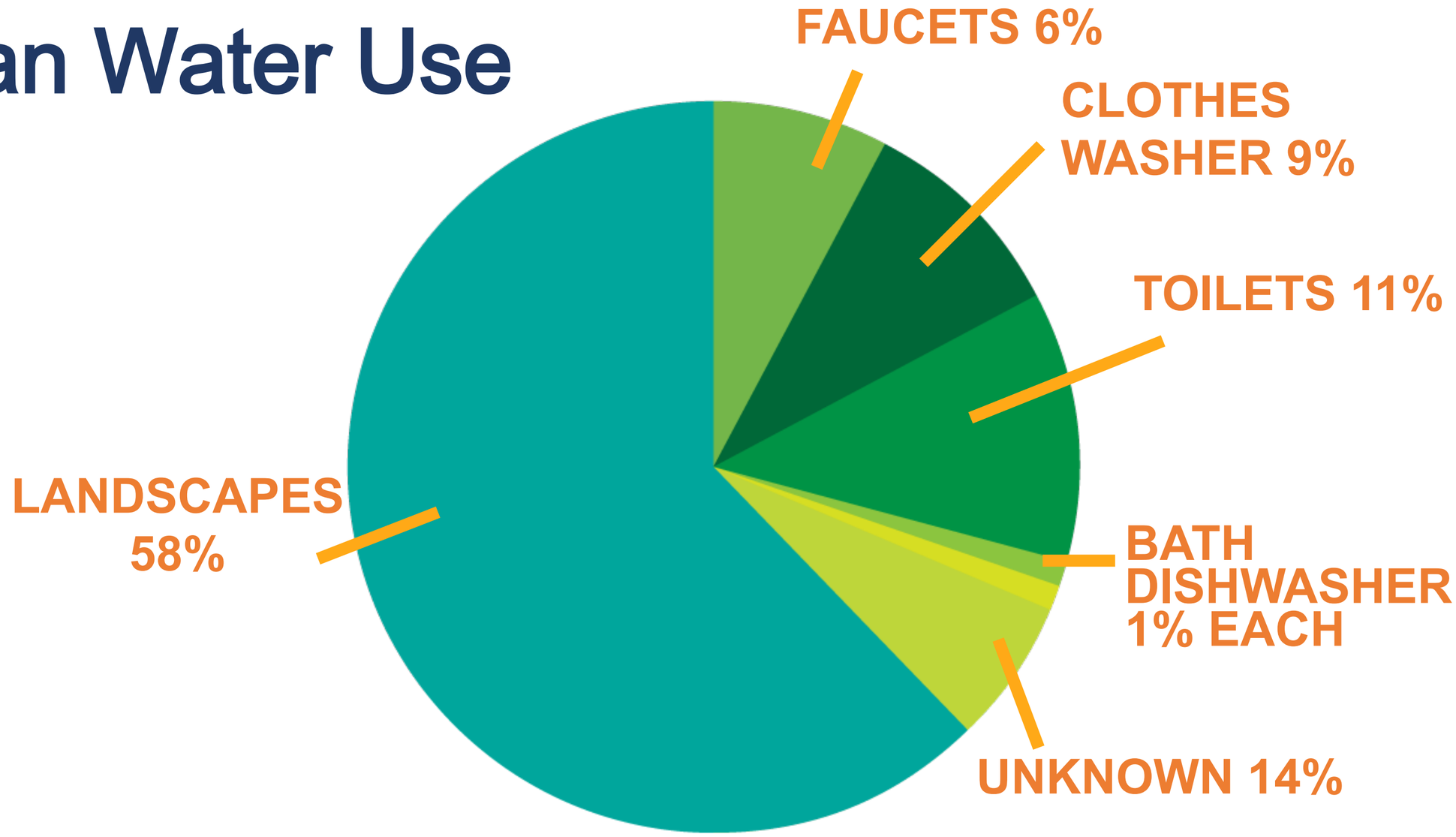
The Why Behind Turf Replacement Programs


(Michael Weber/Mercury Register)



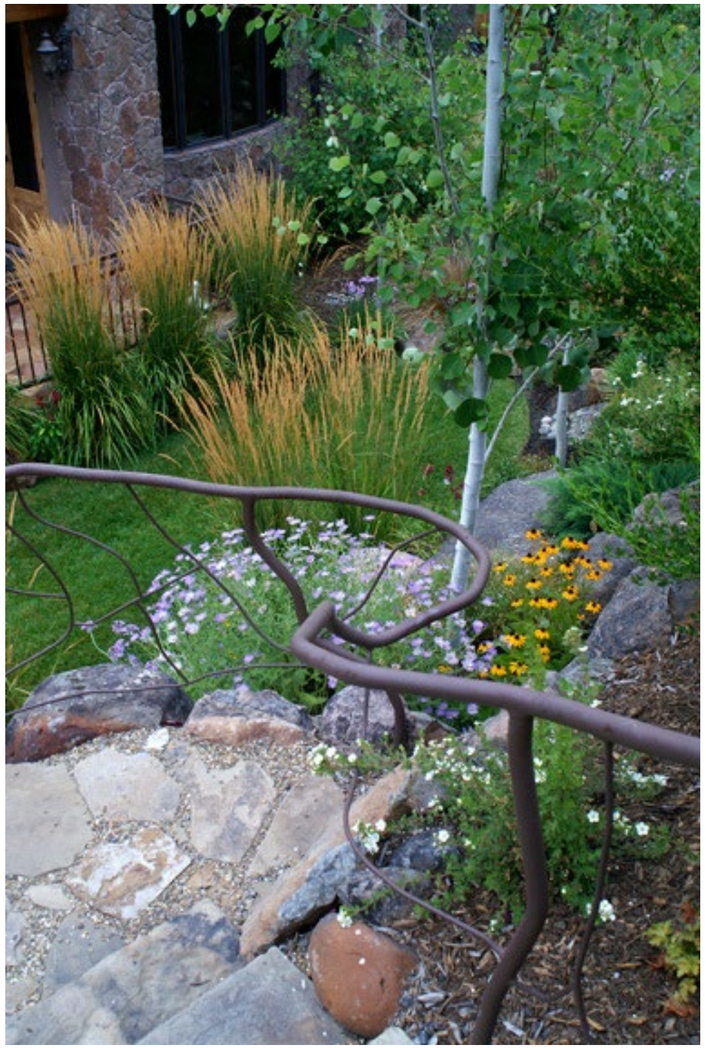


Urban Water Use



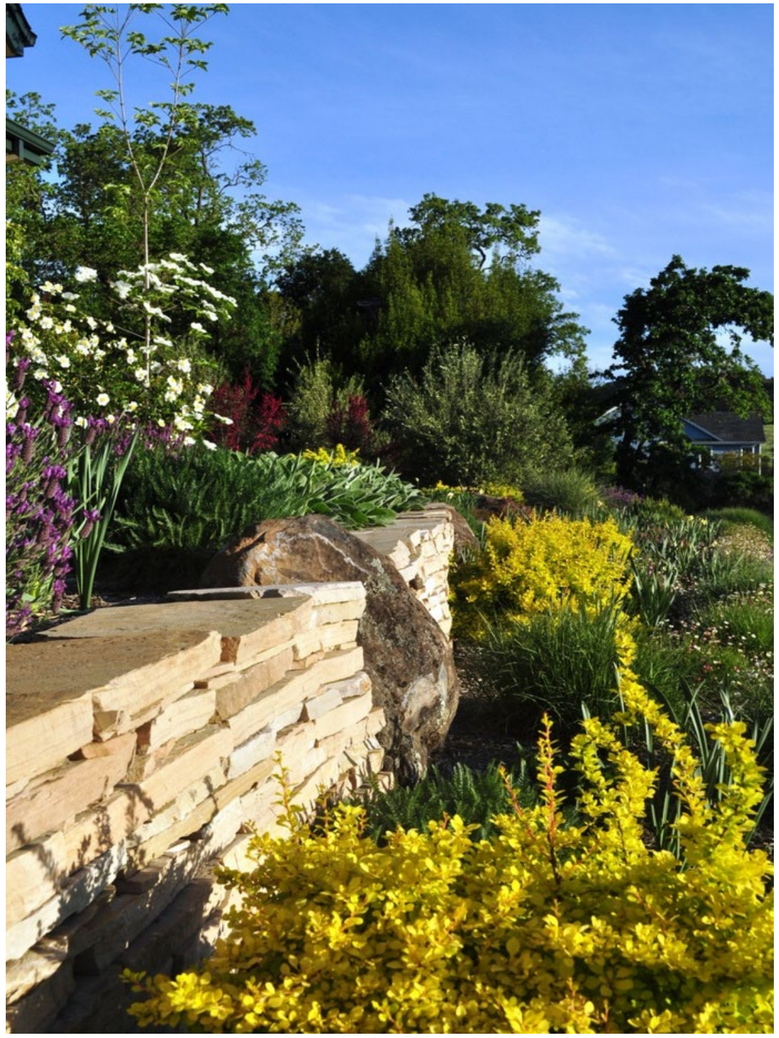
Outdoor Water Use During Droughts

- Lawns perceived as bad
- Municipalities look for easy approach
- Poor communication between public and private sectors
- Landscapes are overwatered
- Finger pointing
- Sustainability is a better model



Benefits of Landscaping in Urban Ecology

- Carbon emission reduction
- Improved air quality
- Erosion control
- Bio-filtration
- Food production
- Energy conservation
- Wildlife habitat
- Recreation
- Quality of Life



Legislation

How Did We Get Here?

1993
- Model Water Efficient Landscape Ordinance Enacted

2009
- Senate Bill X7-7 (20% by 2020)

2014
- California Water Plan Update
  - Action 1: “Make Conservation a California Way of Life”
  - Action 5: “Manage and Prepare for Dry Periods”

2016
- Executive Order B-37-16 “Making Conservation a California Way of Life”

2018
- Implementation legislation SB606 and AB1668 enrolled
- *Making Conservation a California Way of Life Primer* Released

2023
- AB1572 passed and signed into law

2024
- Adoption of Final CAACWOL Regulation

2025
- CAACWOL compliance and reporting began on January 1, 2025

What is the *Model Water Efficient Landscape Ordinance*

- Passed in 1993 and updated in 2015
- State regulation designed to prevent water from being wasted on irrigated landscapes
- Focused on new and rehabilitated landscapes over 2,500 square feet that require a permit or plan check

How does it work?

- MWELO focuses on designing, installing, and maintaining a landscape to a water budget
  - (Evapotranspiration(ETo) x Plant Factor x Landscape Area x 0.62)

  Landscape budget with plant factor for cool season turf
  6 x 0.8 x 2,000 x 0.62 = **5,952 gallons** in July for cool-season turf

  Landscape budget with plant factor for low water use plants
  6 x 0.3 x 2,000 x 0.62 = **2,232 gallons** in July for low-water use plants

MWELO Challenges and Improvements

- Implementation has been sporadic
- Design and maintenance do not always match
- Current MWELO standards are out of date
- 2025 update will include a new, streamlined process for easier implementation

What is the *Making Conservation a California Way of Life* Regulation?

- In 2018, SB 606 (Friedman) and AB 1668 (Hertzberg) were passed by the California State Legislature
- Direct the State Water Resources Control Board (SWRCB) to adopt water use efficiency standards and performance measures for urban water suppliers

GOAL: to help communities throughout the state adapt to California's ongoing water challenges and lessen the need for emergency reductions employed in recent droughts

Residential Outdoor Water Use Standard

landscape area for a water supplier

$$(R_{outdoor}) = (ET_o - P_{eff}) \times LA \times LEF \times 0.62$$

supplier's unique climate

efficiency factor

ETo = Reference evapotranspiration (inches)
Peff = Effective precipitation (inches)
LA = Landscape area for a water supplier (sq. ft)
LEF = Landscape Efficiency Factor (unitless) represents a percentage of reference ETo; function of plants' water needs & irrigation efficiency
0.62 = unit conversion factor

Residential Landscape Efficiency Factors

Source: Adapted from State Water Resources Control Board Public Workshop October 4, 2023

Timeframe	Revised Proposal LEFs
2025-2034	0.80 LEF
2035-2039	0.63 LEF
2040 and on	0.55 LEF Residential
New Developments	0.55 LEF Residential
Special Landscape Areas	1.0 LEF

Residential Special Landscape Areas (SLA)

Residential SLAs include:

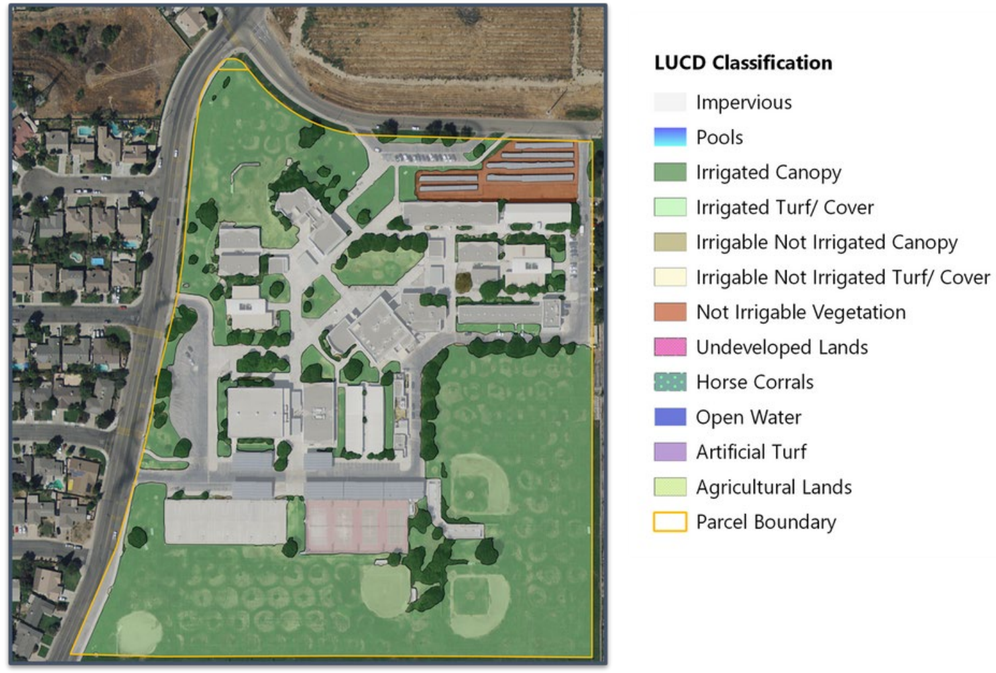
- residential pools, spas, and similar water features
- residential areas dedicated solely to edible plants
- residential areas irrigated with recycled water

Commercial Outdoor Water Use Standard

For CII Landscapes with Dedicated Irrigation Meters

$$((DIM\ LA - DIM\ SLA) \times LEF) + (DIM\ SLA \times 1.0) \times (ETo - Peff) \times 0.62$$

DIM LA- Dedicated irrigation meter landscape area
DIM SLA- Dedicated irrigation meter special landscape area
ETo= Reference evapotranspiration (inches)
Peff = Effective precipitation (inches)
LA = Landscape area for a water supplier (sq. ft)
LEF = Landscape Efficiency Factor (unitless) represents a percentage of reference ETo; function of plants' water needs & irrigation efficiency
0.62 = unit conversion factor



Commercial Landscape Efficiency Factors

For CII Landscapes with Dedicated Irrigation Meters

Source: Adapted from State Water Resources Control Board Public Workshop October 4, 2023

Timeframe	Revised Proposal LEFs
2025-2034	0.80 LEF
2035-2039	0.63 LEF
2040 and on	0.45 LEF Commercial
New Developments	0.45 LEF Commercial
Special Landscape Areas	1.0 LEF

Commercial Special Landscape Areas (SLA)

For CII Landscapes with Dedicated Irrigation Meters

Commercial SLAs include:

- Public Pools
- Landscapes Irrigated with Recycled Water
- Engineered Slopes
- Active and Passive Recreation
- Edible Plants
- Cemeteries

Installation of Dedicated Irrigation meters or In Lieu Technology

For CII Landscapes without Dedicated Irrigation Meters

Regulation will require Urban Water Suppliers to develop either install DIMs for CII Landscapes over ½ acre by June 30, 2039, or employ an in-lieu technology.

In-Lieu technologies include at least one of the following:

1. Water budget-based rate structure
2. Water budget-based management program without a rate restructure
3. Installation of technologies that enable the supplier to identify, estimate, and analyze outdoor water use (may include AMI)
4. Use of technologies that enable the supplier to identify, estimate, and analyze outdoor water use (may include remote sensing)
5. Other in-lieu technologies that enable the supplier to identify, estimate, and analyze outdoor water use

CAACWOL Challenges and Improvements

- Difficult to implement
- Data is out of date and sporadically available
- Relies heavily on customer participation to meet goals
- Need review of implementation successes and challenges

AB1572

- Co-sponsored by MWD and signed into law in 2023
- Bans irrigation of NFT with potable water on CII properties
  - Excludes cemeteries and multi-family housing
  - Includes schools, HOAs and common interest developments
  - Exception made for tree health
- NFT is defined as any turf that is not functional
- Functional turf is defined as turf located in a recreational use area or community gathering space

AB1572 Timeline and Enforcement

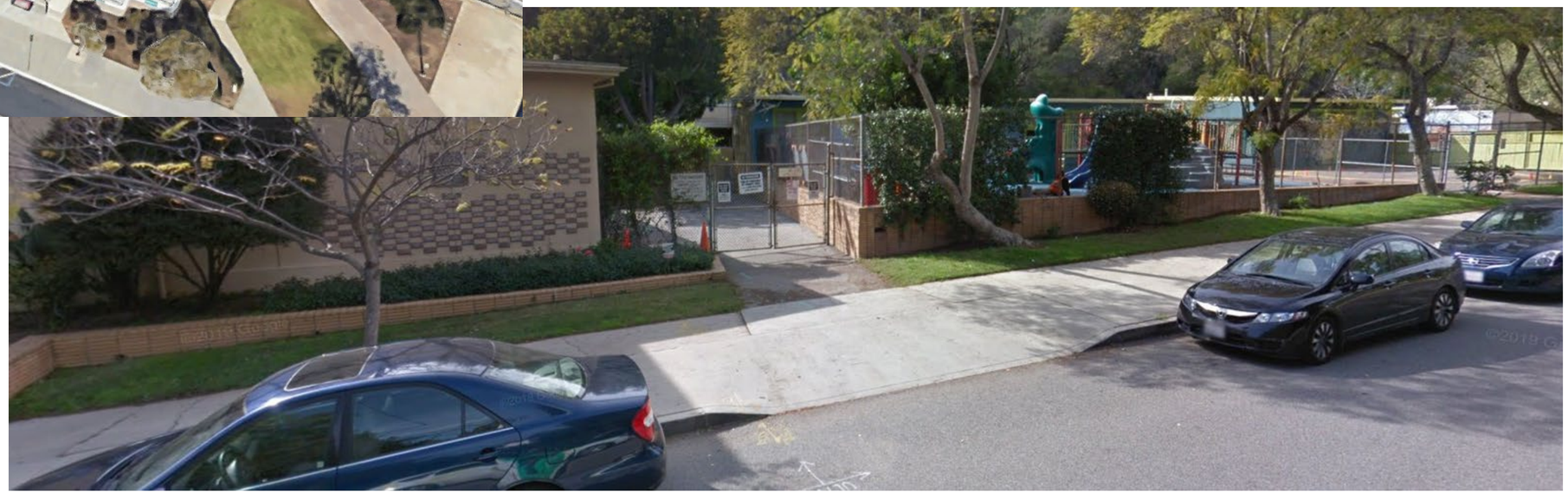
- Timeline for compliance with ban
  - January 2027 – all non-DAC public properties
  - January 2028 – all CII properties
  - January 2029 – HOA and similar common areas
  - January 2031 (or when funding is available) – DAC public properties

AB1572 Timeline and Enforcement

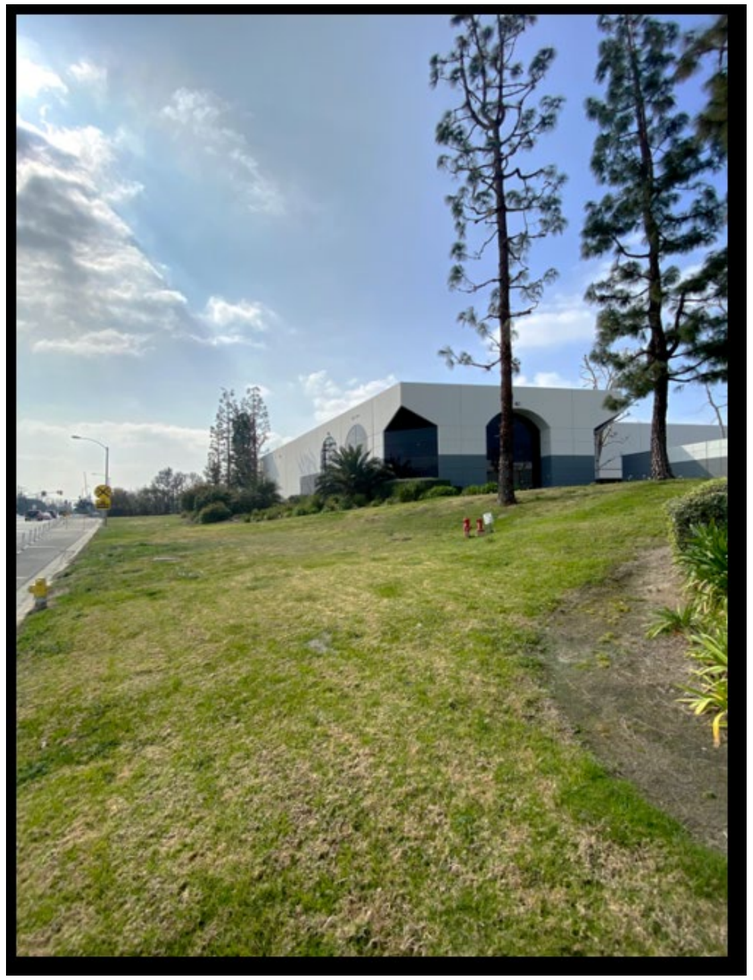
- Timeline for related items
  - January 2027 – suppliers revise ordinances/regulations to include language on ban and communicate to customers
  - June 30, 2030 – self-certification of compliance for all CII properties over 5,000 square feet of irrigated area
  - June 30, 2031 – self-certification of compliance for all HOA and similar properties with over 5,000 square feet of irrigated area

Non-Functional Turf on Public Property

Non-Functional Turf on School Property



NFT on HOA Property



NFT on CII Property

AB1572 Challenges and Improvements

- Clear direction needed on functional v non-functional turf
- Enforcement responsibilities unclear
- Potential unintended environmental consequences
- Partner with statewide turf replacement program and funding

What's (possibly) next?

- Native plant legislation or additions to MWELO
- Retrofit upon resale landscaping requirements
- Turf replacement mandates for CII properties
- Statewide water budgets and increased costs for outdoor irrigation

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