



EBMUD Landscape Advisory Committee General Meeting

Panel Discussion:

Decorative Lawn/Non-Functional Turf
Watering Ban (AB 1572)

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EBMUD Water Conservation Program Manager

January 22, 2024

Save the Date

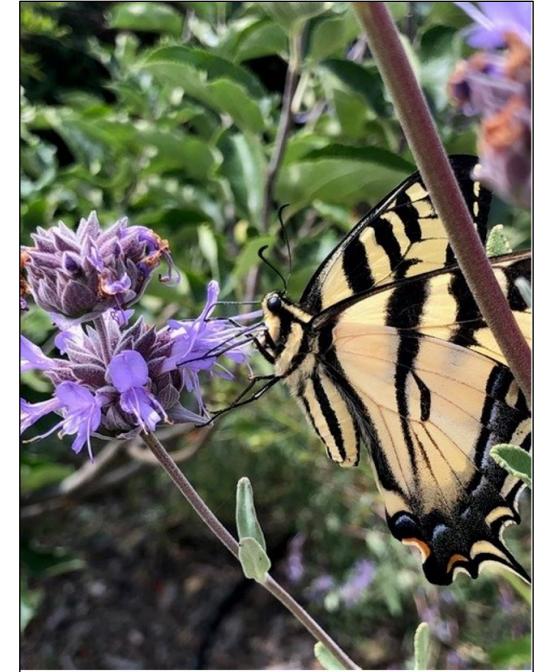
- February 29, 9-12 Valley Water Landscape Summit 2024 in San Jose (hybrid)
- March 13, 9-12 Allied Landscape Water Use Symposium in Fremont
- Qualified Water Efficient Landscaper Training (online/free)
March 11-March 14 and March 18-March 21 (8am-10:30am)
- April 4 - Water Conservation Showcase in San Ramon (hybrid free)
- April 29 - Ruth Bancroft Garden Tour
- May 4 and May 5 - Bring Back the Natives Garden Tour

Gardens at Heather Farm Climate Discovery Garden – Open Lafayette Reservoir Demonstration Garden

Landscape Rebates – lawn to low water, regenerative landscapes

- Standard – \$1.00/sq. ft.; Super – \$2.00/sq. ft; Median Strip - \$2.00/sq. ft.
- **New** - Up to \$20,000 for commercial properties
- **New** - Irrigation Flow Sensor rebate – up to \$250
- **Landscape Design Assistance Program** – completed 1st year

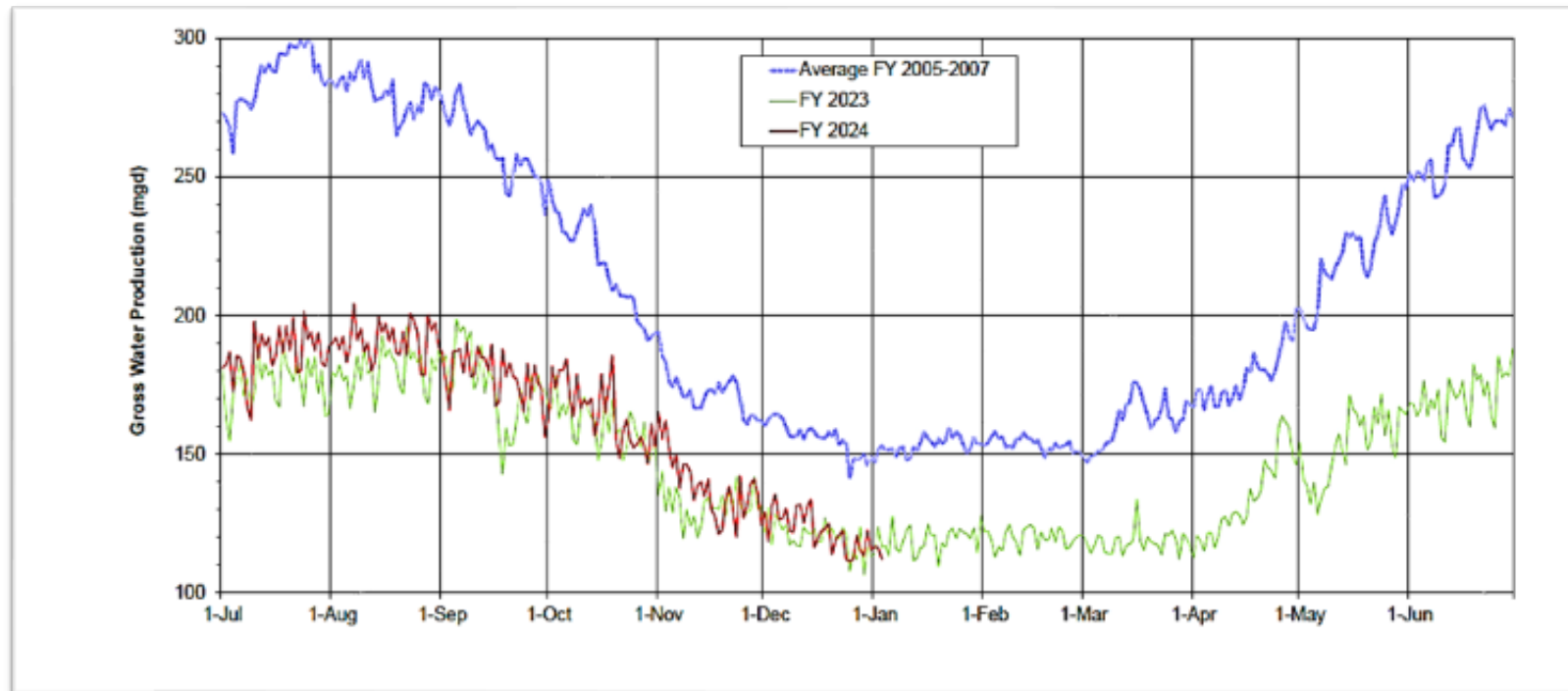
Water Use Classification of Landscape Species ([WUCOLS](#)) – looking for industry professional to review updates



EBMUD Water Supply Update



- Storage: 81% full; 111% percent of average
- Precipitation levels: Mokelumne River Watershed 75% of average; Local 67%
- Gross Productions Level: 4% uptick from 2023
- All irrigation off in the winter; Statewide drought emergency (2022) still in place through June 2024 - prohibits irrigating commercial non-functional turf with drinking water
- Irrigation only accounts: water budget reports



Krista Guerrero, Metropolitan Water District of Southern California, Resource Specialist

- Background of the law; non-functional vs functional lawn; phased approach; GIS demonstration; multiplier effect study

Erin Smith, City of Alameda Public Works Director

- Long-term planning City of Alameda's decorative lawn conversions; community input; cost and maintenance considerations

Julie Saare-Edmonds, Department of Water Resources, Senior Environmental Specialist

- AB 1572 and the Model Water Efficient Landscape Ordinance (MWELO)

Karina Herrera, State Water Resources Control Board, Senior Environmental Scientist

- Considerations for reporting and enforcement; AB 1572 and the Long-Term Framework (Utilities)

Summary, Q and A, 3 question-survey



EBMUD Landscape Advisory Committee Meeting

Non-Functional Turf (NFT) Conversion

Krista Guerrero
January 22, 2024

Addressing Non-Functional Turf

Metropolitan Water District Efforts: Colorado River

- MWD signed a MOU on August 24, 2022
- Signatories promise to:
 - Introduce a program to reduce the quantity of non-functional turf grass by 30% through replacement with drought and climate-resilient landscaping, while maintaining vital urban landscapes and tree canopies that benefit our communities, wildlife, and the environment.
- MWD Board Resolution encouraging municipalities to ban irrigation of NFT with potable water.

Non-Functional Watering Ban AB 1572

- Bans irrigation of NFT with potable water on CII properties
 - Excludes cemeteries and multi-family housing
 - Includes schools, HOAs, institutional, industrial, 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.

Non-Functional Turf on Public Property





NFT Commercial Property



NFT on Homeowner Association Property

Non-Functional Turf on School Property



AB1572 Timeline and Enforcement

- Timeline for compliance with ban
 - January 2027 – public properties (excluding disadvantage communities)
 - January 2028 – commercial properties
 - January 2029 – homeowner association and similar common areas
 - January 2031 (or when funding is available) – public properties located in disadvantage communities
- June 30, 2030 – self-certification of compliance for all CII Properties (commercial, industrial, institutional, municipal properties over 5,000 square feet of irrigated area)
- Enforced by State Water Resources Control Board and local agencies

Metropolitan's Turf Dashboard

Finding Metropolitan's NFT:

The land cover dashboard

- Partnered with PlanetScape AI to:
 - provide a baseline of NFT in Metropolitan's service area + estimates by member agency
 - provide the ability to visualize and analyze the amount of NFT in each member agency's service area using an interactive dashboard



The Turf Dashboard

Land use processing

- Standardized land use codes from multiple sources into 17 common classes

Source #1 Land Use Classes	Standardized Class
Elementary School	Education
Junior College	Education
Junior High School	Education
Other University or College	Education
School District Office	Education

- User can define NFT by selecting desired classes
default is (industrial + commercial + utility + facilities + general office)

The Turf Dashboard

Imagery processing

- USDA National Agricultural Imagery Program (NAIP) imagery
- Imagery classified using the California Irrigable Landscape Algorithm (CILA) in categories 'Turf', 'Bushes/Trees' or 'Impervious/Misc'



The Turf Dashboard



Land Cover Dashboard - Metropolitan All

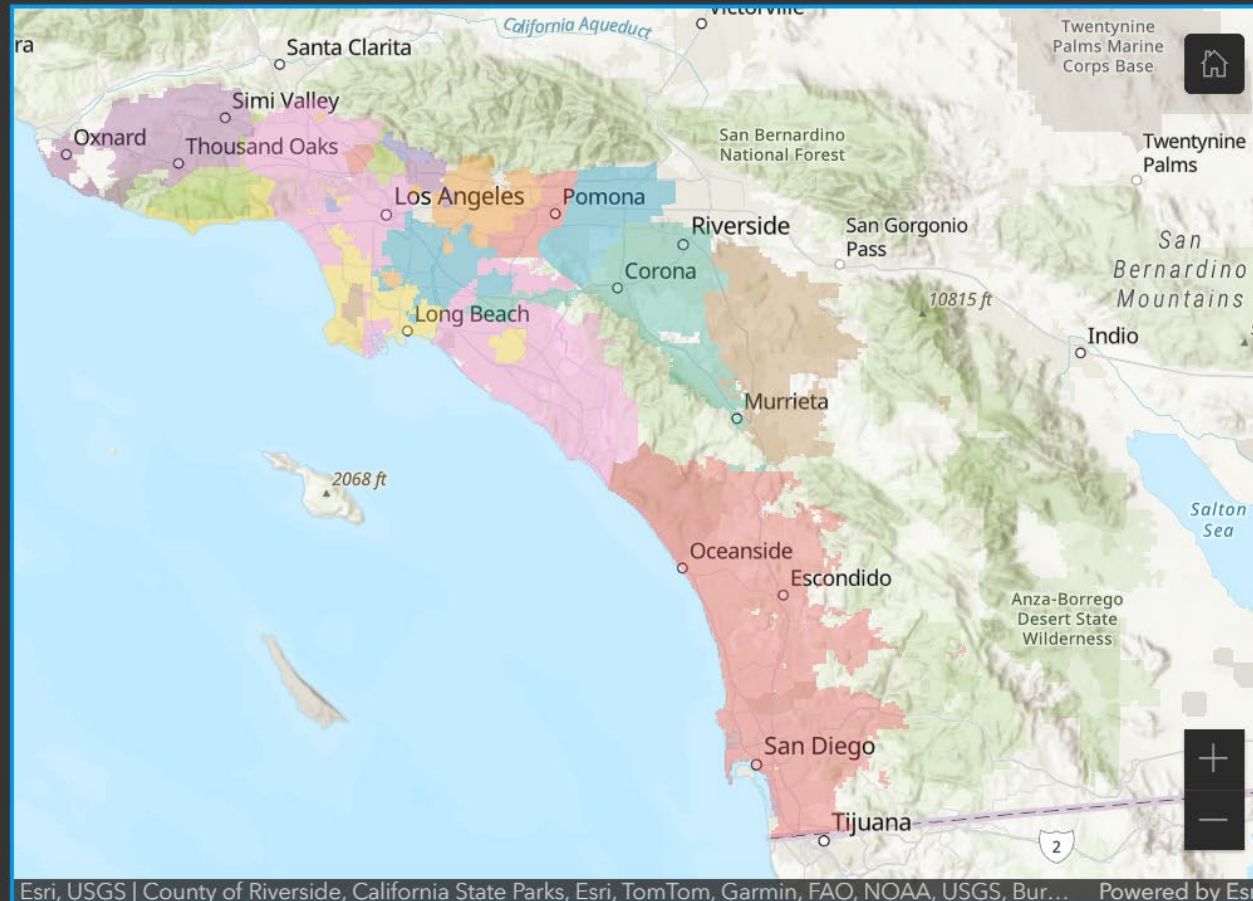
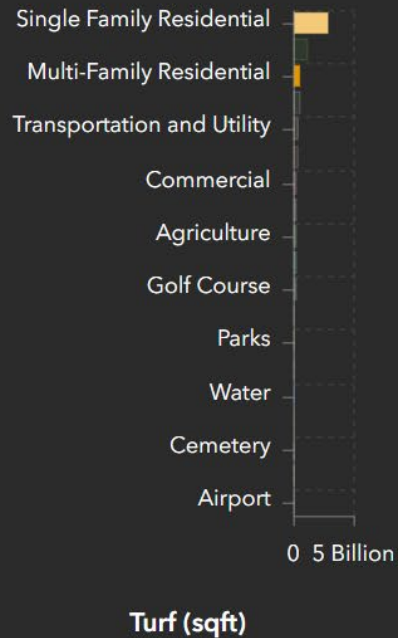
This system provides customized metrics on land use and land cover

Step 1: Select an Agency

No category selected



Step 2: Select Land Uses



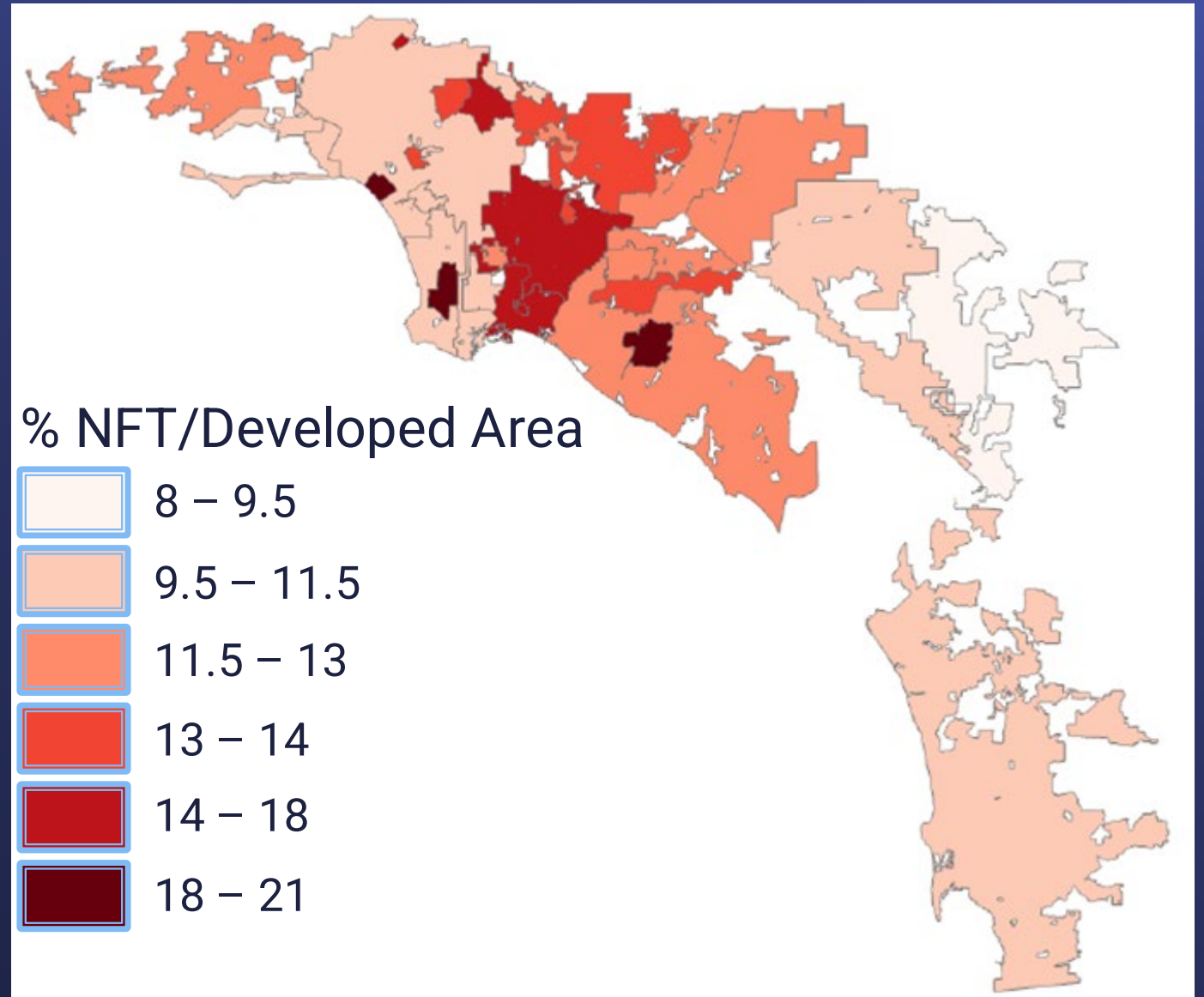
Step 3: Output Table

Land Use	Turf (sqft)
Multi-Family Re...	459,557,688.5
Single Family R...	2,751,356,355.4
Total	3,210,914,043.9



Quantifying Metropolitan's NFT

- 1.2 billion sq ft of NFT
- 13% of turf in the developed service area

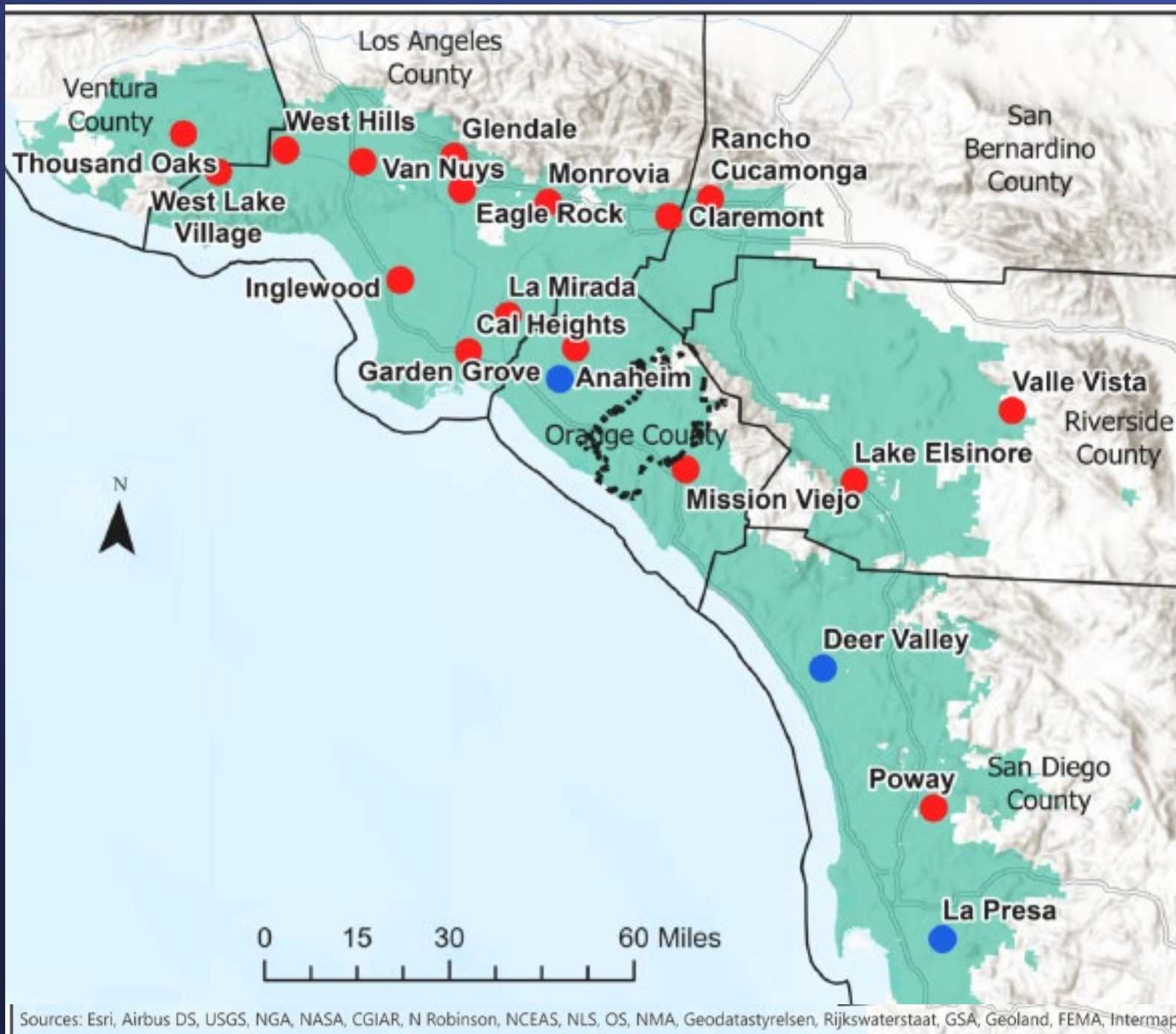


GIS platform live demonstration

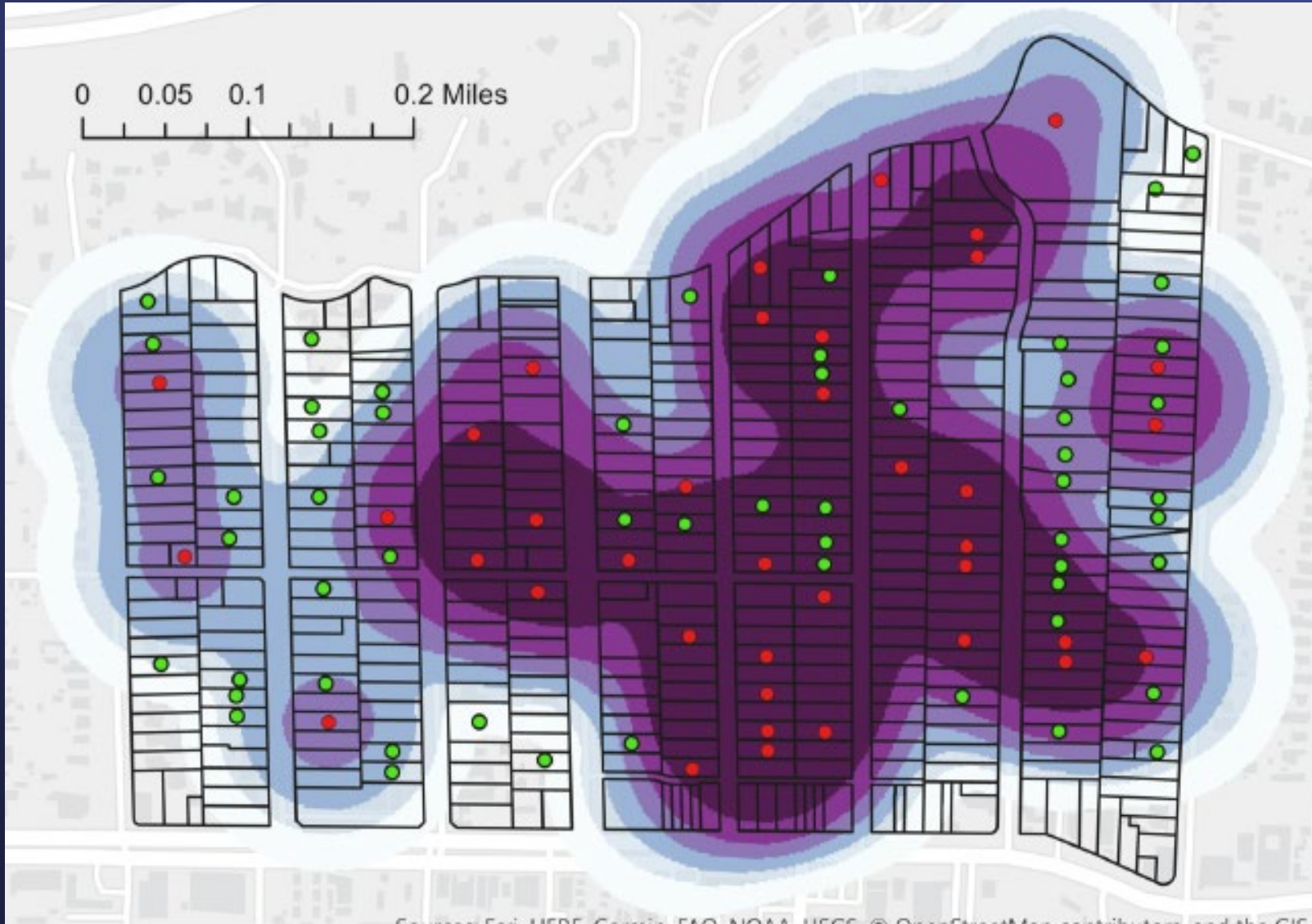
Metropolitan's Multiplier Effect Study

Multiplier Effect Study Areas

- 20 areas with an average 360 parcels
- Three areas chosen with no rebate participants (blue dots)
- Additional areas in Irvine Ranch Water District analyzed for comparison



Sample Study Area



- Red dots: rebate program participants
- Green dots: non-participants
- Darker color higher concentration of program participants

Turf
Multiplier
Study
Results

For every 100 turf rebate participants, **an additional 132 parcels converted their turf because of the program.**



City of Alameda City Hall and City Hall West Lawn Conversion Projects



29,000 sq ft

9,000 sq ft



Timeline

4/4/2014 - presented a plan to Council to reduce the City's water use by 20%

6/2/2015 - provided Council an update on reaching 29% reduction

9/3/2019 – Council adoption of Climate Action and Resiliency Plan

9/8/2021 – presented additional measures to Council to reduce municipal water use; Council directed staff to move forward with measures that had upfront costs (rain sensitive “smart” irrigation and lawn conversions)

12/2/2021 – Historic Advisory Board to obtain Certificate of Approvals; issued only for City Hall

1/25/2022 – launched website, online survey about designs and hosted a community meeting

5/17/2022 – Council awards construction contract for City Hall

9/1/2022 – Historic Advisory Board; issued for City Hall West

11/1/2022 – Council accepted work at City Hall

10/3/2023 – Council awards construction contract for City Hall West

PROJECT COSTS

Construction

\$68K in design for both sites, 10K remaining

\$200K for City Hall

\$460K for City Hall West

Ongoing Maintenance (TBD)

Will do a new solicitation with requirement for ReScape Maintenance Qualification



BUILDING RESILIENCY

- We provided Council with the numbers and cents and put work in the context of resiliency goals:

“Three percent of the nation's energy is used to pump and treat water, so conserving water conserves energy that reduces greenhouse gas pollution. In addition, the frequency, intensity, and duration of drought events is expected to increase with climate change. Implementing measures that lead to permanent water use reductions will build resiliency in the face of climate change.”

Estimates with contracted prevailing wage

City Facility	Lawn, Sq Ft	Conversion Cost	Estimated Annual Reductions (gallons)
City Hall	6,400	\$108,800	192,000
City Hall West	29,000	\$493,000	870,000
Fire Station #2	1,045	\$17,765	31,350
Fire Station #4	1,900	\$32,300	57,000
Mastick Senior Center	2,300	\$39,100	69,000
Officer's Club	13,000	\$221,000	390,000
Recreation and Park Admin Building	1,500	\$25,500	45,000
Veteran's Building	5,800	\$98,600	174,000
Little John Park	29,000	\$493,000	870,000
Leydecker Park	12,000	\$204,000	360,000
Washington Park	36,000	\$612,000	1,008,000
Total All Facilities:		\$2,345,065	4,138,350 (3% of annual City usage)

How does AB 1572 relate to the Model Water Efficiency Landscape Ordinance (MWELO)?



MWELO uses “recreational” to denote functional turf

Prescriptive Compliance option (Appendix D, 3.):

Plant material shall comply with all of the following:

- For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water.
- **For non-residential areas**, install climate adapted plants that require occasional, little or no summer water (**average WUCOLS plant factor 0.3**) for **100% of the plant area excluding edibles and areas using recycled water (SLA's)**

Performance Compliance Option (traditional process):

ETAF – Evapotranspiration Adjustment Factor = 0.45

State Water Resources Control Board

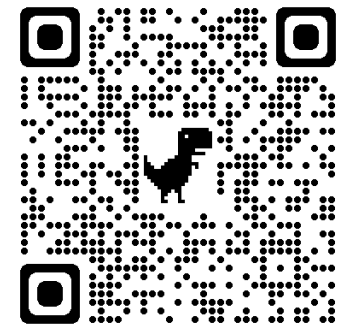
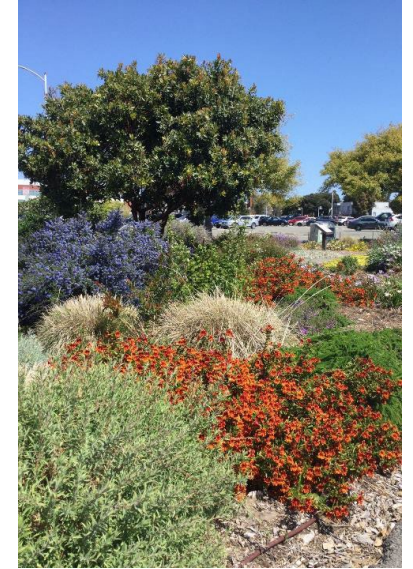
Do you have any insight on how AB 1572 will be enforced?

For water utilities, how does AB 1572 relate to the Long-Term framework ?



Summary

- Plan for turf conversions
 - Prioritize locations
 - Community buy in
 - Political support
 - Resources
 - Peer to peer mentoring
- EBMUD rebates and resources including DIY videos at ebmud.com/watersmart
- Invite EBMUD to Accounts Manager/HOA meeting
- Valley Water Landscape Summit February 29; Allied Landscape Water Use Summit March 13.
- Check out Bureau of Reclamation WaterSmart Water and Energy Grants
- For inspiration – attend Spring Garden Tours; visit a local demonstrations gardens found at EBMUD Sustainable Landscape Map.
- For ongoing water savings go to My Water Reports and for irrigation only accounts sign up for Water Budgets Reports.



Q and A



Thank you!

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