



One Water & Stewardship Committee

# Update on Metropolitan's Activities on Non-Functional Turf

Item 6d

April 10, 2023

# Advancing Regional Non-functional Removal

## Non-Functional Turf (NFT) Efforts

- Incentives-based
  - Grants
- Sample ordinance / Board resolution
  - Passed in 2022
- New water allocation methodology for NFT in drought emergency
  - Data gathering underway
- State legislation
  - Part of 2023 legislative strategic plan

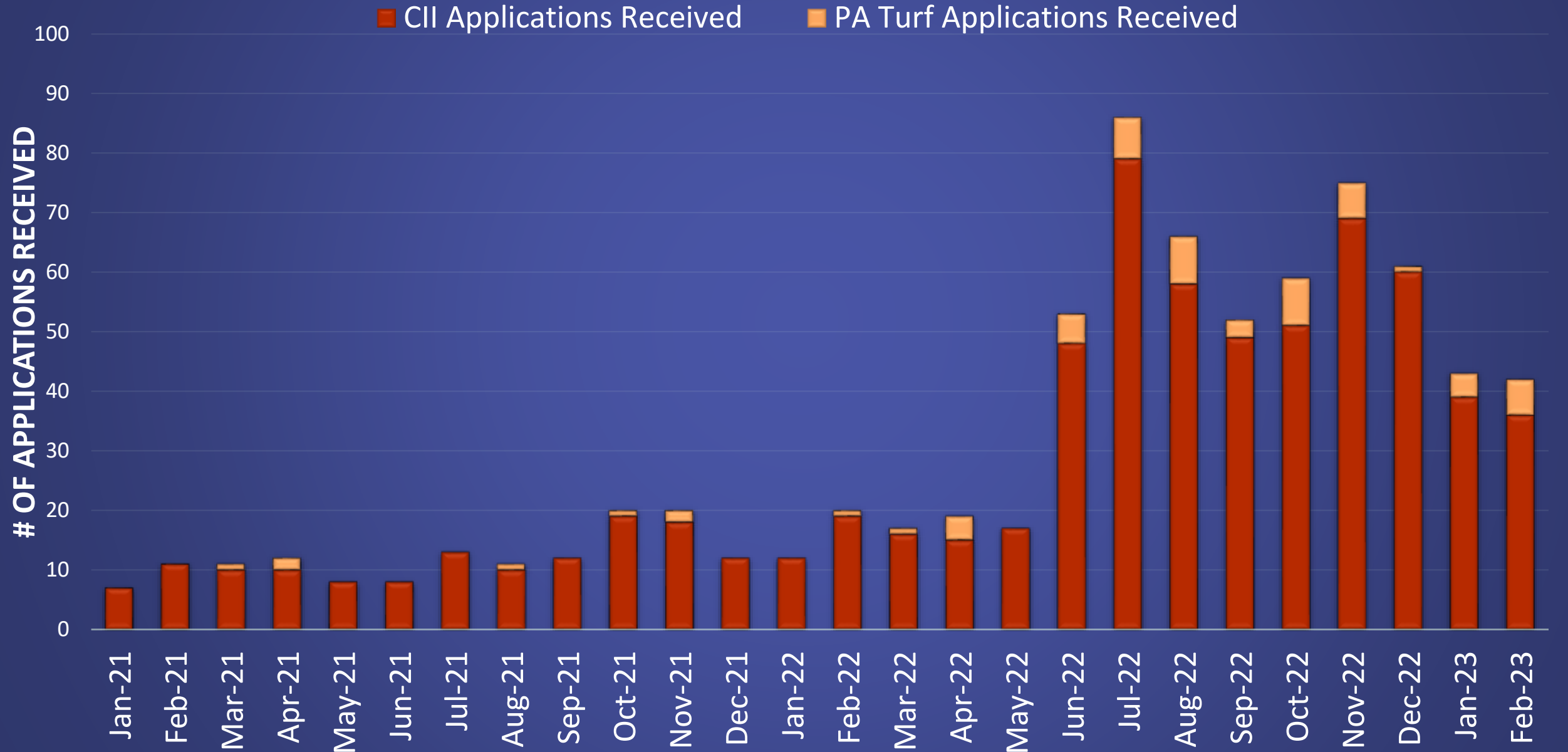
# Non-functional Turf Removal Incentives

# Turf Replacement Program Incentive Structure Change

## Potential Increase in Turf Replacement Incentive

- \$4 million in grants received to increase incentive
  - CII - \$3 sq.ft.
    - Funding exhausted within 30 days
  - Public Agency - \$4 sq.ft.
- Continue to seek outside funding to achieve effort

# CII and Public Agency Turf Replacement Applications Received (2021-2023)



# Non-functional Turf Ordinance Development

Non-  
Functional  
Turf  
Ordinance  
Development

# What Did Metropolitan do to Encourage Ordinance Adoption?

- Cities have water efficiency ordinances
  - Most have permanent ban section
- Metropolitan provided sample language to be added
- Metropolitan Board resolution encouraging adoption of ordinance language

# Planetscape AI Turf Dashboard



# Planetscape AI Turf Dashboard

## Understanding Turf Prevalence in MWD Service Area

- Utilize turf dashboard development by Planetscape AI for future planning
  - How much turf is there?
  - Where is it located?
  - How much is really NFT?
- Second year agreement to refine dashboard and add retailer data

# Approximately 9.5 Billion Square Feet of Established Turf within MWD service area

## Land Cover Platform

This system provides an interactive series of tools for program officers to estimate the amount of land cover in a service area

### Total Non-Functional Turf\*

1.18B sqft

\*includes industrial, commercial, utility, facilities and general office

### Total Functional Turf\*

8.3B sqft

\*includes all other land uses except open space, vacant, agriculture, or protected land

## New Users

Home

Water conservation remains the most cost-efficient means to reduce water consumption.

In response this insights and analysis platform was created to provide a definitive baseline of non-functional turf in Metropolitan's service area, providing estimates by member agency and land use. These estimates allow program officers to test how different scenarios will meet the expected outcome and budget of a non-functional turf removal program.

The platform contains a series of interactive dashboards providing access to aerial imagery, land cover classifications and land uses. By selecting what land uses are non-functions (e.g. commercial, industrial and utility), users can interactively query the amount of turf in those areas as well as what parcel groups contain the most turf.

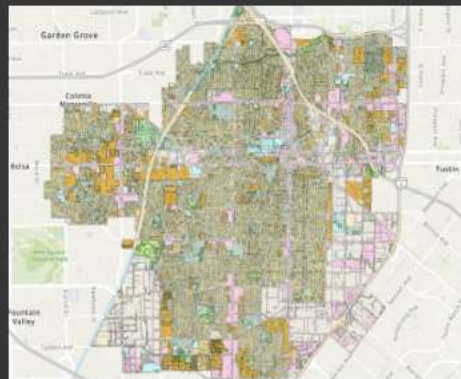
Once those land uses are selected, the dashboard calculates the amount of turf in those areas as well as what parcel groups contain the most turf. These can be investigated on the center map or the results can be downloaded as a CSV.



Image courtesy of MWD/Mapbox

What is the Dashboard?  
How to use this application.

## Agencies



Land Cover by Agency.

## Metropolitan



Service-wide stats and analysis.

## Information

Data|Decisions  
**IMPACT.**

Learning about commercial service intelligence and  
operational data enables to inform and support  
policy, control, relations and power relations  
- Decisions



Information on Sources  
and Methodology.

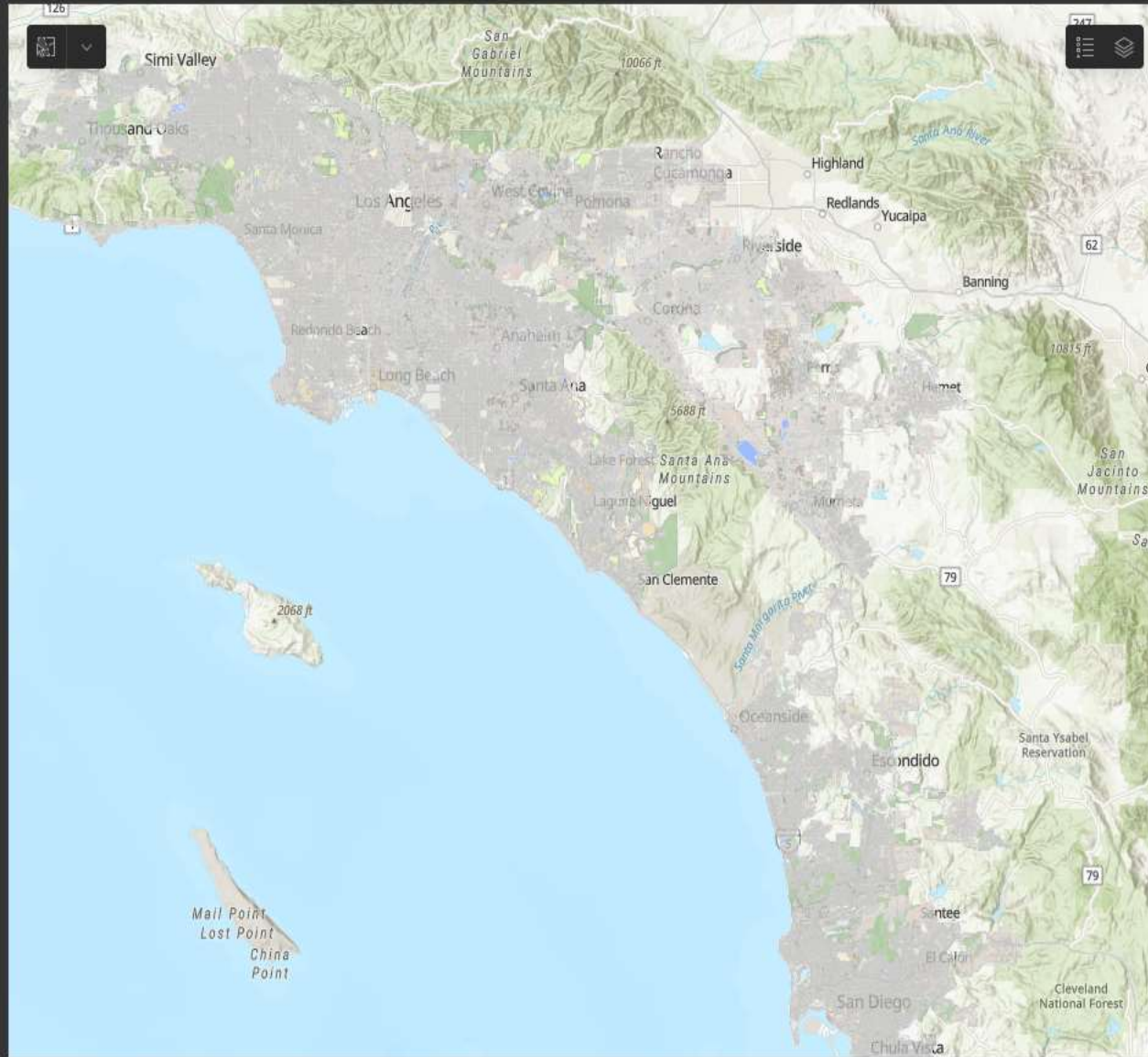
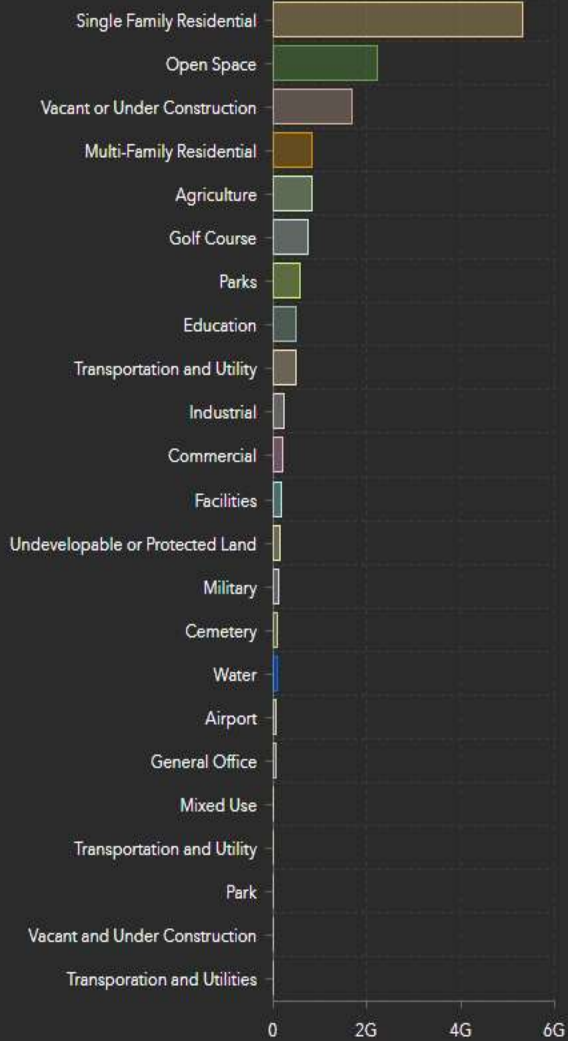
# Output Tables Listed in Order of Highest Use



## Non-Functional Turf Dashboard

This system provides customized metrics on land use and land cover

### Step 1: Select Land Uses



### Step 2: Explore by Parcel Group

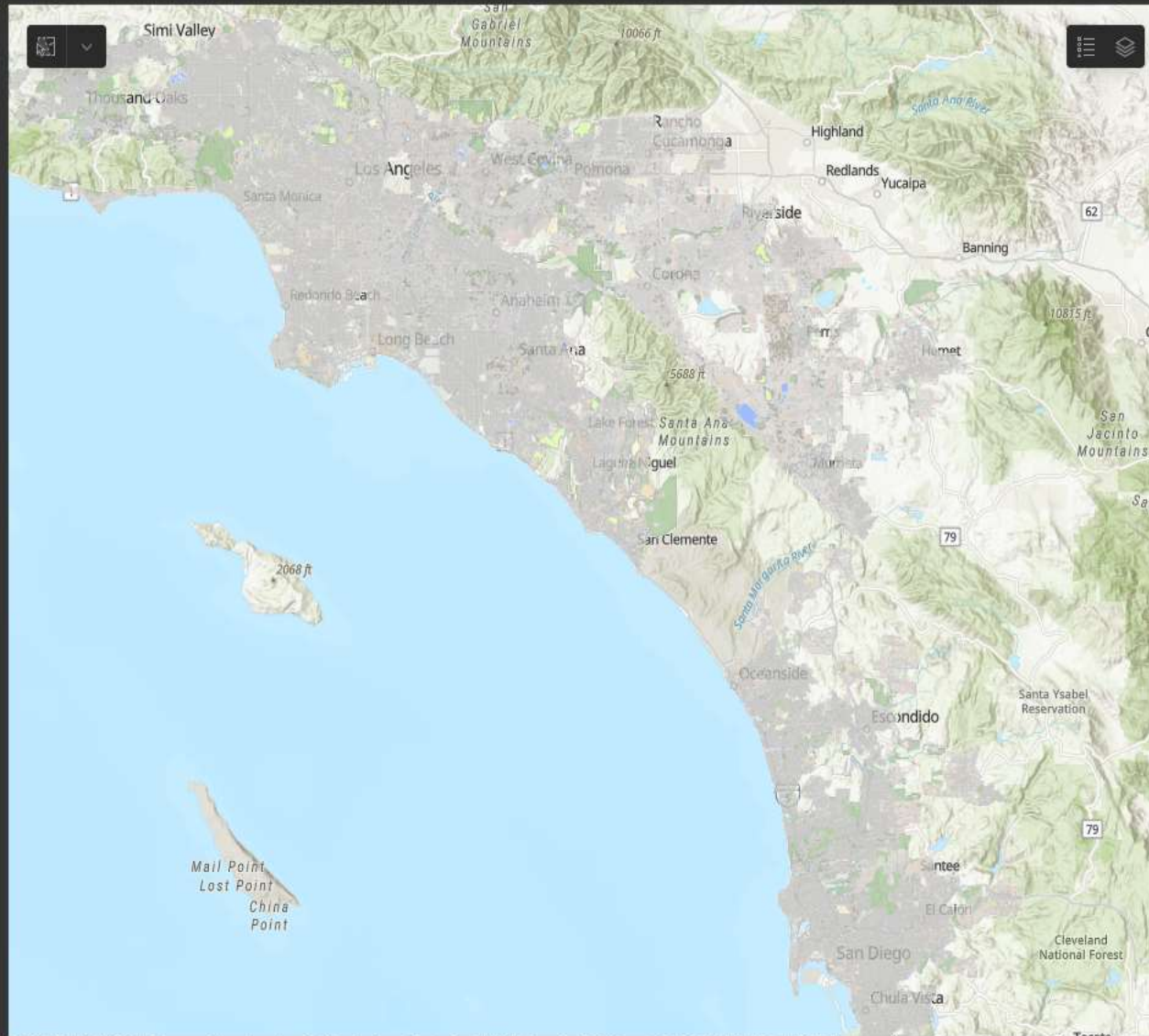
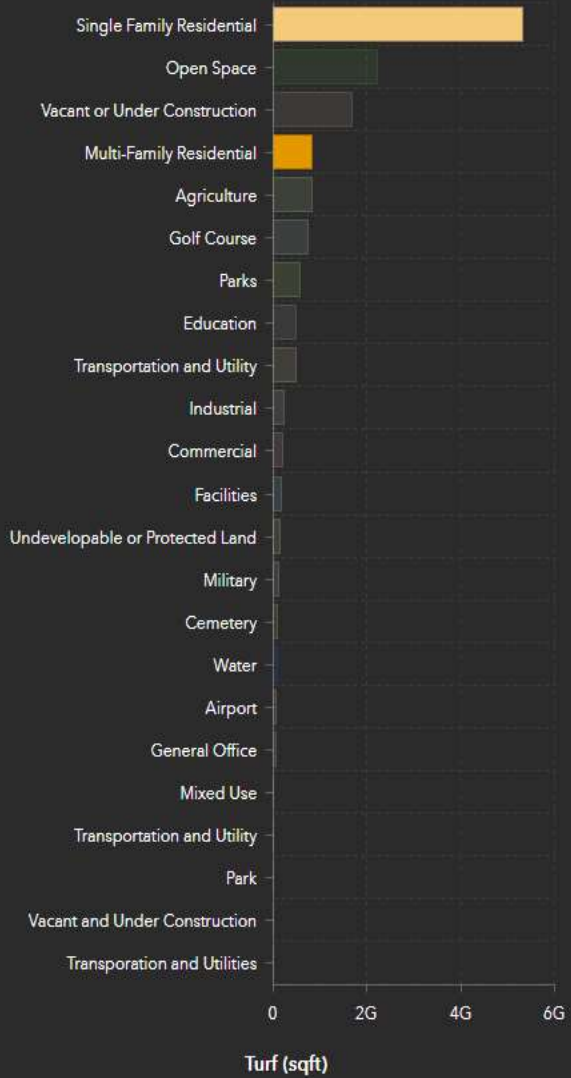
Open Space #250192:	119,731,873
MWDOC	
Open Space #454528:	106,460,857
Los Angeles	
Open Space #204687:	73,161,010
Inland_Empire	
Open Space #105611:	38,656,918
Calleguas	
Open Space #169220:	37,116,382
Eastern	
Vacant or Under Construction #216829:	30,938,996
Inland_Empire	
Single Family Residential #269069:	24,123,306
MWDOC	

### Step 3: Output Table

Land Use	Turf (sqft)
Single Family Residential	5,325,956,681
Open Space	2,207,636,385
Vacant or Under Construction	1,667,992,205
Multi-Family Residential	823,057,521
Agriculture	811,175,130
Golf Course	726,501,759
<b>Total</b>	<b>14,316,701,007</b>

# Over Half of Established Turf is on Residential Property

## Step 1: Select Land Uses



Esri, CGIAR, USGS | County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management... Powered by Esri

Overview | Map legend | Turf By Parcel Group

## Step 2: Explore by Parcel Group

- Single Family Residential #269069: 24,123,306 MWDOC
- Single Family Residential #56102: 20,787,161 SDCWA
- Single Family Residential #253456: 14,680,166 MWDOC
- Single Family Residential #267514: 12,613,166 MWDOC
- Single Family Residential #295681: 12,124,626 Three\_Valleys
- Single Family Residential #64287: 10,828,372 SDCWA
- Single Family Residential #267655: 10,005,397 MWDOC

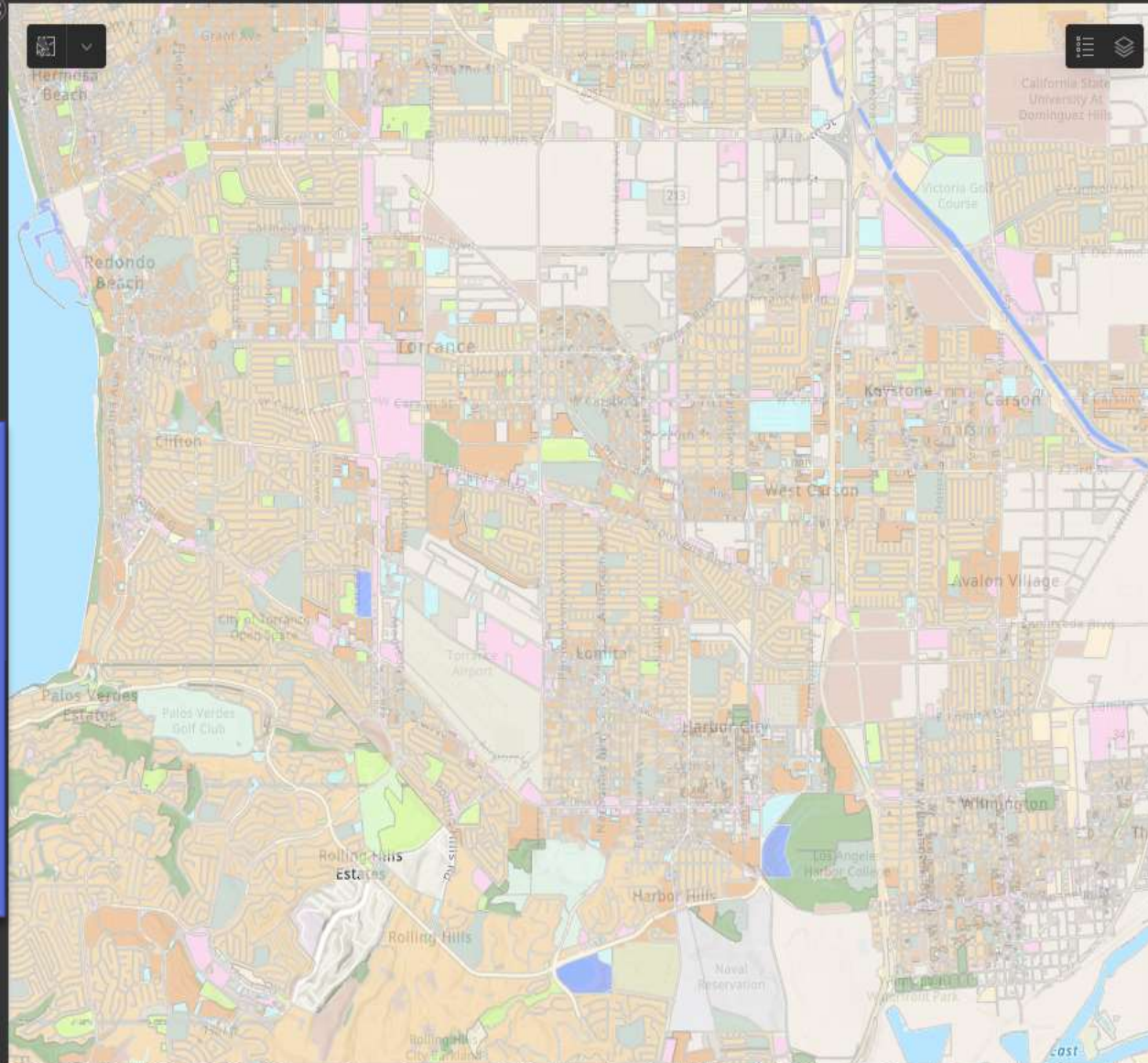
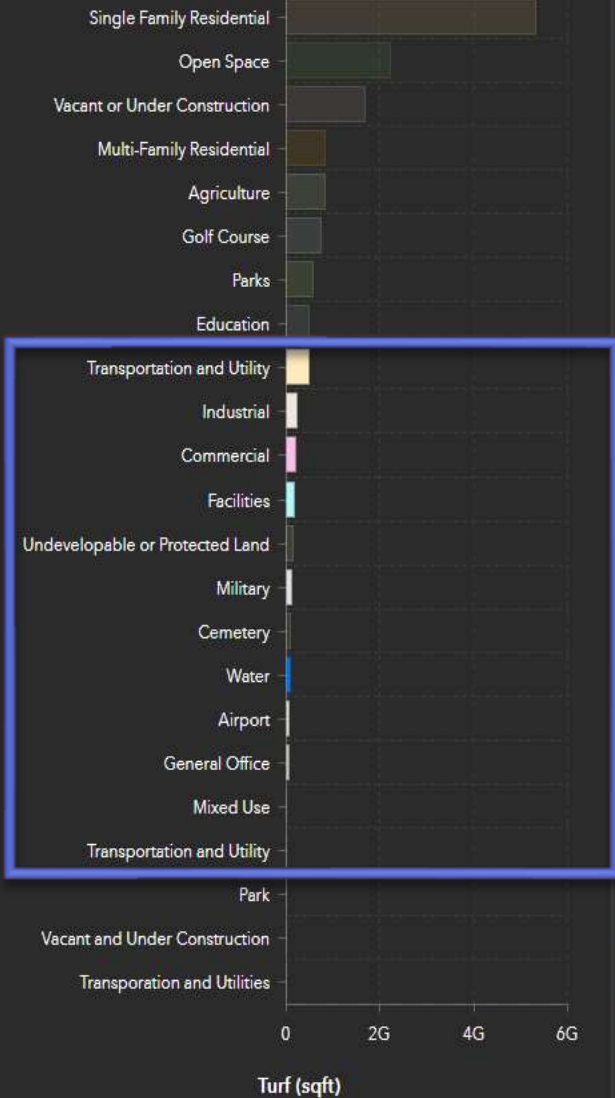
## Step 3: Output Table

Land Use	Turf (sqft)
Single Family Residential	5,325,956,681
Multi-Family Residential	823,057,521
<b>Total</b>	<b>6,149,014,202</b>



# Category Selection Allows for Customized NFT Calculations

## Step 1: Select Land Uses



Esri, NASA, NGA, USGS, FEMA | City of Torrance, County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, M... Powered by Esri

Overview Map legend Turf By Parcel Group

## Step 2: Explore by Parcel Group

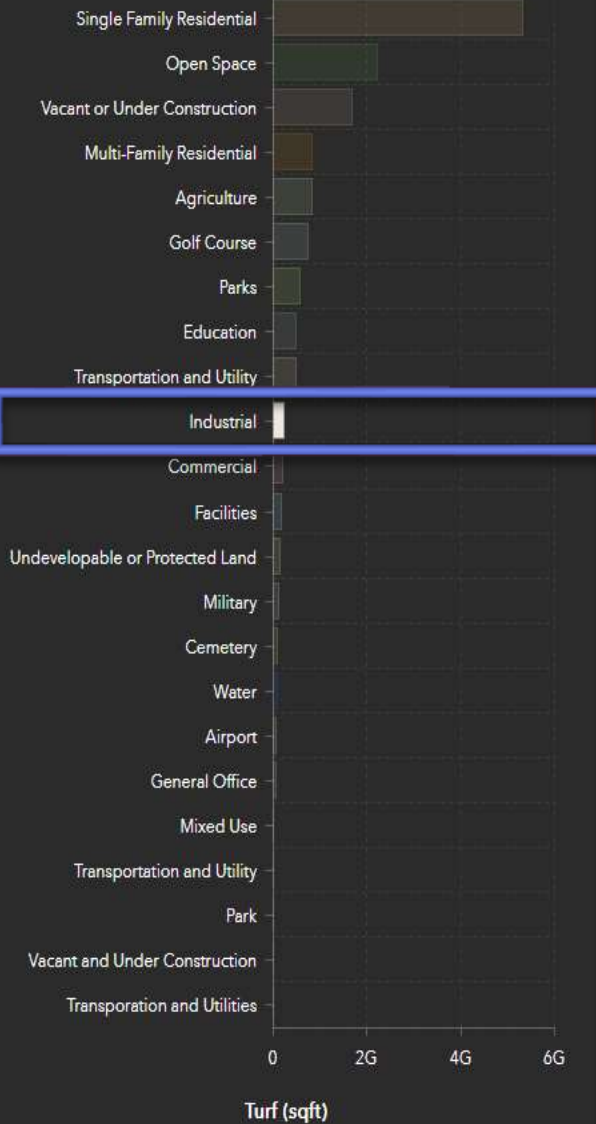
Military #13737:	21,809,147
SDCWA	
Airport #352956:	12,359,507
Western	
Military #242456:	11,160,857
MWDOC	
Military #242450:	10,522,406
MWDOC	
Airport #352960:	7,787,947
Western	
Military #242459:	7,787,822
MWDOC	
Airport #234820:	7,682,137
MWDOC	

## Step 3: Output Table

Land Use	Turf (sqft)
Transportation and Utility	480,328,467
Industrial	238,124,812
Commercial	209,506,157
Facilities	180,594,546
Military	105,201,828
Water	86,343,649
<b>Total</b>	<b>1,456,661,353</b>

# Parcel Groups Listed by Turf Square Footage

## Step 1: Select Land Uses



Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors, City of West Covina, County of Los Angeles, California State Parks, © OpenStreetM... Powered by Esri

Overview Map legend Turf By Parcel Group

## Step 2: Explore by Parcel Group

Industrial #322807: 4,733,728  
Upper\_San\_Gabriel

Industrial #330001: 1,764,274  
West\_Basin

Industrial #97488: 1,428,845  
Calleguas

Industrial #356639: 1,366,750  
Western

Industrial #13326: 1,288,166  
SDCWA

Industrial #416017: 1,139,733  
Los\_Angeles

Industrial #356805: 1,098,409  
Western

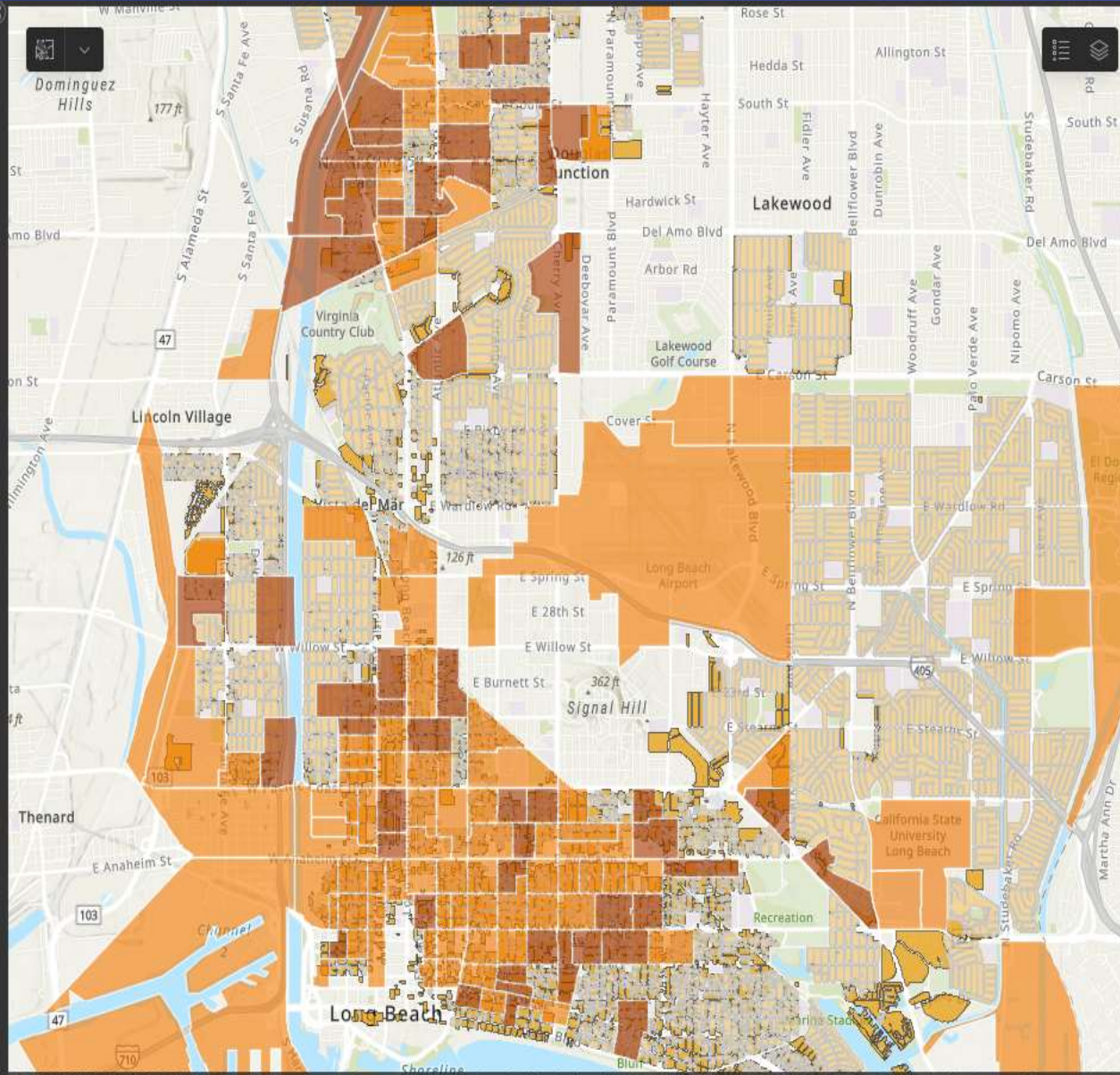
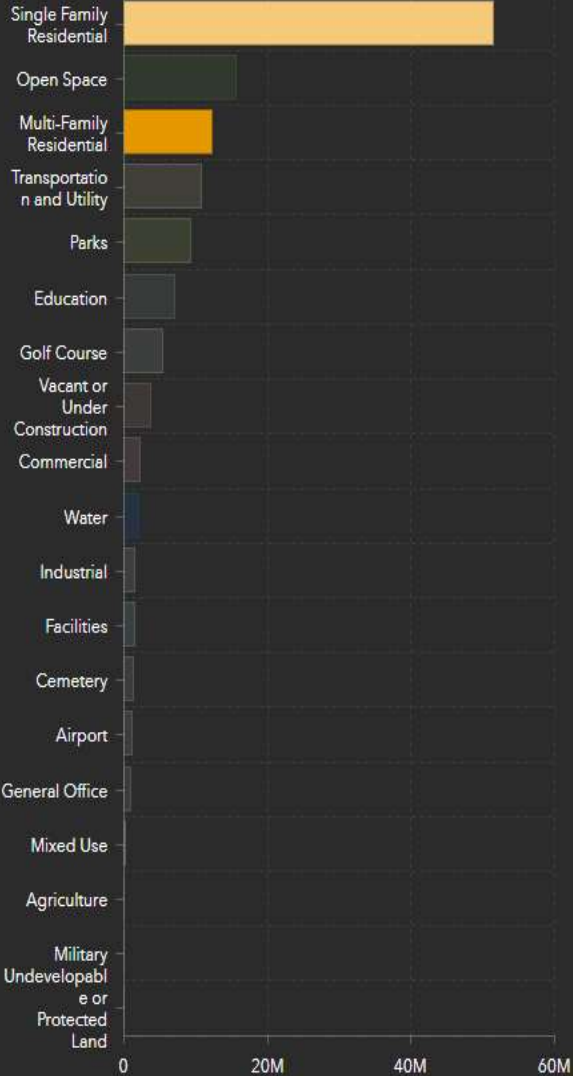
## Step 3: Output Table

Land Use	Turf (sqft)
Industrial	4,733,728
Total	4,733,728



# Underserved Community Overlay Available

## Step 1: Select Land Uses



## Step 2: Explore by Parcel Group

- Single Family Residential #12175: **316,851**
- Multi-Family Residential #3831: **209,686**
- Single Family Residential #13174: **205,623**
- Multi-Family Residential #6575: **178,044**
- Single Family Residential #13175: **169,693**
- Single Family Residential #12185: **162,915**
- Single Family Residential #12752: **161,773**
- Multi-Family Residential #5922: **157,260**
- Multi-Family Residential #5191: **152,224**
- Single Family Residential #12203: **101,893**
- Single Family Residential #10351: **99,617**

## Step 3: Output Table

Land Use	Turf (sqft)
Single Family Residential	51,415,392
Multi-Family Residential	12,280,605
<b>Total</b>	<b>63,695,997</b>

# Legislation to Ban Watering of Non-Functional Turf



## Non- Functional Turf Legislation

### AB 1572

- Introduced by Assembly Member Friedman
- Bans the use of potable water for the irrigation of NFT on CII properties
  - Requires SWRCB to develop compliance and certification procedures
  - Requires annual compliance audits for two hydrologic regions
- NFT is defined as turf not designated by a property owner or government agency for recreational use or public assembly

## Next Steps

- Continue to seek outside funding for turf replacement incentives
- Continue to promote draft ordinance language to member agencies and retailers
- Continue work with Planetscape AI to refine turf dashboard
- Discuss possible support of AB 1572 with Board and member agency staff

