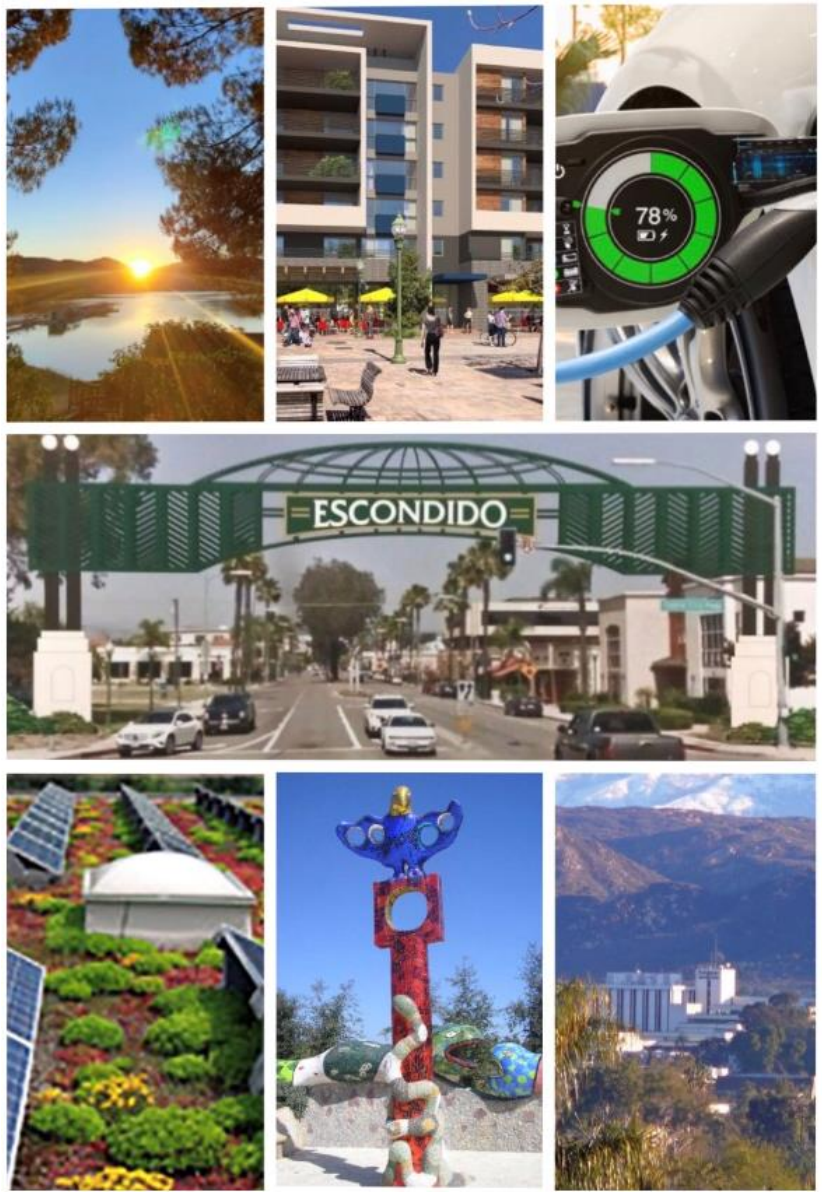


Escondido Climate Action Plan

Escondido Community Advisory Group
Sub-Committee
on Effective & Equitable Climate Measures

Summary of “ECAP” Recommendations
April 2020

Climate

Change

Threats

What We Are Facing in San Diego County

HEAT

Temperatures are projected to increase substantially, by 5˚F to 10 ˚F by the end of the 21st century. Heat wave events will increase, be hotter, and last longer.

RAIN/DROUGHT

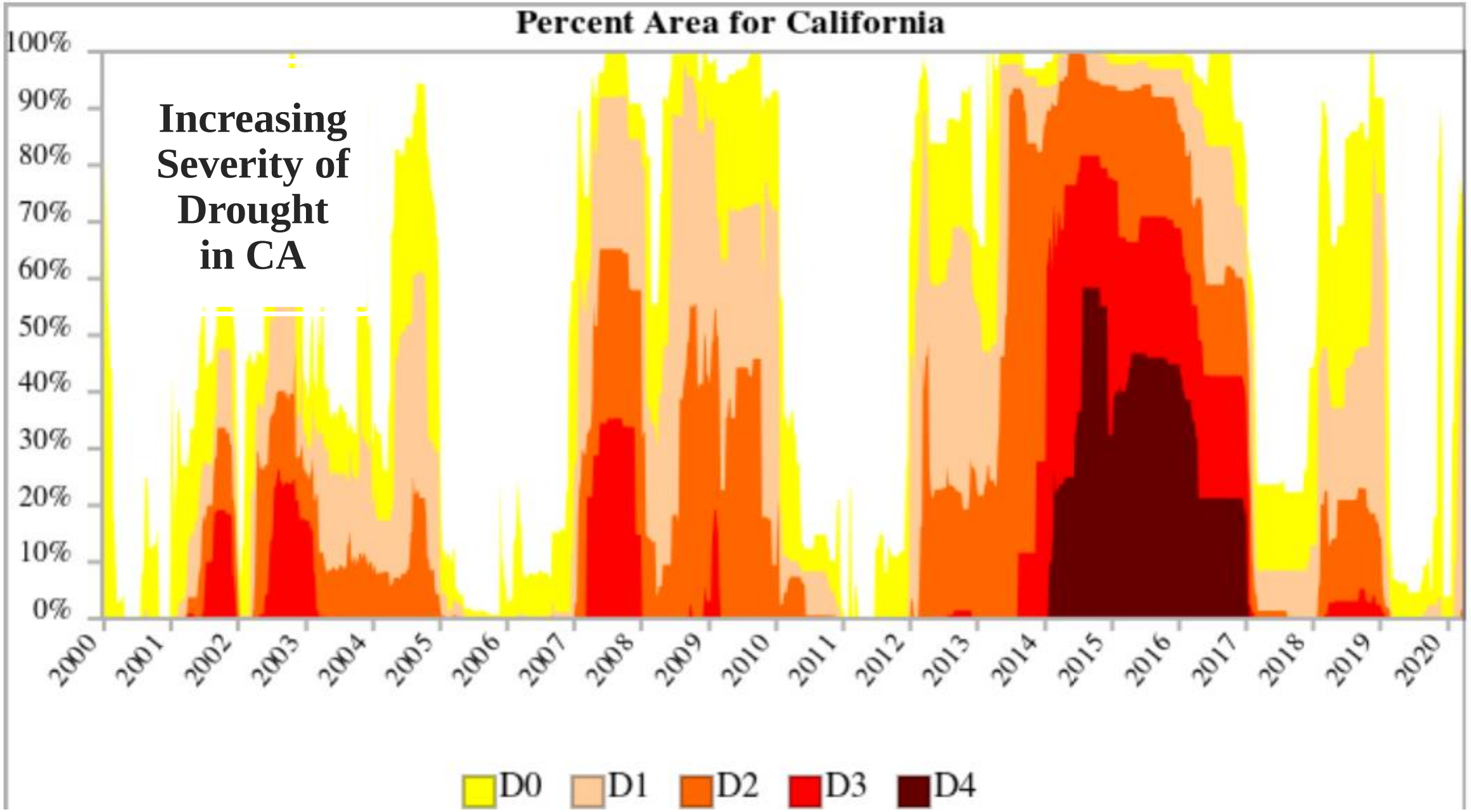
Our precipitation events will remain highly variable and will change in character. Wetter winters, drier springs, and more frequent and severe droughts punctuated by more intense individual precipitation events. These are expected to have effects on ecosystems, water demand and supply, water quality and flooding emergencies.

FIRE

Risks for large Santa Ana driven catastrophic wildfires are likely to increase as a result of a drier autumns. We are already experiencing a ‘year-round’ fire season that is likely to worsen.

ECOSYSTEM STRESS

Climate change, along with development and fragmentation in inland areas, will act as significant stressors to San Diego’s natural lands, which are some of the most biodiverse in the United States.


Percent Area for California
Increasing Severity of Drought in CA
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2001
2002
2003
2004
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D4

Where We Drew Inspiration

COLORADO COLLEGE 100% CARBON NEUTRALITY PLAN

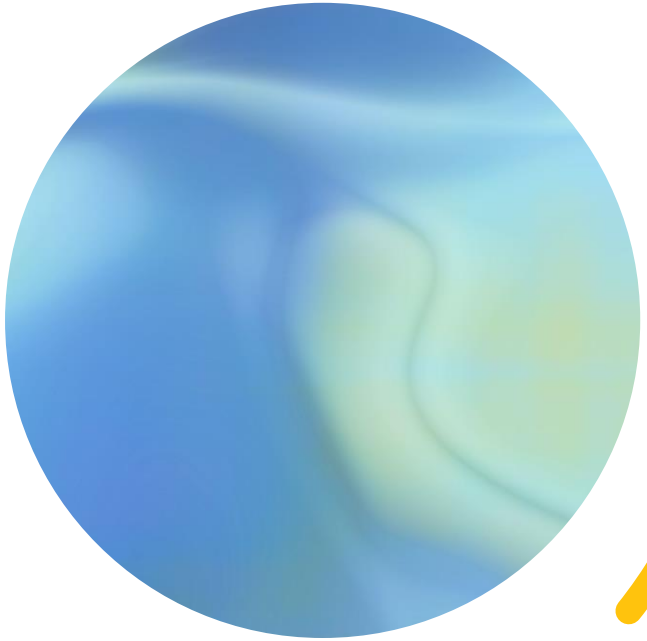
“START HERE, START NOW”: AN ENVIRONMENTAL JUSTICE ASSESSMENT OF THE CITY OF SD CAP

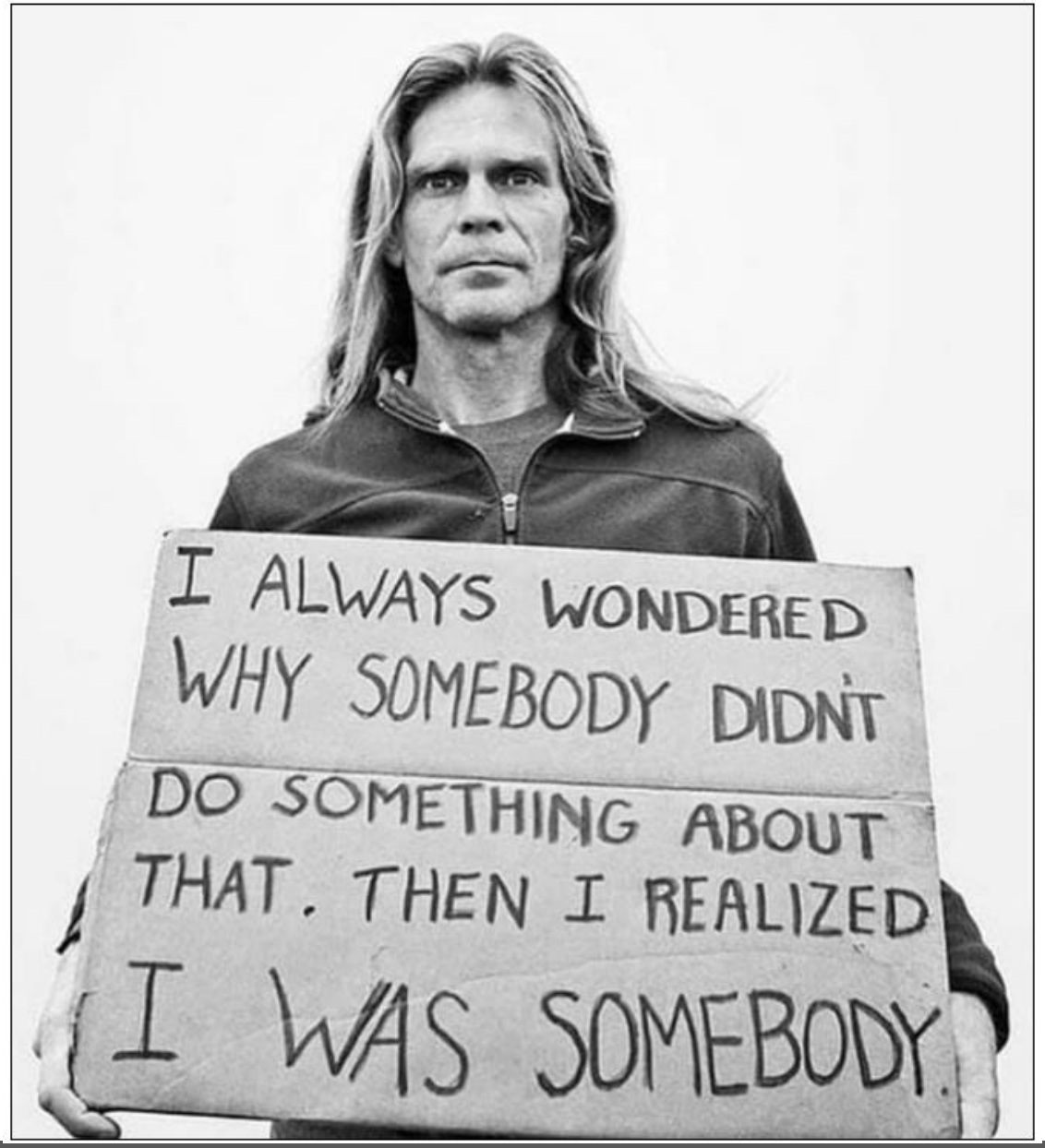
“GROWING COOLER”: THE EVIDENCE ON URBAN DEVELOPMENT AND CLIMATE CHANGE

“BENDING THE CURVE”: TEN SCALABLE SOLUTIONS FOR CARBON NEUTRALITY & CLIMATE STABILITY

KANSAS CITY CLIMATE PLAYBOOK

2018 CA 4TH CLIMATE CHANGE ASSESSMENT: SAN DIEGO REGIONAL REPORT

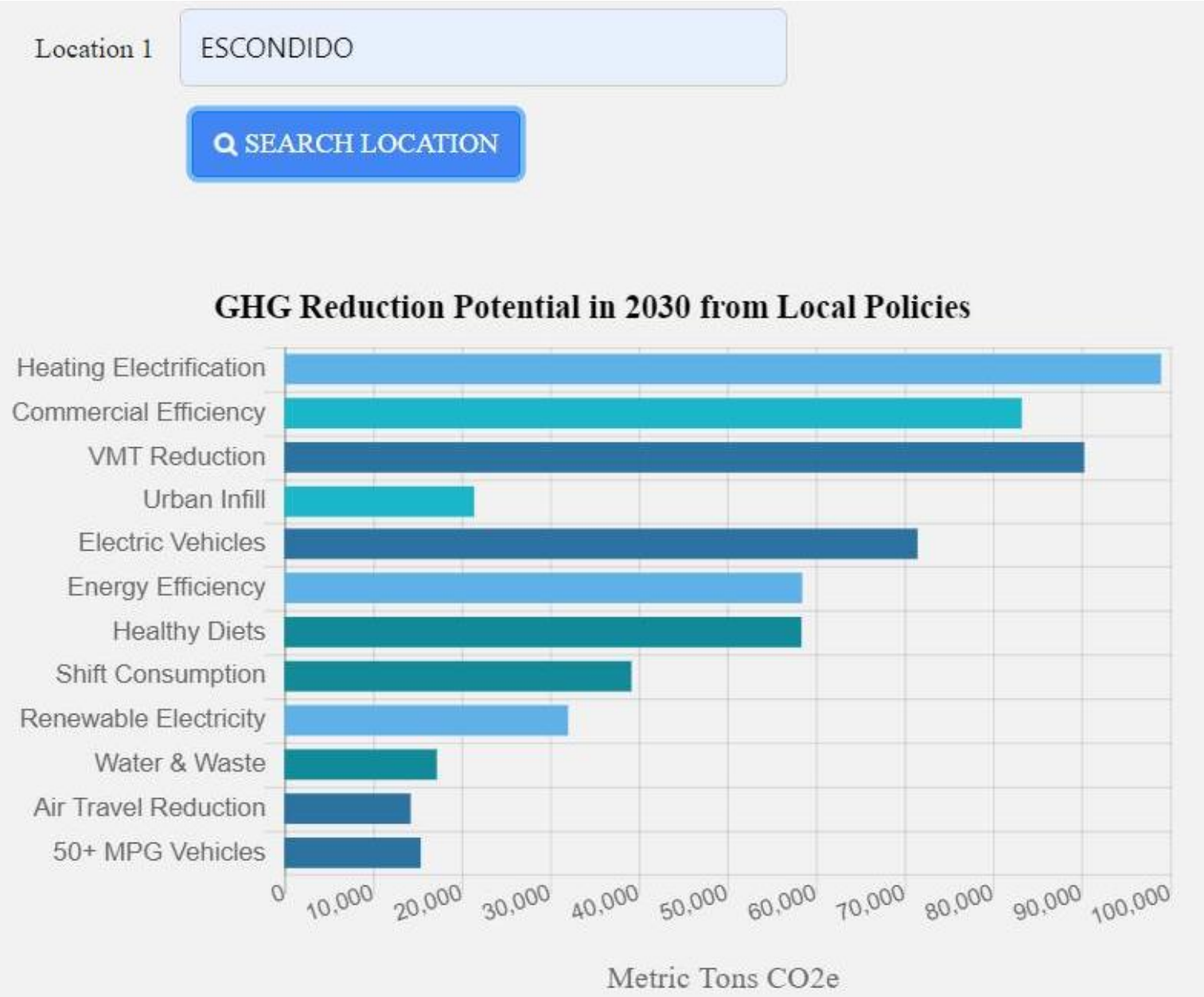



I ALWAYS WONDERED
WHY SOMEBODY DIDNT
DO SOMETHING ABOUT
THAT. THEN I REALIZED
I WAS SOMEBODY.

Community Advisory Sub-Committee *Primary Goals* for the ECAP

INTEGRATE SOCIAL EQUITY INTO THE ECAP

INCLUDE THE MOST EFFECTIVE ADAPTATION & MITIGATION MEASURES



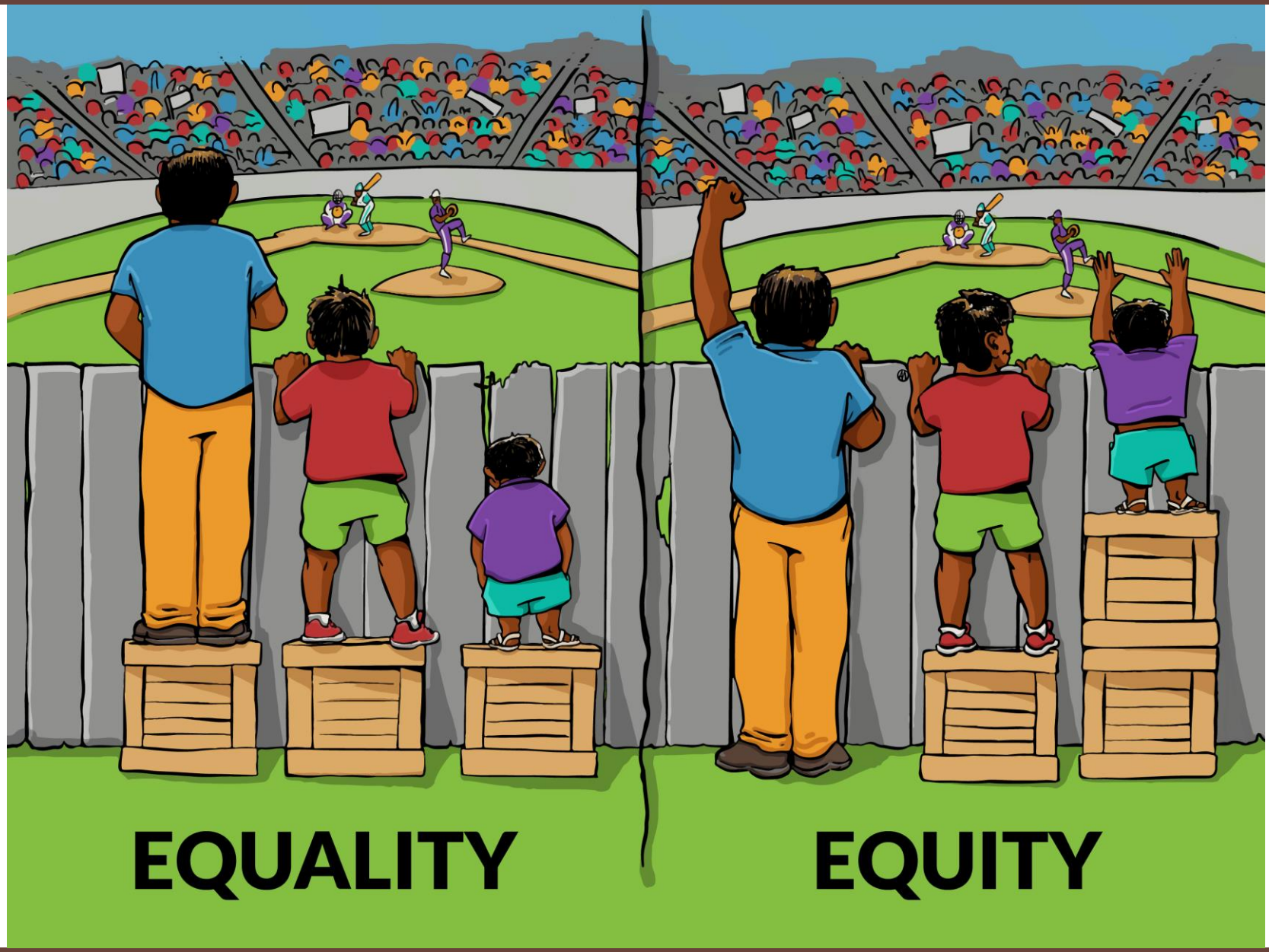
"Cool Climate" CA GHG Policy Tool

Environmental Justice

Environmental justice recognizes that certain communities - generally lower-income & communities of color - have historically borne the brunt of pollution exposure, have traditionally been left out of important decision-making processes, and ultimately will be impacted first (& worst) by climate change.

Social Equity

Equitable action is an EFFECTIVE approach for meeting the needs of under-served communities and vulnerable residents through policies and programs that reduce disparities while fostering places that are healthy and vibrant.


EQUALITY
EQUITY

SOCIAL EQUITY IN CAP IMPLEMENTATION

Equitable CAP Implementation addresses patterns of underinvestment, centers communities of concern, and proactively plans for long-term health, economic opportunity, and quality of life. Along with his colleagues, Dr. Manuel Pastor, Professor of Sociology and American Studies & Ethnicity at the University of Southern California, defines the following dimensions of equitable implementation:

> "**PAST | Prioritizes investments that will close racialized gaps**, especially by wealth, environmental burden, and existing amenities in a way that will improve work and economic and health opportunities for underinvested communities.
>
> **PRESENT | Involves partnership throughout the process** that centers the perspectives of vulnerable communities, that supports authentic community-based participation and power, and that results in shared decision-making, while also strengthening the health and well-being of the entire region.
>
> **FUTURE | Takes into account the future** by leveraging funding for long-term community health and organizational capacity, mitigates future harm that may result for new investments in a place, and incorporates metrics and evaluation to promote adaptable and effective implementation."[1]

[1]Vanessa Carter, Manuel Pastor, and Madeline Wander. 2018. Measures Matter: Ensuring Equitable Implementation of Los Angeles County Measures M & A. Available at http://dornsife.usc.edu/pere/measures-matter-la/

Community Advisory Sub-Committee *Primary Goal* for ECAP

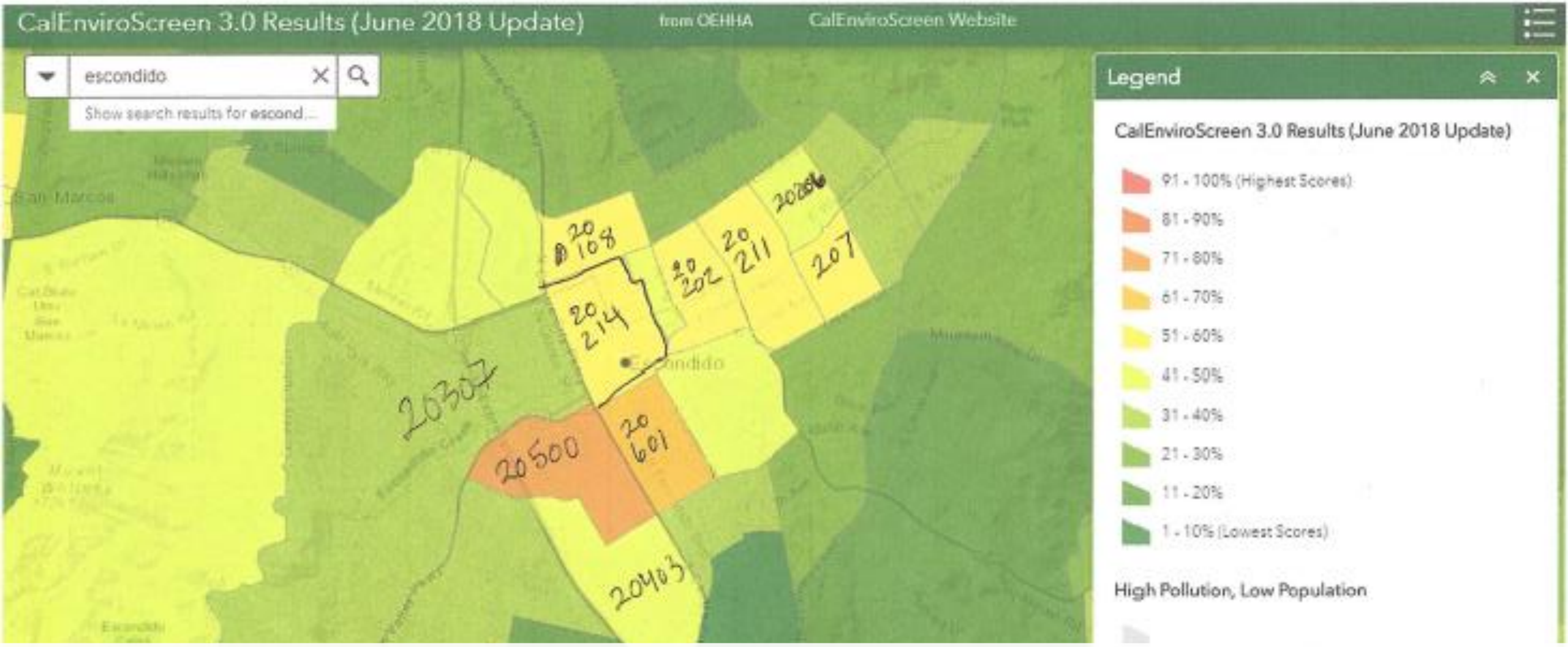
INTEGRATE SOCIAL
EQUITY INTO THE ECAP

Achieve Social Equity in Priority Investment Neighborhoods

Priority Investment Neighborhoods are areas where location, pollution, & climate change combine with inherent population characteristics to pose higher health risks to residents, & with fewer resources to address them.

Focus on increased education and outreach in these areas.

Receive highest priority for funding and action on key climate initiatives.



Cal EnviroScreen Results - Escondido

Census Tract: 60730**20500**

Population:	5,196
CalEnviroScreen 3.0 Percentile:	**70-75%**
Pollution Burden Percentile:	**69**
Population Characteristics Percentile:	**67**
Ozone:	61
PM 2.5:	53
Diesel:	65
Pesticides:	0
Toxic Releases:	14
Traffic:	69
Drinking Water:	27
Cleanups:	30
Groundwater Threats:	70
Hazardous Waste:	51
Impaired Water:	81
Solid Waste:	86
Asthma:	43
Low Birth Weight:	49
Cardiovascular Rate:	38
Education:	88
Linguistic Isolation:	85
Poverty:	84
Unemployment:	46
Housing Burden:	94

Information about age: This tract contains 18% Children under 10. The average in California census tracts is 13%. It also contains 11% Elderly over 65. The average in California census tracts is 12%.

****

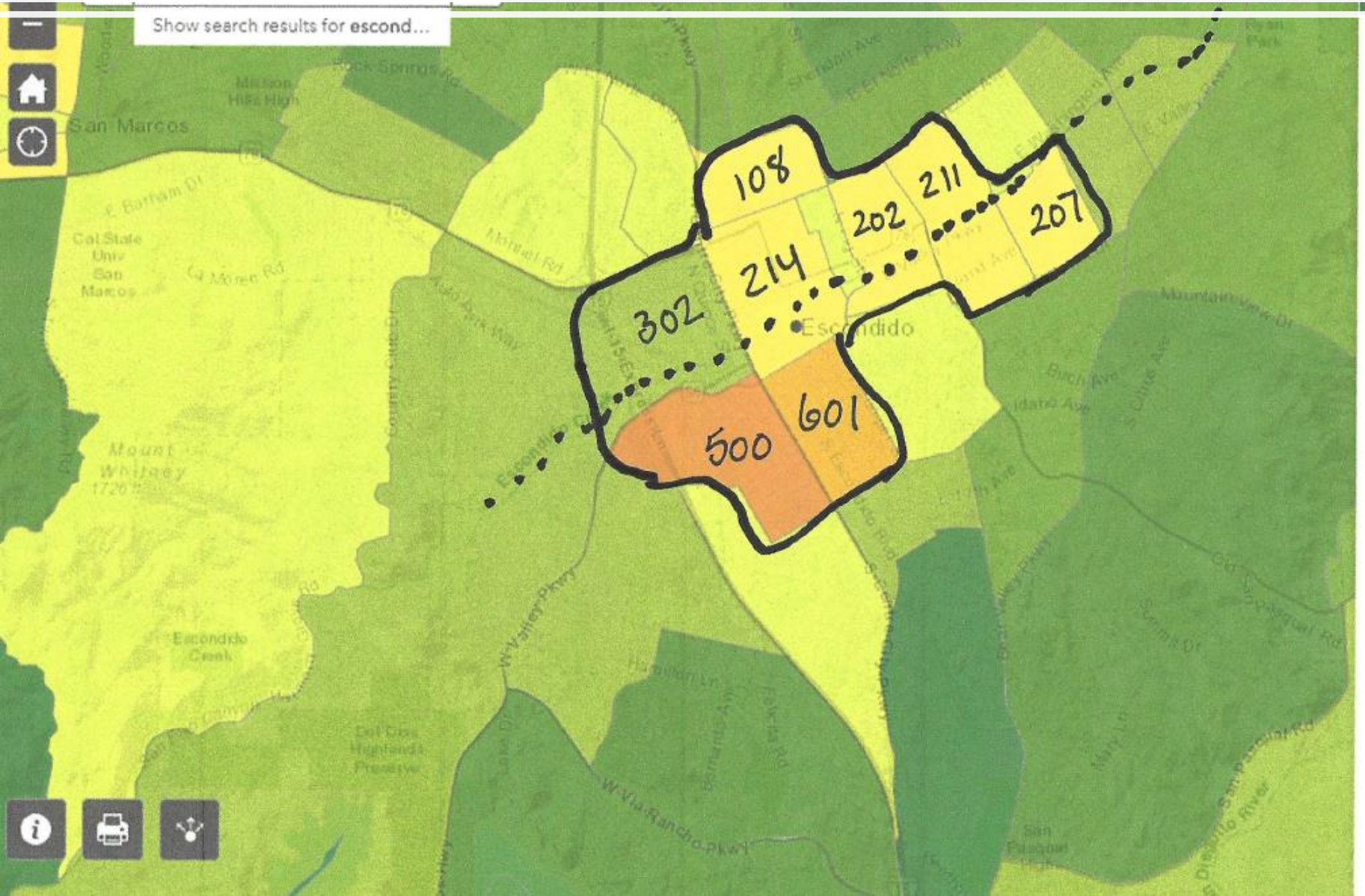
Census Tract: 60730**20601**

Population:	5,560
CalEnviroScreen 3.0 Percentile:	**60-65%**
Pollution Burden Percentile:	**52**
Population Characteristics Percentile:	**59**
Ozone:	61
PM 2.5:	53
Diesel:	65
Pesticides:	0
Toxic Releases:	13
Traffic:	27
Drinking Water:	27
Cleanups:	6
Groundwater Threats:	75
Hazardous Waste:	54
Impaired Water:	81
Solid Waste:	74
Asthma:	43
Low Birth Weight:	29
Cardiovascular Rate:	38
Education:	89
Linguistic Isolation:	78
Poverty:	90
Unemployment:	39
Housing Burden:	82

Information about age:
This tract contains 21% Children under 10. The average in California census tracts is 13%. It also contains 4% Elderly over 65. The average in California census tracts is 12%.

Pollution Burden | Population Characteristics | Overall Results

Priority Investment Neighborhoods



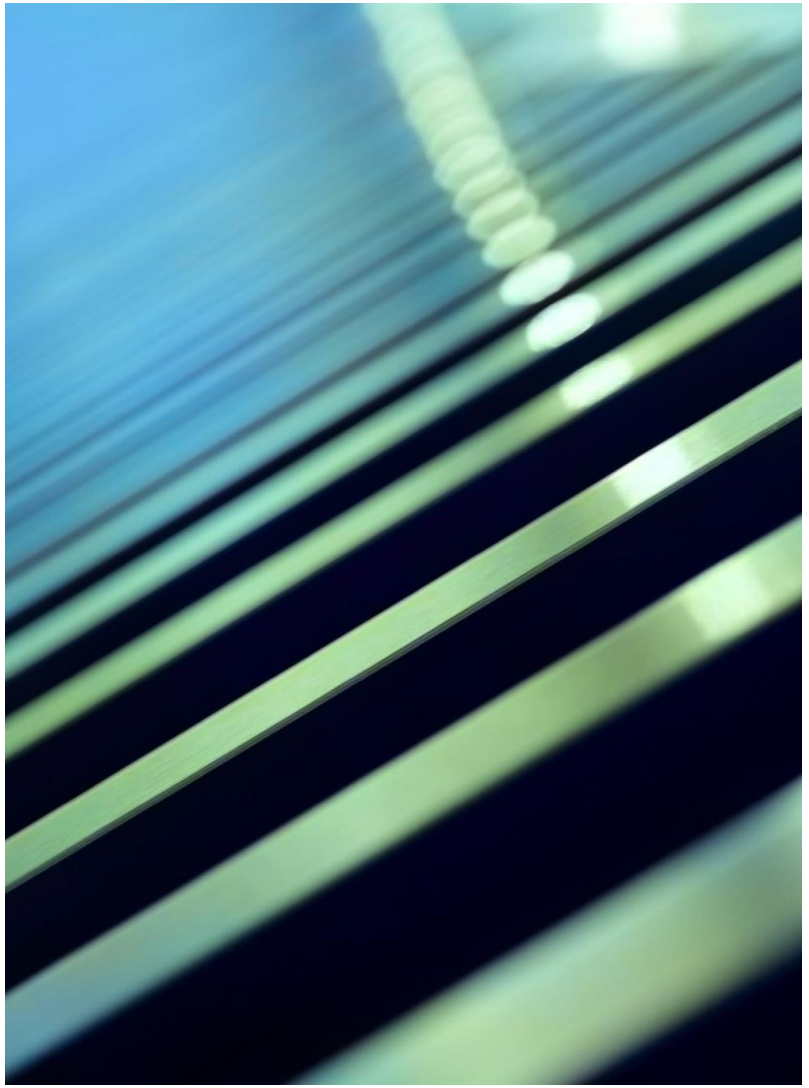
CalEnviroScreen 3.0 Results (June 2018 Update)

- 91 - 100% (Highest Scores)
- 81 - 90%
- 71 - 80%
- 61 - 70%
- 51 - 60%
- 41 - 50%
- 31 - 40%
- 21 - 30%
- 11 - 20%
- 1 - 10% (Lowest Scores)

High Pollution, Low Population

Climate Investment in Priority Areas

- INITIATIVES FOR MORE/BETTER/CLEANER PUBLIC TRANSIT
- HEAT ISLAND REDUCTION & URBAN FORESTRY
- AIR QUALITY REQUIREMENTS & POLLUTION REDUCTION
- OUTREACH & EDUCATION PROGRAMS
- AFFORDABLE HOUSING & INITIATIVES FOR EFFICIENCY UPGRADES TO EXISTING STOCK



Priority Neighborhood Infrastructure Initiatives

Adaptation measures for communities at higher risk for extreme weather events such as floods & drought

Improvements of walkways & public transportation routes, with increased tree shading

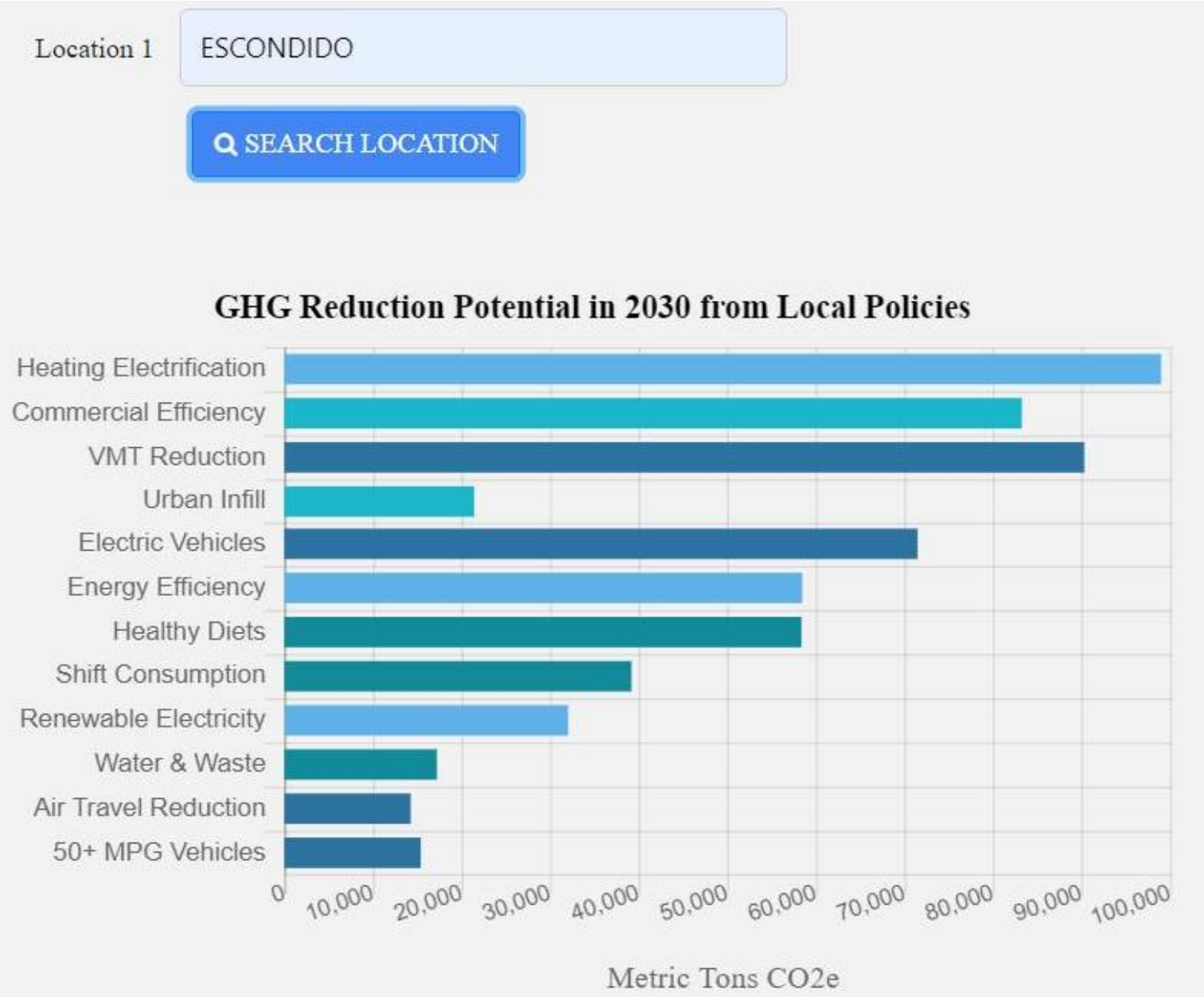
Identify at-risk areas that lack in-home cooling systems & help establish cooling centers within these neighborhoods

Focus solar & energy efficiency programs in neighborhoods that are traditionally left out of redevelopment & improvement

Restore natural areas to improve carbon sequestration & pollution reduction, to beautify & cool neighborhoods, & to create a welcoming natural space for it’s residents to enjoy

Climate Equity Housing & Planning

- Measures that require development of affordable multi-family units near transit and employment centers, while also allowing for 50% fewer parking spaces than standard requirements to maximize density
- Adopt an inclusionary housing ordinance that would require a portion of all multi-family housing to be set aside, for example, for families earning less than 80% of the Area Median Income
- Direct new infrastructure - sidewalks, bike lanes, transit access improvements - to underserved areas
- Cease projects that increase fire risk and draw considerable community financial resources away from areas in need of investment, infrastructure
- Leverage funding for long-term community health & organizational capacity



"Cool Climate" CA GHG Policy Tool

Energy Conservation Retrofit Program

- FOCUS ON OLDER HOUSING STOCK
- FOCUS ON EQUITY INVESTMENT COMMUNITIES
- CREATE & SUPPORT HOMEOWNER PROGRAMS
- CREATE & SUPPORT LANDLORD INCENTIVE PROGRAMS
- AGGRESSIVE PURSUIT OF GOVERNMENT FUNDING
- FUND VIA ASSESSMENT OF CLIMATE IMPACT FEES

Weatherization Talking Points Grid

Fighting Energy Poverty

- Low-income households, including the elderly, disabled or families with children who can't afford home energy
- $437 or more in annual utility bill savings year after year at current energy prices
- Energy savings average 35% of consumption for the typical low-income home
  pre-weatherization consumption
- More household money is made available for other basic necessities, medicine or groceries
- In 2010, weatherized homes nationally will save $2.1 billion for low-income families

Investment in America

- Anticipated that over 650,000 homes will be weatherized during the ARRA period.
- For every $1 invested in the program, Weatherization returns $2.51 to the household and society.
  - $1.80 is returned in reduced energy bills
  - $0.71 is returned to ratepayers, households, and communities through:
    - •increased local employment
    - •reduced uncollectible utility bills
    - •improved housing quality
    - •better health and safety
      - reduces heat-related illness and death
      - reduces risk of death from home fires due to utility disconnection

Weatherization Works

The Economy

- $5 billion in weatherization funds during the ARRA period, as well as $180 million weatherization funds in annual appropriations, cost effectively invested by **DOE in low-income energy efficiency**
- Provides direct jobs and indirect employment nationwide
- Insurance policy against future price increases; when a low-income home is weatherized, both its energy bill and fuel consumption are reduced each year for many years to come. In times of energy supply and price problems, weatherization recipients are better able to cope with rising prices.
- Community benefits from energy efficient housing stock and increased economic activity

Climate Change

- Reduces residential and power plant emissions of carbon dioxide by 2.65 metric ton/year per home
- Over the life of the measures, saves 53 metric tons of CO2 emissions per house
- Weatherization decreases national energy consumption by the equivalent of 24.1 million barrels of oil annually

Sources: ORNL/TM-20
February 2010 Short
Outlo

Update

ECAP Building Efficiency Programs & Funding

- Create & assess Climate Impact Fees on new development
- Include climate action in Community Services Facility Districts to partially fund the retrofitting of older homes
- Aggressively pursue grants for initiatives committed to in ECAP
- Provide weatherization & energy efficiency upgrades for low & moderate income households via Community Development Block Grant & Water Conservation funding programs

ECAP Building Efficiency Programs & Funding

- Create & support Property Assessed Clean Energy financing to facilitate residential & commercial property upgrades
- Work with MAAC Project, Campesinos Unidos, and the Energy Team for free energy/water efficiency home audits and to provide customized energy plan for lower income families
- Pursue State grants such as the Affordable Housing and Sustainable Communities grants to support affordable housing projects near transit

Water Conservation

EXPANDED CONSERVATION AND RECYLING EFFORTS BY THE SAN DIEGO COUNTY WATER AUTHORITY

MANDATE ALL NEWLY CONSTRUCTED HOMES BE EQUIPPED WITH GRAY WATER IRRIGATION SYSTEMS, DROUGHT TOLERANT LANDSCAPING, & WATERWISE FIXTURES

PROGRAMS & INCENTIVES TO OFFSET COST OF DROUGHT TOLERANT LANDSCAPE CONVERSION. FREE RAIN BARREL PROGRAM FOR LOW-INCOME HOUSEHOLDS

COST-FREE CITY SPONSORED WATER EFFICIENCY INSPECTIONS FOR HOME PLUMBING & IRRIGATION

PROGRAMS & FUNDING FOR INCREASING WATER EFFIENCY - PLUMBING FIXTURES & LANDSCAPING - FOR COMMERCIAL ENTITIES

Clean & Efficient Transportation - Priorities

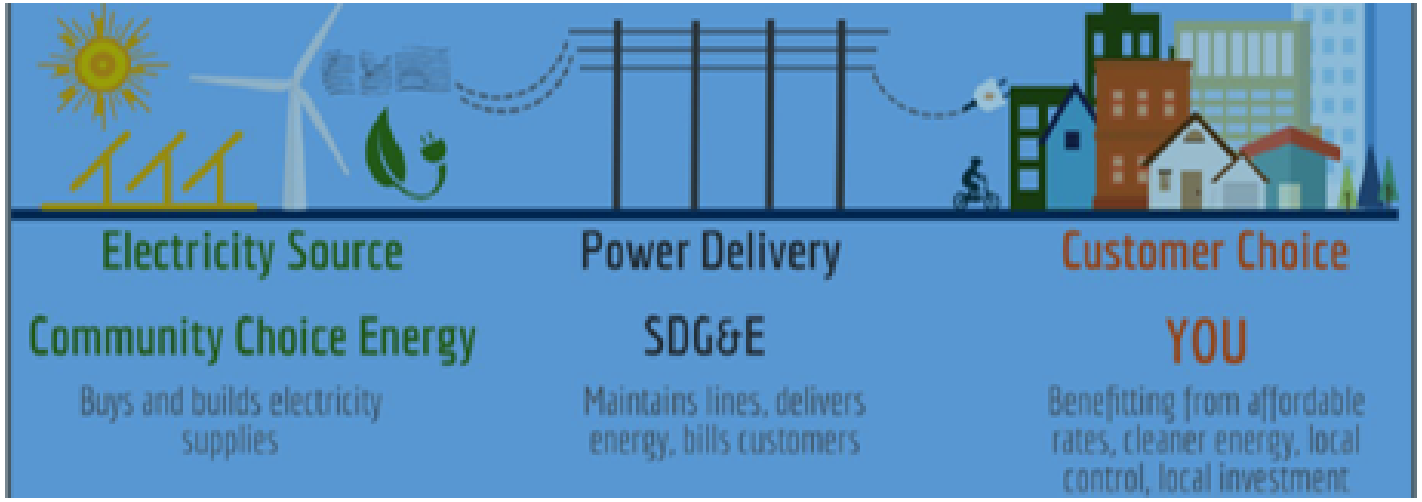
- Replace city fleet vehicles with electrics as soon as possible
- Develop and conduct surveys to assess transportation modes of city residents for future reporting and to develop incentive programs for more sustainable modes of transportation
- Prioritize funding for affordable/safe & “Green” transit in priority neighborhoods… Buses, pedestrian/bicycle safe routes, etc.
- Increase city-wide EV solar-powered charging infrastructure & adopt measures to promote use
- Increased solar canopy arrays on parking lots & city property
- Incorporate measurable, verifiable, & enforceable annual reductions in regional vehicle miles traveled (VMT) per capita
- Require reports on VMT per capita every 2 years
- Avoid expansion of arterial roads
- Electrify long haul vehicles and prioritize zero-emission vehicle infrastructure for transit

Clean & Efficient Transportation – Support Initiatives

- Incentivize local businesses to add charging stations & direct clean energy surplus to fund additional electrification projects
- Condensed workweek/WFH options for City employees as a matter of policy to reduce the need to commute
- Partner with NCTD to provide free Youth Passes & reduced fare passes for low income riders; Offer real-time GPS tracking & text message notification to provide riders with accurate wait times at shuttle stops
- Partner with NCTD & schools to provide electric bus services in connection with free public parking
- Adopt ordinance to limit/excessive car/truck idling
- Create a community Facebook page for a Ride Share, which will help community members seeking rides with those seeking traveling companions and/or gas money
- Initiate “Hertz on Demand”, an hourly car-sharing program, to provide an adequate number of hybrid/EV’s as an alternative for residents who do not own (nor wish to own) vehicles

Community Choice Energy

Community Choice Energy (CCE) is a program that brings local control, freedom of choice, & competition into the electricity marketplace.



How does CCE work?

Community Choice is an agile **public-private partnership** between the CCE and the utility (SDG&E). The CCE program purchases the power supply. SDG&E continues to deliver the power over their power lines and handle the billing. It is truly consumer choice -- customers may opt-out and return to the utility at any time.

Community Choice Energy

How Do We Pay for Community Choice?

- CCE programs are self-supporting (not government subsidized) via an existing revenue stream (electricity bills).
- The electricity rates consumers pay to a retail electric supplier or an investor-owned utility are bundled and redirected to support the group purchase of electricity through a local CCE program.

What are the benefits of CCE?

- In their near decade of operation in California, CCE programs have been able to provide:
  - **Real competition** in electricity markets
  - **More affordable rates** to families and businesses
  - **Higher rates of renewable green energy** helping reduce GHG emissions and meet local and state climate goals
  - **Inclusive local economic development**, and good middle-class green energy jobs
  - **Equitable clean energy programs** to support residents and businesses transition to a 100 percent clean energy future.

We strongly support the city to create or be a part of a CCE program.

Renewable Energy Initiatives

- Adopt Community Choice Energy
- Require ALL new housing to be 100% solar/electric
- Develop energy retrofit program for local Escondido residents
- Energy conservation resources/incentives for Priority Neighborhoods
- Solar installation programs/incentives for neighborhoods that are traditionally left out of redevelopment
- Pursue resources from the new CA's "Solar on Multifamily Affordable Housing" (SOMAH) for focus neighborhoods
- Create funding services for target areas residents for energy efficiency, clean renewables, composting, & zero-emission transportation projects
- Establish a PV installation goal for non-city owned production

Riparian Restoration

A **1 km** restoration site could contain ~**4,419 tons** of accrued carbon in soil & woody vegetation, which is equivalent to the amount of carbon released from:

- **1,478 homes/year**
- **3,411 passenger cars/year**

(US EPA, 2015)

Riparian & Chaparral Habitats Fight Climate Change!

Riparian/chaparral ecosystems absorb large amounts of atmospheric CO2 & store the carbon in their biomass

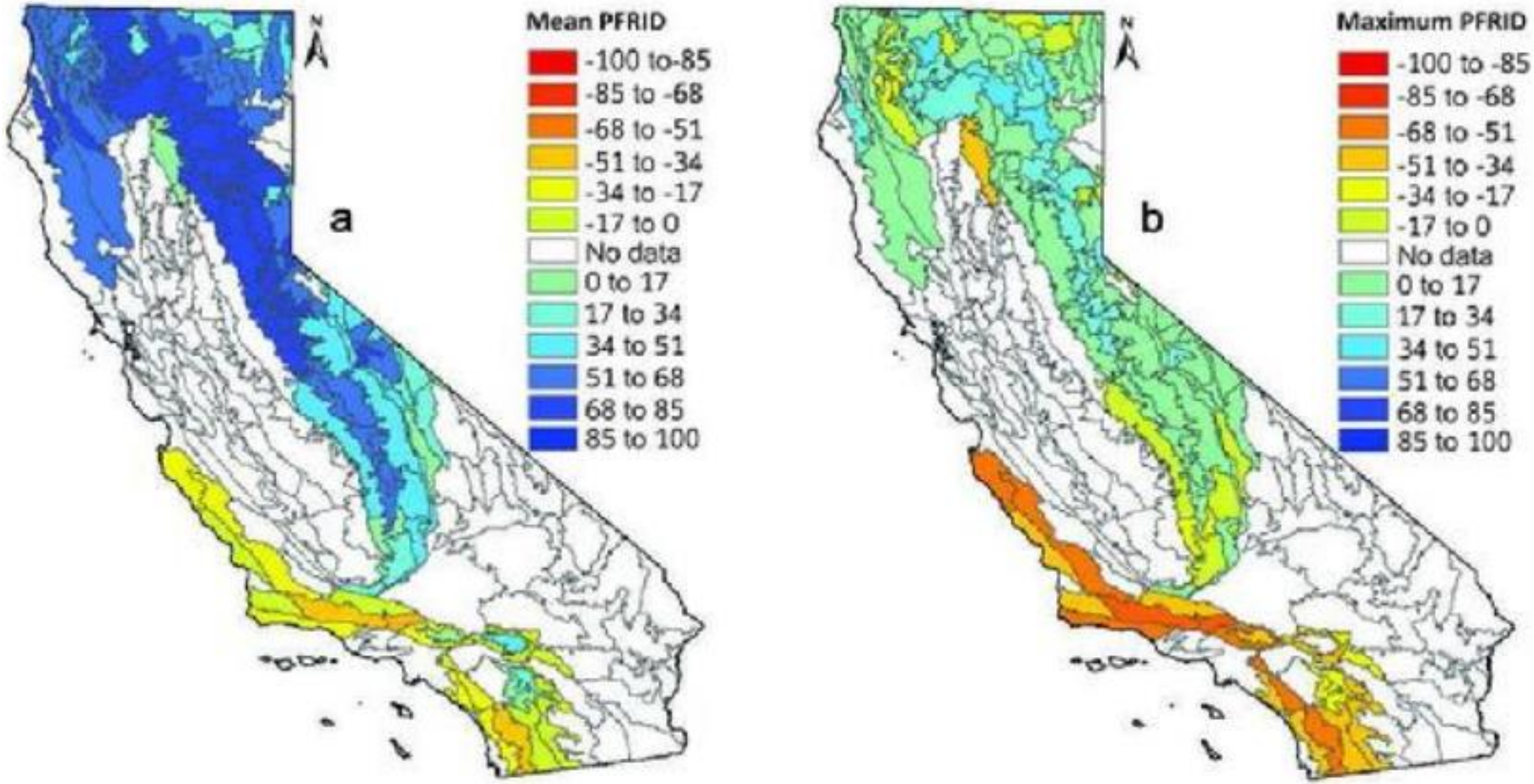
Chaparral habitat has the largest biomass per acre in Southern California, making it our largest natural carbon sink

Riparian Habitat improves water quality by filtering nutrients and nitrogen fixation

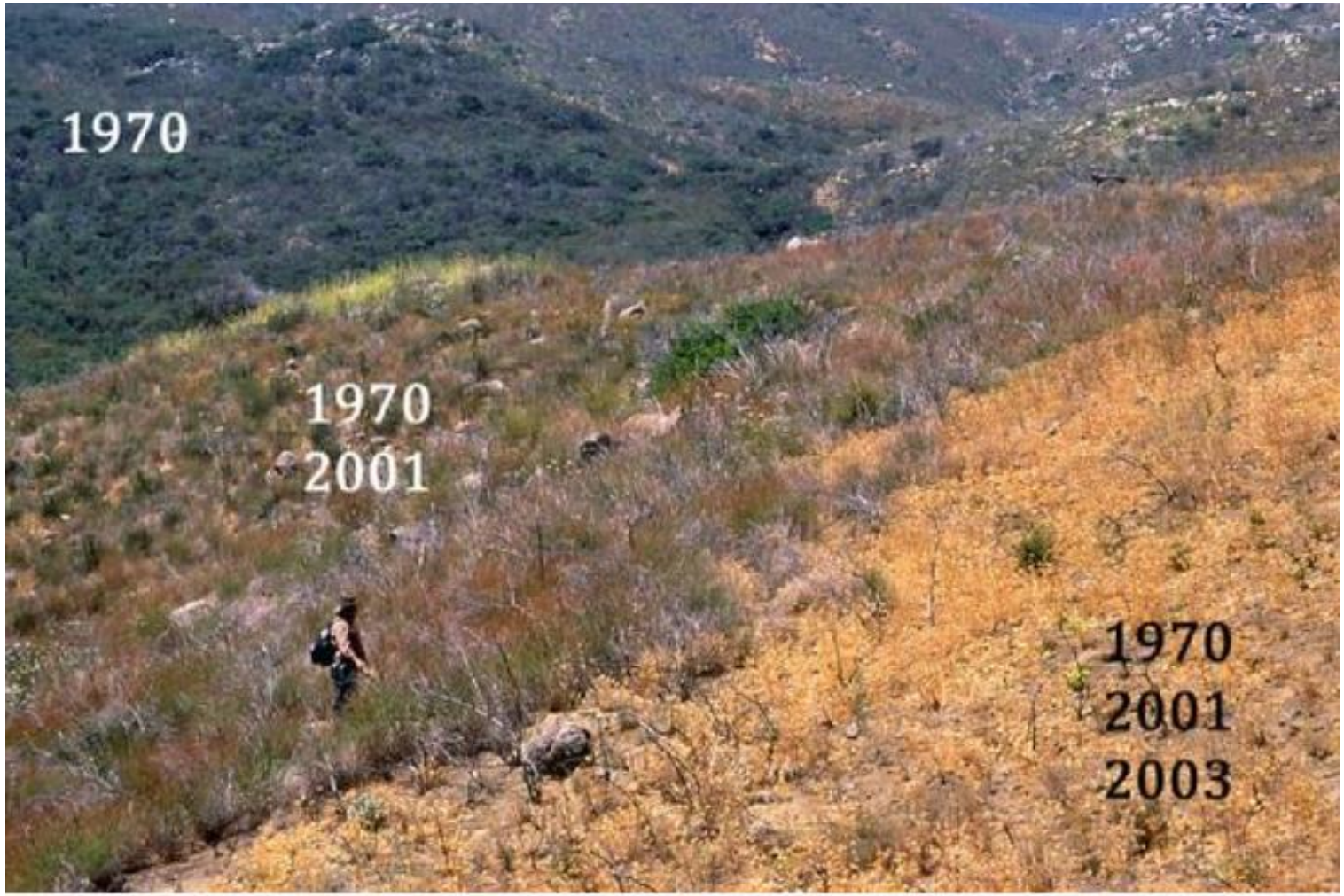
Chaparral habitat can adjust to high levels of air pollution; Planting chaparral plants in urban environments could significantly lessen the impact of air pollution

Chaparral habitats are one of the most resilient & sturdy in Southern California, but also one of the least restored

With climate change converting many of our currently forested areas, the role our chaparral habitat plays will be more important than ever



Fire Threat to Chaparral Habitat



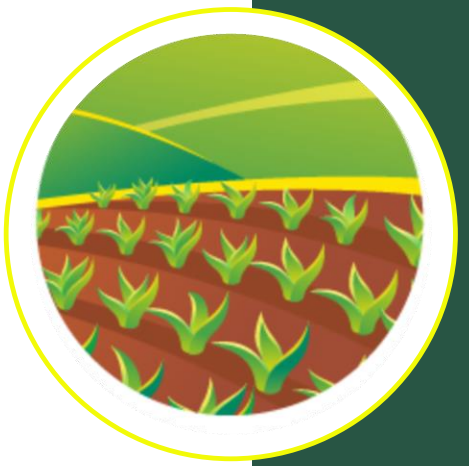
Fire Threat To Chaparral Habitat

Human Threat to Chaparral Habitat

Reducing Carbon through Land Use

Define/execute a comprehensive policy to conserve key natural habitat areas & agricultural lands by increasing goals and metrics for ‘avoided conversion’ through preservation and restoration for habitat and agricultural lands

With VMT’s a primary GHG contributor in our region, we need measures that halt annexation of lands that are primarily served by individual cars



Restore Escondido creeks and waterways for carbon sequestration, cooling, & habitat/community enhancement

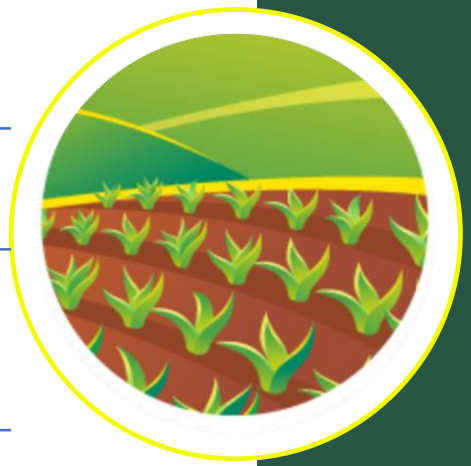
Work with the County & Natural Resource Agencies to ensure the purchase for critical habitat restoration for Safari Highlands Ranch property

Measure to add the removal of 500 units of development from natural habitat

Reducing Carbon through Land Use

Increased “carbon farming” to protect a $1.7B agricultural industry in SD County

Take lead on land acquisition to be conserved as open/natural space. Solicit funds from SANDAG for acquisition & management

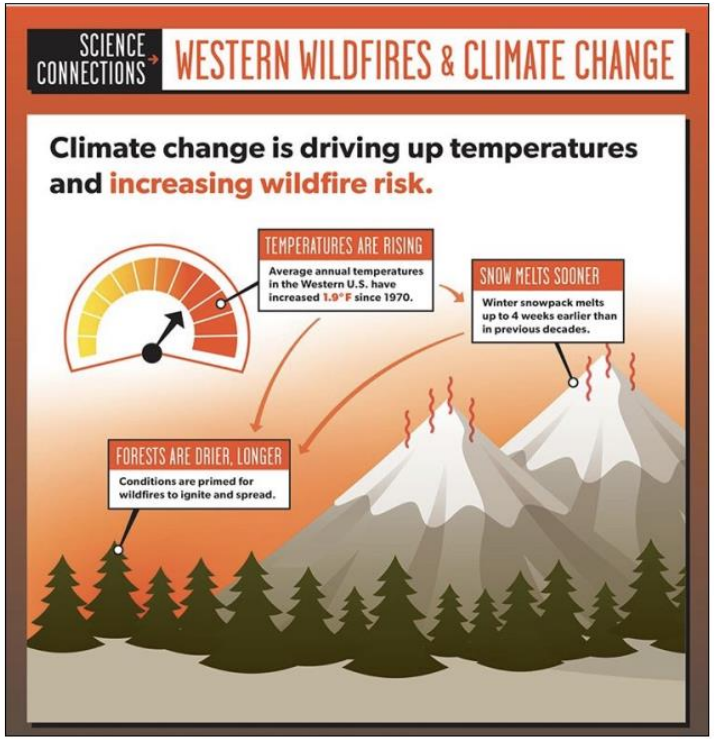


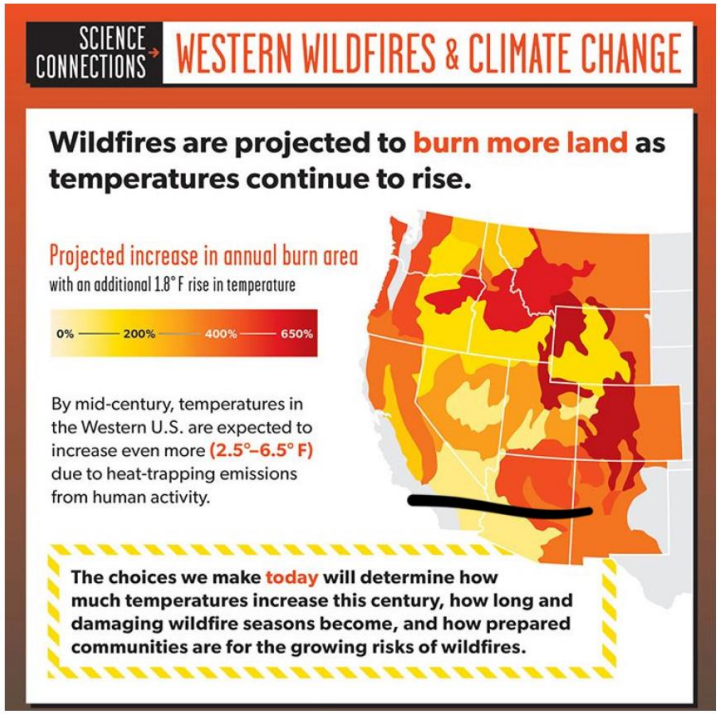
Apply for state funding support for applicable land use actions in the ECAP

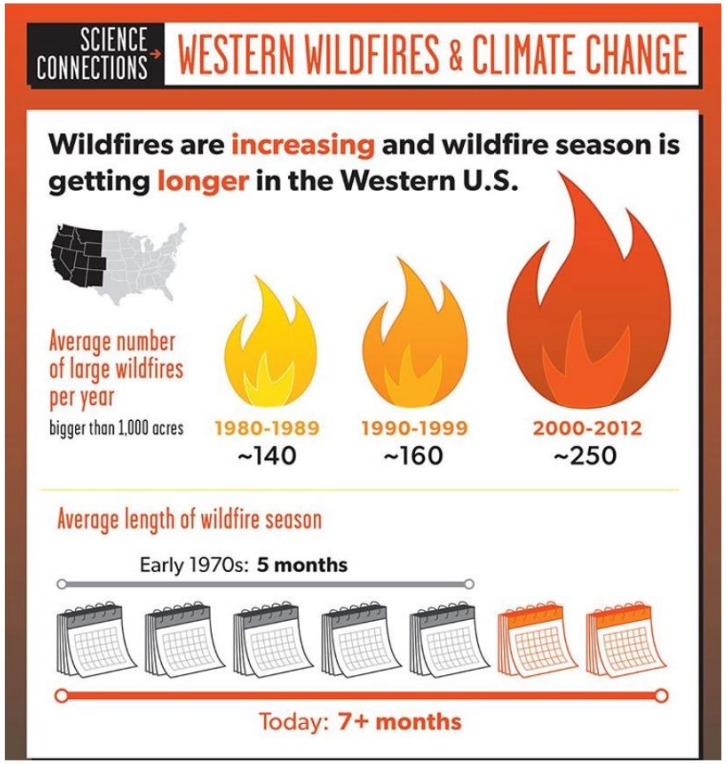
Regarding carbon offsets, if unable to be fully mitigated on site, purchase of subsequent carbon offset credits must occur within the city limits

Divert city compost to regenerate damaged natural ecosystems where appropriate & restore natural carbon sinks

Adopt a Sustainable Development Codes for Vegetation Protection Areas







Wildfires & Climate Change

Primary cause of wildfire? Human Activity!

Findings from a 2017 NAS study of wildfires over the last two decades:

- 84% of U.S. wildfires were caused by human-related activity
- Human activity has tripled the length of the fire season
- Human cause fires have dominated an area seven times greater than lightening (16%) fires
- 95% of fires the California Department of Forestry and Fire Protection responds to are caused by humans
- Regional policy efforts to mitigate wildfire-related hazards would benefit from focusing on reducing the human expansion of the fire niche

Preventing one of the biggest emitters of carbon… Wildfire

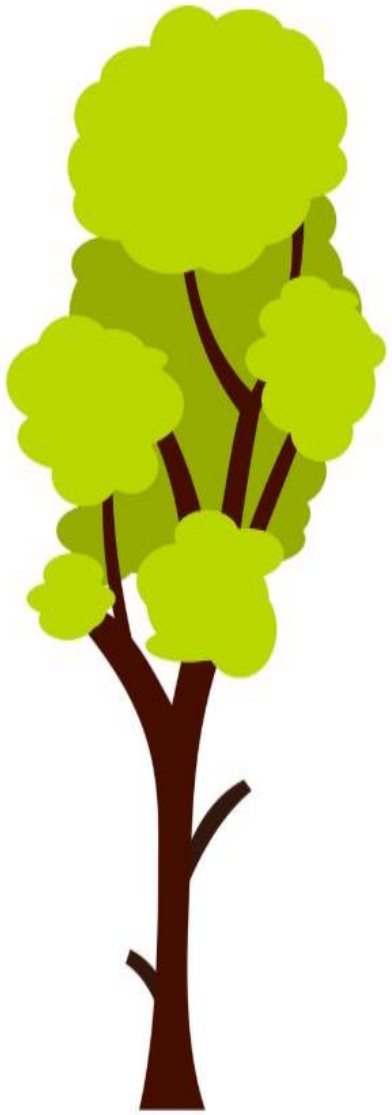
Reduce fire risk by STOPPING home building & development in fire prone zones

Preserve natural riparian ecosystems & chaparral habitat

Replace roadside vegetative clearings w/ natural habitat to mitigate invasive & flammable species proliferation

Reduced fire risk will reduce infrastructure/habit loss which will in turn reduce carbon emissions resulting from wildfires

Modeling of future climate conditions to identify at risk areas. Integrate fire hazard maps to identify areas most susceptible to fire



The Many Benefits of Trees!!

A single mature tree **sequesters 50lbs of carbon** per year

Trees provide beautification & **increased property value**

Trees allow for soil & **stormwater retention -** 1000g/y per mature tree

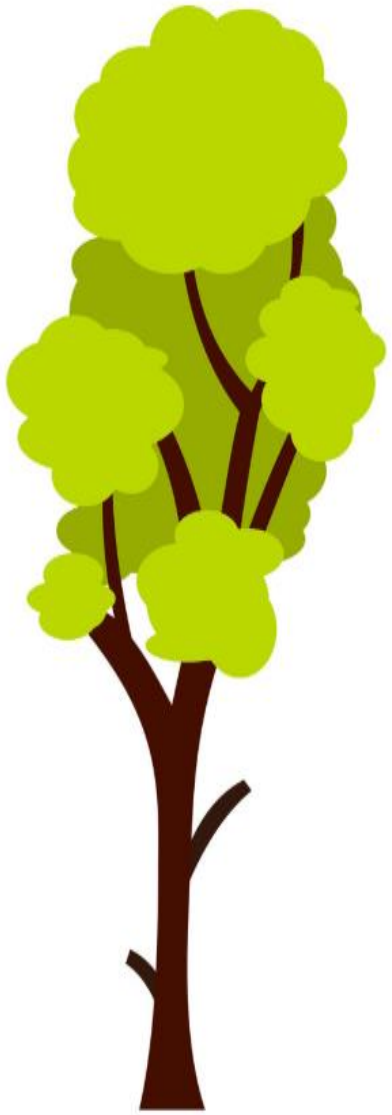
Trees are **critical for wildlife** habitat to thrive

Trees **reduce heat island effects** via shading & “evapo-transpiration”

Trees **reduce energy bills** via the shade they provide buildings

Trees **absorb pollution**

Trees improve well-being & have been linked to **crime reduction**



Measures to Increase & Protect Urban/Suburban Tree Canopy

Create a City Forestry Team led by certified arborists. Assess current canopy coverage & identify areas of deficiency in business & residential sectors

Develop a master plan to fund, maintain, & improve our urban forest

Ensure city master plan incorporates increased & funded street tree & median plantings. Initiate capital improvement programs & leverage public works/parks budgets

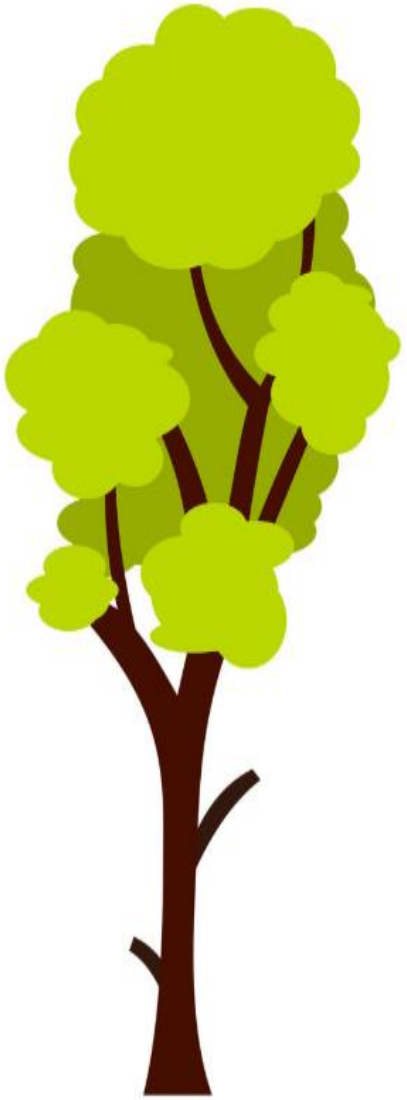
Emphasize use of water wise & drought resistant native trees & shrubbery

Require street trees to be planted in new commercial developments

Adopt ordinances to require tree preservation, w/ enhanced inspection, enforcement, & maintenance capabilities

Replacement and planting program for private development, & with highest priority going toward low equity residential neighborhoods

Pursue an aggressive timeline that begins planting in 2021 and targets 15% total canopy coverage by 2035.



Urban Forest Support Initiatives

Consider replacing invasive Mexican palms with more favorable waterwise species that can provide both shade & urban habitat

Account for irrigation & maintenance requirements for new plantings, & consider offset costs via planned community facility rate charges

Pursue the funding of tree planting projects via The Escondido Community Foundation and Community Group Development Grants

Create a community-led Go Fund Me to solicit donations for specific tree planting projects

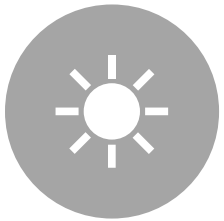
Continued participation in Cool Parks, where recently volunteers planted 300 trees in Kit Carson Park and other local parks

Provide cost-sharing for planting of shade trees. Encourage incentive programs with local utilities/SDG&E

Increased City of Escondido & Community collaboration w/ Arbor Day Foundation

ECAP Initiative Pillars

BUILDING EFFICIENCY



RENEWABLE ENERGY & CCE

URBAN FORESTRY & LAND USE

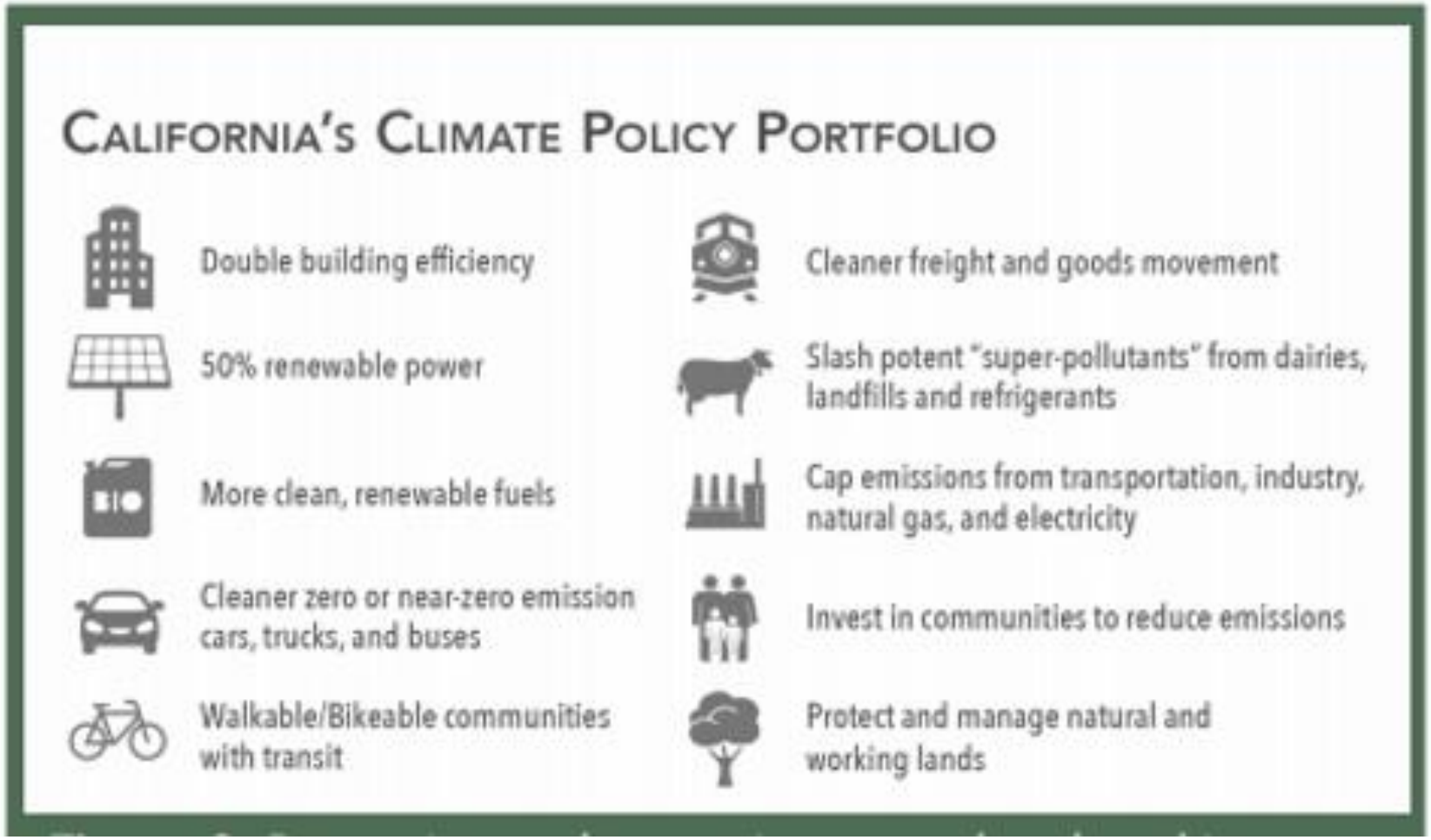
WATER EFFICIENCY

CLEAN & EFFICIENT TRANSPORTATION

PRIORITY INVESTMENT NEIGHBORHOODS

COMMUNITY INVOLVEMENT

California Climate Action Plan Framework



ECAP Implementation, Administration Suggested Mandates

- Ensure CAP is legally binding with CA requirements & preserve/improve elements that align with best practice
- Set Zero Carbon target goal in alignment with Executive Order B-55-18 of carbon neutrality by 2045
- Include DETAILED timeline of strategies along with cost analysis & expected GHG reduction results for each
- Produce a GHG inventory every 3 years, & annually monitor each initiative implemented
- Establish/fill a Climate Coordinator position accountable directly to City Manager or Mayor

ECAP Community Support Activities

- Climate Coordinator to create a Climate Task Force, open to the public, to implement ECAP & to maximize grants/funding
- Create Resident Advisory Sustainability Commission to advise the city on CAP, environmental, & quality of life issues.
- Create a Climate Justice Ambassadors program to assist with outreach in Equity Priority neighborhoods
- Hold an annual Escondido Climate Event (or week!) to focus education & attention around carbon emission reduction
- While measures/metrics are critical aspects to a CAP, we must ensure that a comprehensive & detailed “Plan” is put forth

Initiate & sustain ECAP, achieve GHG reductions, protect our community!

In the first image, it is assumed that everyone will benefit from the same supports. They are being treated equally.

In the second image, individuals are given different supports to make it possible for them to have equal access to the game. They are being treated equitably.

In the third image, all three can see the game without any supports or accommodations because the cause of the inequity was addressed. The systemic barrier has been removed.

Thank You! / Next Steps

Submission of a “supplemental” that expands on local climate impacts and includes more detailed initiative recommendations & references.

Facilitate City invitation of Scripps Institute of Oceanography climate change presentation/seminar on the topics of impact, mitigation, & adaptation.

We look forward to creating the most EFFECTIVE & most EQUITABLE climate plan in the county!

Escondido Community Advisory Group Sub-Committee

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