SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
818 West 7th Street, 12th Floor, Los Angeles, CA 90017 T: (213) 236-1800 F: (213) 236-1825

TECHNICAL WORKING GROUP (TWG)

Thursday, October 20, 2016 10:00 a.m.

SCAG Offices
818 West 7th Street, 12th Floor
Board Room
Los Angeles, CA 90017
(213) 236-1800

Teleconferencing Information: Number: 1-800-832-0736 – Participant Code: 7334636

Please use for web connection: **http://scag.adobeconnect.com/twg91814/**

AGENDA

Introductions

Receive and File

1. Meeting Summary 9-15-16 (Attachment)
2. Note to TWG Members: Comments on CalEnviroScreen are due to Cal/EPA on October 21, 2016.

Information Items

3. 2016 RTP/SCS Amendment No. 1 Update (Tran) (No Attachment)
4. Subregional SCS Framework & Guidelines (Clark) (No Attachment)
5. Proposed Protocol for Distributing Sub-jurisdictional Level Population, Household, and Employment Data to Regional Stakeholders (Clark) (Attachment)
6. SB 375 Target Setting/SCAG Stress Test Status Report (Huang/Wen) (Attachment)
7. SCAG/CARB Land Use White Paper (Chang/Wen) (Attachment)
8. Housing Summit Update (Johnson/Chang) (Attachment)
9. 2017 Local Profiles (Chang/Gainor) (Attachment)
10. CalEnviroScreen Draft 3.0 Update (Gainor/Sun/Chang) (Attachment)
11. 2016 South Coast Air-Quality Management Plan (AQMP) (Luo) (No Attachment)

Item 1 Attachment:
Meeting Summary

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
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Special Meeting of the
TECHNICAL WORKING GROUP (TWG)
September 15, 2016

Meeting Summary

The following is a summary of discussions at the Special Meeting of the Technical Working Group on September 15, 2016.

Receive and File

1. **Meeting Summary 8-18-16**

Information Items

2. **Revised Data Distribution Protocol**
   Kimberly Clark, SCAG staff, provided an overview of the Draft Revised Model Data Distribution Protocol and responded to questions, comments, and recommendations from TWG members.

3. **Subregional SCS Framework & Guidelines**
   Kimberly Clark, SCAG staff, provided a summary of the Subregional SCS Framework & Guidelines, highlighting the major changes in the document. Ms. Clark responded to comments, questions, and suggestions from TWG members. Carla Walecka requested that CARB land use paper be addressed at the next TWG meeting on October 20, 2016.

Item 2: No Attachment

Item 3: No Attachment

Item 4: No Attachment

Item 5 Attachment: Proposed Protocol for Distributing Sub-jurisdictional Level Data

Proposed Protocol for Distributing Sub-jurisdictional Level Population, Household, and Employment Data to Regional Stakeholders

The 2016 RTP/SCS Policy Growth Forecast includes estimates and projections of population, households, and employment at the subjurisdictional level (i.e. Tier 1 and Tier 2 Transportation Analysis Zones (TAZs)) throughout the SCAG region. This forecast was developed and adopted with the following core principles, which are listed on Page 70 of the final Plan:

> Principle #1: The preferred scenario will be adopted at the jurisdictional level, thus directly reflecting the population, household and employment growth projections derived from the local input process and previously reviewed and approved by local jurisdictions. The preferred scenario maintains these projected jurisdictional growth totals, meaning future growth is not reallocated from one local jurisdiction to another.
>
> Principle #2: The preferred scenario at the Transportation Analysis Zone (TAZ) level is controlled to be within the density ranges* of local general plans or input received from local jurisdictions. (* With the exception of the six percent of TAZs that have average density below the density range of local general plans. The TAZs showing lower densities than GP designations are consistent with existing conditions and future land use and growth projections provided by local jurisdictions. SCAG did not lower the growth.)
>
> Principle #3: For the purpose of determining consistency for California Environmental Quality Act (CEQA), lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS.
>
> Principle #4: TAZ level data or any data at a geography smaller than the jurisdictional level has been utilized to conduct required modeling analyses and is therefore advisory only and non-binding given that sub-jurisdictional forecasts are not adopted as part of the 2016 RTP/ SCS. TAZ level data may be used by jurisdictions in local planning as it deems appropriate. There is no obligation by a jurisdiction to change its land use policies, General Plan, or regulations to be consistent with the 2016 RTP/SCS.
>
> Principle #5: SCAG will maintain communication with agencies that use SCAG sub-jurisdictional level data to ensure that the "advisory and non-binding" nature of the data is appropriately maintained.
>
> In addition, consistent with the above stated principles, the preferred scenario and corresponding forecast of population, household and employment growth is adopted at the jurisdictional level as part of the 2016 RTP/SCS and sub-jurisdictional level data and/or maps associated with the 2016 RTP/SCS is advisory only. For purposes of qualifying for future funding opportunities and/or other incentive programs, sub-jurisdictional data and/or maps used to determine consistency with the Sustainable Communities Strategy shall only be used at the discretion and with the approval of the local jurisdiction. However, this does not otherwise limit the use of the sub-jurisdictional data and/or maps by SCAG, CTCs, Councils of Governments, SCAG Subregions, Caltrans and other public agencies for transportation modeling and planning purposes. **Any other use of the sub-jurisdictional data and/or maps not specified herein, shall require agreement from the Regional Council, respective policy committees and local jurisdictions.**

Recently, SCAG received a request from the non-profit organization Climate Resolve to provide Tier 1 TAZ sub-jurisdictional growth forecast and transportation modeling data for the High Desert Corridor in Los Angeles County for the purpose of commenting on Metro's ballot measure project. As Climate Resolve is a non-governmental organization, approval from SCAG's Regional Council was needed to release the information, along with agreement from the CEHD and the impacted local jurisdictions (City of Palmdale and County of Los Angeles). Climate Resolve's request for data was received shortly after the adoption of the Plan, on April 18th, 2016. After successfully receiving approval from the impacted local jurisdictions, CEHD, and Regional Council, this data was delivered to Climate Resolve during the week of September 5th, 2016.

In examining the length of time required to complete the process prescribed under the 2016 RTP/SCS, SCAG staff initiated a discussion with our Technical Working Group to develop a comprehensive protocol for data distribution that could expedite future requests while also ensuring that the "advisory" and "non-binding" nature of the Policy Growth Forecast is appropriately maintained (as described in Principle #5 above). Table 1 lists the information needed from a given requestor based on the purpose of their request.

To make sure that Principles #1 through #5 of the Policy Growth Forecast are enforced, all requests will require the completion of a Model Data Request Form (MDRF) and Model Data Usage Agreement (MDUA). The MDRF (included as Attachment #1) helps to get more information about the nature of the request and the requesting agency. The MDUA (Attachment #2) is a confidentiality agreement that specifies data may not be released or shared below the jurisdictional level and provides instructions of data release/approval protocols, detailed information about the non-binding and advisory nature of the data, and limitations and proper usage of subregional data and regional model data. The MDUA also cites the intended usage of the data, purpose of the research, likely end results (e.g. subregional contract report, traffic modeling, paper or journal publication, class project, etc.), and levels of anticipated reporting of the dataset (e.g. regional, sub-regional, or jurisdictional tables, charts, graphics, etc.).

Table 1: Proposed Protocol for Tier 1 and Tier 2 Subjurisdictional Socioeconomic Data and/or Maps Distribution

Number	Request Type	Model Data Request Form Required (Yes/No)	Model Data Usage Agreement Required (Yes/No)	Provide Email or Letter on Agency/ Organization's Letterhead (Yes/No)	Provide Approval Letter from Impacted Local Jurisdiction(s) (Yes/No)
1	Requests from funding or regulatory agencies for **subjurisdictional data intended for planning work** (this would include agencies such as CTCs, FHWA, FTA, EPA, Caltrans, ARB, AQMD, etc.)	Yes	Yes	Yes	No
2	Requests from local jurisdictions of **their own jurisdiction's data**	Yes	Yes	Yes	No
3	Requests for **subjurisdictional data intended for planning work** from subregions or local jurisdictions for areas outside their jurisdictional or agency boundary	Yes	Yes	Yes	No
4	Requests from other public agencies (e.g., School Districts, Metropolitan Water District (MWD), Sanitation Districts, and other government or government regulated agencies as deemed appropriate by SCAG) **for subjurisdictional data intended for planning work**	Yes	Yes	Yes	No
5	Requests from SCAG consultants working on **SCAG projects**	Yes	Yes	No	No
6	Requests from consultants working on **local projects** for subregions, local jurisdictions, and other public agencies	Yes	Yes	Yes (from sponsoring agency)	No
7	Requests for subjurisdictional data from research organizations, such as universities, non-profits and policy institutes, for **general research purposes**	Yes	Yes	Yes (including description of data request)	No
8	Requests from **other organizations** for non-research purposes	Yes	Yes	Yes	Yes
9	Requests from individuals in the **general public** (note: SCAG will suggest requestors seek data directly from affected local jurisdictions or subregions before requesting data from SCAG)	Yes	Yes	Yes	Yes

It is important to note that with the adoption of this protocol and an amendment to the 2016 RTP/SCS, approval from the Regional Council and impacted policy committees will no longer be required to release Tier 1 and Tier 2 socioeconomic data to non-public entities, including individuals. Approval from the impacted jurisdiction will still be required, however, for requests from non-governmental organizations for non-research purposes (Item #8) and for requests from the general public (Item #9).

To implement this revision, an errata sheet will be published for RTP/SCS Amendment #1 noting that the language in paragraph #3 on Page 70 of the Plan should state:

> In addition, consistent with the above stated principles, the preferred scenario and corresponding forecast of population, household and employment growth is adopted at the jurisdictional level as part of the 2016 RTP/SCS and sub-jurisdictional level data and/or maps associated with the 2016 RTP/SCS is advisory only. For purposes of qualifying for future funding opportunities and/or other incentive programs, sub-jurisdictional data and/or maps used to determine consistency with the Sustainable Communities Strategy shall only be used at the discretion and with the approval of the local jurisdiction. However, this does not otherwise limit the use of the sub-jurisdictional data and/or maps by SCAG, CTCs, Councils of Governments, SCAG Subregions, Caltrans, and other public agencies for transportation modeling and planning purposes. ~~**Any other use of the sub-**~~

~~**jurisdictional data and/or maps not specified herein, shall require agreement from the Regional Council, respective policy committees and local jurisdictions.**~~ **Individuals and non-public organizations may also have access to this information, in accordance with the California Public Records Act, and at the direction of SCAG's Regional Council and Policy Committees based upon the agency's approved protocol.**

Attachment 1

Southern California Association of Governments
MODEL DATA REQUEST FORM

This Model Data Request Form is between the Requester and the Southern California Association of Governments ("SCAG"). The purpose of this Request Form is to provide a mechanism for SCAG to log and maintain the data requests that are received for modeling and forecasting data.

Please fill in this form in its entirety, sign and return form to Cheryl Leising at leising@scag.ca.gov and Hsi-Hwa Hu at hu@scag.ca.gov. Pending approval, the request will then be given a timeframe for completion and forwarded to the appropriate staff member who will fulfill the data requested. Please note that in-house projects and tasks take priority, adjust time for your request accordingly. NOTE: For consultants or those working with a jurisdiction and/or public agency, please attach a written request on jurisdiction/agency letterhead (or email). Please send the attachment with your request as a PDF file.

Today's Date:

Date request needed by (please allow a min. of 45 day lead time):

Company/Agency/Consultant

Name:

Requester Name:

Contact Information:

Email:

Phone:

Requested Data (please provide a brief and specific listing of requested information including the model year and location if applicable for request):

Purpose of the Request (please provide a brief description of request- i.e.; purpose, methodology and expected finding or outcome from the request):

RTP year(s) data is including/requested:

FOR SCAG USE ONLY:

SCAG employee assigned to request:

Timeframe to complete request:

Additional information needed:

Model Data Usage Agreement

(Interim Version, Dated October 2016)

Based on guidance from the 2016 – 2040 Regional Transportation Plan and Sustainable Communities Strategy (2016 RTP/SCS), this Model Data Usage Agreement ("Agreement") is entered into by and between the Southern California Association of Governments, hereinafter referred to as "SCAG," and XXXXXXXX, a (provide type of organization), hereinafter referred to as "Requester," collectively referred to as the "Parties" to ensure the "advisory and non-binding" nature of SCAG's subjurisdictional data is appropriately maintained. Please refer to Pages 70-71 of the 2016 RTP/SCS for more information.

Note: The "Requester" is the party who will be working directly with the provided subjurisdictional data/modeling information and will conduct the actual data analysis.

RECITALS

Whereas, SCAG is providing technical assistance to the Requester in the development of subjurisdictional data or data analysis for the "XXXXXXXX" project, hereinafter referred to as "the Project"; and

Whereas, the Requester seeks use of certain subregional data and modeling information from SCAG in order to conduct its work for the Project; and

Whereas, the Requester falls under the category of (type of organization; e.g. public agency) under SCAG's Data Distribution Protocol, dated October 2016.

Whereas, SCAG is willing to provide the Requester use of certain SCAG subregional data and modeling information, as further specified below, based upon the terms and conditions of this Agreement.

Now, therefore, the Parties agree as follows:

I. GENERAL PROVISIONS

1. The above Recitals are incorporated as part of this Agreement by this reference.

2. This Agreement, when signed by SCAG and the Requester, shall serve as authorization for the Requester to obtain and use certain subregional data and modeling information from SCAG as further detailed herein.

3. No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by both Parties.

4. This Agreement is not assignable, in whole or in part, to any third party.

II. MODELING INFORMATION - ACCESS & USE

1. Requester has requested access and use of certain SCAG subregional data and modeling data as specified in Section V below.

2. In response to the request by Requester, SCAG shall provide to Requester access to the SCAG subregional data and modeling information set forth in Article V herein, hereinafter referred to as "Modeling Information." This Modeling Information shall only be used by Requester in a manner that complies with the conditions of this Agreement and is consistent with the stated Purpose of the Request ("Stated Purpose"), as specified in Section VI below.

3. Requester shall be authorized to use and modify the Modeling Information consistent with the Stated Purpose of this Agreement. If requested by SCAG, the Requester shall provide SCAG with complete copies of all modified Modeling Information.

4. SCAG will provide only the portion of the modeling scripts (GISDK code) needed to support the Requestor's model development needs and requirements. Section "V. REQUESTED MODELING INFORMATION" shall clearly specify the portion of the Scripts required by the Requester. If additional sections of the model code are needed in the future as part of the Project, an addendum to this Agreement will be processed to provide the required model code.

5. In the event that the Requester modifies the Modeling Information provided by SCAG, Requester agrees to include the following statement in any written reference relating to the Modeling Information as provided herein:

   "The following modeling analysis was performed by XXXXXXXX based upon modeling information originally developed by the Southern California Association of Governments (SCAG). SCAG is not responsible for how the Model is applied or for any changes to the model scripts, model parameters, or model input data. The resulting modeling data does not necessarily reflect the official views or policies of SCAG. SCAG shall not be held responsible for the modeling results and the content of the documentation."

6. Requester shall not use the Modeling Information for any other purpose except as set forth in the Stated Purpose of this Agreement. In addition, Requester shall only use the Modeling Information in conjunction with the Project.

7. Except as specifically provided in this Agreement, Requester shall not use, release, reproduce, distribute, publish, maintain, and update for future use, loan, rent, pledge, license, assign, or otherwise transfer the Modeling Information acquired from SCAG, with or without any monetary compensation paid to Requester, without the prior written permission of SCAG. Secondary or any third party distribution or use of the Modeling Information obtained under this Agreement is strictly prohibited. Moreover, Requester shall not store or transmit the Modeling Information in or to any web site, newsgroup, mailing list, or electronic bulletin board, or regularly or systematically store the Modeling Information in electronic or print form, without the prior written permission of SCAG, except that Requester may store the Modeling Information in electronic or print form in order to carry out Requester's work for Modeling Information in conjunction with the Project. Any breach of these restrictions may result in immediate termination of this Agreement and liability for damages.

8. All Modeling Information received from SCAG by Requester shall be destroyed by Requester immediately after its approved use has ended and/or the Stated Purpose is otherwise completed.

III. **DISCLAIMER OF LIABILITY AND HOLD HARMLESS AGREEMENT**

1. Modeling Information shall be provided to the Requester by SCAG in an "as-is" condition, with no guarantee or warranty of format, completeness, or fitness for any use, expressed or implied. No oral or written information or advice given by SCAG shall be construed as a warranty, except as to ownership and/or copyright. No oral or written information or advice given by the Agency or Consultant, or other participating agency with respect to the subject Modeling Information shall be construed as a warranty. This disclaimer shall survive the termination of this Agreement.

2. The Requester shall hold SCAG harmless for any incidental, consequential, or special damages arising out of the use of the Modeling Information, or the inability to use any Modeling Information (including without limitation, loss of use, time or data, inconvenience, commercial loss, lost profits or savings or the cost of computer equipment or software, or loss due to any analysis derived from said data).

IV. INDEMNITY

SCAG shall not be responsible for any damage or liability occurring by reason of anything done or omitted to be done under, or in connection with this Agreement. Requester will indemnify, defend, and hold harmless SCAG from any liability and expenses and any claims for incidental, consequential, or special damages to the extent that such claim arises out of anything done or omitted to be done in connection with the Modeling Information provided by SCAG under this Agreement.

V. REQUESTED MODELING INFORMATION

Requester requests the following model data from SCAG:

VI. PURPOSE OF THE REQUEST

Requester is requesting SCAG modeling information for the following specific purpose (please list intended usage of the data, purpose of the research, likely end results (e.g. subregional contract report, traffic modeling, paper or journal publication, class project, etc.), levels of anticipated reporting of dataset (e.g. regional, sub-regional, or jurisdictional tables, charts, graphics, etc.):

VII. ENTIRE AGREEMENT

This writing contains the entire agreement of the Parties relating to the subject matter hereof, and the Parties have not made agreements, representations, or warranties relating to the subject matter hereof which are not set forth herein. Except as provided herein, this Agreement may not be modified or altered without the formal written amendment thereto.

VIII. EFFECTIVE DATE

The effective date of this Agreement shall be the date in which the last of the Parties, whether SCAG or Requester, executes this document.

IN WITNESS WHEREOF, SCAG and Requester have caused this Agreement to be executed by its duly authorized representatives on the dates noted below.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS {"SCAG"):

Signature: _____ Date:

Printed Name: Guoxiong Huang

Title: Manager, Modeling & Forecasting Department

Approved as to legal form:

Signature: _____

Printed Name: Joann Africa

Title: Chief Counsel

REQUESTOR:

Signature: _____ Date:

Printed Name:

Title:

Item 6 Attachment: SB 375 Target Setting
SCAG Stress Test Status Report

DATE: October 20, 2016

TWG Discussion: SB 375 Target Setting Stress Test Status Report

SUMMARY:

At the September 29, 2016 RC and Policy Committee meetings, staff reported that the California Air Resources Board (ARB) is preparing to update the regional greenhouse gas (GHG) emission reduction targets for the years 2020 and 2035 for each MPO. ARB is proposing to release draft preliminary target recommendations in spring 2017, and adopt final targets in summer 2017. Accordingly, the four major MPOs in California have each decided to conduct a technical "Stress Test" aimed to test GHG reduction strategies that would yield the most ambitious yet achievable GHG emission reductions. Staff has worked on the Stress Test for the SCAG region since August. This staff report provides an overview of the technical analysis and off-model assessment of potential additional GHG emission reductions from strategies included in the Stress Test. These Stress Test results will be used to form the technical basis for SCAG's 2020 and 2035 target recommendation to ARB immediately after the Regional Council meeting in January 2017, per agreement of MPOs and ARB target setting process and schedule.

BACKGROUND:

SB 375 requires that each MPO adopt, as part of its regional transportation plan, a "sustainable communities strategy" that sets forth plans to meet regional GHG emission reduction targets set by ARB. SB 375 also requires that ARB update the regional targets at least every eight years. In 2010, ARB established the GHG emissions reduction targets for the SCAG region, respectively at 8% and 13% below per capita GHG emissions recorded in 2005 for the years 2020 and 2035. SCAG has prepared two Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) plans, (in 2012 and 2016) that meet or exceed the required ARB targets for 2020 and 2035.

OVERVIEW OF ARB SB 375 TARGET SETTING PROCESS:

ARB is preparing to update the regional SB 375 GHG emission reduction targets for each MPO and is proposing to release draft preliminary target recommendations in spring 2017, and adopt final targets in summer 2017. The new ARB targets for the years 2020 and 2035 will be required to be met by each MPO in the next round of RTP/SCS plans, which for SCAG will be the 2020 RTP/SCS.

The SB 375 Target Setting Process is informed by a suite of concurrent planning activities and technical exercises. Among them, the ARB AB 32 and SB 32 Scoping Plan Update, the ARB Mobile Source Strategy, and the MPO Stress Test. It is anticipated that the forthcoming revised GHG emissions reduction targets adopted by ARB will be much higher than current targets for all MPOs issued by ARB in 2010.

PURPOSES OF ARB/MPO STRESS TEST:

As reported at the September 29, 2016 meeting, the four major MPOs in California have collaborated and each decided to conduct a technical "Stress Test" aimed to test GHG emission reduction strategies that would yield the most ambitious yet achievable GHG emission reductions. The purpose of the Stress Test is to quantify potential additional GHG emission reductions that would result from deployment of various land use and transportation strategies, such as rapid deployment of zero emission vehicles. These Stress Test results will be used to form the technical basis for SCAG's 2020 and 2035 target recommendation to ARB immediately after the Regional Council meeting in January 2017, per agreement of MPOs and ARB target setting process and schedule.

It is important to the MPOs that the ultimate SB 375 targets continue to be set at levels that MPOs can meet with an SCS, not an Alternative Planning Strategy (APS), and take into account federal requirements the MPOs must meet for financial and land use constraint. To that end, the MPOs in coordination with ARB are working on a process to update SB 375 targets. To implement the State's climate goals, participating MPOs will work with each other, and ARB staff, to conduct a more visionary, "*less"* constrained form of Scenario Planning—the "stress test scenarios", to determine what kinds of: a) land use and transportation measures; b) more aggressive implementation of technology solutions (e.g. electric vehicles, autonomous vehicles, etc.) and c) changes to external factors (e.g. millennial driving patterns, gas prices, etc.) might be needed to create the greater GHG reductions needed to meet ARB's Mobile Source Strategy goals.

MPO staff agreed to assess further GHG reduction potentials in the following six strategy buckets:

1. Land Use
2. Active Transportation (AT)
3. Pricing
4. Transit
5. Greater penetration of zero emission vehicles (ZEVs)
6. Enhanced Mobility/Mobility Innovations
    a. Car sharing
    b. Ride sourcing/Transportation Network Companies
    c. Connected and Autonomous Vehicles

SCAG STRESS TEST:

Since SCAG has already adopted very ambitious strategies in land use, pricing, and transit investment in both the 2012 and 2016 RTP/SCS, staff focused the agency's "Stress Test" and potential additional GHG emissions reductions in three strategy buckets: AT, ZEVs and Mobility Enhancement and Innovations. In addition, more advanced researches and information has become available, enabling staff to conduct more robust assessment of potential additional GHG reductions from enhanced mobility and innovations, including connected and autonomous vehicles, car sharing, ride sourcing and transportation network companies.

With all strategies, programs, and investment in the 2016 RTP/SCS by 2035, the region demonstrated a reduction of per capita GHG emissions by 18% below 2005 level in 2035 (five percent above the regional target of 13%). SCAG's Stress Test results indicate that about 2 to 2.5 percent (2.0%-2.5%) of per capita GHG emissions could be reduced further above the 18% in 2035--through additional AT programs, investment, and more refined off-model assessment of enhanced mobility and innovations.

Results from the hypothetical scenarios or stress tests described above are not fiscally constrained or otherwise limited by any regional, state or federal rules or guidance, and market feasibility is not assessed. They are intended to build knowledge about the connections between land use, transportation and GHG emissions reduction, and, for SCAG staff to form a technical basis for target recommendations. For example, SCAG staff estimate that it will cost roughly $10 billion dollars for additional investment and programs called for by strategy buckets included in the stress tests, and the cost is not within the financial constraint of the 2016 RTP/SCS financial plan.

Item 7 Attachment: SCAG/CARB
Land Use White Paper

SCAG Comments on the Two White Papers

General Comments

- Resolve inconsistency of comment period and deadline. For example, MPO Stress Test and target recommendation timelines versus comment deadlines for the transportation land use sectors.

- As indicated by state agencies in the meeting with MPO working groups on 9/20/2016, the following should be made clear about the state intent and goals of the White Papers.
    - There will be extended discussion on VMT/Land Use Vision after comment period on discussion of the land use and VMT strategies. White papers are catch up documents of the state—identify areas what state can do, support, augment best practices for the tool box. As such, the scoping plan will generate ideas and discussion, but not yet ready for policy making; it will commit a process to moving forward and open a more vigorous process to investigate those ideas and strategies.

Specific comments

- Pricing
    - SCAG is encouraged by the recognition that pricing policies are integral to statewide efforts to meet GHG reduction goals and clearly believe that more can be done—both at the state level and locally—to facilitate further studies and demonstrations of pricing policies. SCAG is continuing to evaluate far-reaching congestion pricing concepts, including strategic application of cordon pricing in urban contexts that are likely to have a profound impact on GHG reduction goals, local investment in new mobility options, while also serving as critical transportation demand management tools.
- Growth and land use
    - It is not just about where to build but how to build;
    - It is not just about TOD but also about Transit Ready Development (TRD);
    - We often have greenfield development that is sustainable and yet creating demand for transit to come; and The entire net growth of population in California is from births to babies. The limited urban core will get exploded and gentrified. So how can we be prepared for sustainable greenfield development, of which will eventually become new urban core?
- Adequate Funding
    - All of these strategies require greater funding for local planning and broader resources/authorities for regional agencies. A piece meal approach driven by local agencies' ability to capture competitive grants is not going to address the adequate funding issue
- The two White Papers mostly provide high level discussions of the various potential strategies and actions. However, further details are needed with respect to the following:
    - What are the implementation feasibility and best practices of several suggested actions such as establishing Urban Growth Boundaries and establishing land conservation targets?
    - What are the respective roles of the state, regional and local entities?

- How to provide regional flexibility given the huge differences among regions?
- For the potential VMT reduction strategies, how to identify/emphasize those that have the potential to yield the greatest benefits of GHG emission reduction, criteria pollutant emission reduction, as well as congestion relief?
- Within transit, a greater focus on First-Last Mile.
- There should be a greater focus on affordable housing

Item 8 Attachment: Housing Summit Update

MISSION IMPOSSIBLE?

MEETING CALIFORNIA'S HOUSING CHALLENGE

AN OVERVIEW OF THE CRISIS

Download the full report at
www.scag.ca.gov/housingsummit

October/2016

SCAG™
INNOVATING FOR A BETTER TOMORROW

WE HAVE A CRISIS STATEWIDE

The housing crisis in California is due to a combination of both a housing shortage and a lack of affordability, and the problem is not limited to housing for low-income families.

MEDIAN PRICE HOME
$460,800
IN CALIFORNIA

HOME PRICES ARE
2.5x
THE NATIONAL AVERAGE

FROM 2000-2014

28%
MEDIAN RENT IN CALIFORNIA

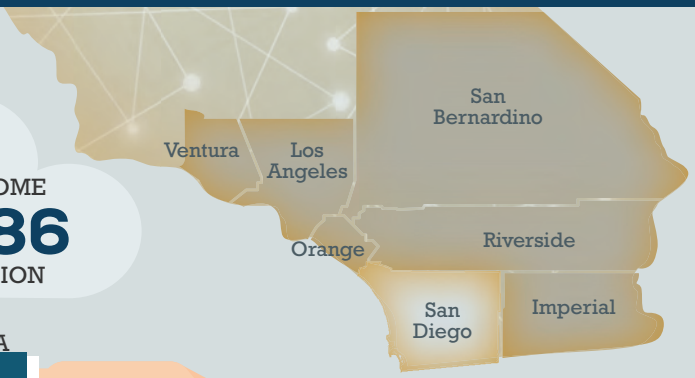
MEDIAN HOUSEHOLD INCOME IN CALIFORNIA
8%

MORE THAN 60%
OF VERY LOW-INCOME FAMILIES SPEND OVER HALF OF THEIR INCOME ON HOUSING

Sacramento

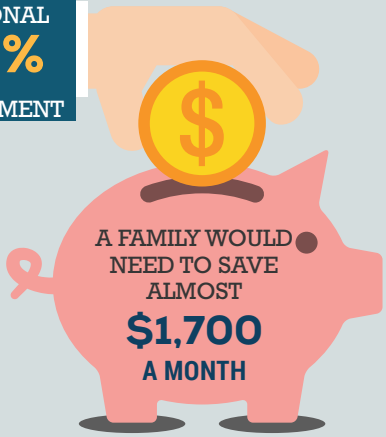
Bay Area

AFFORDABILITY IS A LOCAL AND REGIONAL PROBLEM



MEDIAN PRICE HOME
$507,886
IN THE SCAG REGION

TO SAVE FOR A TRADITIONAL **20%** DOWNPAYMENT



A FAMILY WOULD NEED TO SAVE ALMOST **$1,700** A MONTH

IN THE SCAG REGION, A HOUSEHOLD EARNING THE MEDIAN INCOME WOULD NEED TO SET ASIDE

34% OF THEIR GROSS INCOME

FOR **5** YEARS TO SAVE FOR THE DOWNPAYMENT OF A MEDIAN PRICE HOME

HOUSING SUPPLY HAS NOT KEPT UP WITH POPULATION GROWTH

1970-1980 > 1 NEW UNIT PER 1.74 PERSONS ADDED

1990-2000 > 1 NEW UNIT PER 4.52 PERSONS ADDED

A DROP IN HOME BUILDING

2010-2014 > 1 NEW UNIT PER 2.64 PERSONS ADDED

IT'S COMPOUNDED BY A DEMOGRAPHIC SHIFT

HOUSING SUPPLY + DEMANDS OF MILLENIALS SEEKING HOUSING = HOME + RENTAL PRICES

WHAT'S HOLDING UP NEW HOUSING CONSTRUCTION?

01 LACK OF FUNDING OR FISCAL INCENTIVES

Many jurisdictions do not have permanent funding to build housing. Subsidized housing may not produce enough revenue and other forms of land use may be preferred.

02 REGULATORY BARRIERS

There are a number of regulatory requirements, such as CEQA, that can delay or kill residential projects. They can also add to the cost of a project.

03 LOCAL ZONING REQUIREMENTS

Local zoning requirements, such as parking, can restrict the number of units or render them unaffordable for many.

04 NOT IN MY BACK YARD (NIMBYism)

Misinformation and fear can lead to community opposition to residental projects.

THE COST OF NOT HOUSING

The higher the housing costs, the lower the amount a family can use toward other costs. This can impact future savings, particularly for families that are close to poverty. High housing costs also mean less money that could be spent on local businesses, personal health or recreation.

DISPLACEMENT

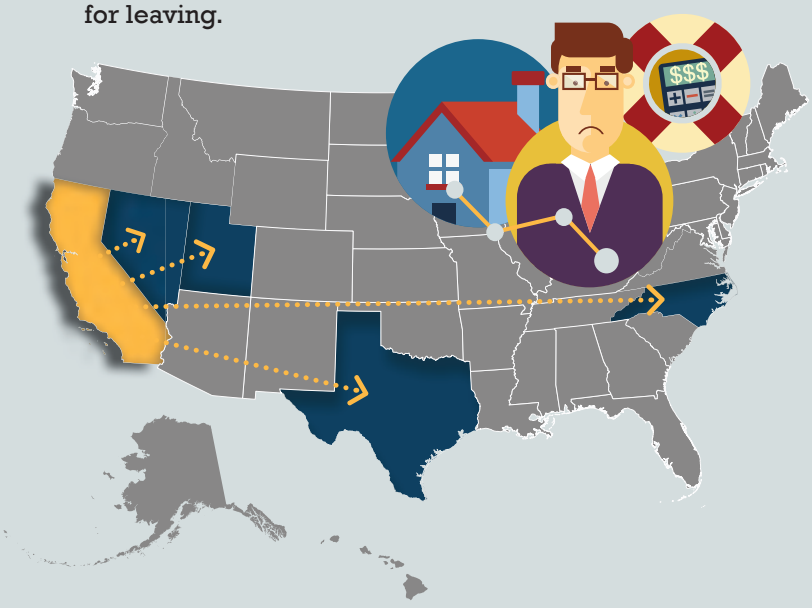
OVERCROWDING

OUTMIGRATION AND LOSS OF YOUNG TALENT

Due to stagnant wages or difficulties finding a secure entry-level or mid-level job, and rising costs in rent, millennials represent over half of the outmigration from the most expensive metro areas despite representing only a quarter of the population.

ECONOMIC IMPACTS

High housing costs also impact wider economic growth and are an increasing factor in decision-making for employers. A number of major employers are leaving the state or reducing operations, citing the lack of housing for their employees as one of the top reasons for leaving.



To find out strategies and solutions to address California's housing challenge, download the full report at www.scag.ca.gov/housingsummit

CALIFORNIA HOUSING SUMMIT

The Cost of Not Housing

PROGRAM

TUESDAY, OCTOBER 11, 2016

8:00 a.m.– 2:00 p.m.

L.A. HOTEL

333 S. Figueroa Street

Los Angeles 90071

scag.ca.gov/housingsummit

SCAG™

INNOVATING FOR A BETTER TOMORROW

8:30 AM

WELCOME

Hon. Michele Martinez, *President*, SCAG

Steve PonTell, *President and CEO*, National CORE; Summit Master of Ceremonies

9:00 AM

HOUSTON…I MEAN…CALIFORNIA? WE HAVE A PROBLEM!

Morning Panel (General Session)

The state of California is in a serious housing deficit–how did we get here? This panel looks at the housing shortage's root causes and its economic, environmental and social costs.

Moderator Steve PonTell, National CORE

Panelists

>> **Raphael Bostic**, University of Southern California

>> **Alan Greenlee**, Southern California Association of NonProfit Housing

>> **Ben Metcalf**, California Department of Housing & Community Development

>> **Brian Uhler**, California Legislative Analyst's Office

10:00 AM

BREAK

Program continued on second page

To register or for more information, visit **www.scag.ca.gov/housingsummit**

For additional questions, contact Ma'Ayn Johnson at **johnson@scag.ca.gov**

CALIFORNIA HOUSING SUMMIT

The Cost of Not Housing

10:15 AM

SHOW ME THE MONEY!

Breakout Session A

The state plays a major role in affordable housing and infrastructure. This panel will identify funding resources such as the Affordable Housing and Sustainable Communities Program and fiscal tools such as the Enhanced Infrastructure Financing Districts and Community Revitalization and Investment Authorities to foster housing and infrastructure development throughout the state.

Moderator Fred Silva, California Forward

Panelists

>> **Ken Kirkey**, Metropolitan Transportation Commission

>> **Larry Kosmont**, Kosmont Companies

>> **Kirk Stark**, University of California, Los Angeles

INTEGRATE, PRESERVE, UTILIZE AND BUILD

Breakout Session B

Expert panelists will explore strategies for integrating state, regional and local planning policies including Transit-Oriented Developments, Transit Ready Developments, housing preservation, anti-displacement, inclusionary zoning and more.

Moderator Rick Cole, City of Santa Monica

Panelists

>> **Celeste Cantú**, Santa Ana Watershed Protection Authority

>> **Hon. Vartan Gharpetian**, City of Glendale

>> **Steven Kellenberg**, Irvine Company

>> **Mike McKeever**, Sacramento Area Council of Governments

>> **Patrick Tighe**, Patrick Tighe Architecture

BREAKING DOWN THE WALLS

Breakout Session C

Good projects are often held up by CEQA abuse and NIMBYism— how can we break down barriers to develop new housing while remaining sensitive to the concerns of the community? This panel busts myths about the negative impact of developing more housing, provides tools to engage communities and showcases projects that exemplify best practices for local leadership and moving the needle.

Moderator Lucy Dunn, Orange County Business Council

Panelists

>> **Hon. Wendy Bucknum**, City of Mission Viejo

>> **Gary Gallegos**, San Diego Association of Governments

>> **Jennifer Hernandez**, Holland and Knight

>> **Sonja Trauss**, San Francisco Bay Area Renters' Federation

11:30 AM

BUFFET LUNCH

12:15 PM

SUMMARY OF BREAKOUT SESSIONS

Panelists

>> **Rick Cole**, City of Santa Monica

>> **Lucy Dunn**, Orange County Business Council

>> **Fred Silva**, California Forward

12:45 PM

LET'S SAY "YES" TO HOUSING

Call to Action Panel

This panel will synthesize the lessons of the day, illustrating the strategy of community involvement and stakeholder partnerships that will ultimately lead to "YES" to housing.

Moderator Hon. Frank V. Zerunyan, City of Rolling Hills Estates

Panelists

>> **Randall Lewis**, Lewis Group of Companies

>> **Hon. Michele Martinez**, City of Santa Ana

>> **Deborah Ruane**, San Diego Housing Commission

>> **Ann Sewill**, California Community Foundation

1:30 PM

CLOSING REMARKS

Hon. Michele Martinez, *President*, SCAG

Hasan Ikhrata, *Executive Director,* SCAG

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Item 9 Attachment: 2017 Local Profiles

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS
50 YEARS

SCAG LOCAL PROFILES

FOR MORE INFORMATION: Please visit the SCAG website at www.scag.ca.gov or contact Michael Gainor at (213) 236-1822 or via email at LocalProfiles@scag.ca.gov.

SCAG LOCAL PROFILES

WHAT ARE LOCAL PROFILES?

The Local Profiles are planning data reports prepared for each city, county unincorporated areas and each county within the SCAG Region. They provide current and historical demographic, socio-economic, housing, transportation and education data gathered from a variety of sources. The information is presented to demonstrate current trends that may assist local governments with community planning and outreach efforts; help companies with expansion or relocation decisions; help residents learn more about their communities; and to serve as a resource to academia. The current reports focus on changes that have occurred since 2000.

The profiles are a complimentary service provided to SCAG members, including 191 cities and 6 counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura).

BACKGROUND

The Local Profiles, which are developed with extensive input from member jurisdictions, were first released at the SCAG Regional Conference & General Assembly in May 2009, and have been updated every two years since. The Local Profiles provide a quick resource for local data and analysis. As part of the biennial update, the new 2015 Local Profiles reports, to be released at the General Assembly in May 2015, include updated information and data related to housing, employment, income and education.

WHAT ARE THE LOCAL PROFILES USED FOR?

The Local Profiles have served as an information and communication resource for elected officials, businesses and residents. Local government staff has used them to respond to various information inquiries regarding growth and change occurring within their jurisdictions. Local Profiles have also been used in community planning and outreach, visioning initiatives, economic development, grant applications and marketing and promotional materials.

HOW TO OBTAIN THE LOCAL PROFILES?

The 2015 Local Profiles reports are posted at www.scag.ca.gov/resources/profiles.htm.

AT A GLANCE

Categories

- **Population**: growth, age distribution, ethnic composition
- **Households**: household size, household income distribution
- **Housing**: home price, building permits
- **Transportation**: mode choice, commute time
- **Employment**: jobs by sector, average salary per job
- **Retail Sales**: retail sales per person
- **Education**: school enrollment

Data Sources

- California Department of Finance
- California Employment Development Department
- California State Board of Equalization
- Construction Industry Research Board
- MDA DataQuick
- Nielsen Company
- U.S. Census Bureau

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2017 Local Profiles Data (Draft) *Proposed New Data Items in BLUE*

Category	Data Type	Data Source
Population	Total Population: 2015 & 2016	California Department of Finance
	Population: % Hispanic: 2016	US Census, Nielsen Co
	Population: % Non-Hispanic White: 2016	US Census, Nielsen Co
	Population: % Non-Hispanic Asian: 2016	US Census, Nielsen Co
	Population: % Non-Hispanic Black: 2016	US Census, Nielsen Co
	Population: % Non-Hispanic American Indian: 2016	US Census, Nielsen Co
	Population: % All Other Non-Hispanic: 2016	US Census, Nielsen Co
	Population by Age: 2015 & 2016	US Census, Nielsen Co
	Median Age: 2016	US Census, Nielsen Co
	Population Density: 2016	SCAG
Households	Number of Households: 2015 & 2016	California Department of Finance
	Average Household Size: 2015 & 2016	California Department of Finance
	Share of Households by Household Size: 2016	US Census, Nielsen Co
	Median Household Income: 2016	US Census, Nielsen Co
	Share of Households by Household Income: 2016	US Census, Nielsen Co
Housing	Homeownership Rate: 2016	US Census, Nielsen Co
	Median Existing Home Sales Price: 2015 & 2016	Dataquick (CoreLogic)
	Number of Foreclosures	Dataquick (CoreLogic)
	Share of Housing Stock by Decade Built	US Census, Nielsen Co
	Number of Housing Units: 2015 & 2016	California Department of Finance
	Number of Housing Units by Housing Type: 2016	California Department of Finance
	Total Housing Building Permits Issued: 2015 & 2016	Construction Industry Research Board
	Single-Family Housing Building Permits Issued: 2015 & 2016	Construction Industry Research Board
	Multi-Family Housing Building Permits Issued: 2015 & 2016	Construction Industry Research Board
	Housing Cost Burden: Homeowners	American Community Survey (ACS)
	Housing Cost Burden: Renters	American Community Survey (ACS)
Transportation	Transportation Mode Share: 2016	US Census, Nielsen Co
	Average Travel Time to Work: 2016	US Census, Nielsen Co
	Top 10 Commuter Work Destination Cities: Table	LEHD O/D Employment Statistics
	Top 10 Commuter Work Destination Cities: Map	SCAG
	Number of Vehicles per Household: 2000, 2010, 2016	American Community Survey (ACS)
	Miles of Bicycle Lanes: 2016	SCAG
	Vehicle Miles Traveled (per capita): 2000, 2010, 2016	SCAG
	Travel Time to Work Distribution (by range of minutes): 2000-2016	US Census, Nielsen Co
Employment	Total Number of Jobs: 2014 & 2015	California Employment Development Dept
	Number of Jobs by Sector: 2015	California Employment Development Dept
	Number of Manufacturing Jobs: 2014 & 2015	California Employment Development Dept
	Number of Construction Jobs: 2014 & 2015	California Employment Development Dept
	Number of Retail Trade Jobs: 2014 & 2015	California Employment Development Dept
	Number of Professional & Management Jobs: 2014 & 2015	California Employment Development Dept
	Average Annual Salary: 2015	California Employment Development Dept
	Average Annual Salary by Sector: 2015	California Employment Development Dept
Retail Sales	Real Retail Sales: 2014 & 2015	California Board of Equalization
Education	% Completed High School or Higher: 2016	US Census, Nielsen Co
	% Completed Bachelor Degree or Higher: 2016	US Census, Nielsen Co
	K-12 Public School Enrollment: 2015 & 2016	California Department of Education
	K-6 Public School Student Enrollment: 2015 & 2016	California Department of Education
	Grades 7-9 Public School Student Enrollment: 2015 & 2016	California Department of Education
	Grades 10-12 Public School Student Enrollment: 2015 & 2016	California Department of Education

Item 10 Attachment: CalEnviroScreen Draft 3.0 Update

REPORT

AGENDA ITEM NO. 12

DATE: September 29, 2016

TO: Regional Council (RC)
Executive/Administration Committee (EAC)
Community, Economic and Human Development (CEHD) Committee
Energy and Environment Committee (EEC)
Transportation Committee (TC)

FROM: Huasha Liu, Director, Land Use & Environmental Planning, (213) 236-1838, Liu@scag.ca.gov

SUBJECT: California Communities Environmental Health Screening (CalEnviroScreen) Tool – Update on Draft Version 3.0

EXECUTIVE DIRECTOR'S APPROVAL:

RECOMMENDED ACTION FOR CEHD AND EEC:
For Information Only – No Action Required.

RECOMMENDED ACTION FOR EAC, RC AND TC:
Receive and File.

EXECUTIVE SUMMARY:
On September 6th the California Environmental Protection Agency (Cal/EPA) released the latest draft version of the California Communities Environmental Health Screening (CalEnviroScreen) tool for a six-week public review and comment period that will conclude on October 21st. CalEnviroScreen is a screening tool that may be used to help identify California communities that are disproportionately burdened by multiple sources of environmental pollution. This latest version of CalEnviroScreen includes several proposed updates and improvements from its predecessor, which was released in 2014. CalEnviroScreen serves to prioritize resources for disadvantaged communities, including the facilitation of providing designated Cap-and-Trade auction proceeds to the most impacted communities pursuant to Senate Bill 535. For the SCAG region, the share of the State's population included in the most impacted communities increased from 68% to 69% (about 1%) from the previous version. This could result in a slightly higher proportion of state Cap-and-Trade funding for the SCAG region and local jurisdictions. It should be noted that CalEnviroScreen is not intended to be used as a substitute for the focused risk assessment of a specific area or site, or to determine if a specific project's impacts are significant under the California Environmental Quality Act (CEQA).

STRATEGIC PLAN:
This item supports Strategic Plan Goal 2. Obtain Regional Transportation Infrastructure Funding and Promote Legislative Solutions for Regional Planning Priorities. a. Develop, monitor, or support state legislation that promotes increased investment in transportation programs in Southern California.

SCAG

BACKGROUND:
CalEnviroScreen provides a screening methodology to help identify California communities that are disproportionately burdened by multiple sources of environmental pollution. CalEnviroScreen uses existing environmental, public health, sensitive population, and socioeconomic data to consider the extent to which communities across the State are burdened by and vulnerable to pollution. It identifies environmentally vulnerable communities through the weighted consideration of both the pollution burden (exposure and environmental effects) and the population characteristics (sensitive populations and socioeconomic factors) of a location. Therefore, the results generated by CalEnviroScreen represent the weighted aggregation of numerous environmental, economic, social, and public health related factors.

As with the previous CalEnviroScreen Version 2.0, which was released in October 2014, Cal/EPA continues to anticipate that the screening tool will enable decision makers to focus resources and investments in areas that are in greater need of assistance due to their higher environmental burdens and greater vulnerability to, or reduced ability to withstand, these burdens as compared to other areas. Specifically, Draft CalEnviroScreen Version 3.0, which is expected to be finalized by the end of 2016, can help inform Cal/EPA's implementation of the mandate to identify disadvantaged communities for the purposes of targeted investment of a designated portion of California Cap-and-Trade auction proceeds as provided by SB 535. Specifically, SB 535 requires that at least 25% of the Cap-and-Trade auction proceeds benefit "disadvantaged communities", while at least 10% of Cap-and-Trade auction proceeds shall be used for investment within "disadvantaged communities". However, CalEnviroScreen is not intended for use as a substitute for focused risk assessment for a specific area or site or to determine if a specific project's impacts are significant under CEQA. Nor will the results of the screening tool be used as substitutes for other CEQA-required impact analyses, such as cumulative impact analysis.

SUMMARY OF PROPOSED UPDATES AND IMPROVEMENTS TO DRAFT VERSION 3.0:
Draft CalEnviroScreen Version 3.0 includes the following five (5) areas of updates and improvements.

1. Incorporates more recent data for all indicators.
2. Includes two new indicators (cardiovascular disease and rent-adjusted income), resulting in a total of twenty (20) indicators.
3. Removes the "children and elderly" age category as a stand-alone indicator.
4. Includes additional improvements to a number of existing indicators.
5. Includes updated indicators for communities in the California-Mexico border region pursuant to Assembly Bill (AB) 1059 (Garcia, 2015).

Draft Version 3.0 uses more recent data representing the years between 2010 and 2014 for all indicators to more accurately reflect current environmental conditions and population vulnerability to pollution. It uses the same overall methodology and model as Version 2.0 to calculate CalEnviroScreen scores, except for adding the indicators for cardiovascular disease incidence and rent-adjusted income. The cardiovascular disease indicator is based on emergency room visits for heart attack rates. The rent-adjusted income indicator takes housing costs into consideration as a socioeconomic factor that can affect a community's vulnerability to the public health effects and exposures to environmental effects. The age indicator in Version 2.0 is replaced with an age analysis to show the percentage of the two vulnerable population groups

(children and elderly) in all census tracts as well as the correlation, if any, between age and CalEnviroScreen scores. The census tract-based age statistics are available on the online maps along with statistics on race/ethnicity for each tract. Draft Version 3.0 also includes additional improvements to the existing indicators. For example, it includes three additional drinking water contaminants, one additional pesticide, updated locations of permitted hazardous waste facilities, and the addition of produced water ponds from well stimulation activities during the oil and gas operations. Lastly, pursuant to AB 1059, five (5) existing indicators are updated to include additional information on pollution near the California-Mexico border. The five (5) indicators are: air quality (ozone), air quality ($PM_{2.5}$), diesel particulate matter emissions, toxic releases from facilities, and traffic density.

Overall, with the proposed updates and improvements, Draft Version 3.0 will be able to better reflect the combined environmental impacts from multiple sources for California's communities at the census tract level. In addition, the updated data for environmental, public health, sensitive population, and socioeconomic indicators at the census tract level will also be valuable for various complementary planning efforts.

RESULTS BASED ON DRAFT VERSION 3.0:

The Table below compares the population included in the most impacted communities, or "disadvantaged communities" as indicated under CalEnviroScreen Version 2.0 and Draft Version 3.0.

MPO	Total Population	Top 25% CalEnviroScreen Census Tracts Population			Percentage of California	
		Version 2.0	Draft Version 3.0	Changes	Version 2.0	Draft Version 3.0
SCAG	18,051,534	6,368,506	6,368,254	**0.0%**	67.8%	**68.5%**
Counties within the SCAG Region						
Imperial	174,528	69,634	85,380	**22.6%**	0.7%	**0.9%**
Los Angeles	9,818,605	4,348,000	4,490,765	**3.3%**	46.3%	**48.3%**
Orange	3,010,232	526,857	392,015	**-25.6%**	5.6%	**4.2%**
Riverside	2,189,641	527,851	567,115	**7.4%**	5.6%	**6.1%**
San Bernardino	2,035,210	862,696	803,494	**-6.9%**	9.2%	**8.6%**
Ventura	823,318	33,468	29,485	**-11.9%**	0.4%	**0.3%**
MTC	7,150,020	388,427	242,040	**-37.7%**	4.1%	**2.6%**
SACOG	2,316,019	226,906	230,799	**1.7%**	2.4%	**2.5%**
SANDAG	3,095,313	116,595	150,000	**28.7%**	1.2%	**1.6%**
Others	6,641,070	2,288,809	2,302,630	**0.6%**	24.4%	**24.8%**
California	37,253,956	9,389,243	9,293,723	**-1.0%**	100.0%	**100.0%**

(Source: Office of Environmental Health Hazard Assessment (OEHHA), September 2016)

For the SCAG region as a whole, the *share* of the State's population included in the most impacted communities increased slightly by 0.7% from 67.8% using Version 2.0, to 68.5% using Draft Version 3.0.

Within the region, population in the most impacted communities in Ventura County, Riverside County and Los Angeles County increased by 22.6%, 7.4%, and 3.3%, respectively, while the impacted population decreased in the Counties of Orange, Ventura, and San Bernardino. Specifically, in Imperial County, population in the most impacted communicates increased most significantly, and population in the most impacted communicates in Orange County decreased most significantly. Among the three largest metropolitan planning organizations other than SCAG, changes of population in the most impacted communities between Version 2.0 and Draft Version 3.0 were minor, except for the 1.5% decrease in the Metropolitan Transportation Commission (MTC) region.

Further information about the Draft CalEnviroScreen Version 3.0, including the Draft Report and an interactive mapping tool, can be viewed at http://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30-draft. **Comments on the Draft CalEnviroScreen 3.0 are due by October 21, 2016**. Staff plans to apprise the RC, EAC, CEHD Committee, EEC, and TC regarding the status of Version 3.0 in future staff reports.

FISCAL IMPACT:
Work associated with this item is included in the Fiscal Year 16/17 Overall Work Program (17-080.SCG00153.04: Regional Assessment).

ATTACHMENTS:
1. Proposed Changes in this CalEnviroScreen 3.0 Update
2. State, Regional, and County Maps Showing Areas of the Most Impacted Communities using CalEnviroScreen Version 2.0 and Draft Version 3.0

PROPOSED CHANGES IN THIS CALENVIROSCREEN 3.0 UPDATE

This draft of CalEnviroScreen 3.0 updates the tool in a variety of ways. This draft incorporates:

- More recent data for all indicators.
- Improvements in the way some indicators are calculated, and additions to some indicators, to better reflect environmental conditions or population vulnerability to pollution.
- The addition of two new indicators reflecting health and socioeconomic vulnerability to pollution.
- The removal of the "children and elderly" age indicator, and replacement with an analysis of age.

The tables below describe the proposed changes to each indicator in greater detail.

As a result of these changes, CalEnviroScreen 3.0 would use 20 indicators covering pollution burden and population characteristics of California's approximately 8000 census tracts. One of the two proposed new indicators, emergency department visits for acute myocardial infarction (heart attack), is an indicator of subpopulations that may be especially vulnerable to the health effects of pollution. The other new indicator takes housing costs into consideration as a socioeconomic factor that can affect a community's vulnerability to the health effects of pollution. The Age indicator from Version 2.0 has been removed based on concerns that the measure of populations of children and the elderly in individual census tracts does not adequately represent these vulnerable populations. New data are added to several indicators, including three additional drinking water contaminants, one additional pesticide, and the addition of produced water ponds from oil and gas operations to the groundwater threats indicator.

Additional information on pollution near the California–Mexico border that was not available at the time of the Version 2.0 release is included in this update. For example, certain facilities that release toxic chemicals in Mexico near the border have been incorporated into the Toxic Releases indicator. Likewise, air monitoring data from two new air monitoring stations near the border has been factored into the ozone and PM 2.5 indicators. Additional details are provided below.

The CalEnviroScreen model and method used to calculate CalEnviroScreen scores remains the same and is described in the draft report. More detailed information on the proposed changes and further description of the new indicators is also available in the draft report.

Exposure Indicators:

Indicator	Proposed Improvements
Air Quality: Ozone	The air monitoring data used in this indicator have been updated to reflect ozone measurements for the years 2011 to 2013. The proposed measure for CalEnviroScreen 3.0 is the average daily maximum ozone concentration. In CalEnviroScreen 2.0, the measure was the sum of the ozone concentrations above the state's ozone standard at a given air monitoring station. The change to a more straightforward calculation of average concentration is easier to interpret. This change also allows the incorporation of information on ozone for all areas of the state, not only census tracts with levels estimated to be over the standard. As a result of this change, areas with no exceedances of the state ozone standard that previously had a zero score now have a score greater than zero. Data from two new air monitoring sites near the California–Mexico border at San Ysidro and Otay Mesa are also included in the CalEnviroScreen 3.0 calculations. In addition, ozone concentrations for census tracts further than 50 kilometers from an air monitor are now reported. Previously, ozone concentrations for census tracts whose center was more than 50 kilometers from the nearest air monitor were not reported.
Air Quality: PM 2.5	The air monitoring data used in this indicator have been updated to reflect PM 2.5 measurements for the years 2011 to 2013. Additional data from two new air monitoring sites near the California–Mexico border at San Ysidro and Otay Mesa are also included in the calculations. PM 2.5 concentrations for census tracts further than 50 kilometers from an air monitor are now taken into account. Previously, census tracts with centers more than 50 kilometers from the nearest PM2.5 air monitor were not included. Some satellite data was incorporated to provide full state coverage for the PM2.5 indicator.
Diesel Particulate Matter	Diesel PM emissions were updated for the year 2012. Emissions from sources of diesel PM in Mexico near the US are also included in this update. Diesel PM emissions estimates are provided to OEHHA by the California Air Resources Board (CARB) in 16-square-kilometer grid cells that cover most of the state. In the previous version of CalEnviroScreen, these grid estimates were converted to the census tract scale based on the total geographic area of the census tract. In this draft, the grid estimates were converted using only the populated areas of each census tract (populated census blocks). This change means the diesel PM emissions

estimates for each census tract better represent emissions and potential exposures where people live.

To account for additional diesel PM emissions from sources on the Mexico side of the US-Mexico border, CARB compared modeled diesel PM emissions with data from air monitoring of nitrogen oxides (NO_x), a proxy for diesel PM, at Calexico and Otay Mesa. Based on a comparisons of the modeled diesel PM emissions to measured concentrations of NO_x, CARB adjusted modeled diesel PM upward at the Calexico border area. CARB found modeled diesel PM in Otay Mesa did not need to be adjusted.

Drinking Water Contaminants

The drinking water indicator uses information on the quality of drinking water that is delivered by community water systems as well as the boundaries of the geographic areas served by the systems. Of the approximately 3,000 community water systems covered by the drinking water indicator, 2,057 water system service area boundaries were used in this version of CalEnviroScreen. These 2,057 boundaries were downloaded from the California Environmental Health Tracking Program's (CEHTP) Water Boundary Tool. The boundaries were either obtained by water providers or researched and drawn by OEHHA or CEHTP staff using maps or other information about the population served by the system. In this draft, there are about 700 more service area boundaries than were available when CalEnviroScreen 2.0 was finalized. The incorporation of the new boundaries allows for a more accurate geographic representation of water quality across the state.

The methodology used to reflect delivered water quality was also improved through better selection of sample locations to represent delivered water and the collection of updated information on how much water wholesale water suppliers provide to their customers, which might have changed in recent years (possibly due to drought action).

Water contaminant data from 2005 to 2013 was collected, representing the most recent compliance period. Three new contaminants were added to the index based on toxicity concerns and frequency of tests. These contaminants are tetrachloroethylene (PCE), 1,2,3-trichloropropane (TCP), and combined radium 226 and 228.

Pesticide Use

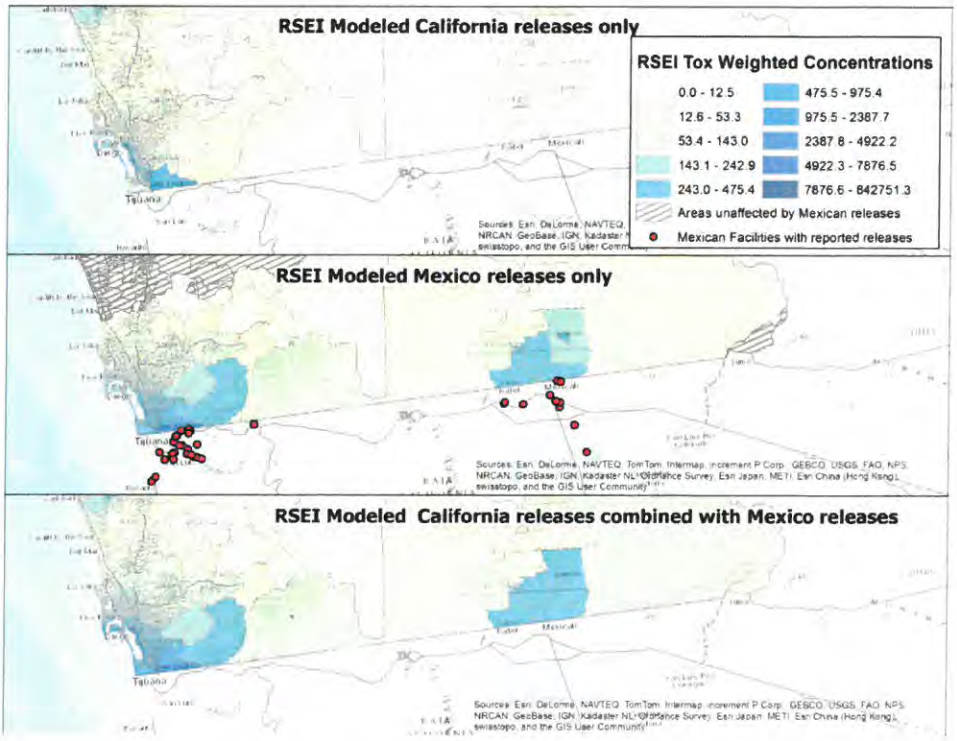
The pesticide use indicator was updated to include data for the years 2012 to 2014. One additional pesticide, ethylene glycol, met the hazard and volatility criteria and was added to the analysis. A total of 70 pesticides are now covered by this indicator.

Toxic Releases from Facilities

The toxicity-weighted concentrations of modeled chemicals released to air from the US EPA's Risk Screening Environmental Indicators (RSEI) program were updated to incorporate an average of the emission data for the years 2011 to 2013. After the release of CalEnviroScreen 2.0, California communities located near the Mexican border raised

concerns that the indicator did not incorporate potential cross-border pollution from toxic emissions originating in Mexico.

To address this gap, toxic release emissions data from Mexico up to 49 kilometers south of the California-Mexico border for the years 2011 to 2013 were incorporated into the RSEI model by Abt Associates, US EPA contractors for the RSEI program. RSEI combines reported chemical emissions with toxicity estimates and models the dispersion of chemicals into air by incorporating physicochemical properties, weather, and geography. Toxicity-weighted concentrations from the Mexican facilities were modeled and incorporated into the California RSEI results. The new toxicity-weighted emissions were then aggregated to census tract level estimates for the border region by Abt Associates and provided to OEHHA. This data set was used to better characterize binational pollutant impacts on communities near the California-Mexico border.



Traffic Density The traffic density indicator was updated with traffic volumes for 2013 and includes a more expansive network of traffic volumes and roadways.

CalEnviroScreen 2.0 used Caltrans-based traffic volumes from the 2004 Highway Performance Monitoring System (HPMS) on segments of roadways across the state. The updated dataset was provided by the California Environmental Health Tracking Program (CEHTP) and uses additional sources of traffic volumes. The data on traffic volumes,

including data on local traffic not contained in HPMS, were acquired from TrafficMetrix, a database of current traffic volumes up to 2013 that includes 2008 roadway data from Tele Atlas, a mapping company.

Modeling of traffic data on road segments without traffic counts was used to provide statewide coverage of many more roadway segments than in the previous version of CalEnviroScreen. The use of Caltrans HPMS, local data sources, and modeling result in a more comprehensive estimate of traffic density in the state.

There is a high correlation between the traffic data used in 2.0 and the new data used in 3.0. In general, the new dataset shows decreases in traffic volume estimates. This difference, however, represents a refinement of data by including traffic counts on smaller, local roads, rather than a true decrease in traffic. Since CalEnviroScreen indicators are scored as percentiles, the traffic levels divided by lengths of measured roadways in or near each census tract, relative to those of the state's other census tracts, governs an individual tract's score for this indicator.

Traffic density information from roads in Mexico in close proximity to California was updated for inclusion in the new California traffic data. First, traffic volumes at the six border crossings within 150 meters south of the California-Mexico border were updated to include more recent traffic data. The data came from the US Department of Transportation and the US Customs and Border Protection. Border crossing counts at the six ports of entry into California for trucks, buses and personal vehicles in 2013 were incorporated.

Updated traffic volumes for parallel roads within 150 meters of the California-Mexico border was also investigated, but as of the time of this draft, new data are not available. This proposed version of CalEnviroScreen uses the same data as CalEnviroScreen 2.0 for traffic volumes for the two major parallel roads in Tijuana (Via International and Blvd Aeropuerto). OEHHA obtained the data from the San Diego Association of Governments (SANDAG).

Environmental Effect Indicators:

Cleanup Sites This indicator has been updated with information on the location and status of cleanup sites from the EnviroStor database, downloaded in May 2016.

Groundwater Threats Updated information on the location and status of groundwater cleanup sites was downloaded from the GeoTracker database in June 2016.

One additional type of groundwater threat has been included in this update. Produced-water ponds containing water that is produced and stored as a byproduct of oil and gas production from well stimulation activities were added to the GeoTracker database in 2015. There were

318 produced-water ponds incorporated into the Groundwater Threats indicator. The weighting of these sites in relation to the other types of sites in this indicator can be found in the appendix of the Groundwater Threats chapter in the report.

Hazardous Waste Generators and Facilities

The hazardous waste generators data was updated for the years 2012–2014 with information provided by the Department of Toxic Substances Control (DTSC). Updated information on the location and status of permitted hazardous waste facilities was also acquired from DTSC. Numerous adjustments to permitted facility locations were made in this version and many facility boundaries were also incorporated. Reported locations for the facilities were checked and adjusted by Dr. James Sadd and his research team at Occidental College and provided to OEHHA. The changes were confirmed by OEHHA staff based on visual inspection of satellite imagery.

A minor change to the scoring matrix for these facilities was also made. Permit status was removed as part of the criteria for scoring permitted hazardous waste facilities. The new facility scoring weights can be found in the appendix of the Hazardous Waste Generators and Facilities section in the draft report.

Impaired Waters

The State Water Resources Control Board (SWRCB) released its Final 2012 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) on impaired water bodies in 2015. The 2012 version updates only Region 1 (Northwest Coast), Region 6 (Eastern California) and Region 7 (Southeastern California). This proposed Impaired Waters indicator update included the new information from the SWRCB 2012 report for these regions. Data for Regions 2, 3, 4, 5, 8, and 9 remain the same as in CalEnviroScreen Version 2.0.

Solid Waste Sites and Facilities

Updated information on (1) active solid waste sites, (2) closed, illegal, abandoned waste sites, (3) waste tires and (4) violations at solid waste facilities was obtained from CalRecycle in June 2016. These were all incorporated in this proposed version of the indicator.

Sensitive Population Indicators:

Age: Children and Elderly

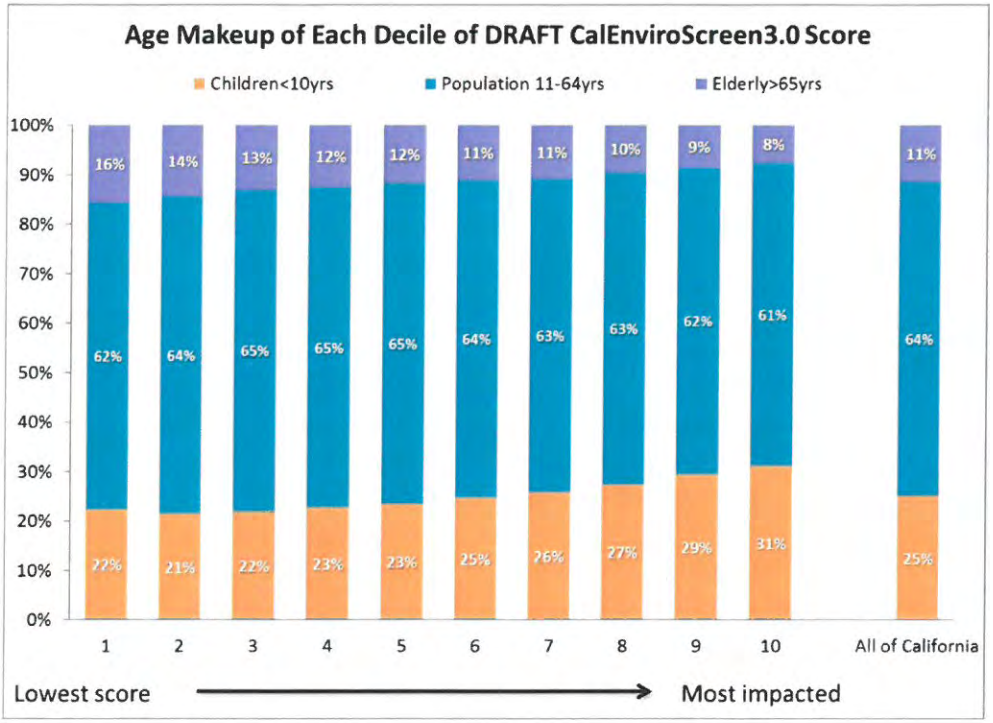
In this update to CalEnviroScreen, OEHHA proposes to remove the Age indicator, and instead address age in a different analysis and also display the age data with the scores for each census tract. This change does not reflect a change in the evidence that children and elderly are especially vulnerable to pollution's effects. The change instead reflects additional analysis showing that the indicator does not provide a good measure to represent the vulnerability of these populations across the state.

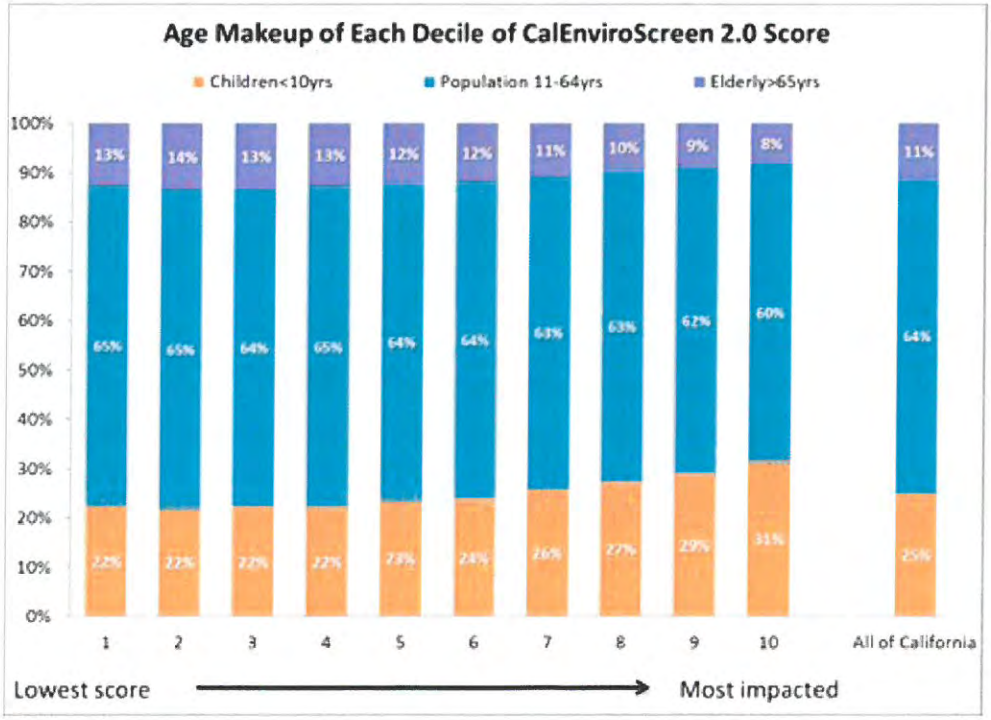
In CalEnviroScreen 2.0, the age indicator score was based on the percent of population under age 10 or over age 65 in a census tract. Here, the proposal to remove the indicator is based on the following findings:

- The measure of the elderly tended to highlight census tracts with high concentrations of retired (and in many cases, more affluent) elderly populations with longer life expectancies rather than more vulnerable elderly populations with early mortality.
- Few census tracts have a high prevalence of both children and elderly. The overall effect in the CalEnviroScreen 2.0 indicator is that one subpopulation counterbalanced the other. Removal of the indicator has little bearing, for example, on the overall number of children in the highest scoring areas.
- The Age indicator is more highly correlated with the percent elderly than percent children. This results in elderly being more highly represented by the indicator.
- The Age indicator contradicted the general pattern across indicators that decreasing the indicator score is desirable.
- Using CalEnviroScreen 2.0 data, a sensitivity analysis excluding only the Age indicator produced a minimal shift in the demographics of the most highly-scoring census tracts (see charts below).

Therefore, instead of including the Age indicator in the calculation of the final score, OEHHA will include an analysis in the final CalEnviroScreen 3.0 report that describes the percentage of the two vulnerable population segments (children and elderly) in all census tracts, as well as correlations between age and CalEnviroScreen scores across California. The online maps will also allow viewers to click on individual census tracts and view age statistics along with statistics on race/ethnicity for each tract.

The charts below show the age composition of all census tracts when placed into 10 groups from lowest to highest CalEnviroScreen score. The results are very similar between the proposed CalEnviroScreen 3.0 and 2.0 versions with respect to the fraction of children and elderly in each group.

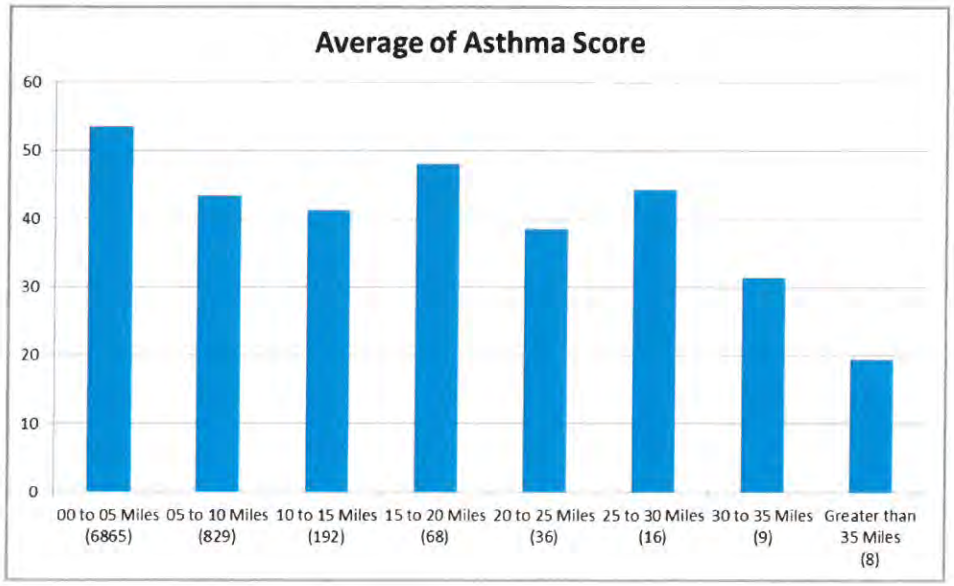

Age Makeup of Each Decile of DRAFT CalEnviroScreen3.0 Score
Children<10yrs
Population 11-64yrs
Elderly>65yrs
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
16% 14% 13% 12% 12% 11% 11% 10% 9% 8% 11%
62% 64% 65% 65% 65% 64% 63% 63% 62% 61% 64%
22% 21% 22% 23% 23% 25% 26% 27% 29% 31% 25%
1 2 3 4 5 6 7 8 9 10 All of California
Lowest score
Most impacted


Age Makeup of Each Decile of CalEnviroScreen 2.0 Score
Children<10yrs
Population 11-64yrs
Elderly>65yrs
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
13% 14% 13% 13% 12% 12% 11% 10% 9% 8% 11%
65% 65% 64% 65% 64% 64% 63% 63% 62% 60% 64%
22% 22% 22% 22% 23% 24% 26% 27% 29% 31% 25%
1 2 3 4 5 6 7 8 9 10 All of California
Lowest score
Most impacted

Asthma The asthma indicator has been updated with data for the years 2011 to 2013 and represents the rates of emergency department (ED) visits for asthma that are age-adjusted and spatially modeled. The rates were calculated by the California Environmental Health Tracking Program (CEHTP).

Comments on the previous version of CalEnviroScreen expressed concern that the rate of ED visits is underestimated in rural and medically underserved communities where the nearest ED is far away or difficult to access. To understand this issue better, OEHHA evaluated the proximity of each census tract's center to the nearest ED. OEHHA found that 17 of the 8,035 census tracts are further than 30 miles from the nearest ED.

OEHHA also evaluated if census tracts further from EDs show significant differences in asthma ED visit rates. To understand how distance to an ED is related to the asthma ED visit rate, census tracts were grouped into five mile increments based on distance from the nearest ED (less than 5, 5-10, 10-15, 15-20, 20-25, 25-30, 30-35, and more than 35 miles). A chart of the average asthma ED visit rate (per 10,000 people) by these increments is shown below. A statistical analysis showed that tracts further from an ED have lower rates of ED visits than tracts closer to an ED. It is unclear if the lower rates in the more distant areas represent a need for medical service that is not met, which would be the case if people suffering asthma attacks were not going to EDs because of the distances involved. Because of this uncertainty, OEHHA is not proposing a change to the indicator at this time. However, OEHHA will continue to research the role of access to health care for this indicator.



Cardiovascular Disease: Heart Attack Rate

A measure of rates of emergency department visits for heart attacks is proposed for inclusion as new indicator of population vulnerability. This indicator is proposed in part as a response to comments raising the concern that CalEnviroScreen 2.0 did not contain a sufficient emphasis on health indicators.

Preexisting cardiovascular disease or a previous heart attack makes individuals more susceptible to the effects of air pollution. This literature is summarized in the chapter in the draft report. Acute myocardial infarction (AMI), commonly known as a heart attack, is the most common adverse cardiovascular event. The rate of AMI visits to the ED was identified as a suitable indicator of cardiovascular disease.

The data represents the rate of ED visits for the years 2011- 2013. The data comes from the Office of Statewide Planning and Research as the number of ED visits by ZIP code for having an AMI. Rates at the ZIP code scale were calculated and provided by CEHTP. The ZIP code data was converted to a rate, age-adjusted and spatially modeled to census tracts for a 3-year average. ZIP codes are the smallest geographic unit available for ED data.

Low Birth Weight Infants

The indicator for the rate of low birth weight (LBW) infants in each census tract is proposed to incorporate more years of data. Here, the indicator is represented by a seven-year low birth-weight rate (2006 to 2012). OEHHA did not spatially model the data as it had in version 2.0 with the intent of minimizing extreme values in census tracts with very few births. OEHHA evaluated the modeled LBW rates used in version 2.0 and the newer data available (2009-2012). This analysis showed that the modeled data was actually introducing unwanted variability into the distribution of census tracts, particularly those tracts with few births. Here, we propose to use the calculated rates (not modeled) with seven years of birth data to provide more stable and accurate estimates.

Estimates derived from places with few births are considered unreliable because they often produce extreme values and can vary greatly by year. To address this issue, LBW rates for census tracts with fewer than 100 births over the seven years were not estimated.

Socioeconomic Factor Indicators:

Educational Attainment

The indicator has been updated with the 2010-2014 estimates from the American Community Survey (ACS) on the percent of the population with less than a high school degree. The methods for the analysis of the data and the exclusion of unreliable estimates were the same as for CalEnviroScreen 2.0.

Linguistic Isolation The indictor has been updated with the 2010-2014 estimates from the American Community Survey (ACS) on the percent of households where no one over 14 speaks English very well. The methods for the analysis of the data and the exclusion of census tracts with unreliable estimates were the same as for Version 2.0.

Poverty The indicator has been updated with the 2010-2014 estimates from the American Community Survey (ACS) on the percent of the population living two times below the federal poverty level. The methods for the analysis of the data and the exclusion of census tracts with unreliable estimates were the same as for Version 2.0.

Unemployment The indicator has been updated with the 2010-2014 estimates from the American Community Survey (ACS) on the percent of the population over age 16 that is unemployed and eligible for the labor force. The methods for the analysis of the data and the exclusion of census tracts with unreliable estimates were the same as for Version 2.0.

Rent-Adjusted Income OEHHA received public comments during the development of CalEnviroScreen 2.0 that differences in cost-of-living across the state should be taken into account in socioeconomic measures. The most comprehensive poverty study identified that examined cost-of-living differences was conducted by the Public Policy Institute of California in its work on a California Poverty Measure. However, the smallest scale of analysis from that work was county level, which is not suited to the much smaller census tract scale used in CalEnviroScreen. At the time, OEHHA evaluated whether cost of living could be adjusted for within the poverty measure at the census tract scale and determined that a suitable adjustment could not be made.

The dominant driver of the geographic differences in cost of living seen in the California Poverty Measure was housing cost. California has very high housing costs relative to much of the country, making it difficult for many to afford adequate housing. Even more important, the cost of living varies significantly within California and is largely dependent on housing cost, availability, and demand. Here, OEHHA proposes an additional indicator to identify areas where households may be stressed by high housing cost relative to income. This indicator of rent-adjusted income uses a measure calculated by subtracting each census tract's median gross rent from its median household income. It will help account for differences in housing costs across different areas of California.

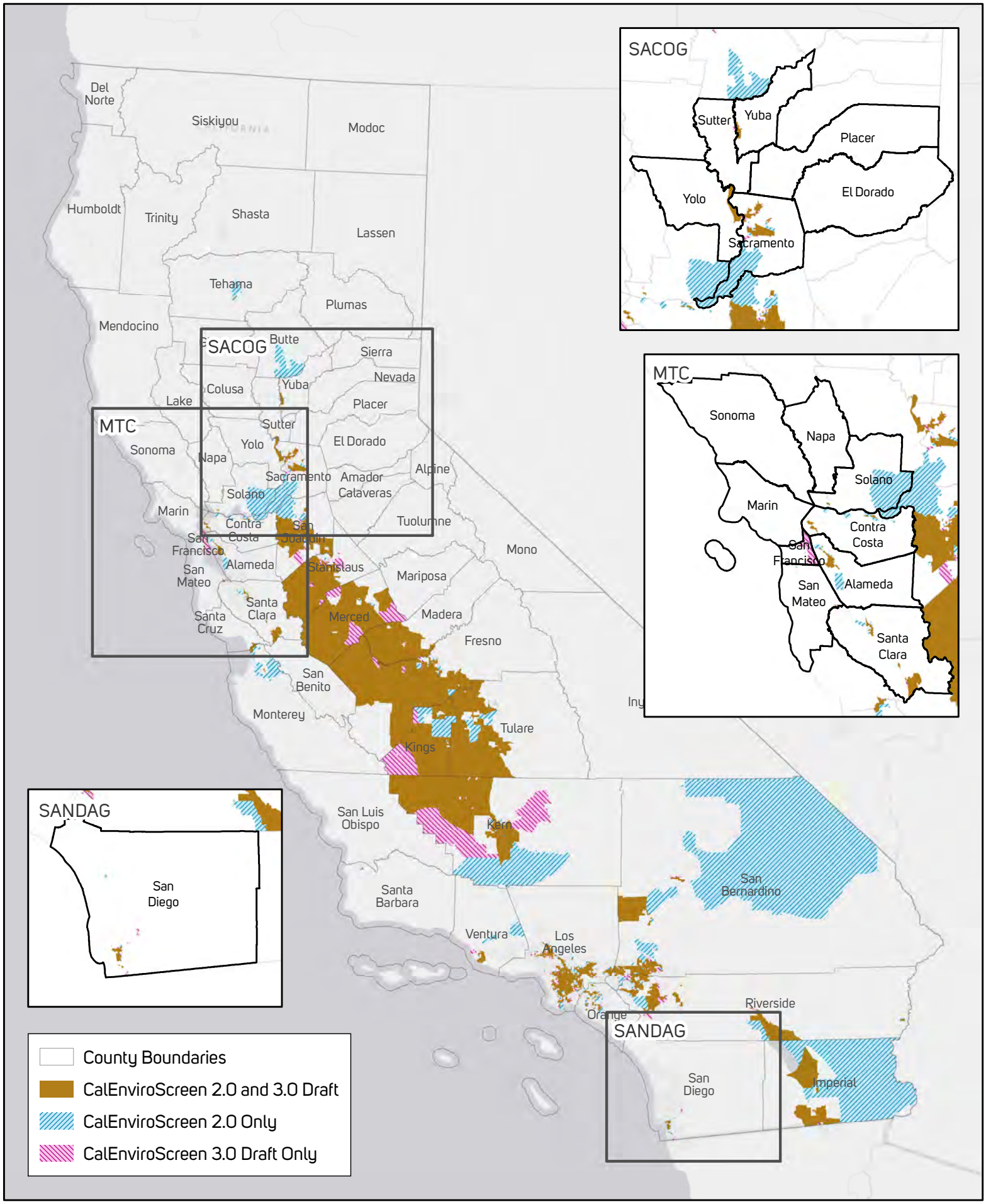
Measures of affordable housing often use a rent burden or owner cost burden measure based on the ratio of housing costs to income. Such measures of housing cost burden, however, do not consider whether the income available after the housing expenditure is adequate to meet non-housing needs. In other words, fairly wealthy people with very high

income and high rent could have the same rent burden ratio as someone with low income and low rent. The alternative measure we propose here is the residual income approach, which focuses on the income remaining after housing expenditures. Some households earn such low incomes that they cannot afford to allocate even low percentages of their income to housing.

The scoring approach for the rent-adjusted income indicator is the same as for the other population-characteristic indicators, although the order is reversed (lower income numbers are more disadvantaged). This means that the lowest raw rent-adjusted income values score in the highest percentiles. The higher scoring tracts are those with the smallest median residual income values after the subtraction of rent.

The data on household income and gross rent come from 2010-2014 estimates from the American Community Survey (ACS). The exclusion of unreliable estimates was performed by methods comparable to the other socioeconomic measures.

Top 25% CalEnviroScreen Census Tracts in California



Source: Office of Environmental Health Hazard Assessment, CalEnviroScreen 2.0 and 3.0 Draft, 2016.
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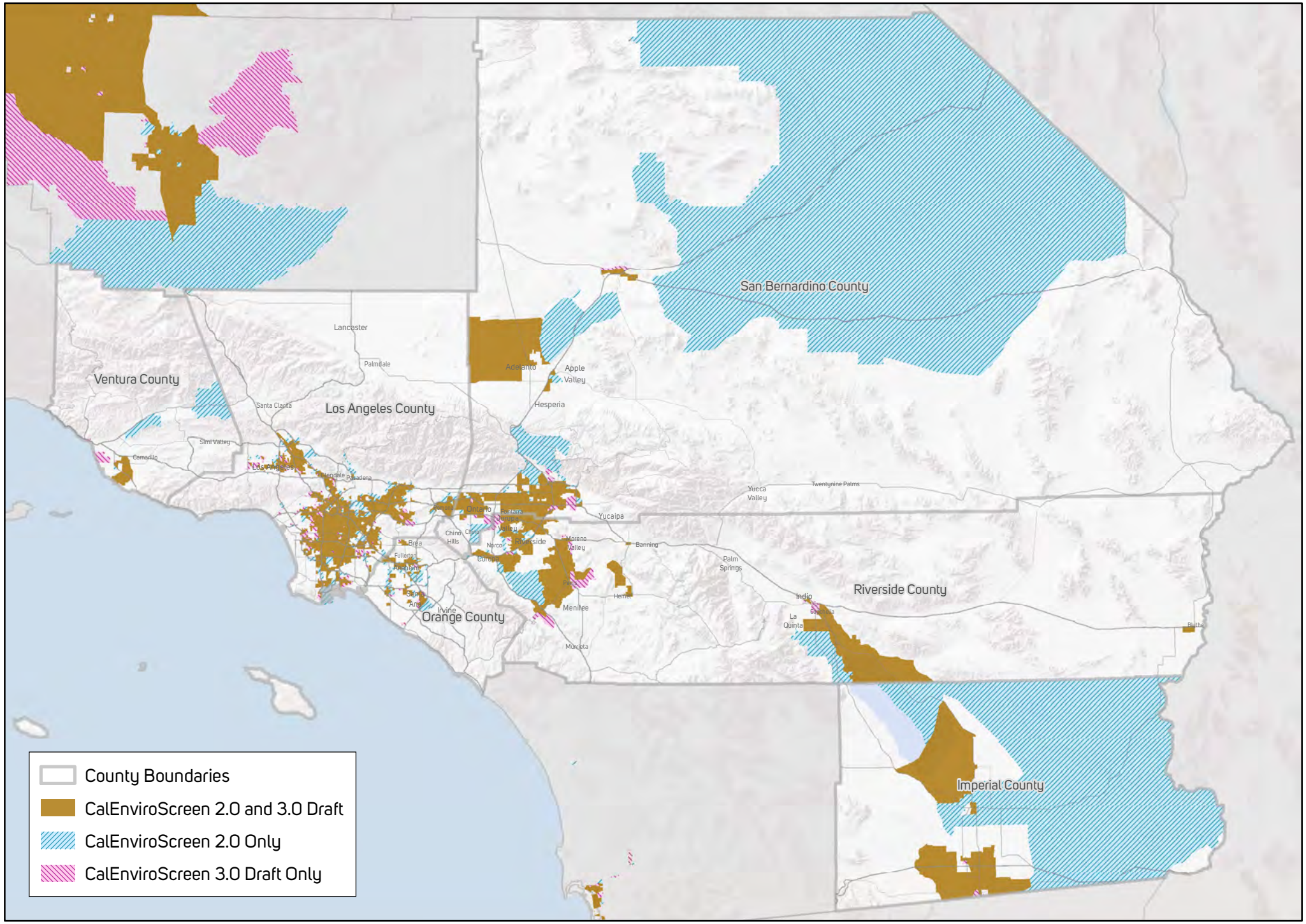
0 25 50 100 Miles

Top 25% CalEnviroScreen Census Tracts in the SCAG Region



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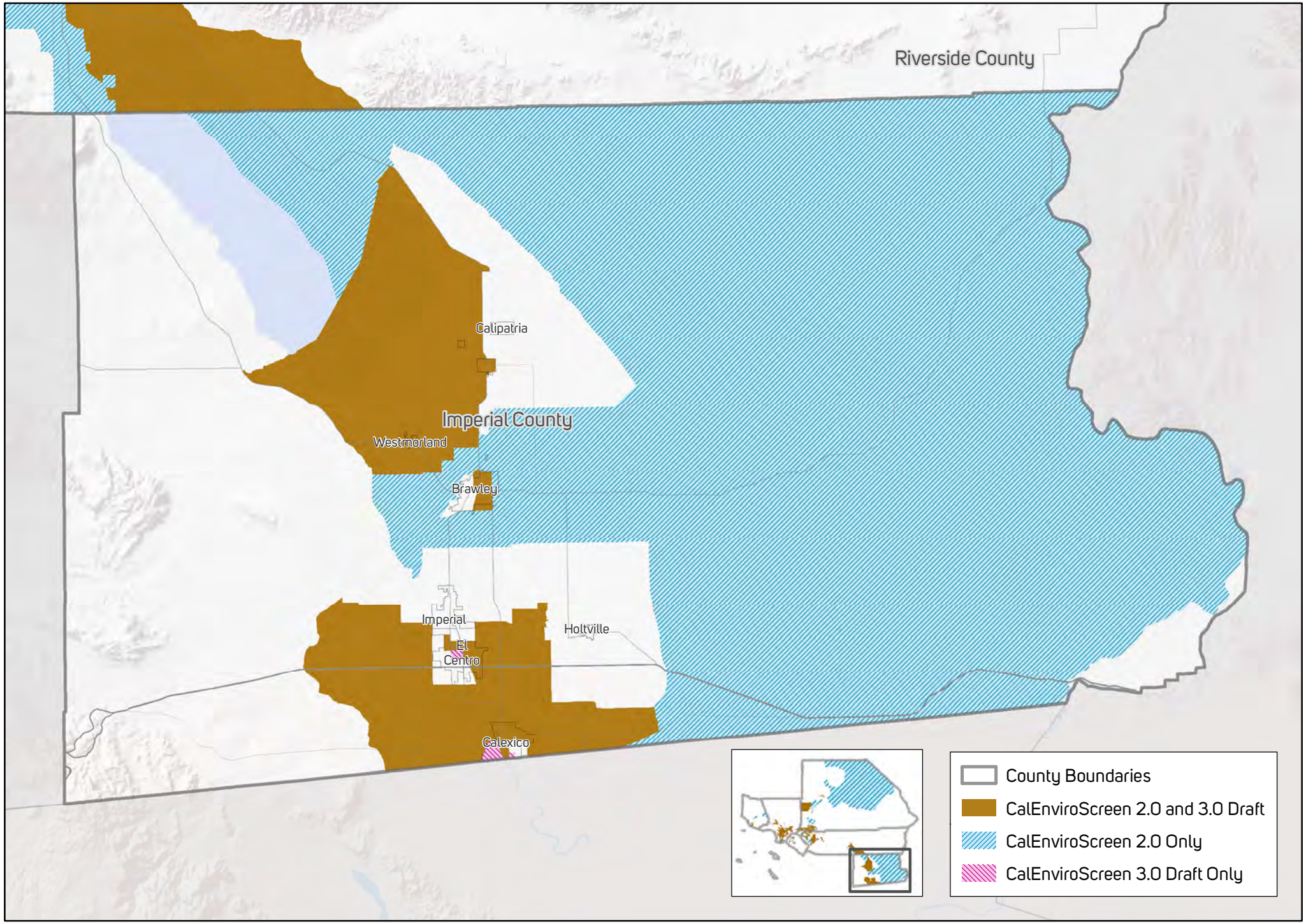
0 12.5 25 50 Miles

Top 25% CalEnviroScreen Census Tracts in Imperial County



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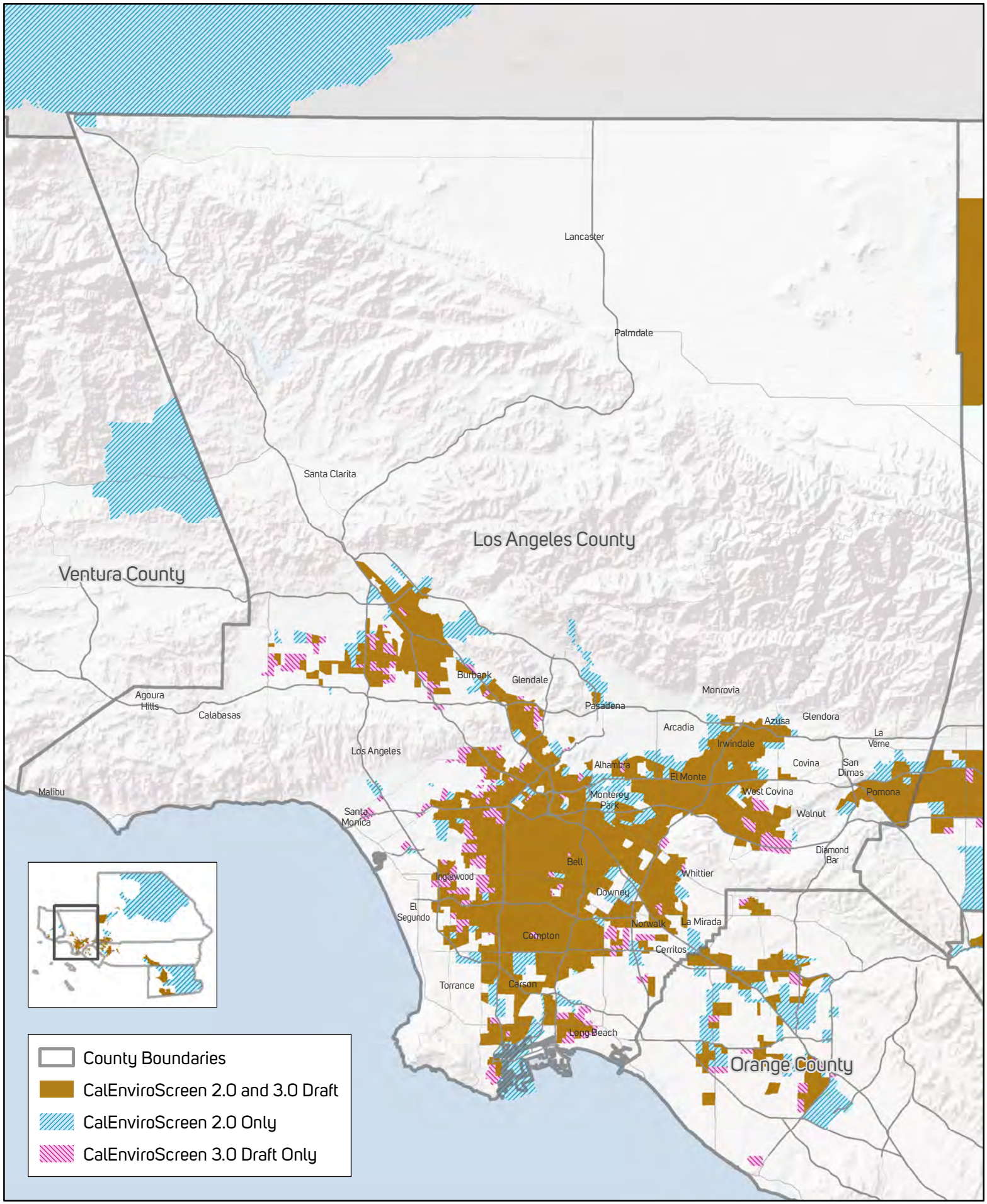
Top 25% CalEnviroScreen Census Tracts in Los Angeles County



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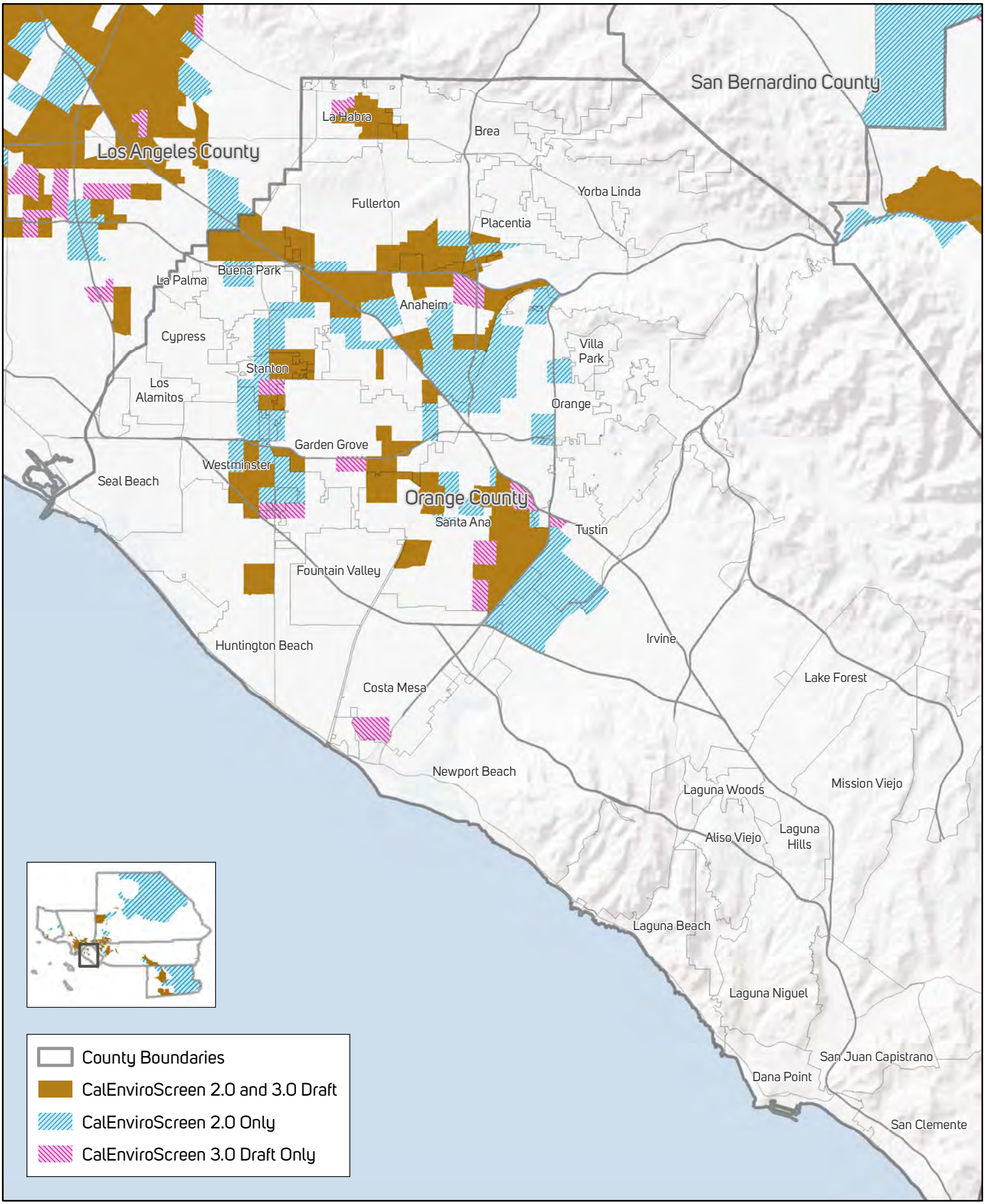
0 2.5 5 10 Miles

Top 25% CalEnviroScreen Census Tracts in Orange County



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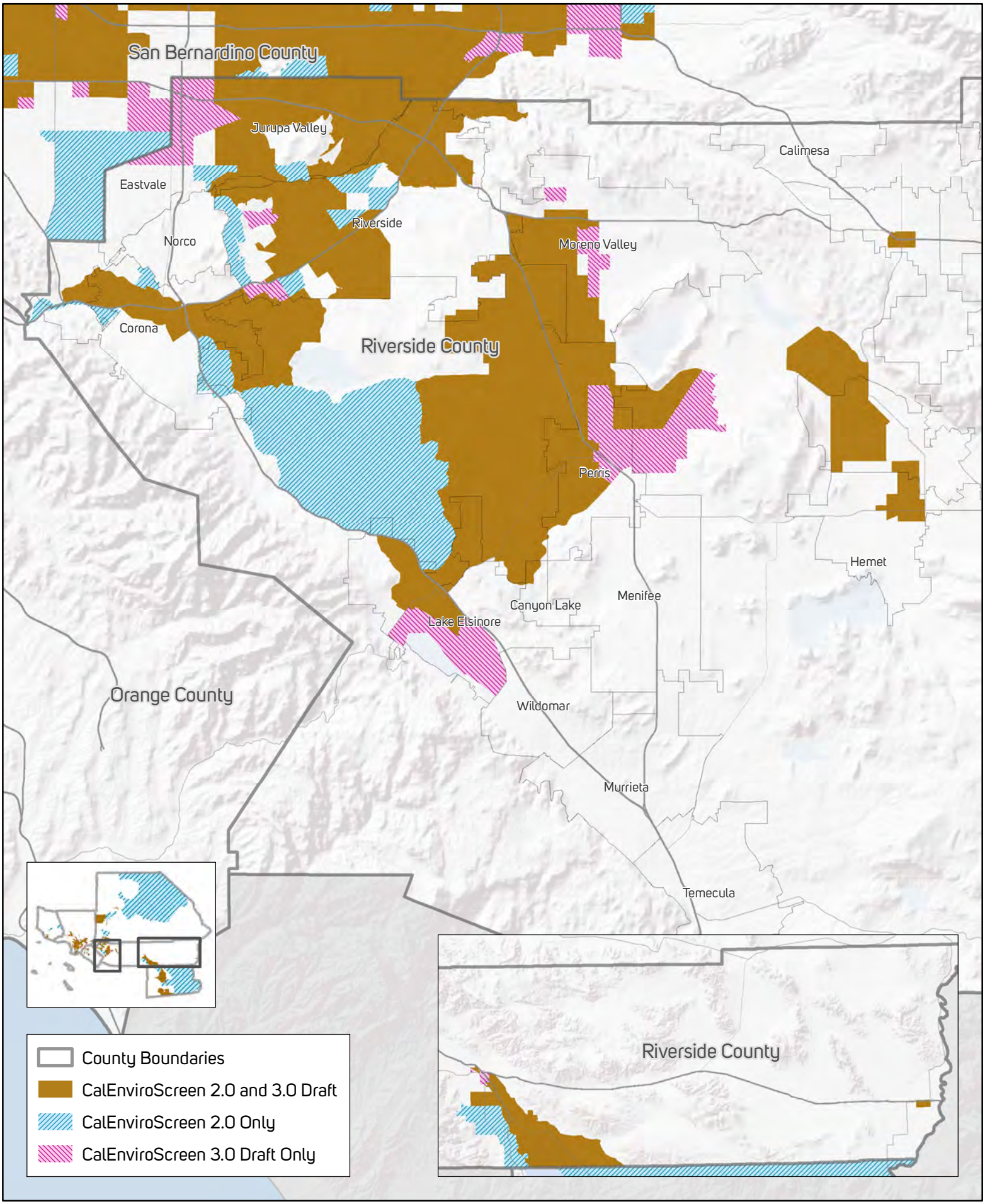
0 1 2 4 Miles

Top 25% CalEnviroScreen Census Tracts in Riverside County



Source: Office of Environmental Health Hazard Assessment, CalEnviroScreen 2.0 and 3.0 Draft, 2016.
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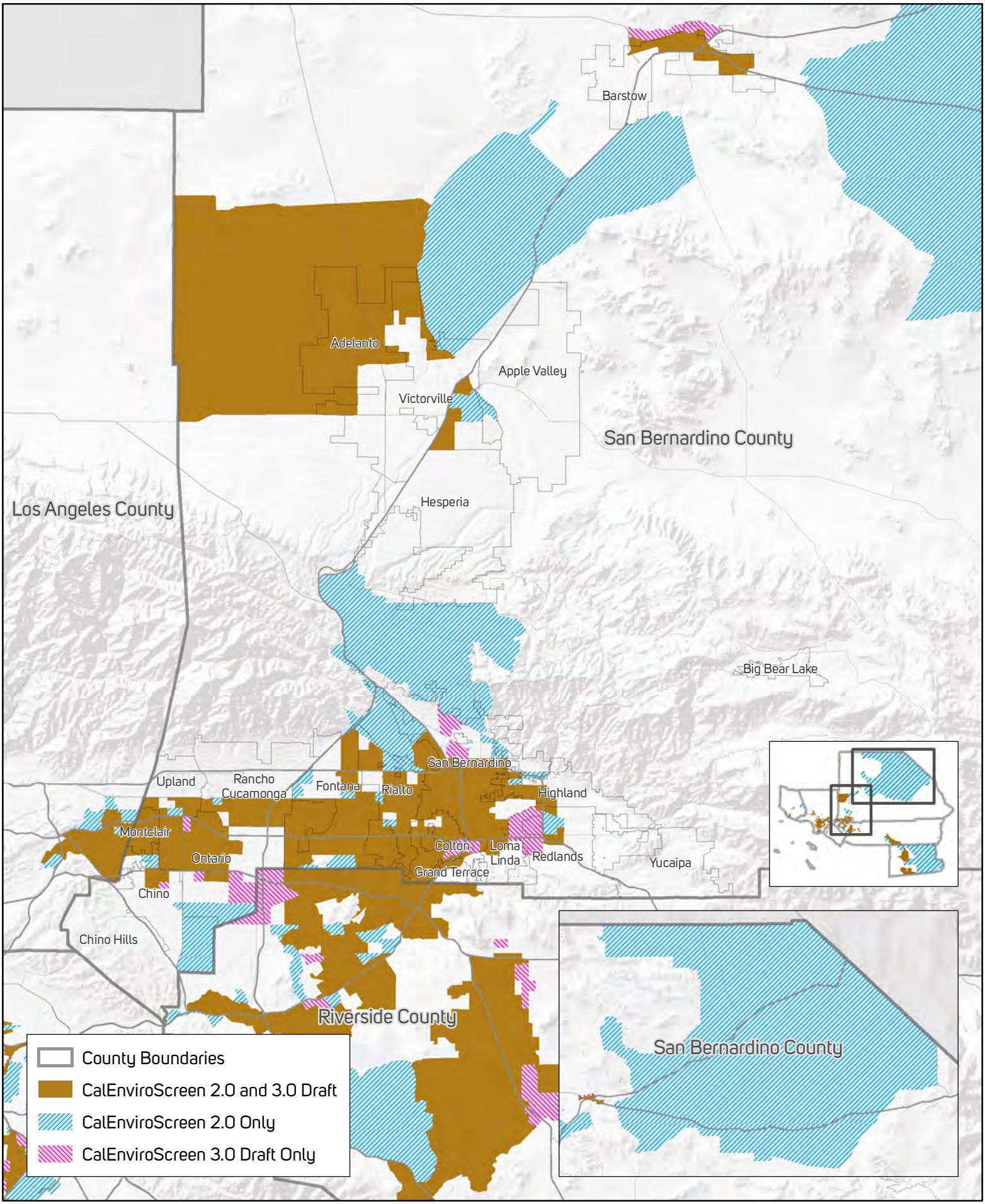
0 2.5 5 10 Miles

Top 25% CalEnviroScreen Census Tracts in San Bernardino County



Source: Office of Environmental Health Hazard Assessment, CalEnviroScreen 2.0 and 3.0 Draft, 2016.
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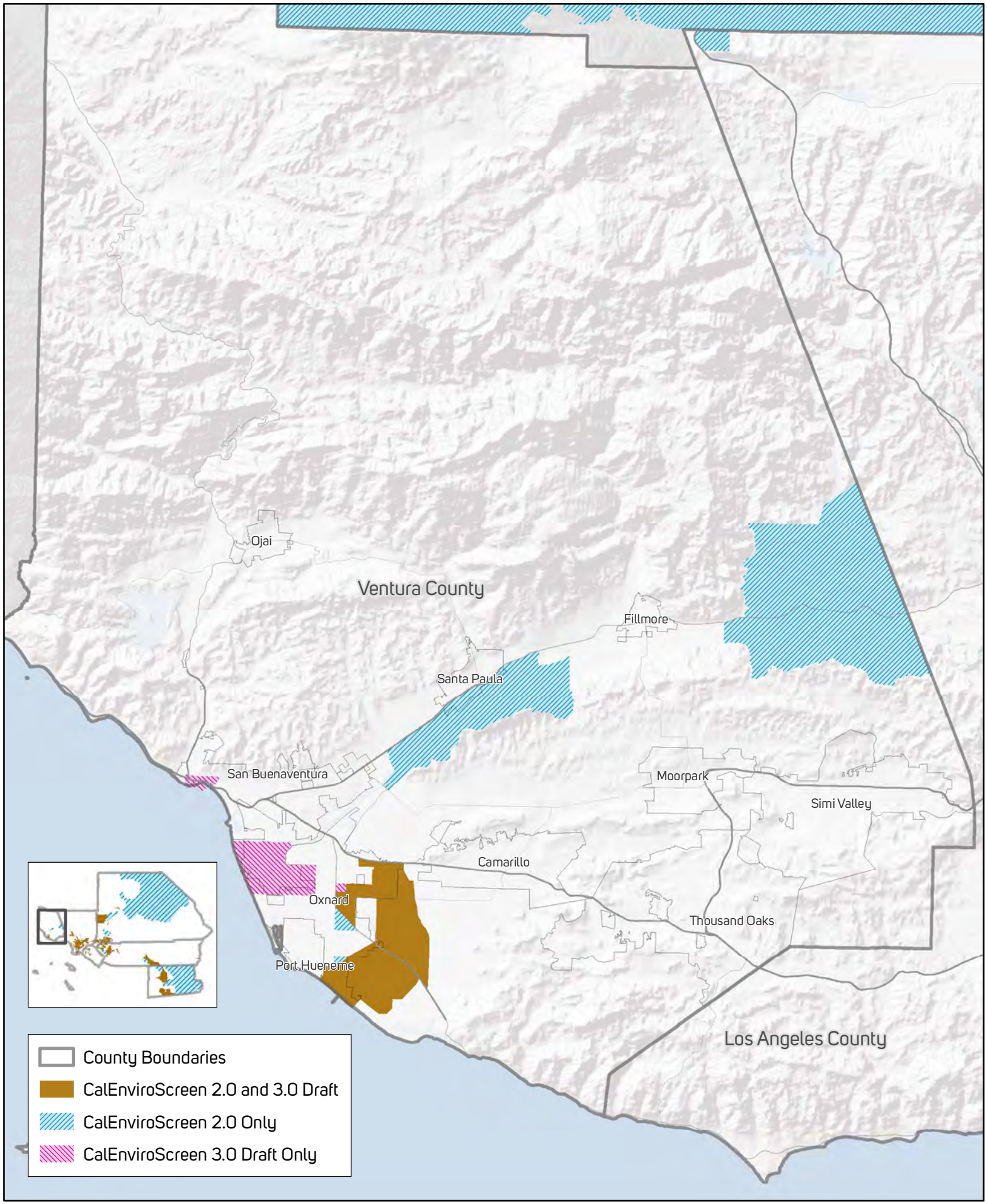
0 2.5 5 10 Miles

Top 25% CalEnviroScreen Census Tracts in Ventura County



Source: Office of Environmental Health Hazard Assessment, CalEnviroScreen 2.0 and 3.0 Draft, 2016.
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0 2.5 5 10 Miles

Item 11: No Attachment