APPENDIX A

County of San Diego

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DARREN GRETLER
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NOTICE OF PREPARATION DOCUMENTATION

DATE: **October 20, 2016**

PROJECT NAME: **COUNTY OF SAN DIEGO CLIMATE ACTION PLAN AND GENERAL PLAN AMENDMENT**

PROJECT NUMBER(S): **PDS2015-POD-15-002 and PDS2016-GPA-16-007**

PROJECT APPLICANT: **County of San Diego – Planning & Development Services**

ENV. REVIEW NUMBER: **PDS2016-ER-16-00-003**

PROJECT BACKGROUND:

In August 2011, the County of San Diego (County) prepared and adopted the *2011 County of San Diego General Plan Update* (GPU) and certified the Final Program Environmental Impact Report (PEIR), which assessed the potential environmental impacts of implementing the 2011 GPU. Within the GPU, the County adopted goals and policies aimed at reducing countywide greenhouse gas (GHG) emissions. Further, the County adopted a mitigation measure identified in the PEIR that called for the preparation of a Climate Change Action Plan designed to reach specified GHG reduction targets. In June 2012, the County approved a Climate Action Plan (2012 CAP) and Guidelines for Determining Significance (Guidelines), and adopted an Addendum to the 2011 GPU PEIR.

Following the approval of the 2012 CAP and Guidelines, the Sierra Club filed suit challenging the approvals and the adequacy of the associated environmental review. In a ruling issued on October 29, 2014 (*Sierra Club v. County of San Diego*, 231 Cal. App. 4th 1152 [2014]), the Fourth District Court of Appeal held that the 2012 CAP did not meet the description set forth in the adopted mitigation measure (GPU PEIR Mitigation Measure CC-1.2) and that an EIR was needed for the plan.

In response to the court's decision and considering changes that have occurred since preparation of the 2012 CAP, the County is proceeding with preparation of a new stand-alone CAP. The CAP would result in changes to Goal COS-20 and Policy COS-20.1 of the 2011 GPU and Mitigation Measures (MM) CC-1.2, CC-1.7, and CC-1.8 in the GPU PEIR addressing preparation of a CAP and GHG reduction targets.

PROJECT DESCRIPTION:

The project is a new CAP. The CAP (described in more detail below) would necessitate changes to Goal COS-20 and Policy COS-20.1 of the 2011 GPU and mitigation adopted in the PEIR (Mitigation

Measures CC-1.2, CC-1.7, and CC-1.8). As a result, an associated action of the project is an amendment to the 2011 GPU and proposed adoption of new or revised mitigation for the 2011 GPU PEIR.

An EIR will be prepared for the CAP and associated actions (General Plan Amendment) and it will serve two discrete purposes:

1) the EIR will provide a program-level analysis of the CAP and actions described therein; and

2) the EIR will be prepared as a Supplement to the 2011 GPU PEIR to evaluate the proposed amendments to the General Plan goal and policy referenced above and proposed adoption of new or revised mitigation measure(s) related to the CAP and GHG emission reduction targets as described below.

CEQA Requirements

The California Environmental Quality Act (CEQA) requires that public agencies consider the potentially significant adverse environmental effects of projects over which they have discretionary approval authority before taking action on those projects (Public Resources Code [PRC] Section 21000 et. seq.). According to California Code of Regulations (CCR) Section 15064(f)(1), preparation of an EIR is required whenever a project may result in a significant adverse environmental effect. An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental effects of a project, identify possible ways to mitigate or avoid the significant effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

The CAP is a comprehensive plan for the County to identify the strategies, measures, and actions that would need to be undertaken to reduce GHG emissions consistent with legislative requirements. As such, consistent with the requirement of CEQA Guidelines Section 15168, the County is preparing a program EIR that evaluates the scope of actions proposed under the CAP.

With regard to the General Plan Amendment and modifications to the mitigation measures in the certified PEIR (Mitigation Measures CC-1.2, CC-1.7, and CC-1.8), CEQA Guidelines Sections 15162 through 15164 set forth the criteria for determining the appropriate additional environmental documentation, if any, to be completed when there is a previously certified EIR covering the project for which a subsequent discretionary action is required. CEQA Guidelines, Sections 15162(a) and 15163, state that when an EIR has been certified for a project, no subsequent or supplement to an EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole public record, one or more of the following:

1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

a. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration; or
b. Significant effects previously examined will be substantially more severe than shown in the previously adopted Negative Declaration or previously certified EIR; or
c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous Negative Declaration or EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

CEQA Guidelines Section 15163 states that a lead agency may choose to prepare a supplement to the EIR rather than a subsequent EIR if changes proposed would meet the conditions described in Section 15162 and only minor additions and changes would be necessary to make the previous EIR adequate. The proposed General Plan Amendment for the CAP is related to a limited set of policies of the 2011 GPU. As such, the County is proceeding with preparation of a Supplement to the 2011 GPU PEIR. This document will address whether the CAP and proposed changes to Goal COS-20 and Policy COS-20.1 of the 2011 GPU and Mitigation Measures CC-1.2, CC-1.7, and CC-1.8 adopted in the 2011 GPU PEIR would result in any new or substantially more severe environmental impacts than those previously evaluated in the certified 2011 GPU PEIR.

General Plan Amendment

The 2011 GPU established a goal to reduce cumulative GHG emissions within the unincorporated County to 1990 levels by 2020 to be consistent with the statewide goal established by Assembly Bill (AB) 32 (the California Global Warming Solutions Act of 2006). To meet this goal, the County adopted the following goal and policy within the 2011 GPU (see pages 5-38 and 5-39 of the 2011 GPU, County of San Diego, 2011a):

> **GPU Goal COS-20 (Governance and Administration)**
> Reduction of local GHG emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006.
>
> **GPU Policy COS-20.1 (Climate Change Action Plan)**
> Prepare, maintain, and implement a climate change action plan with a baseline inventory of GHG emissions from all sources; GHG emissions reduction targets and deadlines, and enforceable GHG emissions reduction measures.

The 2011 GPU PEIR incorporated a mitigation measure (CC-1.2) which, in combination with other identified mitigation measures, would achieve the GPU Goal COS-20 and Policy COS-20.1 of reducing cumulative GHG emissions within the unincorporated County to 1990 levels by 2020. The same mitigation measure also established a 2020 target for County operations (see page 2.17-30 of the 2011 GPU PEIR, County of San Diego, 2011b):

> **GPU PEIR Mitigation Measure (MM) CC-1.2**
> Prepare a County Climate Change Action Plan with an update baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reduction targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. Once prepared, implementation of the plan will be monitored and progress reported on a regular basis.

The 2011 GPU and GPU PEIR MM CC-1.2 did not address GHG reductions or GHG reduction goals beyond 2020 for emissions from unincorporated communities (community emissions) or County operations. County operational emissions are tracked and monitored annually through the Climate Registry Information System (CRIS-Climate Registry), which assists the County in tracking progress towards County operations GHG reductions.

The 2011 GPU PEIR MM CC-1.7 requires the County to incorporate the California Air Resources Board (CARB's) recommendations for climate change CEQA thresholds into the County Guidelines for Determining Significance for Climate Change. If CARB does not release the recommendations, then the County is required to prepare its own threshold.

> **GPU PEIR MM CC-1.7**
> Incorporate the California ARB's recommendations for a climate change CEQA threshold into the County Guidelines for Determining Significance for Climate Change. These recommendations will include energy, waste, water, and transportation performance measures for new discretionary projects in order to reduce GHG emissions. Should the recommendation not be released in a timely manner, the County will prepare its own threshold. (see pages 2.17-30 and 2.17-31 of the 2011 GPU PEIR, County of San Diego, 2011b)

The 2011 GPU PEIR MM CC-1.8 requires the County to revise the County Guidelines for Determining Significance based on the CAP.

> **GPU PEIR MM CC-1.8**
> Revise County Guidelines for Determining Significance based on the Climate Change Action Plan. The revisions will include guidance for proposed discretionary projects to achieve greater energy, water, waste, and transportation efficiency. (see page 2.17-31 of the 2011 GPU PEIR, County of San Diego 2011b)

With the passage of Senate Bill (SB) 32 (as amended, Pavley. California Global Warming Solutions Act of 2006: emissions limit), which requires statewide GHG emission reductions to 40% below the 1990 levels by 2030, the County has determined that the 2011 GPU Goal COS-20, 2011 GPU Policy COS-20.1, and 2011 GPU PEIR Mitigation Measure CC-1.2 need to be updated to reflect the requirements of SB 32. Further, the CAP could result in the need for modifications to 2011 GPU Mitigation Measures CC-1.7 and CC-1.8. These proposed changes will be evaluated in the project's EIR (Supplement to the 2011 GPU PEIR).

The CAP will be prepared and the 2011 GPU goal and policy and the 2011 GPU PEIR mitigation measures outlined above will be updated to achieve the following:

- Analyze GHG emissions beyond 2020 to be consistent with SB 32;
- Establish a community GHG emission reduction target through the horizon year of 2030 consistent with guidance provided in SB 32; and
- Establish a comprehensive approach to reduce community GHG emissions by incorporating technologically feasible and cost-effective GHG emission reduction measures.

Climate Action Plan

The CAP is being developed in response to the previously described court ruling and State legislation and policies that are aimed at reducing statewide GHG emissions. This includes Executive Order (EO) S-3-05, which recommends a 2050 statewide GHG reduction target of 80 percent below 1990 levels; SB 32, which requires a 2030 statewide GHG reduction target of 40 percent below 1990 levels; and AB 32, which tasked the California Air Resources Board (ARB) with developing a Climate Change Scoping Plan to establish an interim target to achieve 1990 levels of GHG emissions by 2020 and provide a path for local governments to contribute their fair share of the GHG reductions necessary to achieve the target.

The CAP will include measures and actions to reduce current community emissions from the unincorporated County in proportion to the State's goals.

To achieve these objectives, the CAP will:

- Identify the expected climate change effects on the County, including areas of vulnerability, and potential adaptation strategies, measures, and actions that could be implemented to reduce these effects;
- Include a summary of baseline GHG emissions and the potential growth of these emissions over time;
- Identify GHG emissions reduction targets and goals to reduce the unincorporated County's contribution to climate change; and,
- Identify and evaluate strategies, measures, and actions to comply with statewide GHG reduction targets and goals and to adapt to climate change impacts.

The CAP will also be used for future project-specific environmental documents by being prepared consistent with the tiering and streamlining provisions of Section 15183.5 of the State CEQA Guidelines. The EIR will provide the appropriate level of environmental review to allow future projects to tier from and streamline their analysis of GHG emissions pursuant to CEQA Guidelines Section 15183.5(b)(2).

As part of CAP evaluation, the CAP strategies, measures, and actions will be assessed and monitored. Reporting on the status of the actions, periodic updates to the GHG emissions inventory, and other monitoring activities will provide the mechanisms to ensure that the County is making progress towards the CAP's stated goals.

The CAP will also include provisions for how the County's operations contribute their fair share of GHG reductions through local actions and operations, consistent with MM CC-1.2 of the 2011 GPU PEIR. The CAP will include a summary of baseline GHG emissions from County operations and potential growth of these emissions to 2020. The CAP will identify strategies, measures, and actions to reduce GHG emissions from County operations.

It is anticipated the CAP will consider GHG reduction strategies for the following sectors:

- Built Environment and Transportation (On-Road Transportation & Off-Road Transportation)
- Energy (Electricity & Natural Gas)
- Solid Waste
- Agriculture and Conservation
- Water
- Wastewater

PROJECT LOCATION:

The County of San Diego is located in the southwestern corner of the State. The County is bordered by the Pacific Ocean to the west, Riverside County to the north, Imperial County to the east, Orange County at the northwest corner, and the Republic of Mexico to the south (Exhibit 1).

The planning area for the CAP is the same planning area considered for the 2011 GPU, which encompasses all unincorporated land in the County of San Diego (Exhibit 2). The unincorporated County is composed of 3,570 square miles and represents 84 percent of the total land area in the County.

PROBABLE ENVIRONMENTAL EFFECTS:

The following is a list of the subject areas to be analyzed in the CAP EIR.

Aesthetics	Hydrology and Water Quality
Agriculture and Forestry Resources	Land Use and Planning
Air Quality	Mineral Resources
Biological Resources	Noise
Cultural and Historical Resources	Population and Housing
Geology and Soils	Public Services
Greenhouse Gas Emissions	Recreation
Energy	Transportation and Traffic
Hazards and Hazardous Materials	Utilities and Service Systems

With regards to the Supplement to the 2011 GPU PEIR, it is anticipated that the scope of analysis would be limited to GHG Emissions/Global Climate Change.

PUBLIC SCOPING MEETING:

Consistent with Section 21083.9 of the CEQA Statutes, a public scoping meeting will be held to solicit comments regarding the scope and analysis of the Supplement to the 2011 GPU PEIR. This meeting will be held on **November 3, 2016, 6:00 p.m. to 8:00 p.m., at the County Operations Center (COC) Conference Center Hearing Room, located at 5520 Overland Avenue, San Diego, CA 92123.**

Comments on this Notice of Preparation document will be accepted for 30 days following the issuance of this notice, and must be received no later than **November 21, 2016**. Comments on the Notice of Preparation document must be sent to the PDS address listed below and should reference the project numbers (PDS2015-POD-15-002, PDS2016-GPA-16-007, and PDS2016-ER-16-00-003) and project name (County of San Diego Climate Action Plan & General Plan Amendment). Comments may be submitted to:

County of San Diego
Planning & Development Services
Attention: Bulmaro Canseco
CAP Project Manager
5510 Overland Avenue, Suite 110
San Diego, CA 92123

Comment letters may also be submitted electronically via e-mail at: CAP@sdcounty.ca.gov.

References:

County of San Diego. 2011a (August). County of San Diego, General Plan Update. Available at: http://www.sandiegocounty.gov/content/sdc/pds/generalplan.html. Prepared by County of San Diego. Accessed September 15, 2016.

County of San Diego. 2011b. San Diego County General Plan Update, Final Environmental Impact Report. Available at: http://www.sandiegocounty.gov/content/sdc/pds/gpupdate/environmental.html. Prepared by County of San Diego, Department of Planning and Land Use. Accessed September 15, 2016.

Sierra Club v. County of San Diego, 231 Cal. App. 4th 1152 (2014)

Attachments:

Exhibit 1: Regional Map
Exhibit 2: San Diego County

Exhibit 1: Regional Map

Source: San Diego County

Exhibit 2: San Diego County

ASCENT ENVIRONMENTAL

Appendix A Summary of CAP NOP Comments

Commenter Type	Commenter Letter Number	Commenter
Fed & State	0	California Office of Planning & Research
Fed & State	3	Native American Heritage Commission
Fed & State	4	Pala Band of Mission Indians
Fed & State	13	California Department of Fish & Wildlife
Local Agencies	14	SANDAG-Intergovernmental Review
Groups & Organizations	2	Resource Conservation District of Greater SD County
Groups & Organizations	6	Climate Action Campaign
Groups & Organizations	7	Boulevard Community Planning Group
Groups & Organizations	8	Backcountry Against Dumps
Groups & Organizations	9	STAY COOL for Grandkids
Groups & Organizations	10	SD Unified Council of PTAs
Groups & Organizations	11	Endangered Habitats League
Groups & Organizations	12	Southwest Wetlands Interpretive Association
Groups & Organizations	15	SD Regional Chamber of Commerce
Groups & Organizations	16	California Native Plant Society-SD Chapter
Groups & Organizations	17	Cleveland National Forest Foundation/Save Our Forest and Ranchlands
Groups & Organizations	19	Latham & Watkins/Golden Door
Groups & Organizations	20	SD Foundation
Groups & Organizations	21	Sierra Club SD
Individual	1	Mike Bullock
Individual	5	Bill Tippets
Individual	18	Mike Bullock

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

October 20, 2016

To: Reviewing Agencies

Re: Climate Action Plan and General Plan Amendment
SCH# 2016101055

Attached for your review and comment is the Notice of Preparation (NOP) for the Climate Action Plan and General Plan Amendment draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Bulmaro Canseco
San Diego County
Planning & Development Services
5510 Overland Avenue, Suite 110
San Diego, CA 92123

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2016101055
Project Title Climate Action Plan and General Plan Amendment
Lead Agency San Diego County

Type NOP Notice of Preparation

Description The project is the development of a Climate Action Plan (CAP) that will include measures and actions to reduce greenhouse gas (GHG) emissions from the unincorporated County in proportion to the State's emission reduction goals. The EIR will provide a program-level analysis of the CAP and its actions. It will also be prepared as a Supplement to the 2011 General Plan Update (GPU) Program EIR to evaluate proposed amendments to General Plan Goal COS-20 and Policy COS-20.1, and proposed adoption of new or revised mitigation measure(s) related to the CAP and GHG emission reduction targets (2011 GPU Program EIR Mitigation Measures CC-1.2, CC-1.7, and CC-1.8).

Lead Agency Contact

Name Bulmaro Canseco
Agency San Diego County
Phone (858) 694-2216 **Fax**
email
Address Planning & Development Services
5510 Overland Avenue, Suite 110
City San Diego **State** CA **Zip** 92123

Project Location

County San Diego
City
Region
Cross Streets Entire Unincorporated Area of the County
Lat / Long
Parcel No. Various - Entire Unincorporated Area of the County
Township **Range** **Section** **Base**

Proximity to:

Highways Portion of District 11
Airports Various
Railways Various
Waterways Portions of Regions 7 and 9, RWQCB
Schools Various
Land Use Various

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Cal Fire; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Native American Heritage Commission; Public Utilities Commission; Caltrans, Division of Aeronautics; Caltrans, District 11; Regional Water Quality Control Board, Region 7; Regional Water Quality Control Board, Region 9

Date Received 10/20/2016 **Start of Review** 10/20/2016 **End of Review** 11/18/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

JH

County: San Diego

SCH# 2016101055

Resources Agency

Resources Agency
Nadell Gayou

- ☐ Dept. of Boating & Waterways
  Denise Peterson
- ☐ California Coastal Commission
  Elizabeth A. Fuchs
- ☐ Colorado River Board
  Lisa Johansen
- ■ Dept. of Conservation
  Elizabeth Carpenter
- ☐ California Energy Commission
  Eric Knight
- ■ Cal Fire
  Dan Foster
- ☐ Central Valley Flood Protection Board
  James Herota
- ☐ Office of Historic Preservation
  Ron Parsons

Dept of Parks & Recreation
Environmental Stewardship Section

- ☐ California Department of Resources, Recycling & Recovery
  Sue O'Leary
- ☐ S.F. Bay Conservation & Dev't. Comm.
  Steve Goldbeck
- ■ Dept. of Water Resources
  Resources Agency
  Nadell Gayou

Fish and Game

- ☐ Depart. of Fish & Wildlife
  Scott Flint
  Environmental Services Division
- ☐ Fish & Wildlife Region 1
  Curt Babcock
- ☐ Fish & Wildlife Region 1E
  Laurie Harnsberger
- ☐ Fish & Wildlife Region 2
  Jeff Drongesen
- ☐ Fish & Wildlife Region 3
  Craig Weightman
- ☐ Fish & Wildlife Region 4
  Julie Vance
- ■ Fish & Wildlife Region 5
  Leslie Newton-Reed
  Habitat Conservation Program
- ☐ Fish & Wildlife Region 6
  Tiffany Ellis
  Habitat Conservation Program
- ☐ Fish & Wildlife Region 6 I/M
  Heidi Calvert
  Inyo/Mono, Habitat Conservation Program
- ☐ Dept. of Fish & Wildlife M
  William Paznokas
  Marine Region

Other Departments

- ☐ Food & Agriculture
  Sandra Schubert
  Dept. of Food and Agriculture
- ☐ Depart. of General Services
  Public School Construction
- ☐ Dept. of General Services
  Cathy Buck/George Carollo
  Environmental Services Section
- ☐ Delta Stewardship Council
  Kevan Samsam
- ☐ Housing & Comm. Dev.
  CEQA Coordinator
  Housing Policy Division

Independent Commissions,Boards

- ☐ Delta Protection Commission
  Erik Vink
- ☐ OES (Office of Emergency Services)
  Monique Wilber
- ■ Native American Heritage Comm.
  Debbie Treadway
- ■ Public Utilities Commission
  Supervisor
- ☐ Santa Monica Bay Restoration
  Guangyu Wang
- ☐ State Lands Commission
  Jennifer Deleong
- ☐ Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Cal State Transportation Agency CalSTA

- ■ Caltrans - Division of Aeronautics
  Philip Crimmins
- ☐ Caltrans – Planning
  HQ LD-IGR
  Terri Pencovic
- ☐ California Highway Patrol
  Suzann Ikeuchi
  Office of Special Projects

Dept. of Transportation

- ☐ Caltrans, District 1
  Rex Jackman
- ☐ Caltrans, District 2
  Marcelino Gonzalez
- ☐ Caltrans, District 3
  Eric Federicks – South
  Susan Zanchi - North
- ☐ Caltrans, District 4
  Patricia Maurice
- ☐ Caltrans, District 5
  Larry Newland
- ☐ Caltrans, District 6
  Michael Navarro
- ☐ Caltrans, District 7
  Dianna Watson
- ☐ Caltrans, District 8
  Mark Roberts
- ☐ Caltrans, District 9
  Gayle Rosander
- ☐ Caltrans, District 10
  Tom Dumas
- ■ Caltrans, District 11
  Jacob Armstrong
- ☐ Caltrans, District 12
  Maureen El Harake

Cal EPA

Air Resources Board

- ☐ Airport & Freight
  Cathi Slaminski
- ☐ Transportation Projects
  Nesamani Kalandiyur
- ☐ Industrial/Energy Projects
  Mike Tollstrup
- ☐ State Water Resources Control Board
  Regional Programs Unit
  Division of Financial Assistance
- ☐ State Water Resources Control Board
  Cindy Forbes – Asst Deputy
  Division of Drinking Water
- ☐ State Water Resources Control Board
  Div. Drinking Water #_____
- ☐ State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- ☐ State Water Resouces Control Board
  Phil Crader
  Division of Water Rights
- ☐ Dept. of Toxic Substances Control
  CEQA Tracking Center
- ☐ Department of Pesticide Regulation
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- ☐ RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- ☐ RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- ☐ RWQCB 3
  Central Coast Region (3)
- ☐ RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- ☐ RWQCB 5S
  Central Valley Region (5)
- ☐ RWQCB 5F
  Central Valley Region (5)
  Fresno Branch Office
- ☐ RWQCB 5R
  Central Valley Region (5)
  Redding Branch Office
- ☐ RWQCB 6
  Lahontan Region (6)
- ☐ RWQCB 6V
  Lahontan Region (6)
  Victorville Branch Office
- ■ RWQCB 7
  Colorado River Basin Region (7)
- ☐ RWQCB 8
  Santa Ana Region (8)
- ■ RWQCB 9
  San Diego Region (9)

- ☐ Other_____
- ☐ _____
  Conservancy

Last Updated 7/19/2016

Nov. 3, 2016 County NP Meeting, 6 PM

348
(~~358-3 = 355~~ words = 3 minutes)

Mike Bullock
1800 Bayberry Drive
Oceanside, CA 92054
760-754-8025; mike_bullock@earthlink.net

Mr. Conseco and San Diego County Planning-and-Development Staff:

I'm Mike Bullock, a retired satellite systems engineer. I live at 1800 Bayberry drive in Oceanside, Ca. I appreciate the opportunity to speak on your Notice of Preparation.

~~Last summer, our Governor went to the Vatican and said to the Pope [quote] *the world may already have gone over the edge on global warming*. [End quote]. Then he said: ***humanity must reverse course OR face extinction***. CEQA requires that we incorporate this truth into Climate Action Plan EIRs. This needs to be reflected in your Notice of Preparation.~~

Regarding its section on CEQA Requirements, I agree with your first paragraph.

I want to emphasize, however, the words in that paragraph, "significant environmental impacts". "***Environmental*** impacts" are in the physical world, not in the world of laws or executive orders. In this case, the primary negative environmental impact or outcome, to be avoided, is climate destabilization. Therefore, the term, "climate destabilization" must be defined and also, that condition needs to be described.

Also, in that first paragraph, it is written that the EIR must identify ways to mitigate or avoid the significant effects. What will happen in the physical world must be considered AND how to avoid what would happen in the physical world must be considered.

The NOP needs to include the need for the EIR to have a description of how a climate is stabilized at a livable level.

The second paragraph's first statement is as follows:

> The CAP is a comprehensive plan for the County to identify the strategies, measures, and actions that would need to be undertaken to reduce GHG emissions **consistent with legislative requirements**.

However "consistent with legislative requirement" is not enough to avoid climate destabilization.

I agree that the EIR will need to show how to achieve the "legislative requirement". However, laws that happen to pertain to climate change do not

replace or amend CEQA. CEQA may be humanity's most important law, given our climate crisis. The environmental impacts of climate stabilization must be described and avoidance measures must be devised and implemented.

Thank you

SPEAKER SLIP

COUNTY OF SAN DIEGO CLIMATE ACTION PLAN
AND GENERAL PLAN AMENDMENT
EIR NOP SCOPING MEETING
NOVEMBER 3, 2016

PLEASE PRINT LEGIBLY

NAME Sheryl (First) Landrum (Last)

11769 Waterhill Rd Lakeside CA 92040
ADDRESS: Number Street City

(619) 562-0096
State Zip Telephone

sheryl.landrum@rcdsandiego.org
Email Address

As the Exec. Director of the Resource Conservation District & the Fire Safe Council of San Diego Co. We want to support your plan & offer our help. We are working on a statewide push w/ other RCDs for Carbon farming.

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

Edmund G. Brown Jr., Governor

October 24, 2016

Bulmaro Canseco
San Diego County Planning & Development Services
5510 Overland Avenue, Suite 110
Los Angeles, CA 90015

sent via e-mail:
CAP@sdcounty.ca.gov

RE: SCH# 2016101055; Climate Action Plan and General Plan Amendment Project, Notice of Preparation for Draft Environmental Impact Report, San Diego County, California

Dear Mr. Canseco:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:
    i. Planning and construction to avoid the resources and protect the cultural and natural context.
    ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    i. Protecting the cultural character and integrity of the resource.
    ii. Protecting the traditional use of the resource.
    iii. Protecting the confidentiality of the resource.
c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason,

we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

PALA TRIBAL HISTORIC PRESERVATION OFFICE

PMB 50, 35008 Pala Temecula Road
Pala, CA 92059
760-891-3510 Office | 760-742-3189 Fax

PALA THPO

November 3, 2016

County of San Diego
Planning & Development Services
Attention: Bulmaro Canseco
CAP Project Manager
5510 Overland Avenue, Suite 110
San Diego, CA 92123

Re: Notice of Preparation, County of San Diego Climate Action Plan and General Plan Amendment; PDS2016-ER-16-00-003

Dear Mr. Canseco,

The Pala Band of Mission Indians Tribal Historic Preservation Office has received your notification of the project referenced above. This letter constitutes our response on behalf of Robert Smith, Tribal Chairman.

Because the project as described involves the entire County, it includes areas of traditional cultural significance to the Pala Band. We recognize that the proposed Climate Action Plan (CAP) does not include any development projects as such; therefore, we cannot provide specifics on the scope of the required EIR as far as direct disturbance to cultural resources is concerned. However, we would like to urge the County to consider the impacts of climate change to cultural resources in general as the CAP is developed. Climate change has the potential to affect traditional plant and animal species and their habitats; water resources; management and protection of archaeological and cultural sites; and traditional cultural practices. Increased drought, fire risk, sea level rise, erosion, severe weather events, and more could all result in damage to Tribal traditional lifeways and resources. These elements should all be reflected in the CAP and in the EIR.

Finally, because Tribal land is sovereign, it is not subject to the CAP; however, many Tribes, Pala included, are developing their own climate change adaptation plans. It would behoove the County to reach out to Tribes so that our respective plans are taken into account in a way that allows them to enhance each other.

We appreciate involvement with your initiative and look forward to working with you on future efforts. If you have questions or need additional information, please do not hesitate to contact me by telephone at 760-891-3515 or by e-mail at sgaughen@palatribe.com.

Sincerely,

Shasta C. Gaughen, PhD
THPO and Environmental Director
Pala Band of Mission Indians

William Tippets/Judy Warren-Tippets
5850 Soledad Mountain Road
La Jolla, CA 92037

November 16, 2016

Mr. Bulmaro Canseco, Project Manager
5510 Overland Ave., Suite 310
San Diego, CA 92123

Re: County of San Diego – Notice of Preparation (NOP) of a Supplemental Environmental Impact Report (SEIR) for the Climate Action Plan and General Plan Update Amendment

Dear Mr. Canseco:

We have read and provide the following comments on the County's NOP for preparation of a Supplemental EIR for the Climate Action Plan (CAP) and General Plan Update (GPU) Amendment. As the County has stated, this new CAP was required because the previous (2012) CAP was rejected by the courts, in particular with regard to a lack of effective mitigation implementation mechanisms and assurances. Our comments are based on guidance for CAPs found in state and local documents as well as experience with several local jurisdiction's CAPs and related documents that have been prepared over the past decade.

According to the NOP, the County has determined that it only needs to prepare a supplemental, rather than a subsequent, EIR. It is not clear what this distinction will have in terms of the climate-related issues that will be included in the SEIR, such as: what environmental setting conditions (physical, legal, etc.) have changed since the 2011 GPU and 2012 CAP were prepared; the scope and intensity of mitigation measures; how specific the performance criteria will be; and how implementation results will be quantified, reported, and modified and strengthened (i.e., through adaptive management) if needed. These are crucially important concerns that must be fully identified and evaluated - and legally/bureaucratically enforceable mitigation measures adopted - through the SEIR process and then incorporated into the CAP and General Plan. This issue also assumes that the County can and will clearly differentiate between County Operations and Unincorporated Area GHG emissions, mitigation measures, and reporting.

The GPU Amendment section of the NOP identifies that GPU Goal COS-20 and Policy COS-20.1, as well as mitigation measures CC-1.2, 1.7 and 1.8 will need to be revised to reflect significant changes in state legislation, the court ruling, and County-specific climate change/GHG emissions conditions. While the County had previously identified GHG emission reductions for its operations and the unincorporated areas through 2020, those goals may need to be revised upward in order to put the County on track to meet the new SB 32 GHG emission reduction requirement/goal for 2030 (40% below 1990 baseline) that it has proposed to adopt and incorporate into the new CAP. Additionally, because the CAP Section of the NOP references and appears to be planning for the GHG emission reduction target in the state's Executive Order S-3-05 that calls for an 80% reduction in GHGs from 1990 baseline by 2050, its mitigation measures should also put the County on track to be consistent with S-3-05.

The CAP section introduces a set of GHG emission reduction targets – that are to be achieved though implementation of the CAPs mitigation measures - needed to allow the County to meet or exceed its "fair share" of the state requirements and goals. The CAP's identified objectives that are needed to produce those reductions are reasonable, but not sufficient to ensure the goal and objectives are met. Based on our experiences with other CAPs and related climate planning documents and their implementation, here are other objectives/approaches that should be included:

1. The unincorporated County has numerous planning groups and the GPU identified a limited set of areas where future development would be concentrated. Each of these future development centers must be addressed and appropriate mitigation measures, monitoring and reporting actions identified. As has already been seen in other CAPs, when GHG emission reductions are intended to be implemented through local area (=community) planning, it is essential that its "fair share" contribution to the County's CAP reduction targets are being met. This requires that there be a sufficiently discrete, quantifiable means to measure/evaluate GHG emission reductions, report those values, and – when necessary – revise measures to achieve compliance.
2. The County is a member of SANDAG, which has approved its Regional Transportation Plan/Sustainable Communities Strategy. Because transportation is the predominant source of GHG emissions countywide, it is very important that the County's CAP address how it is affected by and will affect the RTP/SCS. This is important because future development in the unincorporated County (or in areas that are annexed by cities) must be able to determine how the transportation and land use/housing components in the County will affect/conform to the CAP goals. Where feasible, the County CAP should identify additional transportation options and facilities that would augment the RTP/SCS. All forms of transit (mass transit, carpooling, biking, walking) should be emphasized over single vehicle use. To the extent feasible, the CAP should identify measures to reduce total vehicle miles traveled (VMT), not just VMT/capita.
3. The County is proposing to use the SEIR as the basis for tiering and streamlining the processing and approvals of future projects. This approach can be used to reduce the time and expense for preparing future project environmental documents. However, this approach requires the SEIR (and the CAP) to be robust/inclusive of the scope/range/intensity of impacts those projects may cause, identify criteria under which those projects qualify for tiering, identify a set of (reasonably specific) mitigation measures that future projects could utilize, and ensure that future project-specific mitigation is actually conforming to the CAP (and SEIR) commitments.

The proposed set of six areas for focusing County-originated GHG emission reduction actions appears reasonable. However, it will be critical for the County's CAP program to be able to clearly differentiate between County-based vs. non-County-based GHG emission reductions. For example, much of the transportation-vehicle based GHG reductions will be tied to state and federal fuel standards; some to will be tied to regional transportation planning; and all of this will be distributed among all of the community planning areas. Similarly, the state-required renewable energy standard will achieve significant (building) energy GHG reductions and undoubtedly the County may have its own renewable energy measures (i.e., the Strategic Energy Plan) – and those contributions must be differentiated. In this regard, a significant GHG emission reduction measure the County could enact is a 100% clean energy goal (by 2030) as well as a (phased-in) zero emission building code. A Community Choice Energy (CCE) program should be considered as a primary mechanism to encourage a clean energy future.

The list of subject areas to be analyzed in the CAP EIR for probable environmental effects appears reasonable. Please explain and justify why the County takes the position: "With regards to the

Supplement to the 2011 GPU PEIR, it is anticipated that the scope of analysis would be limited to GHG Emissions/Global Climate Change."

Thank you for the opportunity to comment on the NOP and for considering incorporating our comments/recommendations. If your staff wants to follow-up on this letter, please contact me at billtippets@gmail.com.

Sincerely,

William Tippets/Judy Warren-Tippets

County of San Diego, Planning & Development Services
Attention: Bulmaro Canseco
5510 Overland Ave, Suite 110
San Diego CA 92123
Via Email: CAP@sdcounty.ca.gov

November 18, 2016

Subject: CAC Scoping Comments - County of San Diego Climate Action Plan & General Plan Amendment, PDS2015-POD-15-002, PDS2016-GPA-16-007, PDS2016-ER-16-00-003

Dear Mr. Canseco,

Please accept these comments on the Notice of Preparation document regarding the County of San Diego Climate Action Plan (CAP) and General Plan Amendment. Climate Action Campaign (CAC) is committed to stopping climate change by helping local governments in Southern California pass and implement successful climate plans. We envision a future in which all communities should have healthy places to live, work, and play.

1. CAP Should Look Beyond 2030

The Scoping Memo's proposed greenhouse gas (GHG) emissions target and reduction strategies appear to meet the legal minimum by going to 2030, consistent with SB32 and the planning horizon of the County's General Plan. The Environmental Impact Report (EIR) should also analyze GHG emissions at least through 2030.

However, we recommend using the best practice of projecting emissions and planning strategies where possible through 2050, consistent with California Executive Order S-3-05. As 2030 will only be 12 or 13 years away by the time the County CAP is adopted, it makes sense from a planning perspective and a climate stabilization perspective to look further out. At the very least, the County's CAP should plan through 2035 enhance consistency with other CAPs in the region, including the Cities of San Diego, Del Mar, and others.

2. Baseline GHG Emissions and BAU Must Account for General Plan Amendments

CAC agrees with the Scoping Memo that the CAP must include a baseline assessment of GHGs, identify GHG emissions reduction targets and goals to reduce the County's contribution to climate change through 2030, and identify strategies, measures, and actions to comply with statewide GHG targets and goals to adapt to climate change impacts (Scoping Memo p6).

Not mentioned in the Scoping Memo is how the GHG baseline and Business-As-Usual (BAU) projection will account for the amendments and exceptions to the General Plan that have been

approved for certain sprawl development projects since the adoption of the 2011 General Plan, EIR, and 2011 GHG inventory. CAC recommends the GHG baseline and BAU projections the CAP take into account these deviations from the General Plan as originally assessed five years ago.

3. GHG Measures Must Be Quantifiable, Enforceable, Show Substantial Evidence

The CAP should not only incorporate "technologically feasible and cost-effective emission reduction measures" (Scoping Memo p4); the measures must be quantifiable, enforceable, and demonstrate substantial evidence they will be achieved and reduce impacts to a less than significant level through the planning horizon of the General Plan. This is true for two legal reasons:

(1) The CAP is binding mitigation for the County General Plan in its EIR (GPU PEIR Mitigation Measure CC-1.2), and CEQA mitigation measures must be enforceable. CEQA and case law make clear that mitigation conditions must be enforceable and "[m]itigation conditions are not mere expressions of hope." (Lincoln Place Tenants Assn. v. City of Los Angeles, 130 Cal. App. 4th 1491, 1508 (2005)). The ruling on the lawsuit this new CAP is seeking to remedy also makes clear that CEQA mitigation measures must be enforceable and once adopted, cannot be defeated by ignoring them. (Cal. Pub. Res. Code § 21081.6(b); *Sierra Club v. County of San Diego*, 231 Cal. App. 4th 1152, 1167 (2014).) Where a CAP is mitigation for the activities in the planning horizon of a GP, there must be enforceable standards with detailed deadlines, as well as substantial evidence that each mitigation measure will achieve the GHG reduction numbers assigned to each strategy. (*Id.*)

(2) The CAP is being proposed as a "qualified greenhouse gas reduction plan" for streamlining future project-specific environmental documents (Scoping Memo p5). Per CEQA guidelines and the California Attorney General, an adequate plan must "identify a set of specific, *enforceable* measures that, collectively, will achieve the emissions targets."[1]

4. Climate Action Plan Best Practices

In order to meet state greenhouse gas goals, comply with the General Plan mitigation obligations, avoid the worst impacts of climate change, and prepare residents for changing climate, we recommend including the following policies and strategies:

100% Clean Energy by 2035

As the Cities of San Diego and Del Mar have both recognized and committed to, not only is 100% Clean Energy is the new nation-leading standard, it is also likely necessary to meet California GHG targets. By embracing a 100% clean energy future, residents and businesses in the County's unincorporated areas would benefit from a greener grid. Shifting to clean energy not only reduces greenhouse gas emissions, it also spurs local investment and good-paying jobs from clean energy technologies. A 100% clean energy goal would also be consistent with the adopted plans of San Diego and Del Mar, and the likely goals of other Climate Action Plans in development in the region, and would further solidify San Diego County's position as a statewide, nationwide, and even global climate leader.

Community Choice Energy

[1] https://oag.ca.gov/environment/ceqa/planning

Community Choice Energy is one of the most effective mitigation measures to reduce GHG emissions from electricity, through robust utilization of clean energy. Community Choice also allows municipalities to provide clean energy for residents and businesses often at a lower or competitive cost. This innovative public-private partnership would give the County control over its energy decision-making and enhance its energy options by injecting competition and choice into what is currently a monopoly marketplace. The incumbent utility (SDG&E) would still deliver reliable power to all residents and businesses in partnership with the Community Choice provider.

Community Choice is becoming popular throughout the state of California. Four municipalities-- Marin County, Sonoma County, and the Cities of Lancaster and San Francisco-- have implemented Community Choice, which has provided competitive rates with higher clean energy content to all customer classes. At least five other California municipalities are well on their way to launching Community Choice programs, notably including the County of Los Angeles. Additionally, the cities of San Diego and Del Mar included Community Choice in their CAPs as the key mechanism to achieve their clean energy goals, and San Diego has set aside funding in the budget for a feasibility study to explore this option. In addition, Solana Beach has already completed a feasibility study to create its own Community Choice Program and its taking steps towards implementing a program, and Encinitas is leading a cohort of north county cities including Carlsbad, Del Mar, Oceanside, and Solana Beach in jointly exploring Community Choice--an effort which the County could join. We encourage the County to consider integrating Community Choice Energy in its CAP to help steeply reduce carbon emissions, provide choice, and competitive energy rates.

Municipalization of energy is another policy option to achieve a 100% clean energy target.

Energy and water efficiency and zero emissions vehicles strategies should also be included in the menu of strategies to reduce energy demand and emissions and facilitate a transition to 100% clean energy.

Transit, Walking, Biking, and Smart Land Use Policies

We recommend including ambitious transportation mode shift goals, like San Diego's goal to have 50% of commuters in Transit Priority Areas using transit, biking and walking by 2035. To meet these targets, we recommend committing to developing and implementing a Bicycle Master Plan, Pedestrian Master Plan, Safe Routes to Schools Programs, Vision Zero programs, and complete streets policies and design standards.

We further recommend including a goal to reduce Vehicle Miles Travelled (VMT), to be achieved through smart-growth policies that increase mixed-use density and affordable housing in targeted areas, as well as through actionable transit, walking, biking, carpooling, and alternative working schedules. We recommend the CAP further specify where smart-growth and density should be targeted and what transportation mode-share, VMT, and land use goals should be set for specific communities countywide, so there is clarity for planning groups, the public, and County staff. The importance of having specificity and a jurisdiction-wide approach is being highlighted by the struggles of the City of San Diego as it is going through updating community plans in urban, transit-priority communities and there is lack of agreement as to what goals these communities must meet.

Urban Tree Canopy and Climate Resilience

With proper management and appropriate choice in tree variety, trees help sequester carbon, filter the air, and provide much needed shade in a warming environment. We recommend the County's CAP commit to a specific urban tree canopy goal, such as the City of San Diego's goal of covering 35% of urban areas with tree canopy.

Further, we recommend the CAP assess other climate vulnerabilities, such as fire risk, sea level rise and storm surge, and health risk from heat incidents, and commit to strategies to help residents, businesses, and natural resources be resilient in the face of these changes. Fire risk is of particular concern in much of the County's unincorporated areas. In fact, a recent Inewsource article, using data from the U.S. Forest Service, highlighted:

> "more than half the land in San Diego County - including neighborhoods reaching almost to the ocean and densely settled foothill cities - is at high or very high potential for difficult -to-control fire...In addition, 29 percent of the county is in the next highest fire risk category."[2]

This is a both a safety risk and economic risk the County must address. The Cedar Fire of 2003 and the Witch Creek Fire of 2007 together cost more than $4.5 Billion in damages and indirect cost lost workdays, business shutdowns, and decreased tourism, according to a report[3] from the Climate Education Partners.

The County CAP should also address heat incidences for inland and urban communities and ensure adequate access to cooling centers and health care facilities for vulnerable populations. A report from the Climate Education Partners found that a 10-degree Fahrenheit increase in temperature above the local average resulted in 6.3% increase in respiratory admissions to hospitals and a 4.9% increase in cardiovascular admissions.

Zero Waste

Waste decaying in landfills emits methane, a potent greenhouse gas. Waste typically generates 3% to 11% of municipal GHG emissions. We recommend committing to Zero Waste and incorporating strategies to reduce waste--such as through bans on single-use bag and Styrofoam-- and divert waste from landfills through composting and recycling, as well as capturing the methane emitted by landfills.

Social Equity

Low-income communities of color are impacted disproportionately by pollution and climate change and face some of the highest underemployment and unemployment rates. To begin to remedy this, we recommend including a Social Equity and Jobs section helps to ensure that overburdened communities are prioritized for pollution-reducing and resilience actions. Focusing on environmental justice in a CAP that is a qualified GHG reduction plan is also recommended by the California Attorney General.[4] We also recommend this section include quantifiable data that measures job quality, demographic and geographic distribution of workers, and commits to leveraging existing skilled training and apprenticeship programs to create and sustain middle-class career ladders.

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[2] Lobet, Ingrid. Stark fire vulnerability in San Diego County. 8/29/16 http://inewsource.org/2016/08/29/fire-san-diego-county/

[3] http://catcher.sandiego.edu/items/usd/2050.pdf

[4] https://oag.ca.gov/environment/ceqa/planning

Implementation and Monitoring
The County should create a CAP implementation timeline and implementation plan, designating who will be responsible for putting the plan into action, and publishing annual CAP monitoring reports and regular GHG inventory updates. According to CEQA guidelines and the California Attorney General, qualified GHG reduction plans must "Establish a mechanism to monitor the plan's progress and to require amendment if the plan is falling short."[5]

We also recommend forming an implementation task force of citizens and experts to advise the County and engage stakeholders. These actions will increase transparency for the public to track if the County is on track to meet its targets, and it will help the Board of Supervisors and Department leaders set sufficient budgeting and staffing levels at the appropriate times.

Conclusion
According to the most recently available data and climate scientists, there is no greater threat to the future of humanity than climate change. We urge you to work swiftly to complete this Climate Action Plan in compliance with state laws, to protect our region's quality of life. Swift completion is also necessary to comply with CEQA, as CEQA guidelines prohibit the deferral of formulation of mitigation measures to the future (CEQA Guidelines § 15126.4(a)(1)(B).) As we are now five years past the adoption of the County's General Plan, and the CAP was supposed to be completed within six months of the GP adoption, the County cannot draw out this process any longer.

We look forward to working with you to help you achieve the County's climate planning goals swiftly and successfully. Please do not hesitate to reach out to us with questions, and thank you for the opportunity to weigh in on this important matter.

Sincerely,

Kayla Race, Director of Operations and Programs
Climate Action Campaign

[5] https://oag.ca.gov/environment/ceqa/planning

BOULEVARD PLANNING GROUP

PO BOX 1272, BOULEVARD, CA 91905

DATE: November 20, 2016

TO: Bulmaro Canseco via CAP@sdcounty.ca.gov; cc: dianne.jacob@sdcounty.ca.gov; Laurel.Lees@sdcounty.ca.gov ; Emma.Schoppe@sdcounty.ca.gov

FROM: Donna Tisdale, Chair & as an individual; 619-766-4170; tisdale.donna@gmail.com

RE: ***COUNTY OF SAN DIEGO CLIMATE ACTION PLAN AND GENERAL PLAN AMENDMENT; PDS2015-POD-15-002, PDS2016-GPA-16-007 & LOG NO. PDS2016-ER-16-00-003- NOTICE OF PREPARATION COMMENTS***

At our November 3rd meeting, our community planning group voted unanimously to authorize me to submit comments on behalf of our group.

It is our understanding that the CREP and CAP are moving along together and will be combined to address mandates to reduce Green House Gas (GHG) emissions and to comply with the court order related to the Sierra Club litigation.

There is no need for industrial scale rural energy or transmission projects that increase fire risk, impede firefighting, destroy carbon sequestering arid soils and vegetation, increase dust and dust borne pathogens, consume millions of gallons of water, and degrade property values and tourism draw. Point-of-use self generation renewable alternatives, where the energy is consumed, should be prioritized.

The Boulevard/Jacumba area, which is predominantly low-income, has already been disproportionately targeted for numerous industrial wind, solar, and related major infrastructure projects (see attached list of projects to date). We are concerned that the pending combined CREP / CAP may further adversely impact our rural communities, community character, quality of life, a wide variety of natural resources including sole-source groundwater, clean air, wildlife, public health and safety, increased fire risk and heat islands, and other socio-economic issues, *unnecessarily*.

1. **Environmental justice impacts/issues**, including disproportionate adverse, cumulative, and cumulatively significant impacts, must be fully and honestly addressed and analyzed in the CAP/CREP.
2. **Real world Eco-system services must be included and analyzed.**
3. **Feel good mitigation measures** that are artfully weasel worded to downplay and marginalize the very real impacts felt at ground – zero in our rural communities must be avoided.
4. **We support the identification of, and incentives to support and prioritize, on-site renewable energy capacity**, with the clarification that any wind energy capacity is limited to small-scale.
5. **SDG&E reports they are on track to meet the mandates for 40% renewable energy by 2018 and 50% by 2030**[1]. They met the required 33% renewable energy mandate 6 years early.

[1] http://www.sdge.com/taxonomy/term/73

6. **Alternative Direct Access or Community Choice Aggregation (CCA) options** may be available to provide even higher rates of renewable energy at competitive prices, and must be analyzed.
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    - *NEM capacity equals 3.5 times as many MW's as Tule Wind's pending capacity without destroying approximately 13,000 acres of previously protected sensitive public lands and private ranch land in and adjacent to the designated McCain Valley National Cooperative Land & Wildlife Conservation and Management Area & Recreation Areas.*
8. **Any Potential Renewable Energy Overlay Zones should be limited to existing commercial and industrial zones and public and private facilities *located closer to where the energy is consumed.***
    - This will avoid the release of the current and future carbon sequestration in backcountry soils and chaparral/vegetation, during clear grading needed for utility-scale projects, and avoid the need for expensive and destructive transmission lines/new fire ignition sources through fire-prone neighborhoods.
    - Full disclosure of the environmental and economic cost of related transmission upgrade requirements should be included in any overlay zone studies, along with an honest analysis on reduced property values in the impacted areas.
    - The CEC's Transmission Technical Input Group (TTIG) for the Renewable Energy Transmission Initiative 2.0 includes SDG&E's $700-900 million proposal to increase import capacity on the Southwest Powerlink by 500-1,000 MW, and to reduce Local Capacity Requirements in the San Diego area, by converting portions of existing infrastructure (*within existing right-of-way between Arizona and Miguel Substation near Bonita*) from AC to High Voltage Direct Current (HVDC) by 2025, as described on the last page of the TTIG's Revised Interim Report dated June 21, 2016.[3] This project is in addition to numerous other approved or proposed upgrades, overall.
    - Increasing SDG&E's import capacity limits the need for local on-site capacity which appears to be SDG&E's goal. New infrastructure projects generate lucrative guaranteed rates of returns/profits for SDG&E and their shareholders.
9. **Any legitimate CAP/CREP must include the full Life Cycle / Impact Assessment**[4]: A comprehensive ecological assessment identifies the energy, material, and waste flows of a

[2] http://www.sdge.com/clean-energy/net-energy-metering/overview-nem-cap

[3] http://docketpublic.energy.ca.gov/PublicDocuments/15-RETI-02/TN211927_20160621T144839_Revised_Transmission_Technical_Input_Group_Interim_Report.pdf

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produce and their impact on the environment. This cradle to grave evaluation begins with the design of the project and progresses through the extraction and use of its raw materials, manufacturing or processing with associated waste stream, storage, distribution, use and its disposal or recycling. The objective is to identify changes, at every stage of life cycle that can lead to environmental benefits and overall cost savings. Certain wind turbine components and solar cells are not fully recyclable.

10. **Wind energy is included in the CREP**. **However, a clarification is needed to address the fact that the Wind Energy Ordinance (POD 10-007) limits large-scale wind projects solely to the mapped wind resource area in Boulevard, north of I-8, where Tule Wind has already been approved.**
    - In addition, the Planning Commission's previous 2012 direction to staff, to conduct literature reviews on adverse health impacts related to wind turbine generated low frequency noise and other forms of pollution, every two years, has not yet been complied with, to our knowledge.
    - Wind turbine or other energy projects located or proposed on federal, state, or cross-border lands, that impact San Diego County residents, must also be addressed. Adverse impacts and resources don't recognize borders.
11. **Transportation:**
    - Currently, electric vehicles are not adequate or viable alternatives for rural backcountry residents who may have long distances to commute for work and for other business or errands in the urban/suburban areas.
    - Limits on charging capacity and rural charging stations pose major roadblocks that must not be ignored.
    - Rural bus routes have been reduced and or eliminated. One potential ride-sharing plan could potentially include negotiations with willing local tribes to allow use of their casino buses for public non-gaming transportation options when seats are available, at preapproved rates.
    - Similar Park and Ride options at willing local tribal casinos may also be a potential ride sharing tool.
    - Industrial scale energy /transmission projects also include major GHG impacts related to transportation and energy used to pump millions of gallons of drought stressed groundwater.
    - SDG&E's ECO Substation project generated over 1.5 million truck miles and used almost 100 million gallons of water, according to project related documents.
12. **Protection and conservation of existing oak groves, forests, other mature trees, chaparral**, growing crops/vegetation, and undisturbed soils, must be addressed based on their recognized capacity to sequester carbon and produce oxygen, in addition to their cooling effects that help reduce the need for additional air conditioning and related energy consumption.
13. **Grants or incentives** to conserve, treat, and maintain mature trees and other chaparral, vegetation and undisturbed soils are one option to help retain critical carbon sequestration/storage resources**.**
14. These comments are limited due to personal time constraints.

Thank you for your consideration of these comments…Please see list of projects below.

List of energy / transmission projects proposed, approved, and/or constructed in the Boulevard/ Jacumba area between 2005-November 2016:

1. Infigen's 50 MW Kumeyaay Wind on land leased from the Campo tribe (operational since 2005).
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31. 2MW Mountain Empire Community Solar Garden proposed 10 acres as of November 2016

###

BACKCOUNTRY AGAINST DUMPS

PO BOX 1275, BOULEVARD, CA 91905

DATE: November 21, 2016

TO: Bulmaro Canseco via CAP@sdcounty.ca.gov; cc: dianne.jacob@sdcounty.ca.gov; Laurel.Lees@sdcounty.ca.gov ; Emma.Schoppe@sdcounty.ca.gov

FROM: Donna Tisdale, President & as an individual; 619-766-4170; tisdale.donna@gmail.com

RE: ***COUNTY OF SAN DIEGO CLIMATE ACTION PLAN AND GENERAL PLAN AMENDMENT; PDS2015-POD-15-002, PDS2016-GPA-16-007 & LOG NO. PDS2016-ER-16-00-003- NOTICE OF PREPARATION COMMENTS***

The Board of Directors for our public benefit non-profit has voted to endorse and incorporate by reference the Boulevard Planning Group's comments on the CAP NOP that are copied in their entirety below:

It is our understanding that the CREP and CAP are moving along together and will be combined to address mandates to reduce Green House Gas (GHG) emissions and to comply with the court order related to the Sierra Club litigation.

There is no need for industrial scale rural energy or transmission projects that increase fire risk, impede firefighting, destroy carbon sequestering arid soils and vegetation, increase dust and dust borne pathogens, consume millions of gallons of water, and degrade property values and tourism draw. Point-of-use self generation renewable alternatives, where the energy is consumed, should be prioritized.

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# # #

STAY COOL
PROTECT OUR GRANDKIDS FROM GLOBAL WARMING

November 21, 2016

County of San Diego
Planning and Development Services
Attention: Bulmaro Canseco
CAP Project Manager
5510 Overland Ave, Suite 110
San Diego CA 92123

RE: Notice of Preparation Documentation for County of San Diego Climate Action Plan and General Plan Amendment

Dear Mr. Canseco:

STAY COOL for Grandkids appreciates the opportunity to provide comments on the "Notice of Preparation Documentation" (NOP) for the proposed County of San Diego Climate Action Plan and General Plan Amendment**,** dated October 20, 2016. ***For your information, STAY COOL is a non-profit membership organization whose mission is to empower grandparents, in the name of their grandchildren, to become more aware of climate science and support public policy that will limit global warming.***

The NOP referenced above states, "the CAP is being developed in response to the previously described court ruling and State legislation and policies that are aimed at reducing statewide GHG emissions. This includes Executive Order (EO) S-3-05, which recommends a 2050 statewide GHG reduction target of 80 percent below 1990 levels; SB 32, which requires a 2030 statewide GHG reduction target of 40 percent below 1990 levels; and AB 32, which tasked the California Air Resources Board (ARB) with developing a Climate Change Scoping Plan to establish an interim target to achieve 1990 levels of GHG emissions by 2020 and provide a path for local governments to contribute their fair share of the GHG reductions necessary to achieve the target." **Overall, we strongly support the County of San Diego's intent adopt a new CAP that meets these stated purposes.**

However, we would like to raise the following issues and concerns regarding the NOP and the proposed scope of the EIR:

1. The Project Description in the NOP does not provide adequate information about the proposed CAP itself, including the methodology for establishing the baseline emissions inventory, the methodology for setting GHG emission targets in the CAP, and the range of possible measures that will be considered for inclusion in the CAP. This makes it extremely difficult to comment on the specific environmental issues that should be covered in the EIR.

2. The NOP does not adequately explain how previously initiated requests for County General Plan Amendments, such as the "Property Specific Requests General Plan Amendment" (http://www.sandiegocounty.gov/content/sdc/pds/advance/PSR.html), will be considered in the new CAP and the associated EIR. **We believe that the new CAP should focus on ways to meet the GHG reduction targets in conjunction with the implementation of the already adopted 2011 County**

General Plan, and that the EIR should evaluate the environmental impacts of implementing the adopted County General Plan and associated draft CAP. Any proposed amendments to the 2011 County General Plan should be evaluated separately.

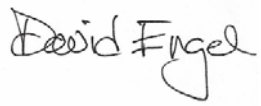
3. **The CAP and the associated EIR should address not only the direct responsibilities of the County of San Diego to reduce GHG emissions as its General Plan is implemented in the unincorporated areas of the County, but should also address how the new CAP will assist the overall San Diego region in meeting its SB 375 GHG reduction targets**. Specifically, it is our understanding that SANDAG used the adopted 2011 County General Plan land use designations and associated population, housing and jobs forecasts in performing the GHG reduction analysis for its Regional Transportation Plan / Sustainable Communities Strategy.

4. We understand further that SANDAG's GHG reduction analysis demonstrated that the region could meet the GHG reduction targets established for it by the California Air Resources Board (CARB) pursuant to SB 375, and that SANDAG's findings regarding compliance with the SB 375 targets were later reviewed and accepted by CARB. **Therefore, in formulating the new County CAP and evaluating it in the EIR, it should be recognized that any future changes to the County General Plan that would lead to greater GHG emissions from new development would need to be evaluated not only in terms of how they would affect the County's ability to meet its new CAP targets, but also how they would affect the ability of the San Diego region to meet its SB 375 mandated targets.**

We note that several other valid issues and concerns were brought up during the Scoping Meeting that was held by County staff on this NOP document on November 3, 2016. In addition, we expect that other agencies and organizations will be providing written comments on the NOP document prior to the November 21, 2016 deadline. **We believe it is very important for County staff to provide, in a timely manner, a written record of the comments they have received in response to the NOP document, and to prepare and distribute a written report explaining how they will respond to these comments.** We also strongly encourage County staff to conduct additional public outreach prior to the release of the draft CAP and EIR documents, including opportunities to discuss County staff responses to the NOP comments, as well as to allow for public discussion of the proposed components of the draft CAP.

Please feel free to contact STAY COOL advisory members Bob Leiter at rleiter9@cox.net or Laura Schumacher at lauras@san.rr.com if you have specific questions regarding the comments contained in this letter.

Sincerely,



David Engel
STAY COOL for Grandkids (SC4G) Advisory Board Chair
david@staycool4grandkids.org

San Diego Unified Council of PTAs

everychild. onevoice.

2375 Congress Street, San Diego, California 92110-2318 ● (619) 297-7821 ● info@sdcouncilpta.org ● www.sdcouncilpta.org

November 21, 2016

County of San Diego
Planning and Development Services
Attention: Bulmaro Canseco
CAP Project Manager
5510 Overland Ave., Suite 110
San Diego CA 92123

RE: Notice of Preparation Documentation for County of San Diego Climate Action Amendment

Dear Mr. Canseco:

The San Diego Unified Council of PTAs appreciates the opportunity to provide comments on the *Notice of Preparation Presentation* (NOP) for the proposed County of San Diego Climate Action Plan and General Plan Amendment, dated October 20, 2016.

The San Diego Unified Council of PTAs supports at the local level the PTA's mission to promote the welfare of children and youth and secure adequate laws for the care and protection of children and youth. In May 2015, the California State PTA adopted the resolution *Climate Change is a Children's Issue* urging PTAs to advocate for comprehensive local, state and national legislation to substantially reduce man-made contributions to climate change and mitigate its impact on children's health.

With that mission in mind, we would like to comment on your *Public Outreach and Engagement Plan* to local stakeholders. One of the most important stakeholders for the County Climate Action Plan is our region's youth. They will bear the brunt of climate change effects and have much at stake in a plan to reduce greenhouse gas emissions.

We urge the County to use innovative ways to reach young people in your outreach and engagement plan. Young people are one of the least likely groups to attend public meetings. Other government agencies are using new innovative ways to engage the public such as social media, pop up events and virtual town halls – basically taking the message out to the public rather than expecting people to come to the County. These techniques and others could be targeted to young people – even as young as high school students.

From our work with youth, we know they worry about their future. One of the best ways to reassure them is to let them know their government is listening to their concerns. If the

County is serious about gaining meaningful input from a wide range of voices, we urge you to make sure your outreach engages the group with the most to lose – and gain – from a strong climate action plan – young people.

Sincerely,

Laura Schumacher
Climate Action Committee Chair
San Diego Unified Council of PTAs
lauras@san.rr.com

ENDANGERED HABITATS LEAGUE
DEDICATED TO ECOSYSTEM PROTECTION AND SUSTAINABLE LAND USE

November 20, 2016

County of San Diego
Planning and Development Services
ATTN: Bulmaro Canseco
CAP Project Manager
5510 Overland Ave, Suite 110
San Diego CA 92123

RE: Notice of Preparation for Climate Action Plan and General Plan Amendment

Dear Mr. Canseco:

Endangered Habitats League (EHL) appreciates the opportunity to participate in the Climate Action Plan (CAP) process. For your reference, EHL is Southern California's only regional conservation group and a long-term stakeholder in County planning efforts.

We understand the purpose of the CAP as complying with the court's order for providing measurable and enforceable GHG mitigation measures for the 2011 General Plan and meeting SB 32 targets. We commend the County for forthrightly proposing to adhere to these new targets.

We have the following scoping comments on the Notice of Preparation (NOP):

Adequacy of the NOP

The NOP does not contain enough information about the CAP or the proposed General Plan amendments to allow us to provide meaningful comments on the scope of environmental analysis that should be conducted. It references the pertinent State standards for GHG reduction, lists the generic means toward this end, and lists the sectors in which reductions will occur. However, the generalities of "strategies, measures, and actions" are never fleshed out in a way which would let the reader understand the substance of the proposed CAP. Likewise, the NOP does not describe the proposed General Plan amendments in any detail, except to say that such amendments will "reflect the requirements of SB 32." Contrary to the CEQA Guidelines, the NOP does not specify probable environmental effects.[1] We request additional information in order to provide more meaningful comments.

[1] **15082. Notice of Preparation and Determination of Scope of EIR**
(a) Notice of Preparation. Immediately after deciding that an environmental impact report is required for a project, the lead agency shall send to the Office of Planning and Research and each responsible and trustee agency a notice of preparation stating that an

Scope of the project

The NOP states that there will be an EIR which provides program-level analysis for the CAP as well as a Supplement to the 2011 GPU PEIR to evaluate General Plan amendments related to the CAP. Regarding the proposed amendment(s) to the General Plan, based upon the information in the NOP, any such amendment would be *restricted* to bringing the General Plan into compliance with the new SB 32 GHG-reduction targets, which were not in effect in 2011. This intent is reflected in the NOP's statement that the County will "update" listed goals, policies, and mitigation measures[2] to "reflect the requirements of SB 32." If any other changes to the General Plan are anticipated, such amendments must be disclosed in a revised NOP.

The NOP (page 6) provides a comprehensive list of categories of impact that will be disclosed in the CAP impact analysis. It also states that the scope of analysis for the GPU Supplement—for the described changes to goals, policies, and mitigation measures —"would be limited to GHG Emissions/Global Climate Change." We concur with these approaches.

Baseline for future GHG emissions and reductions

The only proper baseline for forecasting future GHG emissions and proposed reductions is the 2011 General Plan *as adopted*. EHL is aware of several pending applications to amend the General Plan to allow leapfrog development, suburban "expansions" to villages that overwhelm the villages themselves, conversion of farmland to urban uses, and intensification of dispersed rural residential uses across huge areas. All of these proposed locations are highly automobile dependent with per capita VMT far above the regional mean and without meaningful present or future transit opportunities.[3]

Since these pending General Plan amendments have not been adopted, they are *not* part of the 2011 General Plan baseline, and should be analyzed *only* in the cumulative impacts section of the CAP EIR. The likely added GHG emissions and VMTs (resulting in additional GHG emissions) from any pending General Plan amendments should be analyzed and quantified cumulatively in order to help understand whether they would

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environmental impact report will be prepared. This notice shall also be sent to every federal agency involved in approving or funding the project.
(1) The notice of preparation shall provide the responsible and trustee agencies and the Office of Planning and Research with sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a meaningful response. At a minimum, the information shall include:
(A) Description of the project,
(B) Location of the project (either by street address and cross street, for a project in an urbanized area, or by attaching a specific map**,** preferably a copy of a U.S.G.S. 15' or 7-1/2' topographical map identified by quadrangle name), and
(C) Probable environmental effects of the project.

[2] COS-20, COS 2.1, CC-1.2, and possibly CC-1.7 and CC-1.8

[3] See <http://sandag.github.io/sb743/sb743_concept_map.htm>

impede achieving a GHG reduction target consistent with the reductions mandated under SB 32 and as identified in the CAP.

Any kind of pathway for GHG compliance for unapproved GPAs is *beyond the scope* of this CAP, whose purpose is limited to mitigating the impacts of the current General Plan in order to achieve SB 32 targets. Any GPAs that are ultimately approved will have to found consistent with the regional reductions in GHG emissions in a newly revised CAP. It also follows that the CAP-based thresholds of significance required by the General Plan should reflect the reductions needed to meet the 2030 targets in order to mitigate emissions from build-out of the 2011 General Plan.

Methodologies for the CAP

Although not strictly an NOP issue, the proposed use of a single-year 2014 inventory (not discussed in the NOP) would have to show at a minimum that emissions in this single year were not aberrant. Otherwise, an average of multiple years should be used. Targets for 2030 based on the inventory year (or years) will need to be derived using sound extrapolation methodologies to achieve the requisite 40% reduction below 1990 levels.

While also not an NOP issue, we note that the "Efficiency Metric" approach in the County's interim guidance document, which provides only a per person (as opposed to a regional) limit on GHGs, bears no demonstrably logical relationship to the mandate to achieve County-wide reductions consistent with the SB 32 targets that govern the revised CAP. The CAP's measurement criteria, by contrast, should be constructed to ensure the County will not exceed its share of GHG emissions under SB 32.

Alternatives

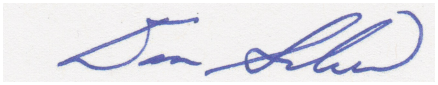
We request public workshops on alternatives subsequent to the GHG inventory and the setting of the 2030 targets, but well prior to the release of the DEIR. These workshops should explore options to mitigate the GHG impacts of the 2011 General Plan.

Vertical integration

There should be vertical integration of GHG emissions from the local to regional to state levels. This has legal and policy basis. State law requires California to reduce its own *California* emissions. Allowable GHG emissions *in the State* are progressively lowered, even though the cap and trade system allows purchase of emissions credits in cooperating non-California jurisdictions. In turn, SB 375 requires Metropolitan Planning Organizations to reduce transportation and built environment sector emissions in their respective regions through Sustainable Communities Strategies (SCS). These must do their fair share in achieving the State targets. Finally, local governments must integrate with the regional goals and attain them. In order not to undermine the tiers above them, local jurisdictions' plans have to be *at least as* protective as the plans above them.

Thank you for considering our comments and we look forward to continuing to work with you.

Yours truly,



Dan Silver
Executive Director

Southwest Wetlands Interpretive Association
PO Box 575
Imperial Beach, CA 91933

November 21, 2016

Mr. Bulmaro Canseco, Project Manager
5510 Overland Ave., Suite 310
San Diego, CA 92123

Re: County of San Diego – Notice of Preparation (NOP) of a Supplemental Environmental Impact Report (SEIR) for the Climate Action Plan and General Plan Update Amendment

Dear Mr. Canseco:

The Board of Southwest Wetlands Interpretive Association (SWIA) is a non-profit organization dedicated to helping preserve and enhance wetlands throughout southern California – and particularly in the Tijuana River watershed. We provide the following comments on the County's NOP for preparation of a Supplemental EIR for the Climate Action Plan (CAP) and General Plan Update (GPU) Amendment. As the County has stated, this new CAP was required because the previous (2012) CAP was rejected by the courts, in particular with regard to a lack of effective mitigation implementation mechanisms and assurances. Our comments are based on guidance for CAPs found in state and local documents as well as experience with several local jurisdiction's CAPs and related documents that have been prepared over the past decade.

According to the NOP, the County has determined that it only needs to prepare a supplemental, rather than a subsequent, EIR. It is not clear what this distinction will have in terms of the climate-related issues that will be included in the SEIR, such as: what environmental setting conditions (physical, legal, etc.) have changed since the 2011 GPU and 2012 CAP were prepared; the scope and intensity of mitigation measures; how specific the performance criteria will be; and how implementation results will be quantified, reported, and modified and strengthened (i.e., through adaptive management) if needed.

These are crucially important concerns that must be fully identified and evaluated - and legally/bureaucratically enforceable mitigation measures adopted - through the SEIR process and then incorporated into the CAP and General Plan. This issue also assumes that the County can and will clearly differentiate between County Operations and Unincorporated Area GHG emissions, mitigation measures, and reporting.

The GPU Amendment section of the NOP identifies that GPU Goal COS-20 and Policy COS-20.1, as well as mitigation measures CC-1.2, 1.7 and 1.8 will need to be revised to reflect significant changes in state legislation, the court ruling, and County-specific climate change/GHG emissions conditions. While the County had previously identified GHG emission reductions for its operations and the unincorporated areas through 2020, those goals may need to be revised upward in order to put the County on track to meet the new SB 32 GHG emission reduction requirement/goal for 2030 (40% below 1990 baseline) that it has proposed to adopt and incorporate into the new CAP. Additionally, because the CAP Section of the NOP references and appears to be planning for the GHG emission reduction target in the state's Executive Order S-3-05 that calls for an 80% reduction in GHGs from 1990 baseline by 2050, its mitigation measures should also put the County on track to be consistent with S-3-05.

The CAP section introduces a set of GHG emission reduction targets – that are to be achieved though implementation of the CAPs mitigation measures - needed to allow the County to meet or exceed its "fair share" of the state requirements and goals. The CAP's identified objectives that are needed to produce those reductions are reasonable, but not sufficient to ensure the goal and objectives are met. Based on our experiences with other CAPs and related climate planning documents and their implementation, here are other objectives/approaches that should be included:

1. The unincorporated County has numerous planning groups and the GPU identified a limited set of areas where future development would be concentrated. Each of these future development centers must be addressed and appropriate mitigation measures, monitoring and reporting actions identified. As has already been seen in other CAPs, when GHG emission reductions are intended to be implemented through local area (=community) planning, it is essential that its "fair share" contribution to the County's CAP reduction targets are being met. This requires that there be a sufficiently discrete, quantifiable means to measure/evaluate GHG emission reductions, report those values, and – when necessary – revise measures to achieve compliance.
2. The County is a member of SANDAG, which has approved its Regional Transportation Plan/Sustainable Communities Strategy. Because transportation is the predominant source of GHG emissions countywide, it is very important that the County's CAP address how it is affected by and will affect the RTP/SCS. This is important because future development in the unincorporated County (or in areas that are annexed by cities) must be able to determine how the transportation and land use/housing components in the County will affect/conform to the CAP goals. Where feasible, the County CAP should identify additional transportation options and facilities that would augment the RTP/SCS. All forms of transit (mass transit, carpooling, biking, walking) should be emphasized over single vehicle use. To the extent feasible, the CAP should identify measures to reduce total vehicle miles traveled (VMT), not just VMT/capita.
3. The County is proposing to use the SEIR as the basis for tiering and streamlining the processing and approvals of future projects. This approach can be used to reduce the time and expense for preparing future project environmental documents. However, this approach requires the SEIR (and the CAP) to be robust/inclusive of the scope/range/intensity of impacts those projects may cause, identify criteria under which those projects qualify for tiering, identify a set of

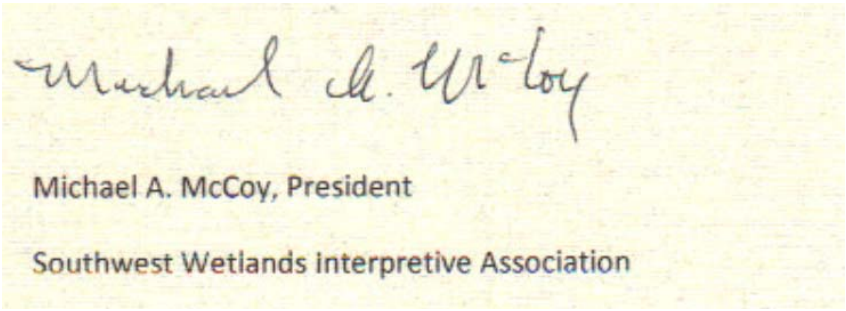
(reasonably specific) mitigation measures that future projects could utilize, and ensure that future project-specific mitigation is actually conforming to the CAP (and SEIR) commitments.

The proposed set of six areas for focusing County-originated GHG emission reduction actions appears reasonable. However, it will be critical for the County's CAP program to be able to clearly differentiate between County-based vs. non-County-based GHG emission reductions. For example, much of the transportation-vehicle based GHG reductions will be tied to state and federal fuel standards; some to will be tied to regional transportation planning; and all of this will be distributed among all of the community planning areas. Similarly, the state-required renewable energy standard will achieve significant (building) energy GHG reductions and undoubtedly the County may have its own renewable energy measures (i.e., the Strategic Energy Plan) – and those contributions must be differentiated. In this regard, a significant GHG emission reduction measure the County could enact is a 100% clean energy goal (by 2030) as well as a (phased-in) zero emission building code. A Community Choice Energy (CCE) program should be considered as a primary mechanism to encourage a clean energy future.

The list of subject areas to be analyzed in the CAP EIR for probable environmental effects appears reasonable. Please explain and justify why the County takes the position: "With regards to the Supplement to the 2011 GPU PEIR, it is anticipated that the scope of analysis would be limited to GHG Emissions/Global Climate Change."

Thank you for the opportunity to comment on the NOP and for considering incorporating our comments/recommendations. If your staff wants to follow-up on this letter, please contact Board Member Bill Tippets at billtippets@gmail.com.

Sincerely,



Michael A. McCoy, President

Southwest Wetlands Interpretive Association

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

November 21, 2016

Mr. Bulmaro Canseco
County of San Diego
Planning and Development Services
5510 Overland Avenue, Suite 110
San Diego, CA 92123

Subject: Comments on the Notice of Preparation of a Climate Action Plan and General Plan Update Environmental Impact Report (SCH #201601055)

Dear Mr. Canseco:

The California Department of Fish and Wildlife (Department) has reviewed the above referenced Notice of Preparation of draft Program Environmental Impact Report (PEIR) for the County of San Diego (County) Climate Action Plan (CAP) and General Plan Amendment (GPA), dated November 2016. The comments provided herein are based on the information provided in the draft PEIR, our knowledge of sensitive and declining vegetation communities, and our participation in regional conservation planning efforts.

Under the proposed project, the County is preparing a new, stand-alone programmatic CAP. The CAP would amend goal COS-20 and Policy COS-20.1 and mitigation measures CC-1.2, CC-1.7, and CC1.8 of the 2011 General Plan Update (GPU). As a result, the County has prepared a PEIR for the CAP which will: 1) provide a program-level analysis of the CAP and actions described therein; and 2) supplement the 2011 GPU to evaluate the proposed amendments to the General Plan goal COS-20 and Policy COS-20.1—proposing to adopt new or revised mitigated measures related to CAP and greenhouse gas emission reduction targets.

As an ongoing conservation planning document, the Department developed the State Wildlife Action Plan (SWAP, 2015) that identifies conservation actions that respond to current and future challenges. The 2015 SWAP identifies "[c]limate change and the state's efforts to confront it will touch nearly every aspect of land use planning, investments for the future, and decisions about natural resource conservation. Among its array of goals, the EGPR [Environmental Goals and Policy Report] calls for the state to take steps to preserve natural systems, working landscapes, and natural resources, as well as striving to increase ecosystem services and biodiversity and ensure resilience of natural systems to recover from disruption… (CDFW, 2015)." Assembly Bill 32, the California Global Warming Solutions Act of 2006 (Nunez, 2006) acknowledges the State of California as a significant emitter of greenhouse gases, and subsequently establishes greenhouse gas emission reductions goals. Former Governor Arnold Schwarzenegger's Executive Order S-3-05 established the 2050 statewide greenhouse gas (GHG) reduction target of 80 percent below 1990 levels. Governor Edmund G. Brown Jr.'s 2015 Executive Order B-30-15 established the 2030 statewide GHG reduction target of 40 percent below 1990 levels. The County has developed the proposed project to identify measures to comply with GHG reduction targets and anticipates exceeding its' GHG emission reduction targets through implementation of the CAP.

The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (California Environmental Quality Act [CEQA] Guidelines §15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (CESA; Fish and Game Code §2050 et seq.) and Fish and Game Code Section 1600 et seq. The Department also administers the Natural Community Conservation Planning (NCCP) program. The CAP/GPA is located within the County's approved Multiple Species Conservation Program (MSCP) Subarea Plan (SAP) as well as areas of the County of San Diego not subject to an adopted MSCP.

Effects of Climate Change

The 2009 California Climate Adaptation Strategy report to the Governor of California outlines the impacts and risks of climate change, the future of climate change, and climate change adaptation strategies. In accordance with the Statewide Adaptation Strategy: "[t]he economy and the natural resources that sustain human life are dependent upon the state's biodiversity. These species and ecosystems provide numerous goods and services, including provisioning services (e.g., food and timber production, medicines, water and fuels), regulating services (e.g., water purification and carbon sequestration), supporting services (e.g., climate regulation and nutrient cycling) and cultural services (e.g., aesthetic values, and sense of place). Not only do these goods and services support California's economy but they support numerous recreational activities for residents."

A growing body of scientific and peer-reviewed literature indicates that some of the effects of climate change on biological systems may include: changes to air and water temperatures, precipitation frequency and flashiness, changes to water quality and availability, sea level rise, ocean acidification, aquatic hypoxia, and altered wildfire regimes (Natural Resources Agency, 2014). In addition to changes to biological systems, climate change may impact species in a variety of ways and may include:

1) Species migrations and range shifts in response to changing climatic conditions. In response to predicted climatic changes the distribution of some species are expected to have a northern latitudinal shift, and expand their distribution to higher elevations. Species with no or limited opportunity to shift their ranges may face extinction.
2) Climate change may facilitate the transmission of pathogens, parasites and disease.
3) Favor and/or expedite the spread of invasive plant and wildlife species.
4) Increase extinction vulnerability.
5) Alter behavioral or phenotypical responses (e.g., timing of migration events, breeding, flowering, pollination, and resource availability).
6) Cause ecosystem changes to occur more rapidly than the ecosystems can adapt causing rapid and irreversible damage. [1]

[1] Natural Resources Agency, 2014. Safeguarding California: Reducing Climate Risk: an update to the 2009 California Climate Adaptation Strategy. 2014.

The impacts detailed above have significant ramifications to how the Department, our partners (in this case the County as a local governmental agency, and a signatory to the MSCP), and the constituents of California cope with the economic, quality of life, and biological consequences of climate change. These consequences are complex and broad in scope and suited to analysis within a PEIR using the Ecosystem Adaptation to Climate Change in California: Nine Guiding Principles (http://www.resourceslegacyfund.org/wp-content/uploads/Guiding_Principles_Brochure.pdf; Resources Legacy Agency Fund, 2012).

With the circulation of the CAP PEIR, the County is presented an opportunity to contemplate policy-level effects of proposed projects on climate change issues while *also* considering the ramifications of climate change on proposed projects. One of the five advantages afforded a CEQA lead agency in preparing a programmatic document detailed in Public Resources Code section 15168 (b)(4) is that they "[a]llow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." Though not exhaustive, metrics exist to evaluate the effects of a project approved on climate change—the project's contribution to greenhouse gases, transportation requirements, water resource uses, and energy uses. However, less intuitively are the effects that climate change could have on a proposed project; for example, if an endangered species nests along a coastal area adjacent to a proposed development, that development may need to evaluate the habitat loss associated with sea level rise and design the project to accommodate the probable inland movement of the species. Similarly, a lead agency should evaluate the appropriateness of a project's location and anticipate potential for increased flood hazards associated with flashy heavy rain events or establishing and maintaining wildlife movement corridors to facilitate shifts to species ranges.

The following headings and comments therein provide a brief overview of how greenhouse gas emissions, and in turn, climate change may incrementally change our environment. These environmental changes are the mechanisms that may result in the six habitat and species-level impacts associated with greenhouse gas emissions, and climate change identified above.

Impacts of the PEIR on the MSCP

With regard to the MSCP, it should be clear that projects tiering from the PEIR will not supersede biological preservation obligations outlined by the MSCP, in particular within the MSCP's existing or planned Pre-Approved Management Areas. Tiered projects should be thoughtfully analyzed to balance the goal of reduced GHGs without undermining native habitat preservation—a prior MSCP commitment, and important component of a climate change resilience and adaptation strategy for any Climate Action Plan.

The PEIR should implement land use strategies within the MSCP and planning areas that compliment maintaining and expanding native habitat abundance and diversity while simultaneously sequestering GHG emissions. Preliminary suggestions include but are not limited to expanding wetlands, preserving, enhancing and increasing urban habitats, among other opportunities.

Increases in Temperature Extremes

Species are adapted to survive within a set of environmental parameters, including but not limited to, temperature, weather patterns, rainfall, humidity, soils and the interactions between

these variables. It is anticipated that climate change will affect each of these variables, including temperature. Brief exposures to temperature extremes stress organisms; protracted exposure in temperature extremes (such as the extremes climate change are predicted to bring) may force mobile organisms to move to cooler climes by migrating to higher elevations or more northern latitudes. Those organisms who are unable to move in response to temperature extremes (e.g., mobility limitations or if they are already at the extreme of a given climate) face extirpation (Natural Resources Agency, 2014).

Increased Frequency and Drought Severity

In the face of climate change, California will face more severe drought cycles taxing water resources. It is predicted that more precipitation is likely to fall as rain than snow, subsequently reducing the state's snowpack levels—an important component of the state's water supply (The Governor's Environmental Goals and Policy Report, 2013). Drought severity and duration stress ecosystems and increase their vulnerability to pests, non-native species, and wildfire. In consideration of the added water supply pressures, the CAP's establish CEQA significance thresholds for subsequent projects that ensure that proposed projects implement water conservation measures through structure design, technology, efficient fixtures, and water reuse strategies. In addition, the County should consider providing housing density bonuses or other development incentives for developments that achieve greater water budget balance (e.g., minimize gross water imports).

Increase in Flood Severity

Climate change is anticipated to increase the severity and flashiness of flooding events experienced by the state. The PEIR should include mechanisms to ensure that tiered projects evaluate their capacity to withstand flood intervals, and reduce channelization of riverine systems. More frequent extreme precipitation events can result in an increase in localized flooding overwhelming the capacity of urban and suburban drainage systems, exceeding river channel capacities, and in turn, exposing these ecosystems to heavier and sometime more toxic sediment deposition (California Natural Resources Agency, 2009).

Increased Number and Intensity of Wildfires

Increased warming, drought, and insect outbreaks may result in an increase in wildfire frequency, intensity, and duration. As a component of the tiering process, the PEIR should analyze whether a project will introduce or add wildfire pressures. As an example, tiered projects should analyze whether a project would introduce human uses or fire risk within the urban canyon lands interface. Fires, inadvertently or maliciously started may result in a loss of habitat (particularly vulnerable are slow-growing habitats), increased risk to housing, and GHG emissions associated with the combustion of vegetation and firefighting efforts. Increased risk to public housing and resources may lead to indirect habitat impacts resulting from policy driven or perception driven needs to increase fuel modification zones, and thus further habitat losses.

Sea Level Rise and Ocean Acidification

California's coastline encompasses a broad range of unique habitats that depend on tidal waters, rainfall and water runoff adapted to the dynamic changes associated with their respective niche. Greenhouse gas emissions and their role in climate change are expected to

contribute and accelerate sea level rise. Under certain climate change models, sea level rise may overwhelm coastal habitat's ability to react and in some cases may be prevented from doing so given existing and new developments (e.g., bulkheads, seawalls, roads, and buildings). In addition to sea level rise, the pH of the world's oceans is being lowered (a process known as ocean acidification) through GHG emissions. Ocean acidification has the potential to reduce the viability of wild fisheries—an important economic resource for the California (Natural Resources Agency, 2014).

Establishing Significance Thresholds

To facilitate the adoption of CEQA significance thresholds and to facilitate project tiering, we recommend that the PEIR establish a checklist of considerations for evaluating future projects and their potential to affect GHG emissions, or be affected by GHG emissions in a manner that results in impacts to natural resources. We acknowledge that the field of climate science continues to evolve. We encourage the County to acknowledge the evolution by continuously revamping the PEIR with the best available science. While not exhaustive, and intended to evolve with the PEIR overtime, we have provided a preliminary checklist below as a sampling of recommendations that we encourage the County to include in their PEIR's final checklist.

Project Considerations

Proposed projects must consider climate variability and change throughout all phases of the project—initial project design through operations and maintenance. Demonstrate the project has considered the following:

- Has the project analyzed relevant climate change science and impacts, integrating the best available science into the project design;
- Has the project analyzed how the project may increase habitat and/or species vulnerability to climate change;
- Has the project outlined specific climate mitigation and adaptation measures that will be implemented to mitigate project GHG emissions and increase local resiliency?

Considerations Specific to Coastal Projects

- Daily sea level conditions in conjunction with high tides
- Extreme storm and wave events, e.g., storm surges
- Increased erosion intensity and durations
- Increased frequency and durations of extreme storm events
- Severe El Niño and La Niña events
- Ocean acidification
- Project introduction or exposure to increased incident of wildlife
- Elevational or spatial habitat buffers from the effects of climate change

Considerations Specific to Terrestrial Projects

- Shifting fire frequency
- Drought impacts
- Shifts in vegetation types and distribution
- Increased temperatures

- Increased duration and frequency of heat waves
- Fog reduction or marine layer coverage
- Project introduction or exposure to increased incident of wildlife
- Elevational or spatial habitat buffers from the effects of climate change

The Department has provided the comments above to assist the County in drafting their CAP PEIR, acknowledging the uncertainty and complexities surrounding climate change and greenhouse gas emissions. Section 15144 of the California Code of Regulations, title 14 acknowledges that "[d]rafting an EIR…necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." We conclude our comments with an excerpt from the 2013 Governor's Environmental Goals and Policy Report:

"Looking to the future, it is essential that the state is taking steps to prepare for the impacts of climate change. Preparing for the impacts of climate change includes both taking steps to reduce vulnerability and increasing resilience, or the ability to recover after extreme events. Taking steps to promote preparedness need to be incorporated into existing plans, but also into plans for new investments and infrastructure.

Building climate resilience into planning will require consideration of current and future conditions, the impacts of climate change, and system vulnerability. Preparedness and consideration needs to be built into new planning processes, but also incorporated into ongoing planning efforts. Similarly, with infrastructure new decisions need to consider future climate conditions, but impacts of climate on existing infrastructure must also be evaluated to guide resilience and preparedness planning."

We appreciate the opportunity to comment on the referenced NOP. Questions regarding this letter and further coordination on these issues should be directed to Eric Weiss at (858) 467-4289 or Eric.Weiss@wildlife.ca.gov.

Sincerely,

for:

Gail K. Sevrens
Environmental Program Manager
South Coast Region

ec: Scott Morgan (State Clearinghouse)

References:

California Department of Fish and Wildlife (CDFW), 2015. California State Wildlife Action Plan, 2015 Update: A Conservation Legacy for Californians. Edited by Armand G. Gonzales and Junko Hoshi, PhD. Prepared with assistance from Ascent Environmental, Inc., Sacramento, CA.

Governor's Office of Planning and Research, 2013. California's Climate Future: The Governor's Environmental Goals and Policy Report. September, 2013.

Natural Resources Agency, 2014. Safeguarding California: Reducing Climate Risk: an update to the 2009 California Climate Adaptation Strategy. 2014.

Resources Legacy Fund, 2012. Ecosystem Adaptation to Climate Change in California: Nine Guiding Principles. Resources Legacy Fund, Sacramento California, 32 pp.

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sandag.org

November 21, 2016

File Number 3300300

Mr. Bulmaro Canseco
County of San Diego
Planning and Development Services
5510 Overland Avenue, Suite 110
San Diego, CA 92123

Dear Mr. Canseco:

SUBJECT: Climate Action Plan and General Plan Amendment Notice of Preparation

Thank you for the opportunity to comment on the County of San Diego's Climate Action Plan (CAP) and General Plan Amendment Notice of Preparation (NOP). The San Diego Association of Governments (SANDAG) appreciates the County's efforts to implement the policies included in San Diego Forward: The Regional Plan (Regional Plan) that emphasize the need for better land use and transportation coordination. These policies will help provide people with more travel and housing choices, protect the environment, create healthy communities, and stimulate economic growth. SANDAG's comments are based on policies included in the Regional Plan and are submitted from a regional perspective.

Transportation Demand Management

When preparing the CAP and General Plan Amendment, please consider incorporating transportation demand management (TDM) strategies into the CAP to encourage the use of alternative travel modes that can assist with decreasing congestion and greenhouse gas emissions. Specific TDM strategies to consider could include:

- Encouraging developers to incorporate TDM-supportive capital improvements into developments through the entitlement process
- Encouraging employers to offer commuter benefit programs for their employees
- Promoting rideshare (vanpooling, carpooling, transit, and on-demand rideshare services) and incentivizing rideshare options as an alternative to the private automobile
- Encouraging parking management strategies such as shared parking, parking cash-out, designated parking for high-occupancy vehicles, and other shared mobility options at employment sites

- Providing and promoting Park & Ride facilities

- Incorporating bike infrastructure and amenities into developments including convenient and secure bike parking, as well as showers and lockers at employment sites

The County can partner with the SANDAG TDM Program, iCommute, to take advantage of regional TDM programs and services. This includes the SANDAG Vanpool Program; online ridematching services; the Guaranteed Ride Home Program; bike encouragement programs such as free bike education courses; the GO by BIKE Mini-Grant Program; and the Walk, Ride, and Roll to School Mini-Grant and Education Program. Further, the iCommute Employer Services Program can work with businesses to develop customized commuter benefit programs that promote viable transportation alternatives to employees. Information on these programs can be accessed through iCommuteSD.com, and the SANDAG TDM division can assist with the integration of these strategies.

Other Considerations

SANDAG has a number of resources that can be used in the design of the project or as resources for additional information or clarification on topics discussed in this letter. These can be found on our website at sandag.org/igr or sandag.org/energy:

1. SANDAG Regional Parking Management Toolbox

2. Riding to 2050, the San Diego Regional Bike Plan

3. Regional Multimodal Transportation Analysis: Alternative Approaches for Preparing Multimodal Transportation Analysis in Environmental Impact Reports

4. Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region

5. Trip Generation for Smart Growth

6. Parking Strategies for Smart Growth

7. Designing for Smart Growth, Creating Great Places in the San Diego Region

8. Regional Energy Strategy

9. Climate Action Strategy

10. San Diego Plug-In Electric Vehicle Readiness Plan

When available, please send any additional environmental documents related to this project to:

Intergovernmental Review
c/o SANDAG
401 B Street, Suite 800
San Diego, CA 92101

We appreciate the opportunity to comment on the CAP and General Plan Amendment NOP. If you have any questions, please contact me at (619) 699-1943 or via email at susan.baldwin@sandag.org.

Sincerely,

Susan B. Bald

SUSAN B. BALDWIN, AICP
Senior Regional Planner

SBA/KHE/hbr

San Diego Regional Chamber

402 West Broadway, Suite 1000
San Diego, CA 92101-3585
p: 619.544.1300
www.sdchamber.org

November 21, 2016

County of San Diego
Planning & Development Services
Attention: Bulmaro Canseco
CAP Project Manager
5510 Overland Avenue, Suite 110
San Diego, CA 92123

Re: County of San Diego Climate Action Plan and General Plan Amendment (PDS2015-POD-15-002 and PDS2016-GPA-16-007) Program Environmental Impact Report (PDS2016-ER-16-00-003)

Dear Mr. Canseco:

On behalf of the San Diego Regional Chamber of Commerce (Chamber), please accept the below comments for your consideration. With approximately 2,500 members representing an estimated 300,000 employees, the Chamber is the largest nonprofit advocate for regional businesses and is dedicated to growing commerce in the San Diego region, and we appreciate the opportunity to provide feedback on the scope of the County's Program Environmental Impact Report (PEIR) for its Climate Action Plan (CAP) and General Plan Amendment.

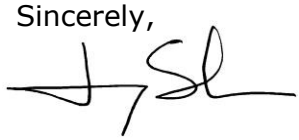
- **Partnership Opportunities –** As you prepare the PEIR for the draft CAP, we encourage staff to explore opportunities for the County to achieve its climate action goals through the establishment or enhancement of new and existing partnerships with local municipalities, utilities, private corporations and others. Doing so will leverage expertise and efficiencies to reach greenhouse gas emissions reduction targets in the most timely and cost-effective manner possible.

- **Flexibility –** The PEIR should anticipate sufficient flexibility for the CAP to take advantage of rapidly advancing technologies, which will allow the County to minimize costs and reach its environmental goals as efficiently as possible over the coming decades.

- **Balance –** A successful CAP balances the needs of the environment with those of the economy, community and local jobs. The PEIR should establish a basis for this balance so the County can ensure the environmental benefits are real, costs are minimized and investments are targeted to support the needs of our thriving economy and the jobs it creates.

San Diego's business community shares the County's goal of reducing greenhouse gas emissions. Doing so is important for a healthy environment and a healthy economy. As we work toward reaching our environmental goals, it is critical we do so in a manner that also creates jobs, benefits our innovation economy, minimizes costs and supports our most vulnerable communities. We look forward to the release of the draft CAP and remaining engaged as the process moves ahead.

Sincerely,



Jerry Sanders
President & CEO
San Diego Regional Chamber of Commerce

California Native Plant Society

San Diego Chapter of the California Native Plant Society
P O Box 121390
San Diego CA 92112-1390
conservation@cnpssd.org | www.cnpssd.org

November 21, 2016

County of San Diego
Planning & Development Services
Attention: Bulmaro Canseco
CAP Project Manager
5510 Overland Avenue, Suite 110
San Diego, CA 92123
CAP@sdcounty.ca.gov

RE: San Diego County Climate Action Plan Notice of Preparation

Dear Mr. Canseco,

We appreciate the opportunity to comment on San Diego County's Climate Action Plan (CAP), General Plan Update (GPU) and the associated EIR. The San Diego Chapter of the California Native Plant Society (CNPSSD) works to protect California's native plant heritage and preserve it for future generations. CNPS promotes sound plant science as the backbone of effective natural areas protection. We work closely with decision-makers, scientists, and local planners to advocate for well informed and environmentally friendly policies, regulations, and land management practices.

Before proceeding to technical issues, I would suggest a general theme that might be useful. Based on recent national and international political developments, it might be tempting to see this document as an exercise in paperwork that will get filed and forgotten as the US veers away from dealing with climate change. However, given that the world outside the US appears to see climate change as both a serious environmental threat and an increasing opportunity for massive technical innovation that will spur new industries, I simply suggest that San Diego County view climate change as a business opportunity as much as an environmental crisis. While this may sound weird coming from an environmental group, we do not mind people making money while genuinely saving the planet. Ignoring climate change will put the US at an increasing disadvantage against other nations who no longer need or technology or exports. If San Diego County wishes to continue to be an active player in Pacific Rim trade, simple prudence suggests that we follow the rest of the world in taking climate change seriously and adapting our infrastructure and economic system to deal with its realities.

A second theme that might be useful has not been loudly voiced at the CAP community meetings, although I know that at least three participants (including myself) were quietly talking

about it: the only way to avoid the worst of climate change is to transform society to be powered 100% by renewable electricity. This is a huge transformation, and it is not within the remit of the CAP to get us there. However, the rest of the world is trending in this direction, and it would be useful for the CAP to take this as an underlying assumption while it stays within its programmatic constraints.

In the preparation of the CAP, GPU, and EIR, it will be useful to assume that they will become quickly outdated. Both the politics and the science around climate change evolve rapidly and unpredictably.. We have seen how unpredictable global politics are, and we have similarly seen how climate science rapidly evolves, such that scenarios from a few years ago are now outdated. To cope with this issue, I suggest writing the CAP, GPU, and EIR in a way that they can be updated through supplements rather than total rewrites. One way to do this is to use a highly structured and modular format, so that particular sections that become outdated can be updated, without having to rewrite the entire document. Second, I suggest making the links among sections explicit, so that the effects of change in one section can easily be traced to other sections. Third, I suggest being very explicit about the climate change model used in the report, so that when that model is superseded, it is easier to determine how the changed model (e.g. speed of average temperature increase, sea level rise, size of storms and probability of hurricanes making landfall) impacts the other parts of the documents. In general, try to make it easy for successors to revise the work, not because it is flawed, but because it will inevitably be overtaken by events.

With regard to native plants, we offer five proposals for inclusion:

Plant species need to migrate to adapt to climate change. Wildlife corridors are designed for animals, yet plants will have to use them as well if they are to move to cooler areas. Plants move through migration corridors primarily as seeds, either in animal guts (as berries) or attached to animal coats (as burs). The difference between animal and plant movement is that a seed that germinates inside a wildlife corridor is stuck growing where it fell. Therefore, wildlife corridors designed only for animal movement are insufficient to allow plants to move more slowly through them. They need native habitat, not just underpasses and culverts. Linkages among open spaces need to be designed with this limitation in mind. This needs to be included in the three documents and analyzed in the EIR.

Existing plants contain sequestered carbon, and this carbon store must be recognized in EIRs. In dry California landscapes, much of the plant is underground, and there are few data on how much carbon is underground. Regardless, it is getting easier to use aerial surveys to determine aboveground biomass, and one is in progress in San Diego right now. We strongly suggest that these data be incorporated as a County GIS layer, both so that the impacts of losing the plants can be assessed, and so that innate carbon sequestration every year (or between surveys) can be calculated to help determine the County's carbon budget.

This may sound silly, but in the San Marcos Highlands EIR, the CalFire Vegetation Treatment Program EIR and in others, carbon sequestration has been calculated as if the landscape was bare until the project planted trees, at which point the trees would sequester carbon and decrease the project's carbon footprint. This is fallacious, because bulldozing existing vegetation ends up

releasing carbon from the dead plants, and this impact is not taken into account. To avoid burdening each project proponent with taking a carbon inventory of their parcels, it seems better for the County and government to collect and curate the data. This needs to be included in the three documents and analyzed in the EIR.

Realize that rapid tree growth is not the same thing as superior carbon sequestration. It is also popular to bulldoze old trees because they do not grow as fast as young ones, on the theory that young trees are better at carbon sequestration. This is a simple math failure. For example, a sapling that contains one kilogram of carbon and grows at 100% per year will sequester 1 kilogram of carbon. A mature tree that contains 1,000 kilograms of carbon and grows at 2% per year will sequester 2 kilograms of carbon. Cutting the mature tree down in favor of a sapling decreases the amount of carbon sequestered by 50%. Rapid growth rate is not the same as optimizing carbon sequestration in each plant. This is why it is so important that the County acquire and maintain biomass and carbon sequestration data on its existing vegetation. This needs to be included in the three documents and analyzed in the EIR.

Realize that water and carbon sequestration are linked through tree growth. This is especially true in agriculture, where tree crops like avocados grow primarily when water is affordable, but it also matters with urban and other forestry. The key linkage is that outside the mountains, San Diego county is a distinctly suboptimal region for tree growth, because we are too dry. Sequestering substantial carbon in San Diegan trees almost certainly requires importing more water, and imported water has carbon costs of its own. This is not to say that urban forestry should be ignored, but the carbon costs of importing water to keep trees alive needs to be analyzed in the documents.

Consider offsite mitigation of carbon in northern California. Some of the world champion species for carbon sequestration are redwoods and douglas firs in northern California. Rather than spending money and emitting carbon to import northern California water to San Diego to grow trees for carbon sequestration, it may make more economic sense to enter into long-term programs to preserve northern California forests as carbon banks. Financially, this is simple, as it leaves water where it can best grow trees. Politically it might be problematic, if people clamor for more trees in San Diego, but it would be among the most efficient ways to sequester carbon that cannot otherwise be sequestered within the County.

Thank you for taking these suggestions. Please keep CNPSSD informed on the CAP, by sending announcements to conservation@cnpssd.org, franklandis03@yahoo.com, and by mail to Frank Landis at 14245 Dalhousie Road, San Diego, CA 92129.

Sincerely,

Frank Landis, PhD
Conservation Chair,
CNPSSD.

SAVE OUR FOREST AND RANCHLANDS

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CLEVELAND NATIONAL FOREST FOUNDATION

P.O. Box 779 Descanso, CA 91916
www.cnff.org info@cnff.org

November 21, 2016

Mr. Bulmaro Canseco, Project Manager
5510 Overland Ave., Suite 310
San Diego, CA 92123

Re: County of San Diego – Notice of Preparation (NOP) of a Supplemental Environmental Impact Report (SEIR) for the Climate Action Plan and General Plan Update Amendment

Dear Mr. Canseco,

Save Our Forest and Ranchlands (SOFAR) and the Cleveland National Forest Foundation (CNFF) have a long history of promoting sustainable planning in San Diego County. We have consistently advocated for strategies and policies to encourage good city building and permanent protection of rural lands which would also result in climate stabilization. The development of a legal and enforceable CAP for the County gives us an opportunity to implement critically necessary changes which will not only meet our goals for reduction of carbon pollution but also build a more livable and economically viable region. As the County makes preparations and drafts its Climate Action Plan documents, it should incorporate the following findings and strategies:

1. Current regional plans set a dangerous course toward climate catastrophe. Regional GHG emissions charted by SANDAG are estimated to increase 247% over statewide 2050 GHG targets set by Governor's Executive Order S-3-05: "by 2020, reduce GHG emission to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels."
2. The County CAP must share in leading the region to change course. Science dictates the need to immediately reduce GHG emissions. The CAP must be more than a document to meet legal requirements or to mitigate a General Plan if the County is to make meaningful change toward climate stabilization.
3. The County, through its representation at the regional transportation planning agency, SANDAG, plays a major part in all regional transportation plans and projects. Thus the CAP must account for and calculate in its reduction targets all transportation GHG emissions regardless of whether they are from trips generated or ending within the unincorporated communities or from trips which pass through the unincorporated communities. The pollution generated by vehicles traveling in the unincorporated areas

effects the entire region and should be treated as such in the CAP's GHG reduction efforts.

4. Urban sprawl is the major cause of increased vehicle miles traveled (VMT) as well as increased GHGs, greater water use and additional wildfire threats. Thus the CAP must consider a strategy of developing ***urban growth boundaries*** as a method of reducing GHG emissions. Building new housing within neighborhoods which are accessible to light rail and other public transportation options plays a major role in reducing future GHG emissions. It is fully within the land use authority of the county to implement such boundaries and it would help developers know where to direct their efforts for projects. Open space should be recognized as a permanent land use category and not as a temporary placeholder for sprawl development. Watershed, farming and wilderness, in the age of climate change and drought, are critically important to a sustainable future. The scope of the CAP should include a VMT reduction target met through an urban growth boundary strategy. The use of growth boundaries was successfully used in the County when the Forest Conservation Initiative was implemented over 25 years ago.
5. The CAP must address economic justice as well as environmental justice concerns. The cost of reducing GHGs should not be unfairly born by lower income communities nor by communities which are already suffering disproportionately higher amounts of pollution. For example, the incentives to convert to more efficient vehicles and the infrastructure needed to support such vehicles typically favor middle and higher income communities yet are funded by all income groups. The CAP strategies must bridge the gap and make land use and transportation both equitable and sustainable.

The strategies and areas to be analyzed in the CAP EIR must consider and incorporate the points we have made above in order to set San Diego on course for a healthy and sound future.

Thank you for the opportunity to comment on the NOP and for your consideration of our recommendations. If you or your staff wishes to follow up on this letter, please contact Jack Shu at jkshu@cox.net.

Sincerely,

Duncan McFetridge

Director, CNFF
President, SOFAR

Mike Bullock
1800 Bayberry Drive
Oceanside, CA 92054
760-754-8025; mike_bullock@earthlink.net

Nov. 21, 2016

County of San Diego
Planning & Development Services
Attention: Bulmaro Canseco, CAP Project Manager
5510 Overland Avenue, Suite 110 San Diego, CA 92123

Email: CAP@sdcounty.ca.gov

Via E-mail

Subject: October 20, 2016, County of San Diego Notice of Preparation

PROJECT NAME:	**COUNTY OF SAN DIEGO CLIMATE ACTION PLAN AND GENERAL PLAN AMENDMENT**
PROJECT NUMBER(S):	**PDS2015-POD-15-002 and PDS2016-GPA-16-007**
PROJECT APPLICANT:	**County of San Diego – Planning & Development Services**
ENV. REVIEW NUMBER:	**PDS2016-ER-16 00-003**

CAP Project Manager Canseco,

I appreciate the opportunity to comment on this important document.

Introduction

I have a BSEE and a MSE degree and am a retired satellite systems engineer. My engineering responsibilities included requirement documentation, requirement verification, and the on-orbit calibration of satellite-antenna pointing systems.

NOP Project Background

The Appellate Court ruling is properly identified. The precedent-setting, published ruling is Reference 1 of this letter.

You properly state that the

> *Fourth District Court of Appeal held that the 2012 CAP did not meet the description set forth in the adopted mitigation measure (GPU PEIR Mitigation Measure CC-1.2) and that an EIR was needed for the plan.*

However, there was much more to the ruling. For example, the ruling also said:

> *The Sierra Club provided feasible mitigation measures. The County rejected these mitigation measures without substantial evidence for doing so.*

The County must admit this error and devise a strategy to ensure that it is not repeated. Ignoring measures that might offend the political sensitivities of the Board of Supervisors, for example, is understandable but is also a path to CEQA violation.

One key mitigation measure that was ignored was identified and described in the Oral Arguments of the trial by Plaintiff lawyer Malinda Dickenson. It is also are featured prominently in Reference 2 of this letter, which is the plaintiff letter to the County, starting at Sub-section 3-6, on Pages 18, and extending through Page 20. This parking strategy is also explained, as a reduced-feature demonstration project, in Reference 3. Because this feasible mitigation measure played such a large role in the suit, it should be mentioned in the NOP and a commitment should be made to start work immediately to implement this measure for County employees. In support of this immediate start, I offer these words from Reference 4, which is the Superior Court Ruling, against the County (emphasis added):

> *There is no time for "building strategies" or "living documents;" as the PEIR quite rightly found, enforceable mitigation measures are necessary **now**.*

I appreciate your listing of the Goal COS-20 and Policy COS-20.1 of the 2011 GPU and Mitigation Measures (MM) CC-1.2, CC-1.7, and CC-1.8 in the GPU PEIR addressing preparation of a CAP and GHG reduction targets.

Project Description

Certainly the project is a new CAP. However, the meaning and perhaps the words in the GPU will have to also change because the Goal COS-20 and Policy COS-20.1 of the 2011 GPU would change. This change should be defined, since the new EIR will cover both the CAP and these other important changes.

CEQA Requirements

I agree with the NOP's first paragraph. I want to emphasize, however, these words, in that paragraph: "significant environmental impacts". "Environmental impacts" are in the physical world, not in the world of laws or executive orders. In this case, the primary negative impact or outcome to be avoided, is climate destabilization. Therefore, the term, "climate destabilization" must be defined and also described.

In the first paragraph, it is written that the EIR must identify possible ways to mitigate or avoid the significant effects. Again, the "effects" are environmental in nature. That means that what will happen in the physical world must be considered. Besides this, how to avoid what would happen in the physical world must be considered.

I am worried that you or your consultants will not realize this, because this truth is omitted in all of the CAPs I have read, which include CAPs for San Diego, Carlsbad, Vista, and San Marcos. The problem is probably created by the *CAP Guidelines*, provided by the Office of Policy Research (OPR). These guidelines do not describe climate destabilization or how to avoid the catastrophe of climate destabilization.

CEQA and common sense require that negative environmental impacts be described, including the negative impact of climate destabilization.

General Plans and CAPs must first describe the difference between stabilizing the climate at a livable level and destabilization, where warming-system-feedbacks, such as methane gas leaking from melting permafrost, a process which is both driven by warming and creates more warming, become dominant. If they become too large, humanity will lose control, and the climate will transition to one which will no longer support most life forms on the planet, including our own species. Failing to provide this description is a CEQA violation. One authoritative source says, "the Earth is on a trajectory to warm by more than 4 degrees Celsius [and this] would be ***incompatible with continued human survival***."

The NOP's first paragraph also says that avoidances of significant environmental impacts need to be described. Therefore, the NOP needs to state that there is a need for the EIR to have a description of how a climate is stabilized at a livable level. Climate stabilization Step 1 is to get the earth's atmospheric CO2_e to stop increasing. This Step is shown in Figure 1. It has been written that the industrial world must get its emissions down to a level that is 80% below 1990 levels to achieve the equality sign, which is one of the three possibilities shown in Figure 1. It was thought that to achieve climate stabilization, humanity could do this as late as 2050 and that the atmospheric level of CO2_e would then be at 450 PPM, corresponding to a 2 degree Celsius increase. However, it is now known that it is dangerous to allow a 2 degree Celsius change and that, even worse, an earth's atmospheric level of only 400 PPM of CO2_e corresponds to a 2 degree Celsius change. As we all know, the earth's atmosphere is already at 400 PPM CO2_e. This information about climate stabilization is shown in Reference 5.

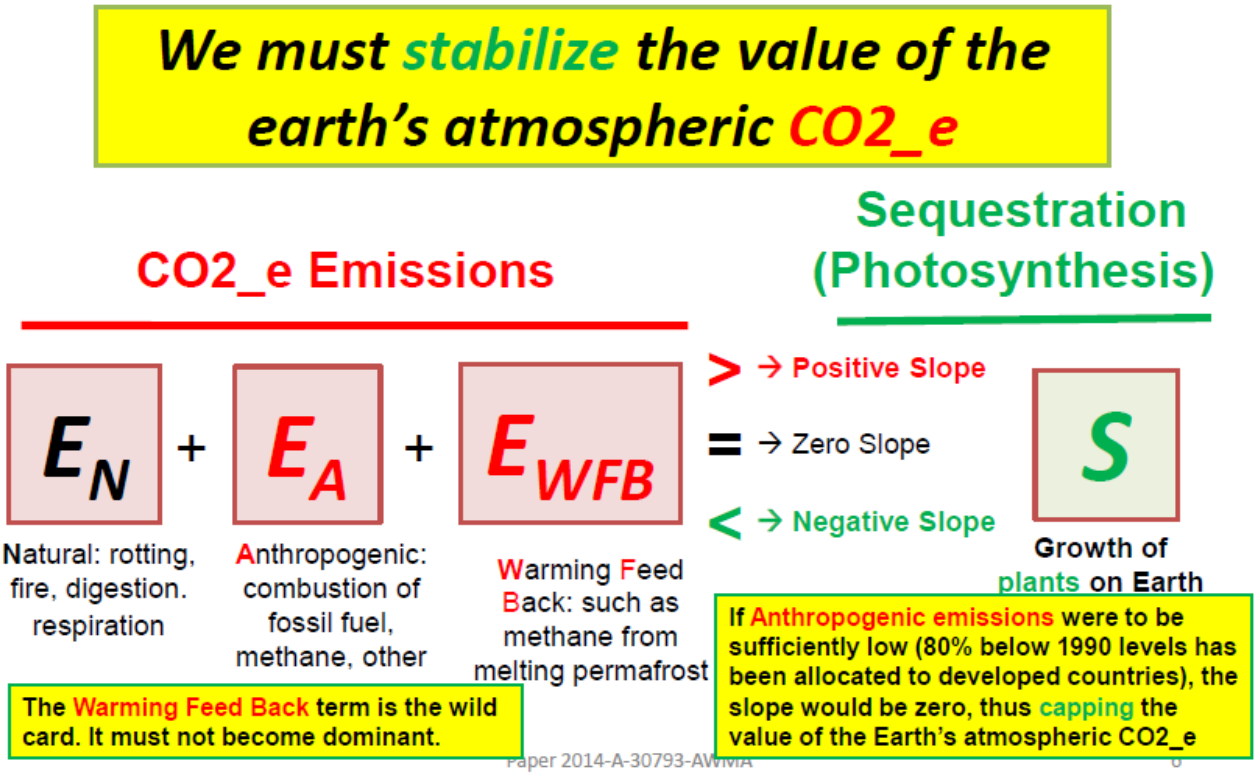

Figure 1 Stabilizing Atmospheric CO2_e

In Figure 1, the zero slope condition will cap atmospheric CO2_e, meaning that it will not go up and not go down. Currently, we have a positive slope condition, because our anthropogenic emissions are too high. We will require a negative slope to return our atmospheric CO2_e to a safe level. The "wild card" in this problem is the warming feedback term. If it gets too large, we will have no hope of avoiding catastrophe.

CAPs must therefore identify a climate-stabilizing target and then define enforceable *measures to achieve that target*. The principle of cumulative effects is being used here, as it

must. The County must do its part. If it doesn't, it must assume that other municipal governments (around the world) will do the same and destabilization will result.

Besides this, to comply with CEQA, the CAP must describe destabilization's impact to our environment, to see if that is the outcome the decision makers want. During the process of destabilization, the earth will lose most of its life forms. This will not be pleasant for us or the animals, from aardvarks to zebras. We will all starve to death. This may take decades. The low-income people will starve first; the billionaires last. Of course there will be food riots; we will need to become a police state; and so on. Mass suicide and cannibalism may occur. A majority of the Board of Supervisors would rather avoid this, I assume. It is your job to make sure they understand this situation.

To achieve the CAP's identified climate-stabilizing targets, California state actions will be needed, driven by legislation and implemented by such entities as CARB, Caltrans, and the California Road User Charge Technical Advisory Committee (SB 1077.)

However, the County must also take strong actions. The County must show how climate-stabilizing targets can be achieved in each of the categories that emit greenhouse gas (GHG), assuming reasonable California actions, according to reasonable plans. These plans need to be either identified or written.

Cars and light-duty trucks emit the most GHG of any category in the County. Therefore, one thing that is needed to support the EIR is described in Reference 6, which is excerpts of the 2016 California Democratic Party (CDP) Platform:

> *[A] state plan showing how cars and light-duty trucks can hit climate-stabilizing targets, by defining enforceable measures to achieve the needed fleet efficiency and per-capita driving*

To show that this is not impossible, as well as to offer a plan that the County may wish to use, I have included Reference 7, *Climate-Stabilizing, California Light-Duty Vehicle Requirements, Versus Air Resource Board Goals*.

Reference 7 shows that a climate stabilizing target is 80% below the 1990 level, by year 2030. Note that this is 20 years sooner than the final target of Executive Order S-3-05 and is double the drop from the 1990 level specified in SB 32, for 2030.

The NOP's second paragraph's first statement is as follows, with **emphasis** added:

> The CAP is a comprehensive plan for the County to identify the strategies, measures, and actions that would need to be undertaken to reduce GHG emissions **consistent with legislative requirements**.

Where is it stated that "consistent with legislative requirement" is enough to avoid climate destabilization? The fact is that it is not stated. It is almost as if the NOP author hoped the reader won't notice the inconsistency between the first paragraph, which correctly describes the requirements of CEQA, and the second paragraph, which reduces the needed GHG emission reductions, with no reason given.

It is true that the EIR will need to show how to achieve the "legislative requirement" but nowhere is it acknowledged that this is different than what was correctly described in the first paragraph. Laws that happen to pertain to climate change, such as SB 32, do not replace or amend CEQA. CEQA may be humanity's most important law, given our climate crisis. We must stop ignoring its most important set of requirements, related to climate: The

environmental impacts of climate destabilization must be described and avoidance measures must be devised and implemented.

The rest of the **CEQA Requirements** section shows the basis for only doing a Supplemental PEIR for the GPU. Right now, to me, that looks acceptable. I will be considering what others say about this. It seems to me right now that the important and critically-necessary work will be done in the EIR for the CAP.

General Plan Amendment

This is a small item, but it seems to me that this title should be “General Plan Update Amendment.”

I agree with the information about COS-20, COS-20.1 and the mitigation measure CC-1.2. As shown, to get the County Operations emissions down to their 1990 level, a 17% reduction from their 2006 level is needed. As shown, to get the community emissions down to their 1990 level, a 9% reduction from their 2006 level is needed. This shows that the County Operation emissions grew faster, from 1990 to 2006, than did the Community emissions.

The information on MM CC-1.7 (establishing “significance thresholds”) and MM CC-1.8, determining “significance”, which seems to be about how to reduce emissions of a discretionary project to conform to the new CAP, needs to be better explained. The Reference 1 ruling was about this topic and the NOP needs to explain how the ruling will be followed, by the County in its CAP and associated documentation.

Regarding the final three bullets of this section of the NOP, more bullets need to be added to show how the CAP will go beyond the state mandates of Executive Order S-3-05 and SB 32 to achieve climate-stabilizing targets.

Climate Action Plan

The first sentence is a sure path to violating CEQA, because the environmental impacts of climate destabilization are being ignored, the requirement to identify climate-stabilizing targets is being ignored, and the requirement to show plans to achieve climate-stabilizing targets for each category of emissions (such as cars and light-duty trucks) is being ignored. Also, counting on CARB to help solve this problem is particular risky, given the fact that back in 2010, CARB gave each of the Metropolitan Planning Organizations (MPOs) the exact year-2035 driving reduction they requested, with no concern for whether or not the reductions were enough to achieve the 2035, straight-line value of EO S-3-05 (which is 40% below the 1990 level). Back in 2005, S-3-05 was thought to be climate stabilizing. However, by 2010, it was recognized that this was not true. The Air Resources Board only seemed to want to please the MPOs and not worry about our climate crisis. The NOP needs to forget about getting any help from CARB.

Significant changes are needed. For example on the top of Page 5 of the NOP is the following sentence:

> *The CAP will include measures and actions to reduce current community emissions from the unincorporated County in proportion to the State’s goal*s

Instead this needs to say:

> *The CAP will include **enforceable** measures and actions to reduce current community emissions from the unincorporated County in proportion to the State’s*

goals and also to achieve climate-stabilizing targets by implementing comprehensive plans, showing what will be done at the state, regional (SANDAG), and County level.

For example, for cars and light duty trucks, reasonable assumptions need to be made as to how the state will get the needed fleet efficiency and improve the way drivers pay for the use of roads, with a road-use charge pricing and payout system, defined by a requirements document, sufficient to support a request-for-proposal (RFP) process. The County needs to lobby for and assume a reasonable road/transit/parking use, pricing-and-payout system. Such a parking system is described in Reference 8. Note that the car parking mitigation measure described in Reference 3 is a demonstration project for the overall system of Reference 8.

I appreciate you listing the sectors that will get mitigation measures. I look forward to helping you with the on-road transportation category which is the largest.

The table at the top of NOP Page 6 is insufficient and misleading since

- climate change is most likely going to end most life forms on the planet and
- our own species is headed towards a "devastating collapse" of our population, to quote the June 2008 issue of *Scientific American*.

Thank you for taking on this critical and challenging work.

Respectfully submitted,

Mike Bullock

REFERENCES

Note that all references were attached to the email that submitted this letter.

1. *Sierra Club versus County of San Diego*, D064243, Superior Court Number 37-2012-00101054-CU-TT-CTL
2. *Comments Regarding the Draft Climate Action Plan*, Sierra Club San Diego to Anna Lowe, County of San Diego; March 19, 2012
3. Bullock, Michael*; Equitable and Environmentally-Sound Car-Parking Policy at a Work Site*; Aug. 30, 2015
4. *Sierra Club versus County of San Diego*, CASE NO: 37-2012-00101054-CU-TT-CTL, Superior Court of San Diego County, Minute Order, April 19, 2013
5. Excerpted text from *First Update to the* Climate Change Scoping Plan, *Building on the Framework* ;from: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf; *Achieving Climate Stabilization*
6. Excerpted text from the 2016 California Democratic Party (CDP) Platform, from: http://www.cadem.org/our-california/platform/2016-platform-energy-and-environment; *Transportation*

7. Bullock, Mike R; *Climate-Stabilizing, California Light-Duty Vehicle Requirements, Versus Air Resource Board Goals*, Paper 881-AWMA, from the Air and Waste Management Association's 109th Annual Conference and Exhibition; New Orleans, June 16-25, 2016; Available on request from mike_bullock@earthlink.net
8. Bullock, M.; Stewart, J.; *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*; Paper 2010-A-554-AWMA, from the Air and Waste Management Association's 103rd Annual Conference and Exhibition; Calgary, Canada, June 21-24, 2010. http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf

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LATHAM & WATKINS LLP

November 21, 2016

VIA EMAIL

Bulmaro Canseco
CAP Project Manager
County of San Diego
Planning & Development Services
5510 Overland Avenue, Suite 110
San Diego, CA 92123

Re: Golden Door's Comments Regarding the Climate Action Plan Notice of Preparation

Dear Mr. Canseco:

We represent the Golden Door Properties LLC (the "Golden Door"), an award-winning spa and resort that opened in 1958. This historic haven is situated on approximately 600 acres on the south side of Deer Springs Road in northern San Diego County ("North County"). It was the highest rated establishment in *Travel and Leisure*'s recent list of the world's best destination spas. Its property encompasses a peaceful array of hiking trails, luxurious spa amenities, tranquil Japanese gardens, and a bamboo forest. Agricultural cultivation on the property includes avocado groves and fresh vegetable gardens as well as citrus and olive trees.

The Golden Door is committed to environmental stewardship and sustainability. It uses sustainable and bio-intensive agriculture practices and has eliminated guests' use of plastic water bottles. The owners are not seeking to expand the Golden Door in any way, but are seeking to further enhance the Golden Door according to guiding principles, including the extensive sustainable agriculture on the surrounding acres. As such, the Golden Door is concerned about Newland's proposed "Sierra" Project (the "Newland Project"), a revised Merriam Mountains project on property located near Deer Springs Road. The Project would implement urban-style development in a rural area of the unincorporated County, far from job and urban centers and from transit infrastructure. This unplanned development would contradict modern planning principles and result in long single-occupant vehicle trips causing GHG emissions.

We appreciate the opportunity to participate in the Climate Action Plan ("CAP") process, and submit the following comments on the CAP's Notice of Preparation ("NOP").

I. THE CAP SHOULD BE LIMITED TO LAND USES CONTAINED IN THE COUNTY'S 2011 GENERAL PLAN

The NOP states that an EIR will provide program-level analysis for the CAP as well as a supplement to the 2011 General Plan Update Program EIR to evaluate General Plan amendments related to the CAP. The CAP's environmental impact report should address how the CAP will analyze and potentially incorporate amendments to the County's General Plan. For example, the Newland Project includes a pending amendment to the General Plan. The Newland Project is located in rural North County and proposes 2,135 residential units, 81,000 square feet of commercial development, a charter school, and various parks and equestrian facilities in an area currently zoned for only 100 homes. In addition, the Newland Project is located in a highly automobile dependent location, lacking present or future transit opportunities—in contrast to modern planning principles that emphasize locating added density near existing infrastructure and multi-modal transit hubs in order to reduce transportation-related GHG emissions. In fact, the Newland Project proposes widening Deer Springs Road to handle additional vehicle traffic the Project will bring to the area, thus inducing additional GHG emissions. As previously stated in numerous communications with the County, the Golden Door opposes Newland's proposal for the unplanned urbanization of rural Twin Oaks Valley.

The CAP's threshold should be limited to land uses in the 2011 General Plan as adopted, not subsequent amendments to the General Plan. Any amendment to the 2011 General Plan should also include an amendment to the CAP to prevent internal inconsistency between the documents. The County should not provide a pathway for additional GHG emissions within the CAP to make room for pending or proposed General Plan amendments such as the Newland Project. Instead, each General Plan amendment should ensure that it will allow the County to achieve its Assembly Bill ("AB") 32 and Senate Bill ("SB") 32 requirements. Otherwise, it is possible for one project to consume all GHGs considered within the CAP if it is of a particularly large size. A CAP that allows for unlimited thresholds to accommodate all possible General Plan amendments would render the County unable to meet its required targets. The CAP, therefore, should reflect the reductions needed to meet the AB 32 and SB 32 required targets to mitigate emissions from the 2011 General Plan at build-out alone.

A CAP that provides for more growth than specified under the County's Land Use Element and other portions of the County's General Plan would be inconsistent with the County's General Plan. Such a CAP would also not be consistent with the adopted CEQA mitigation measures that required the County to adopt the CAP.

II. THE CAP MUST ENSURE THAT IT IS VERTICALLY INTEGRATED WITH ALL STATE-WIDE PLANNING DOCUMENTS

The CAP must be vertically integrated with statewide policies beyond the local level. AB 32 and other state laws require California to reduce its own GHG emissions. In particular, AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario. In addition, SB 375 requires the San Diego Association of Government ("SANDAG") and other planning organizations to reduce transportation and built environment sector emissions within

their regions through Regional Transportation Plans/Sustainable Communities Strategies ("RTP/SCS"). The RTP/SCS helps to ensure that local governments attain their fair share of GHG reductions to achieve state targets. Local plans should be at least as protective as the plans above them in order to ensure the upstream policy documents are not undermined. The County should ensure its CAP is consistent with the RTP/SCS and other planning documents based on statewide policies by adhering to the land uses prescribed by the 2011 General Plan, upon which the SANDAG RTP/SCS is based.

III. THE CAP MUST NOT ALLOW FOR UNLIMITED EMISSIONS BASED OFF OF POPULATION GROWTH

Currently, the County is processing development projects using the recently released 2016 Climate Change Analysis Guidance ("2016 GHG County Efficiency Metric Document") setting forth new thresholds of significance for GHGs. For analysis of GHG emissions in 2020, the County Efficiency Metric provides a threshold of 4.9 million tons of GHG emission ***per person per year***. 2016 GHG County Efficiency Metric Document at 6. This measurement only considers GHG emissions on a "per person per year" basis; there is no overall maximum or maximum for emissions from new development. *Id*. at 4-6. For a project buildout year after 2020, the County Efficiency Metric sets an annual average reduction rate of 5.2 percent between 2020 and 2050, which is borrowed from the Air Resources Board. *Id*. at 5. Similar to the 2020 measurement, this buildout year analysis under the County Efficiency Metric fails to provide any overall maximum and is not related to any data for existing or proposed development specific to San Diego County. *Id*. at 4-6. In fact, under the County Efficiency Metric—for 2020 or a subsequent buildout year—there is no limit to the total overall amount of GHG emissions so long as its "per person" limits are satisfied.

Contrary to the General Plan and to the Court of Appeal's guidance, the County Efficiency Metric requires no overall reduction, and could result in an overall GHG emissions increase so long as "per person" limits are satisfied. For example, the County could theoretically decide to open up large areas of open space, doubling the County's overall population, and still satisfy the "Efficiency Metric" on a per person basis.

The CAP must not repeat the 2016 GHG County Efficiency Metric Document's mistake. The CAP should not allow for unlimited emissions resulting from population growth. Instead, the CAP must ensure the County achieves its fair share of GHG emissions reductions under AB 32 and SB 32.

IV. PRIOR TO APPROVAL OF THE CAP, THE COUNTY SHOULD ONLY CONSIDER PROJECTS THAT CAN ACHIEVE NET ZERO GHG EMISSIONS

The Golden Door submitted a letter to the County almost two years ago requesting that the County delay consideration of the Newland Project until additional planning had been completed to address GHG impacts in the County. Golden Door Letter to M. Slovick, County Planning & Development Services, Jan. 20, 2015. At the time, the Court of Appeal had recently upheld the trial court decision striking down the County's original CAP. *See Sierra Club v. Cty. of San Diego*, 231 Cal.App.4th 1152 (2014). While the County is in the process of developing a

revised CAP, we understand that the earliest the Board of Supervisors would consider a revised CAP is late 2017. The County, therefore, should refrain from processing projects that could inhibit the CAP's effectiveness and the County's ability to meet its fair share of GHG emissions reductions under AB 32 and SB 32—such as the Newland Project—until the County has approved the CAP and its related thresholds of significance, thus establishing its comprehensive approach to GHG emissions reduction.

If the County is to continue processing a project such as the Newland Project prior to approval of a valid CAP, the County should consider requiring the project to achieve net zero GHG emissions. Recently, the Newhall Ranch project, a large real estate development project in northern Los Angeles County, announced that it would result in no net emissions of GHGs through the implementation of "a comprehensive array of green innovations onsite and within L.A. County." Newhall Ranch Press Release at 1 (Nov. 3, 2016). A copy of Newhall Ranch's net zero press release is attached hereto as **Attachment A**. A development project in San Diego County could be similarly conditioned to result in no net new GHG emissions, which could potentially limit conflicts with the County's efforts to achieve its GHG emissions reduction goals through the comprehensive programs to be set forth in the CAP.

Thank you for your time and attention to our comments. Please feel free to contact me at (858) 523-5400 or christopher.garrett@lw.com if you would like to discuss these matters further.

Best regards,

Christopher W. Garrett

Christopher W. Garrett
of LATHAM & WATKINS LLP

ATTACHMENT A

NET ZERO NEWHALL℠

FIVEPOINT
Delivered as promised.

For Immediate Release
November 3, 2016

Contact: Steve Churm | Chief Communications Officer, FivePoint
Office: (949) 349-1034 | Cell: (714) 914-0611
steve.churm@fivepoint.com

FivePoint Unveils Groundbreaking Proposal for Newhall Ranch That Achieves Zero Net Greenhouse Gas Emissions

Pioneering "Net Zero Newhall" initiative incorporates sweeping sustainability measures to fight climate change and protect natural resources, while delivering a major economic boost to the Santa Clarita Valley and Southern California

SANTA CLARITA, Calif. (November 3, 2016) – In a major step to advance the State of California's ambitious fight against climate change, FivePoint today announced an unprecedented initiative to develop the Newhall Ranch planned community that will result in no net emissions of greenhouse gases. By implementing a comprehensive array of green innovations onsite and within L.A. County, as well as funding direct emissions reduction activities in California and around the world, **"Net Zero Newhall"** will achieve net zero emissions of greenhouse gases from both construction and operations – a first for a community of its scale in the United States.

"FivePoint is proud to introduce this vision for Newhall Ranch, designed to create a new paradigm for responsible community-building and a model for living and working sustainably in California," said Emile Haddad, Chairman and CEO of FivePoint. "By harnessing innovation and collaborating with leading environmental organizations, we will create a new standard of environmental sustainability and a lasting investment in our future."

By reducing to zero all net greenhouse gas emissions from both construction and operations, the Net Zero Newhall initiative will support the State of California's leadership against global climate change, furthering the goals of newly enacted climate change legislation by the state. Additional sustainability features include the permanent, funded protection of 10,000 acres of open space and extensive measures to conserve water.

Building on the success and quality of Valencia, the revised proposal reflects guidance provided by the California Supreme Court in November 2015 concerning greenhouse gas emissions and avoiding an endangered fish species when constructing project bridges.

"Rather than merely meet the narrow terms of the court's guidance, FivePoint viewed the ruling as an opportunity to accomplish something truly momentous," said FivePoint CEO Haddad. "We took a hard look at our proposal and saw an opportunity to rethink what's possible and use forward-looking community planning to create a true legacy project for California, and even the nation."

California state officials released a Draft Additional Environmental Analysis today of the Newhall Ranch plan to address the two issues raised by the California Supreme Court. The analysis recognized that Newhall Ranch will result in no net increase in greenhouse gas (GHG) emissions with the adoption of greenhouse gas mitigation measures. The State's leading agency on climate issues – the California Air Resources Board – reviewed the technical analysis and concluded that Newhall Ranch "would not result in any net additional GHG emissions after the mitigation measures are fully implemented."

-more-

The State also concluded: “Because the project would result in no net increase of GHG emissions after implementation of mitigation measures, there would be no contribution of GHG emissions to cumulative GHG emissions influencing global climate change.” The State’s analysis also concluded that the Newhall Ranch program would avoid impacts to the endangered unarmored threespine stickleback fish.

To achieve the commitment to zero net greenhouse gas emissions, FivePoint will invest hundreds of millions of dollars in a variety of sustainability measures onsite, within L.A. County, elsewhere in California and around the world.

Onsite greenhouse gas mitigation measures will include:

- Designing homes, commercial buildings and public facilities to meet Zero Net Energy standards within Newhall Ranch – creating as much energy as is used over the course of a year, thanks to enhanced energy-efficient design and renewable energy generation, such as solar panels
- Electric vehicle charging stations in every home (up to 21,500) as well as 2,000 onsite charging stations in commercial and community areas, and subsidies for electric vehicle purchases
- Electric school bus and neighborhood electric vehicle programs, transit subsidies, tech-enabled mobility features, bike-share and car-share programs, and more

Measures to be implemented within L.A. County will include:

- Energy efficient upgrades for schools and public buildings in disadvantaged communities
- Two thousand electric vehicle charging stations in strategic locations countywide

Climate Resolve, one of California’s leading nonprofit groups dedicated to combating climate change, will aid in the goal of the Net Zero Newhall initiative by managing energy efficiency upgrade projects in low-income communities in Los Angeles County. In addition to aiding local communities, these projects will help Newhall Ranch reach its goal of net zero greenhouse gas emissions.

“Bringing greenhouse gas emissions to zero is a landmark moment for development in the United States. Climate Resolve appreciates this opportunity to create climate solutions that benefit the low-income communities most at risk from climate impacts,” said Jonathan Parfrey, Executive Director of Climate Resolve. “The best way to address the climate crisis right now is with local projects that reduce our dependence on fossil fuels and prepare Los Angeles to be more climate-resilient in the future.”

Plug In America, a leading national advocate for plug-in vehicles, applauded today’s announcement as an important step in accelerating the state’s shift to vehicles powered by clean, domestic electricity. “FivePoint has committed to make this the most EV-friendly development in California history – and a model for future projects,” said Joel Levin, executive director of Plug In America, which is working with FivePoint to implement Net Zero Newhall’s electric vehicle infrastructure and incentives. “As the national consumer voice for electric vehicles, we are excited to work with them to make that a reality.”

In addition to the above measures within the Newhall Ranch site and L.A. County, FivePoint will fund activities that will directly reduce the emissions of greenhouse gases elsewhere in California and throughout the world, such as:

- Conserving ecologically valuable forestland
- Reducing methane emissions from a California dairy farm
- Funding a clean cook stove program in sub-Saharan Africa to reduce greenhouse gas emissions, improve the health of families, and fight deforestation

-more-

To ensure that these activities are undertaken in a rigorous and transparent manner, FivePoint is working with the Climate Action Reserve, which is widely regarded as North America's largest and most trusted environmental registry, based in Los Angeles. The Climate Action Reserve will oversee a program where independent third parties will confirm the implementation of the emission reduction activities.

"As the fifth largest economy in the world, California has already demonstrated that growing economically while addressing climate change is not only possible, it is a sound 'win-win' investment for our future," said Craig Ebert, President of the Climate Action Reserve. "The innovative Net Zero Newhall initiative commits the Newhall Ranch development to be net carbon neutral. We commend FivePoint for pioneering this new greenhouse gas mitigation program and for recognizing that accurate, rigorous and transparent accounting of emissions reductions, which is at the core of the Climate Action Reserve's work, is fundamental to any new development's success and impact."

Located next to Valencia in the Santa Clarita Valley, west of the 5 Freeway, the Newhall Ranch proposal includes the protection of 10,000 acres of dedicated open space – including a High Country area larger than L.A.'s Griffith Park and New York's Central Park combined – and a $13 million endowment to protect and maintain the open space, its wildlife and habitats in perpetuity. Additionally, state-of-the-art water conservation measures will be implemented on the property, including a water reclamation plant that will recycle millions of gallons of wastewater each day.

At the same time, Newhall Ranch at buildout will create an estimated 60,000 permanent jobs, hundreds of millions of dollars in new tax revenue, and meaningful relief for Southern California's acute housing shortage. Newhall Ranch will be built in stages, and at completion will include up to 11.5 million square feet of commercial and industrial space as well as up to 21,500 homes within nine sustainable villages in a variety of sizes and price points, including rental and affordable housing. Other community amenities will include seven new public schools, four fire stations, 11 neighborhood and community parks and a public library.

At buildout, the community is estimated to generate $388 million in annual property tax revenue and $410 million in annual income taxes. As a multi-billion-dollar economic investment, Newhall Ranch has already won praise from business leaders throughout the Santa Clarita Valley.

"Santa Clarita is the third-largest city in Los Angeles County and the centerpiece of a region with 90,000 jobs. Newhall Ranch will accelerate our efforts to continue strengthening the Santa Clarita Valley with good jobs and a high quality of life," said Holly Schroeder, President and CEO of the Santa Clarita Valley Economic Development Corporation. "Particularly exciting is the prospect of becoming a hub for the innovative clean-tech industries that will be drawn to this development, especially in the renewable energy and electric vehicle fields."

Hasan Ikhrata, executive director for the Southern California Association of Governments, also welcomed today's announcement. "Net Zero Newhall is setting a new standard for sustainability in master-planned communities," said Ikhrata, whose organization represents 191 cities in six California counties. "These innovative transportation programs and energy-neutral homes will not just reduce greenhouse gas emissions, they will also bring greater investment in similar programs to Southern California."

The proposal will require re-approval by authorities at the State and County levels only on two topics regarding the project's greenhouse gas emissions and avoiding harm to the endangered unarmored threespine stickleback fish.

More information about Net Zero Newhall and its expansive sustainability features is available at www.NetZeroNewhall.com.

About FivePoint

Spanning the state from Southern California to the San Francisco Bay Area, FivePoint is the largest owner and developer of mixed-use, master planned communities in coastal California based on the total number of residential home sites permitted under existing entitled zoning. FivePoint, based in Aliso Viejo, has major real estate holdings and developments in three of the most dynamic and supply-constrained markets along the California coast: Orange County, Los Angeles County and San Francisco County. For additional information, visit www.fivepoint.com.

# # #

The San Diego Foundation
Growing a Vibrant Region

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San Diego, CA 92106
Offices in Escondido and Chula Vista
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(619) 235-2300

November 21, 2016

County of San Diego, Planning & Development Services
Attention: Bulmar Canseco
5510 Overland Ave, Suite 110
San Diego CA 92123

RE: Comments - County of San Diego Climate Action Plan & General Plan Amendment, PDS2015-POD-15-002, PDS2016-GPA-16-007, PDS2016-ER-16-00-003

Dear Mr. Canseco,

Thank you for considering these comments on the Notice of Preparation document regarding the County of San Diego Climate Action Plan (CAP) and General Plan Amendment. As our region's community foundation, The San Diego Foundation encourages, supports and facilitates action on issues affecting the quality of life of each our region's diverse communities - including climate change. Since establishing our Climate Initiative in 2006, we have partnered with public agencies and local governments to help catalyze regional action to reduce emissions and prepare our communities for local impacts of climate change.

The County's current efforts to adopt an ambitious climate action plan are a critical next step for our region to meet these goals. In particular, this climate action plan will help to bring the County in line with other local government peers in the region, including two-thirds of our region's 18 cities which have already adopted or are working on a climate action plan. The climate action plan is also an important tool to advance the County's Live Well and 2011 General Plan goals, and help to limit the type of sprawl development that could exacerbate risks from climate change.

In addition to following other published best practices as well as lessons learned from the County's first climate action plan, we strongly encourage the County to include the following in the climate action plan and associated documents:

- **Greenhouse gas emissions reduction actions that are specific and measurable** to ensure timely progress will be achieved toward local and state reduction goals.
- **Assess and create action items to address vulnerabilities the County and its composite communities will face from a**

changing climate, such as increasingly frequent and intense wildfires, drought and extreme heat (See: *San Diego, 2050 is Calling: How Will We Answer?).*

- **Assess the communities that will be the most vulnerable to climate change impacts and incorporate targeted measures** to reduce the risks they face, as well as ensure low-income and vulnerable communities are able to benefit from innovations in clean energy, water and energy efficiency, transit and active transportation amenities, green jobs and other benefits associated with greenhouse gas emission reduction measures.
- **Create a robust implementation timeline and plan** with clear leadership among staff at the County and a transparent process for the public to remain engaged in monitoring and implementation of action items as well as any revisions to the plan.
- **Incorporate relevant actions from the Climate Action Plan into the next update of the County's Multi-Jurisdictional Hazard Mitigation Plan** to ensure consistency and public safety relevant to changing risks from hazards such as wildfires, heat waves, coastal flooding, and drought.
- **Continue to actively coordinate with other cities as part of the San Diego Regional Climate Collaborative** to ensure consistency where possible between local government plans and identify opportunities to implement similar strategies more efficiently and effectively together.

We commend the County for its actions to date to prepare a comprehensive climate action plan, and encourage your continued commitment to ensuring robust community participation in its development. We look forward to continue to working with you to help you achieve the County's climate planning goals swiftly and successfully. Please feel free to reach out to us with questions, and thank you for the opportunity to weigh in on this important matter.

Sincerely,

Nicola Hedge
Director, Environment Initiatives

Sierra Club San Diego

Serving the Environment in San Diego and Imperial Counties

November 21, 2016

Via Email, Original to Follow
San Diego County Planning and Development Services
ATTN: Mr. Bulmaro Canseco
CAP Project Manager
5510 Overland Avenue, Suite 110
San Diego, CA 92123

Email: Bulmaro.Canseco@sdcounty.ca.gov

Re: Comments on Notice of Preparation for Climate Action Plan

Dear Mr. Canseco,

Thank you for the opportunity to comment on the County's Notice of Preparation (NOP) for a new Climate Action Plan (CAP) and a supplemental Program Environmental Impact Report (PEIR). On behalf of the Sierra Club, we submit the following comments to ensure that preparation of the County's new CAP and the supplemental PEIR are in accordance with the California Environmental Quality Act (CEQA) and include concrete, comprehensive, and legally enforceable measures to reduce greenhouse gas (GHG) emissions.

Before addressing the EIR for the CAP, the Sierra Club wishes to again object to the County continuing to process applications for major developments that require amendments to the General Plan that were not contemplated in the 2011 General Plan Update with the purpose of allowing current greenfields to be converted to intensely developed lands. In order to avoid greater uncertainty about whether the County's emissions targets will be achieved, until the County approves a legally adequate CAP and Thresholds, the County should not circulate a Draft or Final EIR for any General Plan Amendments (GPAs) that would allow development on greenfields where the project is larger than the project size identified in the California Air Pollution Control Officers Association "CEQA and Climate Change" publication. The Club also urges the County to adopt a CAP as expeditiously as possible since the original CAP was promised to be adopted within six months; the year 2020 is just around the corner, and a tremendous amount of work will have to be done in order to achieve the emission reductions promised by the County when it adopted the 2011 General Plan Update.

The Draft EIR is an excellent way to assure that the preparation of the CAP is a transparent process. The Sierra Club wishes to use this opportunity to recommend strategies that it believes should be included in the CAP. All strategies should be analyzed for effectiveness and feasibility including an assessment of how long each strategy will take to be implemented.

As the development and adoption of a CAP and supplementary PEIR that meets CEQA and orders of the Court is expected to be a significant undertaking for the County, it is imperative that this effort results in a CAP that has teeth. For this, the development of a Process Timeline; the clear assignment of responsibility for the implementation of strategies and goal outcomes; the inclusion of technical appendices in the EIR; the securing of sufficient and reliable funding sources; and the need to have effective monitoring and enforcement mechanisms should be among the first priorities as the Draft PEIR is being prepared.

1. **Process Timeline**: For all aspects of the preparation, implementation, monitoring, and enforcement of the CAP, and any related documentation and processes, there should be *binding and legally enforceable* incremental target dates included in a Process Timeline. That timeline should extend to the year 2050, as is reflected by in the State's Executive Orders, not just 2030.

2. **Accountable Parties**: Broad strategies and goals should be broken down conceptually so that appropriate individuals and teams can address these areas; the individuals and teams should all be clearly documented as those responsible for meeting their defined goals. As a corollary, the quality and expertise of County staff will have a direct effect on the strength and overall effectiveness of the CAP. As such, the County should currently be ensuring that highly qualified and experienced individuals are hired in the event that such staff is not available to take responsibility for any of the actions that are necessary to address the strategies and goals. The County should document any necessary staff additions within the Draft EIR.

3. **Secure and Reliable Funding**: The sources and mechanisms of funding for each strategy and end goal must be clearly and thoughtfully planned, sought, and secured. Potential or hypothetical funding sources should not be considered reliable. For all areas where needed funding does not currently exist, the Draft EIR must detail current efforts to secure this funding. Secure sources of funding should be evident for all 2020 strategies and goals and 50% of all 2030 strategies and goals within the Draft CAP.

4. **Monitoring and Enforcement**: The County should establish effective monitoring methods and clear, concrete, and meaningful and enforcement mechanisms. This applies to both the enforcement of County individuals and teams charged with carrying out implementation of the CAP and to County residents and businesses that will be required to meet future GHG emissions reduction requirements once the CAP is in place.

5. **Data Support**: For all GHG reduction strategies, there should be substantial data within the appendices to support both the GHG reduction levels projected and the detailed methods identified to achieve them. As such, there should be a "game plan" of sorts for each sub-goal and strategy. The Process Timeline, accountable parties, secure and reliable funding, and monitoring and enforcement details should be included in these appendices.

6. **Periodic Updating**: Now that the State has established the goal of a 40% reduction from 1990 emission levels by 2030, a clear trajectory needs to be followed, at the least, to the 80% reduction by 2050 called for in the Schwarzenegger and Brown Executive Orders. It is now clear that the CAP should be structured in a manner to address the reality of climate change in the long haul. It is essential that the CAP be regularly updated as the following occur: ongoing revision of emission inventories; the assessment of the effectiveness of implemented measures; and the identification of new measures. The County's intention with regard to this iterative process should be clearly spelled out in the CAP and analyzed for effectiveness in the EIR.

In addition, the County has indicated that it has no intention to set GHG reduction goals beyond the minimum requirements set by the state. We urge the County to reconsider this position for two reasons. First, if there has been any change over the years in terms of the actual and predicted effects of climate change on the health and well-being of our environment and our communities, it has been to realize that these effects are, and will be, more severe than previously thought. As such, it is likely that some years into the future we will learn that today's minimum requirements are not sufficient. Second, from an economic standpoint, it would be much more cost effective for the County to approach addressing climate change as an integral and fundamental jumping off point for all infrastructure changes and improvements in the future. Funding for climate change technology, expertise, design, implementation, monitoring, and enforcement should be a top priority; the health and well being of the County's residents, businesses, and economy are all dependent on the County's ability to prove through its concrete actions that its willing to make relatively small sacrifices today for the greater benefits to come in the future.

With these ideas in mind, please consider the following measures, or appropriate variations to them, to reduce emissions as the County develops the CAP and Draft EIR evaluating those measures. Note that due to the vagueness of the language in the NOP and the lack of any indication of the actual "strategies, measures, and actions" being considered, the public is unable to fully and meaningfully respond at this time. The following should be considered a limited sampling of what should be a much more exhaustive list of items that merit thorough evaluation and consideration in terms of their possible incorporation in the CAP. These and other measures submitted by the public should be considered along with measures developed as a result of the comprehensive review of other programs to substantially reduce GHG emissions adopted or under consideration by other jurisdictions. We hope the County has already conducted such a

review since the requirement for a new CAP and EIR was made clear in a Court of Appeal decision issued over two years ago.

A. Energy Efficiency and Conservation

Community Choice Energy (CCE): The County should establish a detailed timeline for implementation of measures with binding and legally enforceable target dates for transitioning the County to 100% clean energy by 2030. Examples of places where similar transitions are currently underway include the counties of Marin, Sonoma, Lancaster, San Mateo, and San Francisco, the City of San Diego, and the state of Hawaii.

B. *Green Building*

1. Within six months of completing the Draft EIR, County staff should submit for Board of Supervisors adoption ordinance(s) requiring:

    i. All new housing units should obtain Build It Green or Leadership in Energy and Environmental Design (LEED) certification at a minimum.

    ii. All new non-residential and municipal buildings that exceed 5,000 square feet should be certified to LEED Silver standards at a minimum.

    iii. GHG emissions reduction requirements for existing structures in any instance when a permit to make substantial modifications to an existing structure is issued by the County.

2. The County should regularly, at least every five years, review its building requirements for all buildings (residential, commercial, industrial, and governmental) to ensure that any necessary updates are made in order to maintain performance objectives within 25% of the most current California Green Building Standards Code (CCR Title 24).

3. Evaluate requiring all new residential and commercial buildings to set aside a designated percentage of the roof as "solar ready" by 2020. San Francisco currently has an ordinance requiring all buildings up to ten stories high to set aside 15 percent of the roof as "solar ready" by 2020, but an entirely different percentage and height is likely appropriate for the County.

4. All new and current residential and commercial buildings should install Building Automation Systems that regulate various mechanical and utility systems (e.g., HVAC, lighting, water, etc.).

C. *Waste Reduction and Recycling*

1. Within twelve months of completion of the Final PEIR, the County should establish policies and practices to support a Zero Waste program by 2040 goal.

This goal is important for numerous reasons, but it is particularly important because methane gas released from landfills is a potent GHG. Please refer to examples of similar transitions in the cities of San Diego, San Francisco, and San Jose, as well as the counties of Marin and Santa Cruz.

Components of the program should include:

i. Residential Recycling and Composting: A mandatory recycling and composting ordinance should require residents, businesses, event producers, and County employees to separate their landfill trash, compostables, and recyclables. The County should provide tools and resources online, as well as educational events for the public, to assist them with this transition.
ii. Construction and Demolition Debris Recovery: Extend the provisions of Ordinance 9840 of the County Code of Regulatory Ordinances to include *all* construction, demolition, and renovation projects in the County.

D. *Renewable Energy and Low-Carbon Fuels*

1. Install solar powered smart parking meters throughout the County and at County Operations properties.

2. Replace traditional pedestrian "walk" signals and safety lights with solar powered signals.

3. Ensure that the maximum feasible amount of methane is recovered from landfills for waste-to-energy or other renewable energy projects.

4. Update the County's Green Fleet Action Plan by continuing to convert County vehicles to zero or extremely low emission vehicles with the goal of at least 10 percent further fuel efficiency by 2020.

5. Develop a map that residents can access online which identifies local solar projects and their associated environmental benefits.

6. Install solar panels as shading elements in County parking lots.

7. Install vehicle charging stations at all County parking lots and require new commercial and industrial developments, and multi-family residential units of over five, to install vehicle charging stations.

E. *Efficient Transportation*

1. Within twelve months of completion of the Final PEIR, the County should establish goals and strategies for enhancing a public electric vehicle (EV) charging infrastructure within the community. The County should consider strategic locations for these stations, as well as partnerships with local universities, cultural institutions, and County parks.

2. Within twelve months of completion of the Final PEIR, the County should establish goals and strategies for facilitating home and workplace charging. These goals and strategies should be informed by input from property owners and electrical contractors. A multi-family housing EV charging initiative should be established to address the particular challenges of multi-family housing residents who lack access to residential EV charging stations.

3. The County should adopt a policy of reducing and ultimately eliminating free parking at its own facilities, as well as reducing and eliminating other indirect sources of emissions (e.g., shopping centers and sporting venues), as has been argued by Sierra Club member Mike Bullock. This approach has the advantage of encouraging transit, carpools, and alternative modes of transportation, such as walking or biking.

4. The County should consider providing bicycles for employees to use during the workday for lunchtime outings from County offices and encourage local businesses to evaluate the feasibility of doing the same. Bike racks where bikes can be secured should be provided at all County buildings. Preferential parking should also be provided to people arriving at the buildings in a carpool.

F. ***Land Use, Community Design, Open Space, and Offsetting Carbon Emissions***

Although the County does not have the intensity of development of the incorporated cities in the County, where growth is already planned under the 2011 General Plan Update, priority should be given to multi-family housing being constructed near existing or planned transit. The County should aggressively advocate for multi-modal transportation options, including bike trails, in its participation in SANDAG. In addition, we suggest the County consider the following:

1. The County should not consider GPAs for developments on greenfields where the project is larger than the project size identified in the California Air Pollution Control Officers Association "CEQA and Climate Change" publication.

2. Increase the type, number, and accessibility of parks and other recreational opportunities; promote the associated health benefits of these places and activities.

3. Consider converting closed solid waste landfills to parks or open space.

4. Evaluate habitat monitoring, management, and restoration protocols with consideration of potential future impacts of changing climatic conditions.

5. Achieve carbon neutrality at County-sponsored events and activities through conservation, efficiency, recycling, alternative transportation, and other strategies to reduce GHGs.

6. Plant native trees and drought tolerant vegetation throughout the County. Also, regularly monitor the County's trees for health and remove unhealthy trees and vegetation, as well as any invasive species that may threaten the health of the native ecosystem.

7. Convert to the use of lighter-pigment road surfaces for road repairs and new road construction. For example, Cool Change Cities Project has tested "cool roads" in Sydney, Australia.

G. *Climate-Friendly Purchasing*

1. We encourage the County to adopt a "less is more" approach to inform its product and services decision making at County Operations and to emphasize the "Reduce" in "Reduce, Reuse, Recycle." This approach should also inform the strategies and goals in the CAP for both County Operations and the community.

2. For all County Operations product and service purchases, the County should adopt a policy of "buying green." Whenever feasible, "green" options should be chosen over less environmentally friendly choices.

H. *Community Outreach, Collaboration, and Partnerships*

1. The County should seek out and establish relationships with organizations, business, and local agencies and governments with the objective of regularly strengthening its CAP.

    i. These partnerships and collaborations will serve as sources for learning and gaining access to tools, technology, expertise, and resources that can be used to ensure that emissions reduction targets are met. Examples include: SanDiego350, Climate Education Partners, Climate Action Campaign, Envision Solar, SANDAG, regional governments, and all San Diego County cities.

    ii. Before completion of the Draft PEIR and again before completion of the Draft CAP, the County should meet with SANDAG to inform decision-making with regards to goals and strategies for each of the suggestions in this document.

    iii. Through these relationships, the County should actively search for and make use of available tools, resources, published research, and expertise in order to reach GHG reduction goals. Examples include the International Council for Local Environmental Initiatives (ICLEI), Scripps Institute of Oceanography, State of California Climate Change Resources for Local Governments, and the California Air Resources Board.

iv. Through these relationships, the County should actively secure sources and methods of funding CAP strategies and goals.

v. Through these relationships, the County should seek and consider proposals from universities, research organizations, and other entities to engage in experimental projects that use efficient and renewable energy technology, and implement those strategies that prove effective in reducing emissions and are feasible.

2. The County should invite community members to participate in PEIR and CAP planning and review meetings, as well as ongoing conversations regarding future CAP-related issues.

   i. These meetings should include lead representatives from all Land Use and Environment Group and/or other departments relevant to the meeting topic at hand. For example, a meeting a CAP meeting would include representatives from the Air Pollution Control District, Environmental Health, Planning and Development Services, Public Works, County Airports, Road Maintenance, Wastewater, and Parks and Recreations, as well as representatives of other stakeholders.

   ii. Notice of these meetings should be provided in a timely and easily accessible manner. In addition to providing project and program updates on individual project and program Planning and Development Services web pages, there should be a current calendar page (updated daily) with project and program meeting, deadline, and other relevant information. A minimum of two weeks' notice should be given for all calendar events, and a link should be provided in association with each calendar entry that provides additional event information as well as the option to receive future email notices for events related to the event project or program.

3. The County should establish a volunteer advisory committee/commission to assist with preparation of the PEIR, as well as preparation, implementation, and monitoring of implementation of the CAP. This committee should include one representative for each of the following interests: (1) environmental, (2) non-profit community organization, (3) labor, (4) business, and (5) development. This committee should monitor the County's compliance with CEQA and orders of the Court, review in a timely manner all draft plans and policy statements in preparation of the PEIR and CAP, and make recommendations to the Planning and Development Services Department. Committee members should be selected at least 30 days before the first draft of the PEIR is completed and they should serve one-year terms, with no term limits, and vacancies will be filled in accordance with County policies. The County will use its best efforts, including providing available staff and resources, to facilitate the committee's work.

I. ***Water and Wastewater Systems***

1. Update and incorporate key strategies and goals of the San Diego County Parks and Recreation Water Conservation Plan into the CAP.

2. All new and current residential and commercial buildings should install Building Automation Systems, which include water usage tracking, by 2020.

3. By 2020, all new single-family residential, multi-family residential, and commercial buildings with landscaping should install gray water or rain capture systems for use for irrigation, and for flushing toilets when possible. Incentives should be provided to current residences and commercial facilities for conversion to gray water systems. [1] These systems substantially reduce water usage, energy consumption, and sewer flow and would contribute to several CAP strategies.

Thank you very much for your consideration of all of these recommendations. Although we are aware that there are many other important GHG emissions reduction strategies and goals that the County will undoubtedly include as it develops a CAP, we would like to reiterate that the success of the County's CAP in addressing climate change depends on the strength of the CAP itself. As such, all strategies should be analyzed for effectiveness and feasibility, including an assessment of how long each strategy will take to be implemented and the amount and source of funding to carry out each strategy. There also should be a clear indication of who will be responsible for carrying out each strategy and achieving CAP goals. In addition, there will need to be an active system in place for monitoring and enforcement, and the entire process- including planning, implementation, monitoring, and enforcement- should be transparent.

The Sierra Club looks forward to working with the County toward the development and implementation of a specific, comprehensive, enforceable, and effective CAP.

Very Truly Yours,

Ruben Arizmendi, Chair

[1] Please see: http://www.sandiegouniontribune.com/business/growth-development/sdut-water-recycle-kb-homes-2015jun22-story.html and 'According to a 2009 UCLA study, if 10 percent of Southern California homes reused their gray water, the volume of water saved could be equivalent to the capacity of a large seawater desalination facility. In general, about 50 percent of all household wastewater produced could be diverted as gray water, and some estimates are as high as 80 percent.
The barriers to wider application of gray water at this point are largely logistical and financial. The technology and the legal foundation are in place, but finding professionals who specialize in gray water systems, figuring out the permit requirements and navigating the available support programs can be daunting.' from http://www.sfgate.com/opinion/article/Gray-water-s-time-in-the-sun-5256897.php

Filed 10/29/14

CERTIFIED FOR PUBLICATION

NOT TO BE PUBLISHED IN OFFICIAL REPORTS

California Rules of Court, rule 8.1115(a), prohibits courts and parties from citing or relying on opinions not certified for publication or ordered published, except as specified by rule 8.1115(b). This opinion has not been certified for publication or ordered published for purposes of rule 8.1115.

COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

SIERRA CLUB, Plaintiff and Respondent, v. COUNTY OF SAN DIEGO, Defendant and Respondent.	D064243 (Super. Ct. No. 37-2012-00101054-CU-TT-CTL)

APPEAL from a judgment of the Superior Court of San Diego County, Timothy Taylor, Judge. Affirmed.

Thomas E. Montgomery, County Counsel, and C. Ellen Pilsecker, Chief Deputy County Counsel, for Defendant and Appellant.

Law Office of Malinda R. Dickenson, Malinda R. Dickenson; Chatten-Brown & Carstens, Douglas P. Carstens and Josh Chatten-Brown for Plaintiff and Respondent.

This action arises out of the County of San Diego's (County's) 2011 general plan update, wherein the County issued a program environmental impact report (PEIR), and adopted various related mitigation measures. In this action the Sierra Club sought, in a

petition for writ of mandate, to enforce one mitigation measure adopted by the County: the Climate Change Mitigation Measure CC-1.2 (Mitigation Measure CC-1.2). With Mitigation Measure CC-1.2, the County committed to preparing a climate change action plan with "more detailed greenhouse gas [GHG] emissions reduction [GHG] targets and deadlines" and "comprehensive and enforceable GHG emissions reductions measures that will achieve" specified quantities of GHG reductions by the year 2020.

However, the Sierra Club alleged that instead of preparing a climate change action plan that included comprehensive and enforceable GHG emission reduction measures that would achieve GHG reductions by 2020, the County prepared a climate action plan (CAP) as a plan-level document that expressly "does not ensure reductions." The County also developed associated guidelines for determining significance (Thresholds). According to the Sierra Club, review of the CAP and Thresholds project under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) was performed after the fact, using an addendum to the general plan update PEIR, without public review, without addressing the concept of tiering, without addressing the County's failure to comply with the express language of Mitigation Measure CC-1.2, and without a meaningful analysis of the environmental impacts of the CAP and Thresholds project.

The court granted the petition, concluding that the County's CAP did not comply with the requirements of Mitigation Measure CC-1.2 and thus violated CEQA. The court found that the CAP did not contain enforceable GHG reduction measures that would achieve the specified emissions reductions.

The County appeals, asserting (1) the statute of limitations bars the claim that the mitigation measures are not enforceable; (2) the CAP met the requirements of Mitigation Measure CC-1.2; and (3) that the trial court erred in finding that a supplemental EIR was required. We affirm.

FACTUAL AND PROCEDURAL BACKGROUND

A. *Executive Order S-3-05*

In 2005 then-California Governor Arnold Schwarzenegger issued Executive Order No. S-3-05,[1] which acknowledged California's vulnerability to the effects of climate change and established targets for reducing GHG emissions in California over time. Specifically, Executive Order No. S-3-05 set statewide targets for three points in time: 2010, 2020, and 2050. The target for 2010 (2010 Target) was to reduce emissions to the levels they were at in the year 2000. The target for 2020 is to reduce emissions to the levels they were at in 1990 (2020 Target). The target for 2050 is that emissions be 80 percent below the levels they were at in 1990 (2050 Target).

Executive Order No. S-3-05 was based on then-available climate science and represented California's share of worldwide GHG reductions necessary to stabilize climate. As the Attorney General explained, "Executive Order [No.] S-3-05 is an official policy of the State of California, established by gubernatorial order in 2005, and designed to meet the environmental objective that is relevant under CEQA (climate stabilization)."

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1 On March 24, 2014, the County requested that we take judicial notice of Executive Order No. S-3-05. We grant that request.

B. *The Legislature Addresses the Need for GHG Emission Reductions*

In response to Executive Order No. S-3-05, the California Legislature enacted the California Global Warming Solutions Action of 2006, Assembly Bill No. 32. (Health & Saf. Code, § 38500 et seq.) Consistent with Executive Order No. S-3-05, Assembly Bill No. 32 required the California State Air Resources Board (CARB) to determine 1990 levels of GHG emissions and then to establish "a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020." (Health & Saf. Code, § 38550.) Assembly Bill No. 32 also stated that GHG reductions must continue after 2020, requiring that the statewide greenhouse gas emissions limit established by CARB "remain in effect unless otherwise amended or repealed" (Health & Saf. Code, § 38551, subd. (a)) and further that "[i]t is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020." (Health & Saf. Code, § 38551, subd. (b).) Assembly Bill No. 32 also required that CARB "prepare and approve a scoping plan [for] achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions by 2020." (Health & Saf. Code, § 38561, subd. (a).)

In December 2008 CARB approved the scoping plan. The scoping plan "identifies California's cities and counties as 'essential partners' within the overall statewide effort, and recommends that local governments set a GHG reduction target of 15% below 2005-2008 levels by 2020." Thus, it was acknowledged that CARB would accept this target as a substitute for the 1990 level referenced in Assembly Bill No. 32 and Executive Order No. S-3-05.

C. *The County's General Plan Update PEIR*

The County acknowledged in the general plan update PEIR that it needed to "reduce GHG emissions to 1990 levels by 2020" and that changes were required both in the community and in the County's operations, buildings, vehicle fleet, and with respect to its employee commutes, water, and waste.

A GHG emissions inventory was prepared as a special appendix (Appendix K). Appendix K set forth projected emissions reductions and assumptions then-available, and promised that the "Greenhouse Gas Reduction/Climate Action Plan, which will be prepared as an implementation strategy, will further detail the County's GHG emissions and how those reductions will occur."

There was extensive public comment on the general plan update, including from the California Attorney General:

> "[W]e encourage the County to (l) commit in the General Plan to adopt by a date certain a CAP with defined attributes (targets, enforceable measures to meet those targets, monitoring and reporting, and mechanisms to revise the CAP as necessary) that will be integrated into the General Plan; (2) incorporate into the General Plan interim policies to ensure that any projects considered before completion of the CAP will not undermine the objectives of the CAP; and (3) for all GHG impacts the County has designated as significant, adopt feasible mitigation measures that can be identified today and that do not require further analysis." (Fn. omitted.)

D. *Mitigation Measures*

The County thereafter promised to take a series of additional actions. These promises took the form of a group of climate change-related mitigation measures: Mitigation Measures CC-1.1 through CC-l.19 (the Mitigation Measures). The Mitigation

Measures included requirements to update, review, and implement County programs; implement a strategic energy plan; revise the zoning ordinance; coordinate with other entities; educate the public; reduce vehicle miles traveled and encourage alternative modes of transportation; and, based thereon, to revise the County guidelines for determining significance.

The County made the following finding with regard to Mitigation Measure CC-1.2:

> "[Mitigation Measure] CC-l.2 requires the preparation of a County Climate Change Action Plan within six months from the adoption date of the General Plan Update. The Climate Change Action Plan will include a baseline inventory of greenhouse gas emissions from all sources and *more detailed greenhouse gas emissions reduction targets and deadlines*. The County Climate Change Action Plan *will achieve comprehensive and enforceable GHG emissions reduction* of 17% (totaling 23,572 MTC02E) from County operations from 2006 by 2020 and 9% reduction (totaling 479,717 MTC02E) in community emissions from 2006 by 2020. Implementation of this Climate Change Action Plan will contribute to meeting the [Assembly Bill No.] 32 goals, in addition to the State regulatory requirements noted above." (Italics added.)

Mitigation Measure CC-l.2 formed the basis for Mitigation Measure CC-l.8, which required "revision of the County Guidelines for Determining Significance based on the Climate Change Action Plan."

Mitigation Measure CC-1.8, in turn, formed the basis for Mitigation Measure CC-1.7, which required that the County guidelines for determining significance anticipated by Mitigation Measure CC-1.8 incorporate CARB's recommendation for a threshold for determining significance of impacts on climate change. Should the recommendation "not be released in a timely manner," the County would "prepare its own threshold."

As required by CEQA (Pub. Res. Code, § 21081.6), the County incorporated a mitigation monitoring and reporting program (MMRP) into the general plan update PEIR.

Included in the MMRP was a promise to achieve GHG reductions by 2020 through comprehensive and enforceable GHG emission reduction measures. In addition to committing to the 2020 Target, the County also committed to compliance with the Executive Order No. S-3-05 trajectory. The County found "significant impacts associated with substantial climate-related risks" such as those "on water supply, wildfires, energy needs, and impacts to public health" would occur as a result of its general plan update. However, as a result of its commitment to adopt a CAP and Thresholds, and other mitigation measures, the County was able to make a finding that the climate change impacts anticipated by the general plan update PEIR would be avoided or substantially lessened.

E. *The CAP and Thresholds Project*

According to the County, the CAP was prepared for the following purposes:

1. To mitigate the impacts of climate change by achieving meaningful greenhouse gas (GHG) reductions within the County, consistent with Assembly Bill No. 32, the governor's Executive Order S-3-05, and CEQA guidelines (Cal. Code Regs., tit. 14, § 15000 et seq. [CEQA Guidelines]).

2. To allow lead agencies to adopt a plan or program that addresses the cumulative impacts of a project.

3. To provide a mechanism that subsequent projects may use as a means to address GHG impacts under CEQA.

4. To comply with the 2011 adopted County General Plan Environmental Impact Report (EIR) Mitigation Measure CC-1.2, Preparation of a Climate Action Plan.

Although compliance with Mitigation Measure CC-1.2 was one purpose of the CAP, two of the four purposes relate to preparation of the CAP as a plan-level document so that environmental review could be avoided on future projects that were determined to be below specified "thresholds." (CEQA Guidelines, § 15183.5.) However, the CAP did not mitigate climate change impacts consistent with Assembly Bill No. 32 and Executive Order No. S-3-05, did not satisfy the plan-level requirements of CEQA Guideline 15183.5, and it did not meet the requirements of Mitigation Measure CC-1.2

Instead, the CAP expressly acknowledged the possibility that "communitywide inventories will indicate that the community is not achieving its reduction targets" and admitted that the CAP "does not ensure reductions." Further, the CAP did not include a meaningful analysis of "measures that extend beyond the year 2020." Rather, the County documented that instead of continuing to reduce GHG emissions after 2020, GHG emissions allowed as a result of the general plan update were anticipated to *increase* after 2020.

The CAP and Thresholds were presented to the planning commission and the board of supervisors as "the project." The Thresholds, like the CAP, purport to expressly facilitate post-2020 development that would have significant adverse climate change impacts, without any consideration of post-2020 climate science as required by Assembly Bill No. 32 and Executive Order No. S-3-05.

F. *The Comment Period*

The Sierra Club submitted extensive comments to the County. In particular, the Sierra Club commented on the need to take action consistent with climate science and achieve the Assembly Bill No. 32 and Executive Order No. S-3-05 GHG emissions reductions targets. The Sierra Club also provided specific examples of feasible GHG Reduction measures that would actually reduce GHG emissions and could be adopted without delay. The Sierra Club submitted additional comments and testified at the planning commission hearing, attempted to appeal the planning commission's decision, and testified at the board of supervisors hearing.

G. *Proceedings Before the Planning Commission*

The final agenda for the April 27, 2012 regular meeting of the County Planning Commission Regulation Meeting made no reference to the associated Thresholds, which were also presented to the planning commission. Despite acknowledging the significant climate change effects as well as the requirements of Assembly Bill No. 32 and Executive Order No. S-3-05, staff took the position that no additional environmental review was required. The planning commission voted to adopt staff's recommendation with one addition relating to installation of electric vehicle recharging stations.

H. *Proceedings Before the Board of Supervisors*

The Project was placed on the agenda for the June 20, 2012 board of supervisors meeting as "County of San Diego Climate Action Plan (District: All)." The staff report and supporting documents presented to the board of supervisors included (1) the CAP, (2) the Thresholds, (3) the environmental documentation , and (4) public documentation.

The environmental documentation included a memorandum referencing "CEQA Guidelines Section 15164 Addendum to the County of San Diego General Plan Update [PEIR] (SCH 2002111067)" (Addendum) which was dated the same day as the hearing, June 20, 2012. The addendum defined the project as "the CAP and Significance Guidelines." The addendum included attachments entitled "Environmental Review Update Checklist Form" (environmental checklist) and "Environmental Review Update Checklist for County of San Diego Climate Action Plan." The environmental checklist included a determination by staff that the "new information included in the CAP and Significance Guidelines represent minor technical additions to the previously certified EIR."

At the board of supervisors hearing, staff acknowledged that "[s]tate and local measures in the climate plan are insufficient to achieve our target in 2035" and explained that the CAP measures were not required, but rather that staff "believe[d]" that "education and incentives" might produce a result.

The County also documented that GHG emissions were anticipated to *increase*, not decrease, after 2020. Staff explained that the County would not comply with Executive Order No. S-3-05 because "the State's plan right now goes out to 2020." Staff further explained to the Board of Supervisors that the Thresholds would result in a less than significant finding for greenhouse gas emissions for future development projects.

Ultimately, the board of supervisors took the following actions:

1. Adopted environmental findings including in attachment C.

2. Adopted the plan titled "County of San Diego Climate Action Plan (Attachment A)."

The only findings made by the County were the following:

1. The environmental impact report (EIR) dated August 3, 2011 on file with the Department of Planning and Land Use (DPLU) as Environmental Review Number SCH 2002111067 was completed in compliance CEQA and the State and County CEQA Guidelines and that the Board of Supervisors has reviewed and considered the information contained therein and the Addendum thereto dated June 20, 2012 on file with DPLU and attached thereto; and

2. There were no changes in the project or in the circumstances under which the project was undertaken that involved significant new environmental impacts which were not considered in the previously certified EIR dated August 3, 2011, that there was no substantial increase in the severity of previously identified significant effects, and that no information of substantial importance had become available since the EIR was certified as explained in the environmental checklist dated June 20, 2012 and attached thereto.

I. *The Sierra Club Files Suit*

The Sierra Club filed a petition for writ of mandate, challenging the June 20, 2012 approval of the CAP and Thresholds project, including the associated environmental review. The Sierra Club alleged that the CAP did not meet the requirements of Mitigation Measure CC-1.2, the Thresholds were not adopted pursuant to the requirements of CEQA Guideline section 15064.7, and that an EIR should have been prepared.

J. *The Trial Court's Decision*

The trial court determined that the CAP did not comply with the requirements for a CAP as set forth in Mitigation Measure CC-l.2, and thus violated CEQA. The trial court found that the CAP neither contained enforceable GHG reduction measures that

will achieve the specified emissions reductions, nor detailed deadlines for GHG emission reductions.

The trial court further found that the approval process violated CEQA, noting: "There is no showing that the County properly considered whether the CAP is within the scope of the PEIR" and that "environmental review is necessary to ascertain whether the CAP met the necessary GHG emission reductions when considering the CAP is merely hortatory and contains no enforcement mechanism for reducing GHG emissions."

Further, the trial court determined that whether or not the Thresholds were adopted was a subsidiary issue that did not need to be reached in light of the trial court's decision on the CAP (which formed the basis for the Thresholds) and the process by which it was approved.

DISCUSSION

I. *STANDARD OF REVIEW*

The Sierra Club and the County agree as to the applicable standards of review.

In reviewing the County's actions under CEQA, we must determine whether there was "a prejudicial abuse of discretion." (Pub. Resources Code, § 21168.5.) "'Abuse of discretion is established if the agency has not proceeded in a manner required by law, or if the determination or decision is not supported by substantial evidence.'" (*Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 486.)

"[A] reviewing court must adjust its scrutiny to the nature of the alleged defect." (*Vineyard Area Citizens for Responsible Growth, Inc.* v. *City of Rancho Cordova* (2007) 40 Cal.4th 412, 435 (*Vineyard*).) Challenges to an agency's failure to proceed in the

manner required by CEQA are subject to a significantly different standard of review than challenges that an agency's decision is not supported by substantial evidence. (*Ibid.*) Where the challenge is that the agency did not proceed in the manner required by law, a court must "determine de novo whether the agency has employed the correct procedures, 'scrupulously enforc[ing] all legislatively mandated CEQA requirements.'" (*Ibid*.)

Furthermore, when a prior environmental impact report has been prepared and certified for a program or plan, the question for a court reviewing an agency's decision not to use a tiered EIR for a later project "is one of law, i.e., 'the sufficiency of the evidence to support a fair argument.'" (*Sierra Club* v. *County of Sonoma* (1992) 6 Cal.App.4th 1307, 1318.) "[I]f there is substantial evidence in the record that the later project may arguably have a significant adverse effect on the environment which was not examined in the prior program EIR, doubts must be resolved in favor of environmental review and the agency must prepare a new tiered EIR, notwithstanding the existence of contrary evidence." (*Id.* at p. 1319, fn. omitted.) The court "must set aside the decision if the administrative record contains substantial evidence that a proposed project might have a significant environmental impact; in such a case, the agency has not proceeded as required by law." (*Id.* at 1317.)

II. *OVERVIEW OF CEQA*

"The fundamental goals of environmental review under CEQA are information, participation, mitigation, and accountability." (*Lincoln Place Tenants Assn.* v. *City of Los Angeles* (2007) 155 Cal.App.4th 425, 443-444 (*Lincoln Place II*).) As the California Supreme Court has explained: "If CEQA is scrupulously followed, the public will know

the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. [Citations.] The EIR process protects not only the environment but also informed self-government." (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 392 (*Laurel Heights*).)

CEQA requires a public agency to prepare an environmental impact report (EIR) before approving a project that may have significant environmental effects. (Pub. Resources Code, § 21100.) The EIR is "'the heart of CEQA' . . . an 'environmental "alarm bell" whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.'" (*Laurel Heights, supra,* 47 Cal.3d at p. 392.)

CEQA authorizes the preparation of various kinds of environmental impact reports depending upon the situation, such as the subsequent EIR, a supplemental EIR, and a tiered EIR. (Pub. Resources Code, §§ 21l66, 21068.5, 21093, 21094.) Whereas the subsequent EIR and supplemental EIR are used to analyze modifications to a particular project, a tiered EIR is used to analyze the impacts of a later project that is consistent with an EIR prepared for a general plan, policy, or program. (CEQA Guidelines, § 15385; compare Pub. Resources Code, § 21166 & CEQA Guidelines §§ 15162, 15163 & 15164 [referencing "the project"] with Pub. Resources Code, § 21093 [stating that later projects may use tiering].)

CEQA requires that "environmental impact reports shall be tiered whenever feasible." (Pub. Resources Code, § 21093, subd. (b).) Tiering means "the coverage of

general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs . . . incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared." (CEQA Guidelines, § 15385; Pub. Resources Code, § 21068.5.) In the context of program and plan-level EIR's, the use of tiered EIR's is mandatory for a later project that meets the requirements of Public Resources Code section 21094, subdivision (b). (Pub. Resources Code, § 21094, subd. (a).)

Another requirement of CEQA is that public agencies "should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." (Pub. Resources Code, § 21002.) "A 'mitigation measure' is a suggestion or change that would reduce or minimize significant adverse impacts on the environment caused by the project as proposed." (*Lincoln Place II*, *supra*, 155 Cal.App.4th at p. 445.)

If the agency finds that mitigation measures have been incorporated into the project to mitigate or avoid a project's significant effects, a "public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation." (Pub. Resources Code, § 21081.6, subd. (a)(1).)

If a mitigation measure later becomes "impracticable or unworkable," the "governing body must state a legitimate reason for deleting an earlier adopted mitigation

measure, and must support that statement of reason with substantial evidence." (*Lincoln Place Tenants Association v. City of Los Angeles* (2005) 130 Cal.App.4th 1491, 1509 (*Lincoln Place I*).)

III. *ANALYSIS*

A. *Statute of Limitations Defense*

The County asserts that the Sierra Club's claim that the mitigation measures it adopted are not enforceable is barred by the statute of limitations because the Sierra Club should have challenged the County's approval of the general plan update EIR, not the CAP. We reject this contention.

The petition was filed 30 days after the County's June 20, 2012 approval of the CAP. In addition, the lawsuit was filed 29 days after the County filed a notice of determination (NOD). The Sierra Club's July 20, 2012 petition was timely filed 29 days after. Thus, the County triggered the 30-day statute of limitations set forth in Public Resources Code section 21167, subdivisions (b) and (e).

The Sierra Club is not challenging the validity of the general plan update PEIR or the enforceability of the mitigation measures provided in that document. Rather, the Sierra Club is challenging the project before the Board of Supervisors on June 20, 2012, and seeks to enforce a key mitigation measure set forth in the EIR and MMRP - Mitigation Measure CC-1.2.

Further, the Court of Appeal in *Lincoln Place II, supra,* 155 Cal.App.4th 425 rejected a similar argument to that made by the County. In that case, a tenants' association sought to compel the City of Los Angeles to enforce mitigation measures

contained in a vesting tentative tract map issued by the city. The city argued that the 180-day statute of limitations contained in Public Resources Code section 21167 for challenges to approval of projects without determining whether they have a significant effect on the environment barred the plaintiffs' action. In rejecting that action, the Court of Appeal held "[t]he statute's plain language demonstrates it has no application to this case seeking to *enforce mitigating conditions.*" (*Lincoln Place II*, at p. 453, fn. 23, italics added.)

Moreover, the cases cited by the County in support of its position are inapposite. The County cites *River Valley Preservation Project* v. *Metropolitan Transit Development Bd.* (1995) 37 Cal.App.4th 154 and *Friends of Davis* v. *City of Davis* (2000) 83 Cal.App.4th 1004 for the proposition that because the time period within which to challenge the general plan update EIR has expired, the EIR is conclusively presumed to have complied with CEQA. Here, however, the Sierra Club is not challenging the general plan update EIR, but the CAP and Thresholds project, and is seeking to enforce Mitigation Measure CC-1.2.

The County's reliance upon *Environmental Council of Sacramento* v. *City of Sacramento* (2006) 142 Cal.App.4th 1018 and *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184 is also unavailing. The petitioners in those actions were challenging the adequacy of the mitigation measures themselves. Here, the Sierra Club does not attack the adequacy of the mitigation measure in the general plan update PEIR. To the contrary, the Sierra Club's lawsuit is in *support* of the County's past findings and promises to achieve GHG Reductions.

B. *Failure To Proceed in a Manner Required by Law*

As detailed, *ante*, implementation of Mitigation Measure CC-l.2 was only one of the purported purposes of the CAP and Thresholds project. The CAP and Thresholds project also purports to be a plan-level document for use in review of later projects.

As we shall explain, *post*, with respect to the CAP as mitigation for a plan-level document, the County failed to proceed in the manner required by CEQA by proceeding with the CAP and Thresholds project in spite of the express language of Mitigation Measure CC-l.2 that the CAP "include . . . more detailed greenhouse gas emissions reduction targets and deadlines" and that the CAP "will achieve comprehensive and enforceable GHG emissions reduction" by 2020. With respect to the CAP as a plan-level document itself, the County failed to proceed in the manner required by law by failing to incorporate mitigation measures into the CAP as required by Public Resources Code section 21081.6.

1. *The County failed to adopt a CAP that complied with the requirements of Mitigation Measure CC-1.2*

"Mitigating conditions are not mere expressions of hope." (*Lincoln Place I, supra,* 130 Cal.App.4th at p. 1508.) Once incorporated, mitigation measures cannot be defeated by ignoring them or by "attempting to render them meaningless by moving ahead with the project in spite of them." (*Lincoln Place II, supra,* 155 Cal.App.4th at p. 450.) This is true even where subsequent approvals are ministerial. (*Katzeff v.California Department of Forestry & Fire Protection* (2010) 181 Cal.App.4th 601, 614 [public agency "may not authorize destruction or cancellation of the mitigation—whether or not

the approval is ministerial—without reviewing the continuing need for the mitigation, stating a reason for its actions, and supporting it with substantial evidence"].) If a mitigation measure later becomes "impractical or unworkable," the "governing body must state a legitimate reason for deleting an earlier adopted mitigation measure, and must support that statement of reason with substantial evidence." (*Lincoln Place I*, *supra*, 130 Cal.App.4th at p. 1509.)

a. *The CAP does not include enforceable GHG emissions required by Mitigation Measure CC-1.2*

When it adopted the general plan PEIR, the County promised to achieve specified GHG reductions by 2020. However, when it approved the CAP and Thresholds project, the County stated that the CAP does not ensure the required GHG emissions reductions. Rather, the County described the strategies as recommendations.

Until this litigation was initiated, the County described the CAP as the most critical component of the County's climate change mitigation efforts. The CAP was intended to "'provide[] the specific details associated with [the General Plan] strategies and measures for greenhouse gas (GHG) emissions reduction *that were not available* during the program-level analysis of the General Plan.'" (Italics added.)

The County agreed to the mitigating requirement of a CAP containing "comprehensive and enforceable GHG emissions reduction measures that will achieve" the specified GHG Reductions by 2020. This is because, as the County acknowledges, Executive Order No. S-3-05 requires consistent emissions reductions each year from

2010 through 2020 and then a greater quantity of emissions reductions each year from 2020 through 2050.

The County asserts that "[f]ive of the reduction measures incorporated into the CAP are also embodied in state or federal law" and that "CEQA permits reliance on existing regulatory standards as mitigation when it is reasonable to believe compliance will occur."

However, the County acknowledges that these measures will not, alone, achieve the specified GHG emissions reductions by 2020. In fact, the record shows that without local measures the requirements of Assembly Bill No. 32 will not be met.

Further, the record demonstrates that many of the mitigation measures set forth in the MMRP are not likely to achieve GHG emissions reductions by 2020 as promised by Mitigation Measure CC-1.2 because they are not currently funded. The record show that the County has not funded essential programs like replacing its own vehicle fleet, implementing water conservation programs, preparing town center plans, and reducing water demand. The County cannot rely on unfunded programs to support the required GHG emissions reductions by 2020, as Mitigation Measure CC-1.2 requires.

Transportation is a major concern, which the County concedes is the largest source of community GHG emissions. The Sierra Club presented evidence below that driving reductions needed to achieve Assembly Bill No. 32 and Executive Order No. S-3-05 targets are not met. The County did not dispute this evidence. The record shows that transit-related measures are either unfunded, that the County is not making meaningful

implementation efforts, and in some instances that the County is acting contrary to mitigation measures incorporated into the general plan update PEIR.

For example, two of the four transportation measures, T1 (increase transit sse) and T2 (increase walking & biking), rely on at least one unfunded program. In addition, measures T1 and T2, as well as T3 (increase ridesharing), also rely on "coordination" with SANDAG and/or other entities.

In response to Sierra Club's comments relating to the effectiveness of these measures as a result of current SANDAG (San Diego Association of Governments) priorities, the County did not request funds based on the fact that it does not control how SANDAG spends its money. As the County stated, "The County does not control regional plans or allocation of regional transportation funding." This position was rejected by the Supreme Court in *City of Marina v. Board of Trustees of the California State University* (2006) 39 Ca1.4th 341, 367 [holding respondent could not disclaim responsibility for making payments without first asking for funds].

The CAP's transportation section also does not include an analysis of the County's own operations, and the record appears to include contradictions even over programs over which the County has exclusive control, such as replacement of its own vehicle fleet with alternatively fueled vehicles. Although the County suggests it will implement "1 % greater efficiency per year", the County has not formally bound itself do so. Indeed, there is no mention of potential funding sources with respect to reductions related to County operations.

b. *The CAP contains no detailed deadlines for reducing GHG emissions*

As the trial court found, the CAP contained no detailed deadlines. The County argues on appeal that the 2020 goal and the timeframes set forth in the MMRP are sufficient to meet the requirement of "more detailed . . . deadlines." However, Mitigation Measure CC-1.2 expressly required that the CAP provide more detailed deadlines. If the County did not intend for the CAP to do anything further with respect to deadlines than already set forth, the County would not have used the word "more." Indeed, in addition to not providing the promised deadlines, the CAP acknowledges that it will not be effective unless it is updated.

c. *The evidence cited by the County*

The County asserts that CAP measures will be effective because "[p]articipation rates were discussed and modified," and the "feasibility of attaining reduction targets was assessed." However, the County does not cite any evidence in the record to support its belief that people will participate in the various programs to the extent necessary to achieve the reductions asserted, or even assert that feasible measures will actually be implemented.

Rather, the County cites to entire appendices and chapters of the CAP. However, information contained in appendices are "'not a substitute for "a good faith reasoned analysis."'" (*Vineyard, supra*, 40 Cal.4th at p. 442.) "The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project." (*Id.* at p. 443.)

The County also asserts that the CAP "demonstrates a [GHG emissions] reduction of 19%." However, the CAP expressly states that it does not ensure reductions. Instead, the County's evidence relates to quantification of the respective measures. Quantifying GHG reduction measures is not synonymous with implementing them. Whether a measure is effective requires more than quantification, but an assessment of the likelihood of implementation. There is no evidence in the record that the above-referenced mitigation measures will make any contribution to achieving GHG emissions reductions by 2020.

2. *The County's failure to make findings regarding the environmental impact of the CAP and Thresholds project*

Instead of analyzing and making findings regarding the environmental effects of the CAP and Thresholds project, the County made an erroneous assumption that the CAP and Thresholds project was the same project as the general plan update. (*Sierra Club, supra,* 6 Cal.App.4th at p. 1320 ["section 21166 and its companion section of the [CEQA] Guidelines appear to control only when the question is whether more than one EIR must be prepared for what is essentially the same project"].) As a result, the County failed to render a "written determination of environmental impact" before approving the CAP and Thresholds project. (*No Oil, Inc.* v. *City of Los Angeles* (1974) 13 Cal.3d 68, 81; Pub. Resources Code, § 21151.) This constitutes a failure to proceed in the manner required by law. (*No Oil, supra,* 13 Cal.3d at p. 81.)

By inaccurately assuming the CAP and Thresholds project was the same project as the general plan update, the County failed to analyze the environmental impacts of the

CAP and Thresholds project itself. (*Natural Resources Defense Council, Inc.* v. *City of Los Angeles* (2002) 103 Cal.App.4th 268, 283 [holding CEQA violated where "no evidence that the [County] formally addressed whether or not the [] project fell within the concept of a 'tiered' EIR"].) As a result, the County never made the required findings that the effects of the CAP and Thresholds project were examined, mitigated, or avoided. (Pub. Resources Code, § 21094, subd. (a).)

The facts of the present case, as the trial court found, are similar to *Center for Sierra Nevada Conservation* v. *County of El Dorado* (2012) 202 Cal.App.4th 1156 (*CSNC*). In *CSNC*, the county prepared a general plan and PEIR. (*Id.* at p. 1162.) In the PEIR, one of the mitigation measures was the preparation of a management plan, including a fee program, to mitigate the general plan's impacts on oak woodland habitat. (*Id.* at p. 1163.) The initial study concluded that the project was merely an implementation of the county's general plan. (*Id.* at p. 1176.)

The Court of Appeal rejected this argument, holding that a tiered EIR was required to examine the management plan since the PEIR did not include sufficient details, rejecting the argument that the management plan was merely an implementation of the general plan. (*CSNC, supra,* 202 Cal.App.4th at pp. 1176, 1184-1185.)

The County attempts to distinguish *CSNC* by asserting the general plan update PEIR analyzed the same environmental issue addressed in the CAP. However, the record reveals that the necessary details were not available to the County at the time the general plan update PEIR was certified. Indeed, no component of the project, the CAP or the Thresholds, had even been created at the time of the general plan update.

As the Court of Appeal in *CSNC* explained:

> "That the preceding 2004 program EIR contemplated adverse environmental impacts resulting from development under the 2004 General Plan does not remove the need for a tiered EIR for the oak woodland management plan. . . . Here, the specific project—the oak woodland management plan (including Option B fee program)—required a tiered EIR to examine its specific mitigation measures and fee rate." (*CSNC, supra,* 202 Cal.App.4th at p. 1184.)

The general plan update anticipated implementation of mitigation measures—CC-l.2, CC-1.7, and CC-l.8—as mitigating conditions to mitigate the adverse climate change environmental impacts of the general plan update. Those measures were analyzed in the PEIR. However, the PEIR never considered the use of the CAP and the Thresholds as a plan-level program. Thus, the environmental impacts of its use needed to be considered in an EIR. (*NRDC, supra,* 103 Cal.App.4th at p. 281 [project did not arise until after PEIR and thus was not contemplated therein].)

The County contends that the Board of Supervisors made an "implied finding" that the CAP complied with Mitigation Measure CC-1.2 and that finding is "entitled to great deference." However, "such an 'implicit finding' does not satisfy CEQA's requirement of express findings." (*Sacramento Old City Assn.* v. *City Council* (1991) 229 Cal.App.3d 1011, 1037.) "'[T]he board of supervisors must make findings . . . to permit a reviewing court to bridge the analytic gap between the evidence and the ultimate decision.'" (*People* v. *County of Kern* (1976) 62 Cal.App.3d 761, 777; see *Citizens for Quality Growth* v. *City of Mt. Shasta* (1988) 198 Cal.App.3d 433, 442 ["passing references to the mitigation measures are insufficient to constitute a finding, as nothing in City's resolutions binds it to follow these measures"].)

Moreover, even if "implied findings" were permissible, there can be no "interpretation" of Mitigation Measure CC-1.2 contrary to its express terms. (*Southern Cal. Edison Co.* v *Public Utilities Com.* (2000) 85 Cal.App.4th 1086, 1105 ["an agency's interpretation of a regulation or statute does not control if an alternative reading is compelled by the plain language of the provision"]; see *Santa Clarita Organization for Planning the Environment v. City of Santa Clarita* (2011) 197 Cal.App.4th 1042, 1062 [agency's "view of the meaning and scope of its own ordinance" does not enjoy deference when it is "'clearly erroneous or unauthorized"'].)

3. *The County failed to proceed in the manner required by law by failing to incorporate mitigation measures directly into the CAP*

As discussed, *ante*, one of the major differences between the climate change action plan anticipated by Mitigation Measure CC-1.2 in the general plan update PEIR and the CAP and Thresholds project as prepared, is that the general plan update PEIR did not analyze the CAP as a plan-level document that itself would facilitate further development. As a plan-level document, the CAP is required by CEQA to incorporate mitigation measures directly into the CAP:

> "A public agency *shall provide the measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures*. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or, *in the case of the adoption of a plan*, policy, regulation, or other public project, *by incorporating the mitigation measures into the plan*, policy, regulation, or project design." (Pub. Resources Code, § 21081.6, subd. (b), italics added.)

As authority for the assertion that it did not need to incorporate enforceable mitigation measures into the CAP directly, the County cites *Twain Harte Homeowners Assn. v. County of Tuolumne* (1982) 138 Cal.App.3d 664, 689-690. However, *Twain Harte* was decided before enactment of Public Resources Code section 21081.6, subdivision (b), which, as discussed, *ante*, requires "in the case of the adoption of a plan" that mitigation measures be fully enforceable "by incorporating the mitigation measures into the plan . . . ."

"The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind." (*Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283.) By failing to consider environmental impacts of the CAP and Thresholds project, the County effectively abdicated its responsibility to meaningfully consider public comments and incorporate mitigating conditions. In addition to the example discussed, *ante*, related to transportation impacts, the Sierra Club also provided examples of mitigation implemented by other regions to mitigate the effects of climate change in the energy sector. The County neither implemented nor responded to these examples which have already been implemented elsewhere.

4. *The trial court's finding that the County must prepare an EIR*

As set forth in *Lincoln Place I*, a supplemental EIR must be prepared when a public agency determines a previously adopted mitigation measure is infeasible. (*Lincoln Place I*, *supra*, 130 Cal.App.4th at pp. 1508-1509.) In addition, CEQA guidelines,

section 15183.5, subdivision (b)(1)(F) provides that a plan for the reduction of GHG emissions should "[b]e adopted in a public process following environmental review."

The County's failure to comply with Mitigation Measure CC-1.2 and Assembly Bill No. 32 and Executive Order No. S-3-05 supports the conclusion that the CAP and Thresholds project will have significant, adverse environmental impacts that have not been previously considered, mitigated, or avoided.

a. *Substantial evidence supports the court's finding preparation of an EIR was required*

The County asserts that the substantial evidence standard of review applies to the question of whether a supplemental EIR was required, under which deference is given to an agency's determination. (*Latinos Unidos de Napa v. City of Napa* (2013) 221 Cal.App.4th 192, 200-202.) The Sierra Club, on the other hand asserts that the "fair argument" test applies, under which "deference to the agency's determination is not appropriate and its decision not to require an EIR can be upheld only when there is no credible evidence to the contrary." (*Sierra Club, supra,* 6 Cal.App.4th at p. 1318.) We conclude that under either standard, the trial court did not err in finding a supplemental EIR was required.

The fair argument versus substantial evidence test is of no moment because, here, there is no substantial evidence in the record supporting the County's erroneous conclusion that "activities associated with the CAP and Significance Guidelines are within the scope of the General Plan Program EIR."

The County does not dispute that "to avoid serious climate change effects, atmospheric GHG concentrations need to be stabilized as quickly as possible." In fact, the County warns that expected local adverse effects of climate change include "higher temperatures, [¶] a greater number of extremely hot days, [¶] changes in the pattern and amount of precipitation, [¶] decreased water supplies accompanied by increased demand, [¶] increased wildfire risk, [¶] changes in ecosystems, and [¶] decline or loss of plant and animal species." However, the CAP and Thresholds project was approved without the appropriate environmental analysis to avoid or mitigate these consequences. As the trial court found, "environmental review is necessary to ascertain whether the CAP met the necessary GHG emission reductions when considering the CAP is merely hortatory and contains no enforcement mechanism for reducing GHG emissions."

Moreover, as the County acknowledges, the details of the CAP "were not available during program-level analysis of the General Plan." For example, the general plan update PEIR did not provide a "baseline GHG emissions inventory; detailed GHG-reduction targets and deadlines; comprehensive and enforceable GHG emissions-reduction measures; and implementation, monitoring, and reporting of progress toward the targets defined in the CAP." In 2011 the County found that implementation of mitigation measures, including CC-l.2, CC-1.7, and CC-l.8, were part of the mitigation imposed to mitigate the climate change impacts of the general plan update. It cannot be said that failing to comply with Mitigation Measure CC-1.2, Assembly Bill No. 32, and Executive Order No. S-3-05 does not change the environmental conclusions in the general plan update PEIR.

Further, the general plan update PEIR did not contemplate that preparation of the CAP and Thresholds project was at the "plan-level." As a plan-level document, the CAP and Thresholds project was required to undergo environmental review as a matter of law. (CEQA Guidelines, § 15183.5, subd. (b)(l)(F).) The general plan update PEIR also did not contemplate that as a result of the CAP, "[m]ore projects will fall below the bright line threshold, and will not have to conduct detailed analysis", much less study the environmental impact of such. County staff, the planning commission, and the board of supervisors were all aware that approving the CAP and Thresholds project would allow more projects to avoid a climate change analysis, including projects with post-2020 climate change impacts without post-2020 environmental review.

Furthermore, in 2011, the County found that climate change impacts were mitigated not only by implementation of mitigation measures, but also by "compliance with applicable regulations" including Assembly Bill No. 32 and Executive Order No. S-3-05.

By contrast, the CAP and Thresholds project now acknowledges it does not comply with Executive Order No. S-3-05. Instead of maintaining a constant rate of GHG emissions reductions after 2020, as required by Executive Order No. S-3-05, the County admits that GHG emissions will instead increase after 2020. Thus, the County's own documents demonstrate that the CAP and Thresholds project will not meet the requirements of Assembly Bill No. 32 and Executive Order No. S-3-05 and thus will have significant impacts that had not previously been addressed in the general plan update PEIR.

The explanation given to the board of supervisors for failing to address the post-2020 impacts facilitated by the CAP and Thresholds project was that "the State's plan doesn't go out that far, and it would be speculative for us to do that."

However, contrary to the County's argument that it would be "speculative" to consider the environmental impacts of the CAP, the County has acknowledged that other agencies have, in fact, been able to do so. It is an abuse of discretion to reject alternatives or mitigation measures that would reduce adverse impacts without supporting substantial evidence. (CEQA Guidelines, §§ 15043, 15093, subd. (b).) The County's assumption that considering post-2020 impacts is "speculative" is not supported by substantial evidence. (Pub. Resources Code, § 21082.2, subd. (c) ["Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous . . . is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."].)

The Sierra Club provided feasible mitigation measures. The County rejected these mitigation measures without substantial evidence for doing so.

In sum, the CAP does not fulfill the County's commitment under CEQA and Mitigation Measure CC-1.2, to provide detailed deadlines and enforceable measures to ensure GHGF emissions will be reduced.

DISPOSITION

The judgment is affirmed. The Sierra Club shall recover its costs on appeal.

NARES, J.

I CONCUR:

McCONNELL, P. J.

I CONCUR IN THE RESULT:

HUFFMAN, J.

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March 19, 2012

VIA HAND DELIVERED and EMAILED TO: (*Anna.Lowe@sdcounty.ca.gov)*

Anna Lowe, Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

Re: Comments Regarding the Draft Climate Action Plan and Related Documents

Dear Ms. Lowe:

The San Diego & Imperial Counties Chapter of the Sierra Club (the "Sierra Club" or the "Chapter") respectfully requests that the Draft County of San Diego Climate Action Plan ("Draft CAP"), the Draft Guidelines for Determining Significance: Climate Change ("Draft Significance Thresholds"), and the Draft Report Format and Content Requirements: Greenhouse Gas Analyses and Reporting ("Draft GHG Report Requirements") be returned to staff for revisions and subsequent recirculation before presentation to the Board of Supervisors for consideration at a public hearing.

In failing to require greenhouse gas ("GHG") reductions past 2020 projections, the County Draft CAP, Draft Significance Thresholds, and Draft GHG Report Requirements, if adopted, will themselves contribute to the ultimate human catastrophe: climate destabilization.

Additionally, the County has failed to keep its own promises to the people – promises made just last year in the 2011 County of San Diego General Plan Update Environmental Impact Report ("General Plan EIR").

As set forth below, the Draft CAP does not meet its stated goals of (1) complying with General Plan EIR Mitigation Measure CC-1.2 or Assembly Bill 32 ("AB 32"); or (2) mitigating the impacts of climate change consistent with the reduction requirements contained in Executive Order S-3-05 ("the Executive Order").[1]

To make matters worse, and instead of contributing to the solution, the Draft Significance Thresholds and the Draft Report Requirements serve to further exacerbate the devastating impacts of climate change by purporting to limit California Environmental Quality Act ("CEQA") review – and therefore consideration of mitigation measures and alternatives - based on thresholds that do nothing to avoid dangerous anthropogenic interference ("DAI") within the climate system.

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[1] In addition, the Draft CAP does not mitigate the impacts of climate change consistent with the California Environmental Quality Act ("CEQA") Guidelines, allow lead agencies to adopt a plan or program that addresses the cumulative impacts of a project, or provide a mechanism that subsequent projects may use as a means of addressing GHG impacts under CEQA.

For this reason, adoption of the Draft Significance Thresholds and the Draft Report Requirements themselves would have adverse environmental impacts that have not been analyzed by the County as required by CEQA.

I. THE DRAFT CAP DOES NOT COMPLY WITH THE REQUIREMENTS OF MITIGATION MEAURE CC-1.2 OR AB 32.

The General Plan EIR identified significant impacts related to GHG emissions and was adopted based on findings that the mitigation measures identified and described therein would be implemented. Specifically, in certifying the General Plan EIR, the Board of Supervisors made findings that Mitigation Measure CC-1.2 would mitigate potentially significant climate change impacts to a level below significance:

> **CC-1.2 requires the preparation of a County Climate Change Action Plan within six months from the adoption date of the General Plan Update. The Climate Change Action Plan will include a baseline inventory of greenhouse gas emissions from all sources and more detailed greenhouse gas emissions reduction targets and deadlines. The County Climate Change Action Plan will achieve comprehensive and enforceable GHG emissions reduction of 17% (totaling 23,572 MTCO2E) from County operations from 2006 by 2020 and 9% reduction (totaling 479,717 MTCO2E) in community emissions from 2006 by 2020. Implementation of the Climate Action Plan will contribute to meeting the AB 32 goals, in addition to the state regulatory requirements…**

General Plan EIR, Finding A-37, Attachment H-1, p. 71-72. Mitigation Measure CC-1.2 states as follows, and requires the County to:

> **Prepare a County Climate Change Action Plan with an update baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reduction targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. Once prepared, implementation of the plan will be monitored and progress reported on a regular basis.**

General Plan EIR, p. 7-80.

The Draft CAP is not the County Climate Change Action Plan contemplated by Mitigation Measure CC-1.2. As set forth below, the Draft CAP: (A) does not provide an updated baseline inventory; (B) does not provide detailed reduction targets and deadlines; (C) does not contain "comprehensive and enforceable GHG emissions reduction measures"; (D) does not "achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emission between 2006 and 2020"; and (E) precludes meaningful monitoring and reporting.

A. THE DRAFT CAP DOES NOT PROVIDE AN UPDATED BASELINE INVENTORY.

Mitigation Measure CC-1.2 required that County "Prepare a County Climate Change Action plan with an update baseline inventory of greenhouse gas emissions from all sources…" but the Draft CAP does not provide such an updated inventory. Instead, the Draft Cap appears to use 2005 and 2006 baselines that were already in existence at the time Mitigation Measure CC-1.2 was adopted.

B. THE DRAFT CAP DOES NOT PROVIDE MORE DETAILED REDUCTION TARGETS AND DEADLINES.

Mitigation Measure CC-1.2 required that the County "Prepare a County Climate Change Action plan with…more detailed greenhouse gas emissions reduction targets and deadlines…," but the Draft CAP in fact provides *less* detailed targets and deadlines than provided in AB 32 and the Executive Order.

The Draft CAP appears to ignore certain requirements of AB 32 as interpreted by the County's own data. For example, the County's position is that, "To achieve AB 32's 2020 target, community-wide emissions would have to be reduced by 479,717 MT CO2e from 2006 levels. ***A 9% reduction from 2006 levels is necessary to achieve 1990 levels***…" General Plan EIR, CEQA Findings Regarding Significant Effects, Attachment A, p. 2. The Draft CAP does not distinguish between community emissions reductions and County emissions reductions and omits any reference to the 9% community reductions set forth in Mitigation Measure CC-1.2.

Instead, the entirety of the established targets and deadlines appears to be "15% below 2005 levels by 2020." Draft CAP, p. 20. The Draft CAP in fact recognizes that to be on track to meet the goals of the Executive Order emissions reductions would have to be 49% below 2005 levels by 2035; and that the Draft CAP does <u>not</u> meet that goal. Draft CAP, p. 49.

As if an excuse, the Draft CAP states that only "current technology and existing state and federal regulations" are considered. Draft CAP, p. 49. Notwithstanding that there is no excuse for contributing to climate destabilization, the Draft CAP makes inaccurate assumptions and statements with respect to currently available solutions. For example, in assuming it cannot meet the Executive Order requirements, the Draft CAP must be presuming it will not meet the regulatory goals already established by the California Public Utilities Commission. If the County were to meet the already established California Energy Efficiency Strategic Plan goals for 2020, GHG emissions from stationary electricity usage would drop 50% by 2020 compared to a 2008 baseline year. See Attachment 1. The GHG reduction would exceed 80% by 2030 if the same pace of zero net energy building retrofits is assumed in the 2020-2030 timeframe. See Attachment 2. Currently available transportation related GHG reduction solutions are presented in the Appendix. See also Attachments 5-7.

C. THE DRAFT CAP DOES NOT PROVIDE COMPREHENSIVE AND ENFORCEABLE GHG EMISSIONS REDUCTION MEASURES.

It was no mistake that Mitigation Measure CC-1.2 used language like "comprehensive," "enforceable," and "will achieve." Proposed mitigation measures are required by law to be "fully enforceable." Cal. Pub. Res. Code § 21081.6(b); Guidelines § 15126.4(a)(2). Mitigation measures must be definite and defined so that their effectiveness is ascertainable. *See, e.g., San Franciscans for Reasonable Growth v. City & County of San Francisco*, 151 Cal.App.3d 61, 79 (1984).

Instead of "achieving" the reductions set forth in Mitigation Measure CC-1.2 and required by law, the Draft CAP concedes that it "does not ensure reductions…" Draft CAP, p. 69. In addition, the Draft CAP uses language such as "addressing," "informing and inspiring meaningful GHG reductions," and "Allow lead agencies to adopt a plan or program that addresses the cumulative impacts of a project." These vague statements should be replaced with mandatory requirements that actually produce results.

The CAP provides seventeen GHG reduction measures that the drafters conclude will allow the County to achieve the goal of reducing emissions to 15% below 2005 levels by 2020. Draft CAP, p. 22. However, the measures do not explain the strategies that will be implemented, they do not provide cost breakdowns, they do not describe any incentives, they do not set forth specific mechanisms for monitoring each measure, and they do not explain the role of each implementation partner listed.

For example, measure E1, Energy-Efficient New Development, states that the County will "use incentives to encourage builders to exceed current energy efficiency standards by 15%." Draft CAP, p. 29. What incentives? It then states there are also educational programs that "will create the educated and experienced workforce that is needed to take advantage of the County's Green Building Incentive program." *Ibid.* Where is the description of the County's Green Building Incentive program? Who will participate in the educational program? How will the program be implemented or monitored? E1 also neglects to explain the likelihood of securing funding from the listed "Potential Funding Sources" and how instrumental are each to the success of the measure. *Ibid.* In addition, the measure does not indicate the roles of each implementation partner. *Ibid.* Without this important information, how could the County accurately determine the GHG reductions anticipated from this measure or the participation rate? All these things must be considered in order to provide full information and demonstrate enforceability to achieve acceptable mitigation under CEQA.

The Draft CAP concedes that some of the strategies provided in will <u>not</u> yield quantifiable emissions reductions. Draft CAP, p. 22. The strategies that will not yield quantifiable emissions reductions are not, and must be, identified. There is no information about the percentage of reductions that do not yield quantifiable emissions reductions, and there is therefore no way to analyze their effect on the requirements of Mitigation Measure CC-1.2.

In summary, the Draft CAP does not provide comprehensive and enforceable mechanisms that will actually reduce GHG emissions. With inadequate reduction measures it is far from clear whether or not the Draft CAP will achieve the County GHG emissions reduction target of 15% below 2005 levels by 2020. Further, with an ambiguous reduction target, it is not possible to determine that such a target will be sufficient even to comply with AB 32.

D. THE DRAFT CAP DOES NOT PROVIDE COMPREHENISVE REDUCTION MEASURES THAT WILL ACHIEVE A 17% REDUCTION IN EMISSIONS FROM COUNTY OPERATIONS AND A 9% REDUCTION IN COMMUNITY EMISSIONS.

Mitigation measure CC-1.2 requires the CAP to achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. As set forth above, the Draft CAP does not actually achieve *any* emission reductions. In addition, the CAP only gives one emissions reduction target - 15% below 2005 levels by 2020.

Nowhere in the Draft CAP is there a reference to reducing "9% community emissions between 2006 and 2020." Moreover, the terms "County" and "community" are used in the General Plan EIR, "municipal" and "community" are used in Attachment A to General Plan EIR Attachment H-1 ("Attachment A"), and just "County" is used in the Draft CAP. *See e.g.* Attachment A, p. 3. The inventory update in Attachment A says the *community* baseline year is changed to 2005, however, the 2005 baseline year used in the Draft CAP is for the *County*. No explanation is provided for the absence of the "9% reduction between 2006 and 2020" requirement of Mitigation Measure CC-1.2 in the Draft CAP.

E. THE CAP MONITORING PROGRAM PRECLUDES EFFECTIVE IMPELEMENTATION.

The Draft CAP also fails to provide for effective implementation. Mitigation Measure CC-1.2 requires that, "Once prepared, implementation of the plan will be monitored and progress reported on a regular basis." The inadequate Draft CAP itself concedes that, "it is imperative to monitor progress toward the goals set in CAP and to revisit and update the CAP periodically." Draft CAP, p. 69. However, the proposed monitoring tool that can "track progress between inventories and examine effectiveness of specific measures" and is contemplated to be "revisited periodically to reflect any changes in emissions projections or reduction potential," neglects to define "periodically." *Ibid.* In addition, the monitoring section of the CAP does not explain how the County will "coordinate monitoring efforts at the community and local government levels," which seems to be the key to the success of the program. *Ibid.* Without full participation and information from those implementing the Draft CAP, as well as those affected by the Draft CAP measures, the monitoring system will not receive the necessary and relevant information to make an assessment about the progress of implemented measures.

II. THE DRAFT CAP DOES NOT COMPLY WITH THE EXECUTIVE ORDER

The Governor's Executive Order S-3-05 states:

> **[T]he following greenhouse gas emission reduction targets are hereby established for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels**

The CAP acknowledges the targets established in the Executive Order and the developed emissions forecasts for 2035 necessary to reach 2050 GHG emissions reductions. Draft CAP, p. 20. The Draft CAP explains that reductions "would need to reach 49% below 2005 levels by 2035, based on emissions forecasts for 2035 and 2050 under BAU conditions, to meet the 2050 goal." *Ibid.* However, after expressing dedication to meeting legislative goals and the need to look beyond 2020 deadlines, and determining reduction targets for 2035 and 2050, the CAP stops short. Draft CAP, p. 49, 52. The Draft CAP utilized the same measures developed for 2020 scenario for the 2035 scenario, with the only change being an increase in rates of participation. Draft CAP, p. 49. This planning only yields a potential reduction of 13.7% below 2005 levels by 2035 and "does not achieve the 49% reduction target." *Ibid.*

The scientific community recognizes that DAI within the climate system will not be avoided by 2020 reductions alone. See Attachments 3, 4. As set forth above, the Draft CAP inaccurately states that "current technology and existing state and federal regulations" are considered. Draft CAP, p. 49. Regulatory goals already established by the California Public Utilities Commission provide current solutions and guidance to achieve 2035 and 2050

reductions. See Attachments 1, 2. Similarly, currently available transportation related GHG reduction solutions are presented in the Appendix, in which specific comments are provided and inadequacies explained. See also Attachments 5-7.

III. THE DRAFT SIGNIFICANCE THRESHOLDS AND THE DRAFT REPORT REQUIREMENTS, AS DRAFTED, WILL CONTRIBUTE TO CLIMATE DESTABILIZATION AND ARE SUBJECT TO CEQA.

Instead of trying to avoid DAI within the climate system, the Draft Significance Thresholds and Draft Report Requirements serve to further exacerbate the devastating impacts of climate change.

The CEQA Guidelines explained that lead agencies may adopt thresholds of significance for use in environmental review but that the thresholds must be supported by substantial evidence:

> (a) Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.
> (b) Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule, or regulation, and developed through a public review process and be supported by substantial evidence.
> (c) When adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.

CEQA Guidelines § 15064.7. Here, there is no substantial evidence that supports adoption of the Draft Significance Thresholds and Draft Report Requirements which do not even purport to provide for emissions reductions past 2020 targets. The scientific of climate change reveals that 2020 targets are insufficient to avoid DAI within the climate system. Adoption of the Draft Significance Thresholds and/or the Draft Report Requirements will therefore themselves adversely impact the environment. An EIR would be required before either or both could be adopted.

CEQA Guideline section 15064.4, entitled, Determining the Significance of Impacts from Greenhouse Gas Emissions, provides additional guidance for determining GHG impact significance:

> (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion

> to determine, in the context of a particular project, whether to:
> (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
> (2) Rely on a qualitative analysis or performance based standards.
> (b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:
> (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
> (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
> (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Again, as set forth above, there has been no effort based on existing scientific and factual data to calculate the GHG emissions that would result from adoption of the Draft Significance Thresholds or the Draft Report Requirements. To the contrary, existing scientific and factual data reveals that thresholds that do not meet 2035 requirements are insufficient. See Attachment 3, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group Meeting #15, p. 2. As set forth and referenced in the attached letter from the Center for Biological Diversity, not even compliance with the Executive Order will avoid dangerous anthropogenic interference with the climate system. See Attachment 4. Failing to address emissions reductions past 2020 necessarily renders the Draft Significance Thresholds and Draft Report Requirements insufficient.

I have attached an appendix and seven (7) documents, which are in incorporated by reference as part of our comments on the County's proposed plan. This letter, its appendix and the incorporated documents must be included in any review of your plan. We request written responses to each and every comment made in this submission. Please notice our organization at the above address of any further processing of this plan or meetings on this plan.

Thank you for your fine staff work and including us in this process.

Respectfully submitted,

/s/ *John Stump*

John Stump, Chair
Chapter Executive Committee

cc. Ms. Malinda Dickensen, Chapter Vice Chair
Ms. Mollie Bigger, Chapter Conservation Chair
Mr. Mike Bullock, Chapter Transportation Chair
Ms. Masada Disenhouse, Chapter Climate Chair

Enclosures (7)

Attachment 1 – California Energy Efficiency Strategic Plan, January 2011 Update
Attachment 2 – California Energy Efficiency Strategic Plan Zero Net Energy Action Plan: Commercial Building Sector 2010-2012
Attachment 3 – Letter from Center for Biological Diversity to Elaine Chang, Deputy Executive Officer of Planning, Rule Development, and Area Sources of the South Coast Air Quality Management District**;** *Comments on Survey of CEQA Documents on Greenhouse Gas Emissions Draft Work Plan and Development of GHG Threshold of Significance for Residential and Commercial Projects*, dated April 15, 2009.
Attachment 4 – Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #5, dated September 28, 2010
Attachment 5 – Letter from Sierra Club Transportation Chair to SANDAG Board, *California Air Resources Board (CARB) Greenhouse Gas (GHG) Reduction Targets, Issued to SANDAG, in Accordance with SB 375, for the Year 2035*, dated April 20, 2011
Attachment 6 – M. Bullock & J. Stewart, *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*; Paper 2010-A-554-AWMA, from the Air and Waste Management Association's 103rd Annual Conference and Exhibition; Calgary, Canada, June 21-24, 2010
Attachment 7 – Letter from M. Bullock to the Honorable President Richard Holober and Members of the Board of Trustees, San Mateo County Community College District; *An Updated Parking Policy, in Light of the Controversy Surrounding the Removal of Building 20, Greenhouse, and Gardens, to Add Parking*, dated July 27, 2011

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The San Diego Chapter of the Sierra Club is San Diego's oldest and largest grassroots environmental organization, founded in 1948. Encompassing San Diego and Imperial Counties, the San Diego Chapter seeks to preserve the special nature of the San Diego and Imperial Valley area through education, activism, and advocacy. The Chapter has over 14,000 members. The National Sierra Club has over 700,000 members in 65 Chapters in all 50 states, and Puerto Rico.

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APPENDIX

Summary

Improvements to Chapters 1 and 2 are given. Chapter 2 suggestions include computing the driving reductions needed to achieve the S-3-05's trajectory by 2035. Feasible mitigation measures would eliminate congestion, improve air quality, increase social equity, and empowering people to make meaningful decisions both about methods of transit and how to spend their hard earned dollars.

Qualifications

Understanding the relationship between global warming and transportation requires mathematics. The Chapter Transportation Chair, Mike Bullock, a contributor to this letter and drafter of this Appendix, has a BSEE degree and a Masters of Science, Engineering (MSE) degree. He worked for 36 years at Lockheed Martin, in Sunnyvale. For the last 20 years there, he worked as a satellite-systems engineer. One of his responsibilities was to develop equations and methods to measure and then compensate out, through satellite database upload, the misalignments of the key antennas on the MILSTAR communication satellite.

Specific Comments on the Draft CAP

1.1 Comments on the Draft CAP's Purpose

The Attorney General Office's (AG's) excellent letter found at http://ag.ca.gov/cms_attachments/press/pdfs/n2056_santa_clarita_letter.pdf compels a high standard of specificity. This CAP must identify the needed GHG reductions and show how those needed reductions will be achieved.

The words, "informing and inspiring meaningful GHG reductions" should be replaced with "achieving meaningful GHG reductions."

The first sentence on the top of the right column should include the *regional* level. SANDAG's RTP2050 is a $214B dollar plan, with direct impacts on GHG emissions. SANDAG's work should not be ignored.

Table 1.1 should be labeled so the reader understands the year of the reductions. If the year is 2020, a similar table is needed for 2035.

1.3 Comments on the Greenhouse Effect

This section fails to inform the reader of the urgency and extreme danger posed by our climate crisis. The June 2008 issue of *Scientific American* (*The Ethics of Climate Change*, by Professor John Broome) reports that the levels of GHG expected in 20 years will result in a 5% chance of a 14.4 degree Fahrenheit increase in the earth's temperature and this would be an "utter catastrophe" and create the possibility of a "devastating collapse of the human population, perhaps even to extinction".

The plot shown on Page 6 fails to show the historic temperature profile. For that information, it is necessary to also show Figure 1 and 2. They are well known. Note that the 450 PPM value is shown. That would be the peak level of atmospheric C02, if the world achieves the S-3-05 trajectory. That peak value would occur in year 2050 and then the atmospheric level of C02 would gradually be brought down to less-dangerous levels.

Figure 1 shows that the C02 levels shown on your Page-6 plot, which are 400 PPM up to 1000 PPM, correspond to temperatures of well over 10 degrees Centigrade. Such temperatures would risk a catastrophic collapse of the human population, to include the eventual extinction of our species. There are no adaptation strategies that could deal with such an event.

Figure 2 clearly shows that, although the temperature rise is somewhat masked by solar activity, underneath that relatively high frequency temperature variation, the temperature rise, which is due to the trapped heat caused by the higher-than-normal C02, is already taking place. The trapped heat's effect on our atmosphere will be delayed as it melts ice and warms the ocean. We must at least achieve the S-3-05 trajectory.

Figure 1 **Atmospheric CO2 and Mean Temperature, 800,000 Years Ago, with 450 PPM C02 Shown**

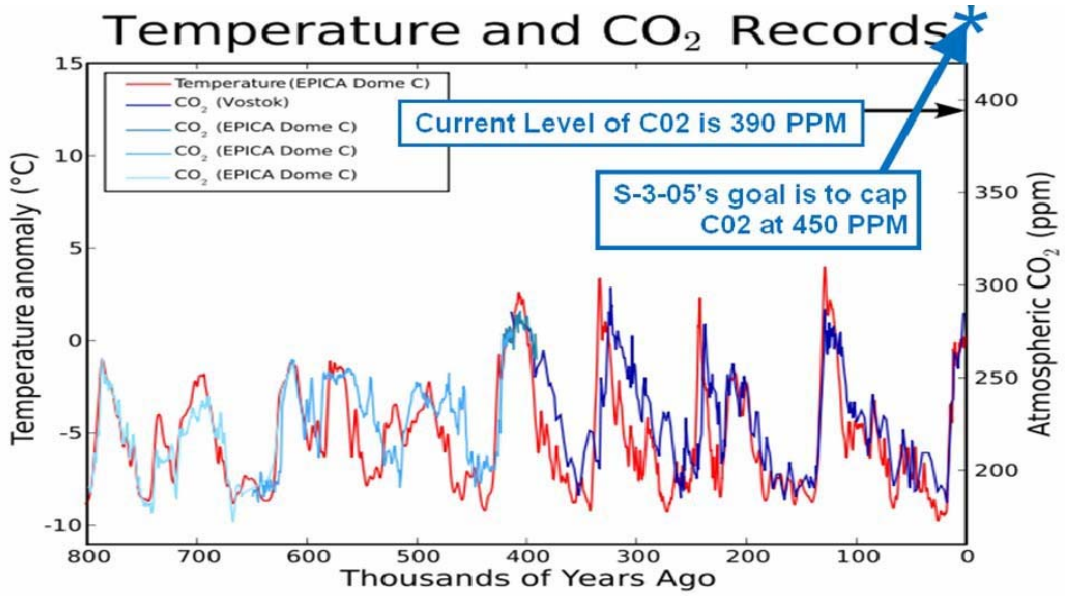
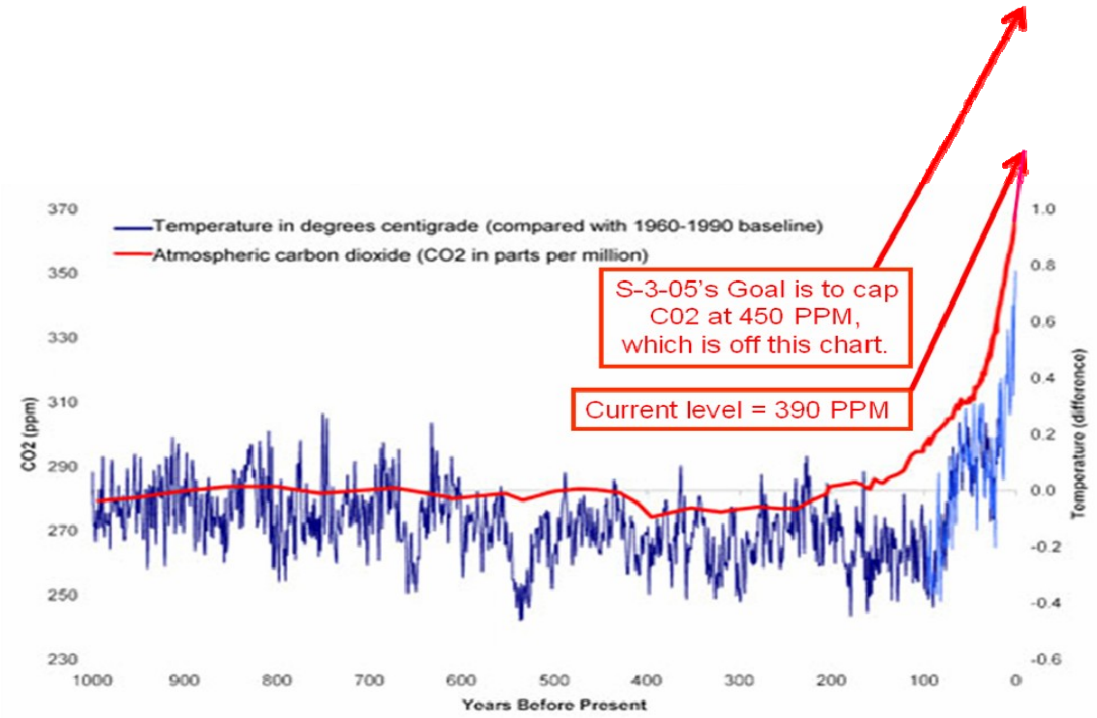


Figure 2 Atmospheric CO2 and Mean Temperature, Over the Last 1,000 Years



Attachment 3, also available at http://www.aqmd.gov/ceqa/handbook/GHG/2009/april22mtg/CBDcomments.pdf, has descriptions of the likelihoods of various S-3-05 outcomes, first in terms of temperature rise. Even if we achieve S-3-05, there is a 50% chance that the temperature rise will exceed 2 Degrees Centigrade. A 2 degree Centigrade rise in temperature would have very serious negative consequences, as described. There is a 30% chance that the temperature change would exceed 3 Degrees Centigrade, which is described as "exponentially worse" than the 2-Degrees-Centigrade outcome. And so on. Going above 500 PPM is unthinkable and yet that seems to be exactly what we are doing.

On Page 6 the Draft CAP, failing to meet S-3-05 is described by saying that "climate change will threaten our economic well-being, public health, and environment". The dangerous and currently out-of-control predicament in fact threatens human extinction. A bullet on Page 7 states that local effects could include "the decline or loss of species", but does not reveal that our own species is at risk. This sort of over sight continues throughout Pages 8 and 9.

On Page 9 it says, "The extent to which these changes produce negative impacts will depend on actions taken today to ensure resilience in the face of climate change and, where necessary, adaptation to its impacts". This ignores our responsibility to limit our GHG emissions and the fact that without sufficient and timely limitations, adaptation will not be possible.

1.4 Comments on the "Local Effects of Climate Change" and "Potential Climate Change Health Effects" Sections

These sections do not describe the severity of our climate crisis.

1.5 Comments on the "Relationship to Other State and County Documents"

It is crucial that the Draft CAP require strategies that will reduce emissions to levels at least as low as the S-3-05 trajectory.

Table 1.2 is valuable but must be improved in at least the following ways.
The description of S-3-05 needs to contain the following additional sentence: "These targets must be considered as points that define straight-line trajectories. It should also be understood that world-wide emission levels must at least stay beneath these straight lines. The net emissions, over the years, must be limited. The net emission is proportional to the area under these straight lines. Any year that emissions are above the lines creates a surplus that then requires years beneath the lines. The world is currently emitting at levels well above the line between the first two points.

The SB 375 description is incorrect because what the Metropolitan Planning Organization (MPOs) must achieve is GHG reductions that do not include reductions from state programs of cleaner cars and cleaner fuels. This means that the reductions can only be achieved by driving reductions, or, in other words, reducing vehicle miles travelled (VMTs). Therefore, it would be more accurate to simply change the "GHG emissions" words to "VMTs", to say "VMTs from passenger vehicles must be reduced . . ."

1.6 Comments on the "Scope and Content of the CAP"

The bullet "Community Measures and Actions" should identify Table 3.2, since it provides the estimated GHG emissions. For example, T2, shown on Page 41, gives the results as a "50% increase in bicycle and pedestrian facilities"; T3 gives "50% of employers using TDM. It is not until Table 3.2 that the reader learns of the GHG reductions. Besides this, the estimated GHG reductions (only from VMT reductions, for cars and light-duty trucks) need to be for years 2035 and 2050, not just 2020 as stated in that bullet.

2.1 Comments on the Draft CAP's Chapter 2

2.2 Comments on the "Business-as-Usual Projections"

Regarding the transportation sector; cleaner cars, cleaner fuels, and other state-transportation programs are out of the County's direct control but the County can play an important role by seeking improved legislation and rule making. The County's primary role, in terms of transportation, however, is to reduce VMT. Table 2.3's BAU should therefore assume the state's transportation programs will perform as currently estimated but assume VMT will be "BAU", meaning as currently projected with no county or regional programs to reduce driving.

2.3 Comments on the "GHG Emissions-Reduction Targets"

We appreciate your recognition of the critical need to meet S-3-05. Given the dire predictions as set forth in Attachment 3 and reference materials therein http://www.aqmd.gov/ceqa/handbook/GHG/2009/april22mtg/CBDcomments.pdf, compliance with S-3-05 should be stated as the *minimum* to be accomplished.

The computation of the critical value of 49% below the 2005 value by 2035 should be set forth. This value means that the 2035 emissions need to be (.51)*(2005 emissions). In Attachment 5, letter from Sierra Club to SANDAG, April 20, 2011, *California Air Resources Board (CARB)*

Greenhouse Gas (GHG) Reduction Targets, Issued to SANDAG, in Accordance with SB 375, for the Year 2035) the computation was .525, instead of .51.

Driving reductions needed to achieve 2020 or 2035 reductions are not met. This calculation can only be done by assuming some achieved improvement from cleaner cars and cleaner fuels. The work shown here will repeat the process shown in Attachment 5.

Overview of Relationships and Derivation of Key Formula

The S-3-05 net reduction in GHG emissions, from cars and light-duty trucks, expressed as a fraction of 2005 emissions, is obtained by multiplying four factors together. The definitions of Table 1 apply.

Table 1 **Factor Definitions, with Respect to Year 2005**

Factor Definitions	
All are for for the year of interest, with respect to year 2005 values. Except for Population, all are for cars and light-duty trucks.	
f	**net factor of the emissions of Greenhouse Gas**
f_Pavley	**factor of the average statewide mileage**
f_Fuel	**factor of the reduction of GHG due to fuels that burn less carbon**
f_Population	**factor of the population in the region of interest**
f_PerCapitaVMT	**factor of per capita driving**

The following equations apply.

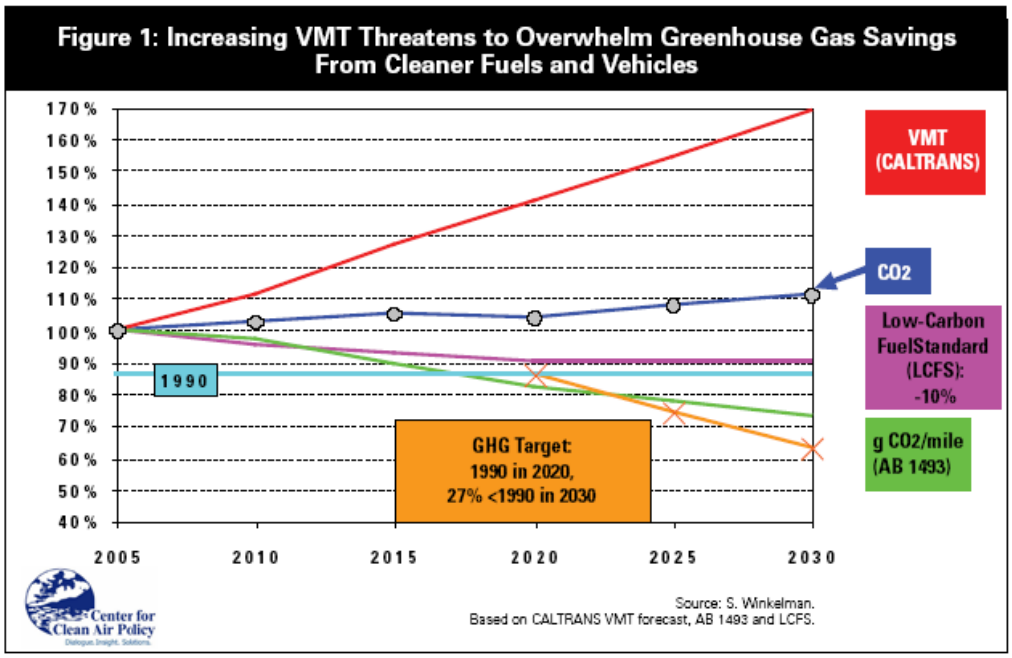
Eq. 1 f **=** f_Pavley **x** f_Fuel **x** f_Population **x** f_PerCapitaVMT

Eq. 2 is derived from Eq. 1.

Eq. 2 f_PerCapitaVMT **=** f */* **(** f_Pavley **x** f_Fuel **x** f_Population**)**

Figure 3 is from http://www.nrdc.org/globalWarming/sb375/files/sb375.pdf, a widely-respected report on SB 375. Note that all of its values are in the units of factors (same as fraction) of their values in year 2005. Figure 3 will supply all of the needed values, except for the factor of population. (Neither the red line nor the blue line are used.) Its gold line is the S-3-05 trajectory. (CARB ignored this line when it issued the MPO driving-reduction values for year 2035.)

Figure 3 **GHG Reductions from Pavley (AB 1493, in Green); the Low Carbon Fuel Standard (in Purple); the Predicted Driving (VMT, in Red); the Net Result of GHG (C02, in Blue); and & the S-3-05 Trajectory (in Gold)**



Getting the Net Factor of the Emissions of Greenhouse Gas in 2035, with Respect to 2005 Values

To get the net factor of the emissions of GHG, for year 2035, with respect to year 2005, it is necessary to extrapolate the Governor's Executive Order target values (the gold line of Figure 1), out to year 2035. The gold line shows that this factor is 0.87 in 2020 and is 0.64 in 2030. Therefore, in year 2035, the factor will be

$$0.64 + [(.64 - .87) / (2030-2020)] * (2035-2030) = 0.525$$

However, as stated above, the value of .51 will be used, to correspond to your ".49 down" value.

Getting the Factor of the Average Statewide Mileage in 2035, with Respect to the 2005 Value

To get the Pavley reduction factor, for Year 2035, it is necessary to extrapolate the average statewide mileage factor data, which is Figure 1's green line, out to Year 2035. It is 0.82 in 2020 and it is 0.73 in 2030. Therefore, in year 2035 the statewide mileage factor data will be

$$0.73 + [(.73 - .82) / (2030-2020)] * (2035-2030) = 0.685$$

Pavley 1 ends in Year 2017. It is widely assumed that it will be replaced by what is often called "Pavley 2". The extrapolation computed here is based on the assumption made by the author of Figure 1, as shown in the slope of the green line from year 2020 to 2030. Based on the authoritative credentials of the authors of Figure 1, this is the best assumption that can be made. Assuming that the California fleet will continually get

more efficient, in terms of C02 per mile driven, relies on an assumption that a significant fraction of our car owners will be able to purchase newer-model cars.

Getting the Factor of the Reduction of GHG Due to Fuels that Burn Less Carbon

Looking at the purple line of Figure 1, it is clear that this factor will be 0.9 in 2035.

Getting the Factor of the Increase in Population

The factor for population in San Diego County is computed using the populations estimated in CARB's http://arb.ca.gov/cc/sb375/mpo.co2.reduction.calc.pdf, namely 3,034,388 people in 2005 and 3,984,753 people in 2035. So the factor, from 2005 to 2035 is 3,984,753/3,034,388 = 1.313. Note that this number will be different for the unincorporated area. If the unincorporated value is larger, the per-capita factor will be smaller and so the needed per-capita reduction in driving will be larger. If the unincorporated value is smaller, the per-capita factor will be larger and so the needed per-capita reduction in driving will be smaller. The net driving change compared to 2005 will be unchanged, regardless of what population growth is assumed.

Computing the Required Driving Reduction, for 2035

The 4 values computed above are used in Eq. 2 to compute the required factor.

Eq. 3 f_PerCapitaVMT **=** .51 **/ (** .685 **x** 0.9 **x** 1.313 **)**

Therefore, f_PerCapitaVMT = .630. **This corresponds to a 37.0% reduction in per-capita driving, in year 2035, compared to year 2005.**

It is also important to compute the net driving factor and the net driving reduction. The net driving factor is the per-capita driving reduction factor (.630) multiplied by the population factor (1.313).

Eq. 4 f_netDriving **=** .630 **x** 1.313 = .827.

This means that even with more efficient cars, cleaner fuels, and a larger population; the net driving in San Diego County will have to be 17.3% less than in year 2005.

Therefore, there is absolutely no reason to add highway capacity. The only rational course of action is to shift all the currently-allocated-highway-expansion money to transit expansion.

Please add these important calculations and conclusions to your GHG Emissions-Reduction Targets section.

3.0 Comments on the Draft CAP's Chapter 3 Land Use and Transportation Community Measures and Actions, for Year 2035

Given the large role that the driving of cars and light-duty trucks plays in emitting GHG, the CAP must achieve the year 2035 driving reductions shown at the end of this letter's Section 2.0. This is a per-capita driving reduction of 37.0% and a net driving reduction of 17.3%. Both of these values are with respect to year 2005. Given the large change needed, LU1, T1, T2, and T3 will be insufficient. At least two more transportation "Measures and Actions" will be required.

3.1 Comments on LU 1

This section should be improved. "Near existing and planned transit corridors" should say "Within walking distance of existing and funded transit stops on transit lines with service at or above levels shown to significantly reduce driving reductions and car ownership for those living

within walking distance of its stops." The "25% of new development" shown in Table 3.2 should be at least 75%. As soon as possible, California needs to implement an equitable and environmentally-sound road use fee pricing system that will unbundle the costs of building roads, of maintaining roads, and of the external economic losses road use imposes on society in general, such as environmental and health costs. This will cause the market to support so-called "smart growth", mixed-use development over urban sprawl. The County needs to seek legislation to help make this happen.

"Smart" should be defined as "VMT-reducing". This will allow strategies that are proposed or required at such developments to be evaluated for value. Unbundling the cost of parking should also be developed and required, as described in Reference 3 (Reference 3 was presented by our Transportation Chair in Calgary, Canada, at the Sustainable Land Use and Transportation Session of the Air and Waste Management Association's 103rd Conference and Exposition, in the summer of 2010. It is therefore published and peer reviewed.) This will give consumers, residents and employees more control over their money. It will also reduce driving, as shown in Reference 3's Table 1.

Zoning within the qualifying areas should eliminate density and height limitations, as well as minimum parking requirements. Investors will respect the market limitations as there will be poor demand for developments that don't work for those that buy, rent or lease in such developments. Besides this, when projects are proposed, good modeling will determine functionality. Meeting the relaxed zoning does not have to mean automatic approval. The political process will litigate the tension between neighborhood concerns and the need to reduce driving. The off-street parking ordinance should require that the parking costs are unbundled, using either the method of parking operating as its own profit center or using the methods describe in Reference 3.

3.2 Comments on T 1, "Increase Transit Use"

Many of the comments of Section 3.1 apply. Given that the CAP must achieve the year 2035 driving reductions shown at the end of this letter's Section 2.0; in particular, a net driving reduction of 17.3%, compared to year 2005; the TransNet tax money allocated to highway expansion needs to be reallocated to transit. Although this is a SANDAG Board decision, it should be pointed out by our County Board at every opportunity. However, it is still doubtful that great transit service can be expanded out to cover all of the unincorporated areas, and the unbundling proposals are important.

3.3 Comments on T 2, "Increase Walking and Biking"

Most of this section is valuable. However, its reliance on the regional plans, including the Regional Bicycle Plan, should be reduced and the need to improve those plans should be stated. The primary problem with these plans stems from the reluctance of the SANDAG Board to require that expenditures be ranked on their estimated ability to decrease driving. The ranking should be based on driving reduction per dollar spent. This point has been made many times by our Transportation Chair and it has been ignored by the SANDAG's Board and Executive Director.

Education and Projects to Support Bicycle Transportation

As stated, the criteria for spending money for bicycle transportation should be to maximize the resulting estimated reductions in driving. The following strategies will probably do this.

Projects

Each of SANDAG's smart growth place types, both existing and planned, shown on SANDAG's well-documented Smart-Growth Concept Map, should be checked to see if bicycle access could be substantially improved with either a traffic calming project, a "complete streets" project, more shoulder width, or a project to overcome some natural or made-made obstacle. These projects should be prioritized using a cost/benefit ratio metric.

It is hereby assumed that 80% of the money available for the Regional Bicycle Plan (over a billion dollars) should be used to fund the projects. They should be selected for implementation, from top of the list (lowest cost/benefit ratio) down, until the money is used up. An example of one of these projects, for the proposed town center near the corner of I-5 and SR-78, is to devise a method to restore the shortest-distance route from Vista Way to Vista Way, which is currently broken by Interstate 5. This would connect a large South Oceanside coastal neighborhood with a regional shopping center, which includes a large grocery store, avoiding a circuitous and hilly current route.

Building recreational bike paths is generally not a cost-effective expenditure. It sends a message that bikes do not belong on the road.

Education

The remaining 20% of the money should be used to do the following.

1.) Teach interested adults about bicycle accident statistics (most serious injuries occur to cyclists in accidents that do not involve a motor vehicle), car-bike accident statistics (most are caused by wrong-way riding and errors in intersections; clear cut hit-from-behind is rare), and how to ride in all conditions, to minimize problems.

2.) Teach riding-in-traffic skills and how to ride in other challenging conditions, by having the class members and instructor go out and ride in real conditions, until proficiency is achieved.

Students that pass a rigorous written test and demonstrate proficiency in traffic and other challenging conditions are paid for their time and effort.

These classes should be based on the curriculum developed by the League of American Bicyclists and taught by instructors certified by the League.

Assuming a class size of 3 riders per instructor and that each rider passes both tests and earns $100 and that the instructor, with overhead, costs $500 dollars, for a total of $800 for each 3 students, means that $200M (computed as 20% of $1B) could educate $200M/$800 = 250,000 classes of 3 students, for a total of 750,000 students, out to year 2050. This is about 20% of the population of San Diego County.

3.4 Comments on T3, "Increase Ridesharing"

By taking the position that transportation demand management must only be programs that reduce driving, the CAP is helping to foster the widespread belief that driving levels are the result of free economic choice, and that this free choice must be made less likely by offering some new incentive to not drive or causing drivers to suffer some sort of punitive measure when they insist on driving. That approach to TDM is conventional but it is also misleading.

To engender objectivity, please generalize the concept and go beyond the conventional. More specifically, please state that TDM is the adoption of policies that affect the amount of driving. These 3 classifications of TDM are suggested in Reference 3:

- "Positive", which reduces driving, such as charging for parking at a higher rate than what is justified by its cost,
- "Zero", which is neutral in its effect on driving, such as charging for parking at the rate which is justified by its cost, and
- "Negative", which increases driving, such as charging for parking at a lower rate than what could be justified by its cost.

It should then be pointed out that so called "free parking" is a widespread form of a (significantly) negative TDM. The only way to make this TDM more negative would be to pay people for parking their car.

This treatment will increase objectivity towards the idea of "TDM". After all, who really wants their demand for anything to be "managed". However, many current policies manage demand for driving by encouraging driving. If we could just get all the "levers" adjusted to "Zero TDM", all of our congestion and driving-related climate destabilization problems would be greatly reduced. Besides this, there is a basic fairness issue. Having at least "Zero TDM" should be the law of the land. This is true, even without the challenge and mandate of climate stabilization. One of the best TDM measures would be to unbundle the cost of parking in all locations, as explained in Reference 3. After these systems are installed, it would be possible to adjust the charge above the zero TDM level. It is important to note that the earnings go back to those for whom the parking is built. This makes the positive TDM more popular since everyone likes getting monthly earnings.

3.5 Comments on T4, "Alternative Fuel Vehicles"

This is a state program. The county should urge CARB to take actions to increase the GHG reductions it can achieve. It is also correct to work for enough charging stations. However, the estimate derived from Figure 3's green line is all that can be assumed at this time. If at some later time CARB believes that if can do better than Figure 3's green line, then at that time, perhaps the calculation shown in Section 2.2 can be updated. However, there is nothing wrong with achieving more GHG reductions than what is required by the S-3-05 trajectories. Most of the driving reductions will come from increased equity, in any case.

3.6 Comments on an Additional "Community Measure and Action"

In Section 2.2 it was shown that the per-capita driving needs to be at least reduced by 37.0% by 2035. Reforming transportation to increase economic equity should not wait. For these reasons, LU-1, T-1, T-2, and T-3 are insufficient. This measure is needed as soon as it can be developed and instituted.

Unbundling the Cost of Car Parking

For the vast majority of destinations in California, the cost of car parking is hidden within other costs. This has serious consequences. For example, at most places of employment, parking costs reduce the wages that can be paid to all the employees, even those that never use the parking. Similarly, at most apartment complexes, bundled parking costs increase the rent and this is true, even for families that do not own a car. Bundled parking costs routinely increase the costs of goods, such as groceries, for all customers. Again, this is even true for those that do not drive. Since governments require businesses to provide minimum levels of parking, they are involved in this economic discrimination towards those that drive less.

Driving less is, to some degree, a lifestyle choice. Since government has no valid reason to encourage driving, the lifestyle choice of less driving deserves constitutional, or at least legal,

protection from any practices that discriminate against it, economically. So far, the County has not taken an active role in educating its citizens on how parking policy effects economic fairness or how parking policies that are more fair could reduce driving.

On June 22nd 2010, our Transportation Chair presented a paper on how parking could be operated to unbundle parking costs in a way that supports the sharing of parking. This was at the 101st Conference and Exhibit of the Air and Waste Management Association, in Calgary, Canada. The session, *Sustainable Land Use and Transportation*, included the paper, *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*. The paper was extremely well received. It was published as a proceeding of the Conference. See Attachment 6.

The following points, taken from Attachment 6, apply.

- Vehicle miles traveled (VMT) are a major cause of global warming and pollution.
- California's Metropolitan Planning Organizations (MPOs) need to adopt strategies that reduce vehicle miles traveled (VMT), in order to at least meet the S-3-05 trajectory, for years 2020 and 2035.
- The appropriate pricing of parking is one of the least costly tools documented to reduce VMT.
- New technologies, such as sensors feeding computer-generated billing, offer the potential to efficiently bill drivers for parking and alert law enforcement of trespassers.
- Reformed parking policies can increase fairness, so that, for example, people who use transit or walk do not have to pay higher prices or suffer reduced wages, due to parking.
- Methods to unbundle parking cost are inefficient, unless they support the spontaneous sharing of parking spaces. Shared parking, with unbundled cost, would ultimately allow the county to require significantly less parking.
- Typical current systems of timed parking and metered parking are far from ideal. Such parking has no automated record keeping, so it is difficult to know where there is too much or too little parking.
- Good policies will eventually let cities and the county to turn parking minimums into parking maximums.

Less land and resources devoted to parking will support mixed use and make "smart growth" more economically viable. It should therefore be a key ingredient supporting the CAP's LU-1.

Here is a copy of the abstract of Attachment 6.

> The *Introduction* shows documented driving reductions due to the pricing of parking. It notes that although the benefits of priced and shared parking are known, such parking has not been widely implemented, due to various concerns. It states that a solution, called "*Intelligent Parking*," will overcome some of these concerns, because it is easy to use and naturally transparent. It asserts that this description will support a "Request for Proposal" (RFP) process. Eight background information items are provided, including how priced parking would help California achieve greenhouse gas reduction targets. A story demonstrates some of the key features of *Intelligent Parking*. Arguments for less parking, shared parking, and priced parking are made. Barriers to progress are identified. The fair pricing of parking is described. New ways to characterize transportation demand management are presented. Seven goals of

Intelligent Parking are listed. Eleven definitions and concepts, that together define *Intelligent Parking*, are described. This includes a method to compute a baseline price of parking and how to adjust that price instantaneously to keep the vacancy above 15% ("Congestion Pricing"). An implementation strategy is described.

This abstract aroused enough interest among those responsible for A&WMA's *Sustainable Land Use and Parking* session that they requested that a manuscript, which was ultimately selected to become part of the written Conference Proceedings and for presentation.

The County could also play a pivotal role by helping to find a demonstration project, probably at a school or an office. Attachment 7 sets forth specific solutions. Attachment 6 describes an implementation strategy in its Implementation Section, on Page 16. The County has the authority, in its off-street parking ordinances, to require cooperation with an agency implementing unbundling and this would be the correct action, after a sufficient number of successful demonstrations have been achieved. "Successful" would need to mean that nearly all stakeholders would be pleased with the program.

If fully implemented, this strategy, by itself, would probably decrease driving throughout California by between 15% and 25%. This is shown in Table 1 of Attachment 6.

Below is an email indicating that the basic features of enforcement, charging, distributing earnings, and sending out monthly statements would not be difficult.

Email Showing that the Basic Required Technology Could Be Easily Developed

----- Original Message -----

From: David Carta
To: 'Lisa Rodman' ; 'Mark Tanner' ; 'Kelli' ; 'Nicole' ; 'Mark S.' ; 'John'
Cc: 'Mike Bullock'
Sent: Wednesday, January 13, 2010 5:40 PM
Subject: RE: RFID_ParkingNewCalsbadHS

Dear Carlsbad School Board,

I wanted to send a quick note discussing the technical feasibility of tracking cars into a lot without impacting students or requiring the need for gates. Mike Bullock and I have discussed this project; it can be accomplished straightforwardly by utilizing Radio Frequency Identification and/or Video Cameras integrated with automated license recognition systems. The cars would need to register with the system at the start, but it would be fairly painless for the users after the initial installation. The back end database system can also be implemented both straightforwardly and at a reasonable price.

This is not necessarily a recommendation of the proposal for unbundled parking. Rather it is strictly an unbiased view of the technical feasibility of the proposal to easily and unobtrusively track cars, both registered and unregistered, into a fixed lot.

Best regards,

David R. Carta, PhD
CEO Telaeris Inc.
858-449-3454

3.7 Comments on an Additional State-Wide "Community Measure and Action", Unbundling the Costs of Driving and a Summary of Results of All Additions

This measure would require a state and/or federal government action. Therefore, like advocating for cleaner cars, the role of the County would be to understand the value and then advocate for this measure, at the state and federal level.

Unbundling

"Unbundling", in the heading above, denotes that the money collected should be paid out to those that are losing money under the current system. This means, for example, that the money collected to account for increased health-care costs, caused by the air pollution the public must breathe, would go to reduce the cost of health care, not to build or even maintain roads.

3.7.1 A Comprehensive Road-Use-Fee Pricing System

Abstract This section contains a listing of road pricing principles. It provides an example of a road-use fee structure that supports the listed principles. Useful background information is provided. Arguments in favor of the presented example are presented.

Initial Note For many reasons, including the climate crisis, a comprehensive road-use fee pricing system is needed. It would be optimal for the state to implement the type of system described in this section. However, the state has a long history of irresponsibility in pricing road use. It is hoped that global warming will change this. Certainly, all the MPO's in the state should be urging our state government to wake up and take action. If these efforts fail, the MPO's will have to proceed as best they can to implement as much of these road-use pricing system components as possible.

Road-Use Fee Principles

1. The first principle is that of "full-cost pricing". Driving has enjoyed a favored status in this state and in this country, resulting in sprawl, health-damaging pollution, global warming emissions, and congestion. We should advocate for the elimination of that favoritism in California, primarily by adopting this first principle.

2. Secondly, the current economic rewards for good mileage vehicles must not be eroded. Due to global warming, motorists need to "go electric" as soon as possible.

3. In addition, road-wear factors (primarily weight), the noise generated, and the pollution generated by each individual vehicle must be taken into account. This will increase fairness and support a shift to lighter, cleaner, and quieter vehicles.

4. The time and place of travel must be incorporated to reduce congestion.

5. Any road-use fee structure must do no economic harm to low-income drivers.

6. As road-use fee technologies evolve, privacy must be protected at each step.

An Example of a Conforming Road-Use Fee Structure

Condition 1

100% of the funding for all of the expenses of public roads, *excluding* those costs associated with future expansion (covered in Condition 3), comes from a road-use fee (that may include a fuel excise tax), that ultimately (as affordable technology can support) would contain the following **Features**:

1. VMT Fee A base, per-mile (VMT) component fee paid by all motorized vehicles for road construction and maintenance. It would vary by model so that the incentive to drive efficient vehicles is at least as large as for our current fuel excise tax. This means that a Prius would be much cheaper, per mile, than a Hummer.

2. Carbon Fee An additional per-mile carbon component part is computed using an effective fee per gallon that is equal or larger than the fuel tax that this per-mile carbon fee might replace, to correlate with the amount of CO2 emitted. This could either be charged at the pump, as it is now done, or could be added to the VMT fee by using a price per mile computed by dividing the effective price per gallon by the charged vehicle's (year and model) average mileage, in the units of mile per gallon.

3. Road Wear Fee An additional per-mile component part that is proportional to the vehicle's (year and model) average weight, or other road-wear variable of the vehicle being charged.

4. Air Pollution Fee An additional per-mile component part proportional to the charged vehicle's (year and model) average pollution level, to be used to compensate people, schools, businesses, governments, and corporations harmed by pollution, with this rate set for full compensation.

5. Noise Pollution Fee An additional per-mile component part proportional to the average noise pollution level of the charged vehicle, to compensate people, schools, businesses, governments, and corporations harmed by noise pollution, with the rate set for full compensation.

6. Congestion Fee An additional per-mile component part or, alternatively a multiplier, to account for either time and place, or instantaneous traffic flow rate, to reduce or eliminate congestion, with the proceeds of this fee (collection minus collection cost) used for either the expansion or the operation of transit systems that would tend to reduce this congestion.

7. Low Income Relief A fractional multiplier that would reduce the total per-mile cost for drivers with a sufficiently low income and a sufficiently high need to drive, but only available for a period of calendar time sufficient for the driver to change their circumstance creating the need to drive, unless this is impossible. Section V's Section 7 has more detail.

8. Privacy Privacy protections so that where and when people drive, the vehicle they drive, and any Feature 7 advantage, is fully protected, unless a warrant is issued by a judge in response to substantiated allegations of a serious, felony crime.

Condition 2

The per-mile charges of Condition 1 must be large enough to fund yearly payments to the municipalities having large, limited access roads (AKA "freeways") within their boundaries (thereby keeping land off of their property-tax rolls), with these yearly payments equal to the average yearly property tax per acre of the adjacent land, multiplied by the total acreage covered by the road's right of way, including frontage roads.

Condition 3

No expansion of the system of public roads should be done unless market research and traffic modeling show that the net revenue of the proposed road or additional lanes will fund all the expenses identified in Conditions 1 and 2.

Condition 4

No expansion of the system of public roads should be done unless it is shown that the expansion will not negatively impact the state's AB32 and S-3-05 goals and responsibilities.

Condition 5

The sales tax on gasoline and diesel fuel should remain. Its revenue can be used as is the revenue from any other sales tax that is collected on consumer items.

Background Material

This section provides information about the current level of the fuel tax, the difficulty of raising the fuel tax, the use of the fuel *sales* tax, lane performance during times of high demand, demand under the condition of "full cost pricing", political "push back" to full cost pricing, other opinions that a pure fuel tax is becoming obsolete, and finally, information indicating that a road-use fee could be raised by a simple majority in the state legislature.

1. Current Level of Fuel Excise Tax

A full accounting of the fuel excise tax and what it currently pays for is not our responsibility. A significant segment of the population probably believes that current fuel tax rates are high enough. However, a San Diego County newspaper, the North County Times (NCT), in a February 9, 2009 article, reported that the Chair of the California Transportation Commission (CTC) recently wrote that the fuel tax currently contributes nothing to road construction **and only provides half of the money needed annually for repairs:**

http://www.nctimes.com/articles/2009/02/09/news/columnists/downey/z8591536f3e7332da882575510076fa1e.txt

Increasing the state gas and diesel taxes, unchanged at 18-cents per gallon since 1994 – when the final one-cent increase mandated by Proposition 111 (June, 1990 that doubled the nine-cent excise fuel tax over a 5-year period) was added, is long overdue.

2. The Difficulty of Raising the Fuel Tax

To raise the fuel tax would require a 2/3rd majority vote of the legislature. In addition, according to a CNN report, http://www.cnn.com/2009/POLITICS/02/20/driving.tax/

"Officials including [Secretary of Transportation] LaHood have opposed raising the national gas tax, particularly in the current recession, and have said a new system is needed."

3. Use of the Fuel *Sales* Tax

California has a sales tax on all consumer items sold in the state, except food and medicine. The revenues from sales taxes are generally placed in our state's general fund. However, an exception to the general rule has been made for the sales tax on gasoline and diesel. By the conditions of a successful ballot measure, the sales tax on fuel must be used to support roads, which supplements the excise tax on fuel (also known as the "gas tax"), allowing the excise tax to be lower than necessary.

4. Lane Performance During Times of High Demand

From the DOT's Freeway Management and Operations Handbook:

http://ops.fhwa.dot.gov/freewaymgmt/publications/frwy_mgmt_handbook/fmoh_complete_all.pdf, Page 1-18, comes the following:

> As flow increases from zero, density also increases, since more vehicles are on the roadway. When this happens, speed declines because of the interaction of vehicles.

> This decline is negligible at low and medium densities and flow rates. As the density further increases, these generalized curves suggest that speed decreases significantly just before capacity is achieved, with capacity being defined as the product of density and speed resulting in the maximum flow rate. This condition is shown as optimum speed So (often called critical speed), optimum density Do (sometimes referred to as critical density), and maximum flow Vm. (7). In general, this maximum flow (i.e. capacity) occurs at a speed between 35 and 50 mph.
>
> Efficient freeway operation depends on the balance between capacity and demand. In the simplest terms, highway congestion results when traffic demand approaches or exceeds the available capacity of the highway system. As vehicle demand approaches highway capacity, traffic flow begins to deteriorate. Flow is interrupted by spots of turbulence and shock waves, which disrupt efficiency. Then, traffic flow begins to break down rapidly, followed by further deterioration of operational efficiency.

Therefore, when demand is allowed to significantly exceed capacity, the flow rate drops well below optimum. In fact, speed can drop to nearly zero. With no intervention, freeway lanes can be counted on to fail, just when they are needed the most.

5. Demand, Under the Condition of "Full-Cost" Pricing

The price-setting stipulations of "An Example of a Conforming Road-Use Fee Structure", Features 1 through 6 of Condition 1, in conjunction with Condition 2, could be described as "full cost pricing". It is not our responsibility to do an analysis to calculate what the average price per mile would need to be or to then determine how much driving would be reduced in reaction to this price. It could be that driving would decrease so much that congestion would disappear and the new problem would be to figure out what to do with the excess land buried under unneeded highway lanes and how to meet the large new demand for transit.

6. Political Pushback to the Notion of Full-Cost Pricing

There are many, well-funded "think tanks" and political figures and institutions that argue against raising the cost of driving. So far they have been largely successful in keeping the taxes on driving low.

7. Other Opinions That a Pure Fuel Tax Is Becoming Obsolete

There are many indications that more decision makers are adopting the view that the fuel tax either needs to be replaced or supplemented. We have undertaken no comprehensive search and evaluation to quantify this. However the following examples are presented, with the first three being taken from the same NCT article identified in Section-1 of this Section.

First the Chair of the CTC pointed out that, "People are driving more-fuel-efficient cars and ones that run on alternative fuels and buying less gas. As a result, they are paying less in gas taxes". The author of the NCT article states that the CTC Chair and others are calling for "phasing out the gas tax," in favor of a VMT fee.

Second, Will Kempton, director of the California Department of Transportation, told local officials in Valley Center recently "we need to make a transition to a new way of collecting transportation funds." Kempton also said the state should consider following the lead of Oregon, which is exploring a tax based on the number of miles a person drives.

Third, Jim Earp, a California Transportation Commission member from Roseville, added, "Either that or we're going to have to jack up the gas tax considerably."

Fourth, the Christian Science Monitor editorial, February 27, 2009, “A road map to better US roads,” says, “Congress should heed a panel that suggests replacing a tax on gas with one on miles driven.”

http://www.csmonitor.com/2009/0227/p08s01-comv.html It goes on to say, “In Europe, the Netherlands will transition to a VMT by 2014 and Denmark by 2016. Changing behavior is the key to 21st century transport that must unclog crowded highways and reduce dependence on fossil fuels. Taxing miles alerts drivers to the real cost of using roads and can better motivate them to drive less. A VMT (fee) is the more reliable and efficient way to pay for transport. Its time has come.”

Finally, according to a CNN report, http://www.cnn.com/2009/POLITICS/02/20/driving.tax/, Speaking to The Associated Press, Transportation Secretary LaHood, an Illinois Republican, said, "We should look at the vehicular miles program where people are actually clocked on the number of miles that they traveled."

8. Raising a Road-Use Fee Could Be Done By a Simple Majority

The Sacrament Bee printed an article by Dan Walters, on January 20th, 2009, describing a proposal to help close California’s budget gap.

http://www.nctimes.com/articles/2009/01/20/opinion/walters/zd5e9d64561b6efd78825753e006c951a.tx.

The key elements from the article are as follows.

1.) Senate President Pro Tem Darrell Steinberg, the scheme's father, insists that it's legal, basing that assertion on a 5-year-old opinion from the Legislature's legal office.

2.) The plan would eliminate excise and sales taxes on gasoline and raise other taxes to help close the budget deficit, then "backfill" the gasoline taxes with a new "fee" that would actually increase the bite on motorists by 50 percent, from 26 cents a gallon to 39 cents. **A "fee" can be imposed by a simple majority vote as long as it relates to actual services rendered by government.**

Note that this fee approach is relatively far from meeting all of the stipulations of this letter. However, it would represent significant progress.

Arguments in Favor of Road Use Fees

This Section provides an analogy demonstrating why roads should be operated for the equal benefit of all. It presents some of the consequences of the current level of our state fuel tax. It argues that a road-use fee should include a vehicle miles traveled (VMT) component and that furthermore, a component should relate to congestion pricing (i.e. needs to account for *specific* time and place of travel). A road-use fee should account for environmental impacts, should protect low-income families, and contain privacy protections. It explains why revenue from a road use fee should be used to pay an effective property tax to municipalities. It argues that this resolution offers methods that would help to alleviate the state’s budget problems. It states that it is easier to discuss setting a road use fee than it is to discuss increasing an excise tax on fuel. Finally, it briefly discusses some of the emerging technologies and the relationship between technology and this resolution.

1. Full-Cost Pricing

Roads should be priced so that they are no longer an economic burden on those that choose to drive less than average. Yet, it is hard to be objective about roads. Here’s an analogy.

Assume that California owned a large number of 2-bedroom apartments that it allowed families to live in if they paid a tax of $500 a month, even though the market rental value of the apartments was $1000 a month. Clearly, the people living in the apartments are the winners and all the other citizens of California are the losers, because if the state set the price to the market value, it would have additional money that it could either use for the benefit of all citizens or it could return the money to everyone as a tax rebate. Some might note that since there are a large number of these apartments, almost everyone that wants one could get one, so those that don't live in these 2-bedroom apartments are losing out because of their own poor choice. However, since not every citizen wants to live in these apartments, the State's practice is indefensible. The correct thing for the state to do would be to allow low-income citizens to remain in the rental units at the subsidized price of $500 a month, stop calling the price-per-month a "tax" and instead call the price-per-month a "user fee", and set the price for the families that are not low income to the market value of $1000 per month. In this case, the low-income families remain winners. Even though all the others are losers, they are losing much less than before. This assumes that the state takes the additional earnings and uses it in a way that benefits all citizens. Buying more 2-bedroom apartments would not qualify. This analogy's original operation is similar to what California does by underpricing road use fees, as described below.

2. Consequences of the Current Level of Fuel Tax

a. Economic Inequity

Because our state fuel tax is too low, funds derived from taxes (and fees) that are not related to the choice of driving a car must be used to support our system of public roads. Examples are our sales tax, our income tax, our property tax, and the development fees that increase many of our costs. In effect what is happening is that money is systematically *being taken* from those that drive less and *being given* to support those that drive more.

This violates a fundamental principle of our free market system. People should pay for what they use and, conversely, people should not be forced to pay for what they do not use. It is true that we often willingly violate this principle, for some higher purpose. Education, mass transit, and Section 8 housing are good examples. However, there is no valid reason to increase driving by making it artificially cheap to drive, or for that matter, to park a car. The facts about global warming suggest quite the opposite.

b. Global Warming Threat and the California Example of Road-Use Pricing

From http://www.sandiego.edu/EPIC/ghginventory/GHG-On-Road1.pdf.pdf, we learn that in San Diego County, emissions from on-road vehicles are about 46% of regional GHG emissions. Many world leaders know that many of our citizens have taken all of the time and cost variables into account and then built their life around their automobiles. How can we expect the world to do its part to reduce GHG emissions, if they see us unwilling to reform the way we price the use of roads, so as to conform to the basic free-market principles that we claim to hold dear?

c. Other Pollution

Besides GHG emissions it is well known that on-road transportation contributes significantly (around 50% by some accounts) to our air and noise pollution. Cars cause air and water pollution directly and indirectly. This occurs when they are manufactured, when their fuel is transported and refined (refineries are, by far, the biggest cause of ground-water contamination in California), and when they are driven.

d. Urban Sprawl

The dominance of the automobile is the primary reason for our sprawling, urban land-use patterns. For example, it is well known that a simple 4-lane freeway, with frontage roads, can consume 26 acres per mile. An acre of land can only park 117 cars. Sprawl has taken valuable farm land, wet lands, and wild-life habitat. It makes it more difficult to walk or to bicycle. It also makes it more difficult to provide or to use transit.

e. Summary Statement

GHG emissions, urban sprawl and air, water, and noise pollution are made worse by making driving seem artificially inexpensive to the public. Note that for every penny earned by raising the price per mile to drive to its correct value, a penny could be cut from other taxes and fees that are unrelated to driving. Secretary of Transportation Ray LaHood's statement ("we can't raise the gas tax in a recession") shows that he misses this important point. This point has been made by the Sierra Club, as shown in http://www.sierraclub.org/policy/conservation/trans.aspx, where it says, of subsidies to driving, "These subsidies should be publicly scrutinized and eliminated by appropriate fuel and carbon taxes, parking and road user charges, . . ."

3. The Use of the Gasoline *Sales* Tax

As stated in Section III. 3, currently the *sales* tax on fuel must be used for the same purposes as the *excise* tax on fuel. This is contrary to the normal rule for sales taxes, whereby sales taxes are used for general-fund purposes, unrelated to the item sold. For example, the sales taxes from running shoes are not removed from the general fund to be used to build running facilities. Likewise, the sales tax on alcoholic beverages is not separated out to be used to subsidize the building of more drinking establishments. If we are going to end our unfortunate favoritism towards roads, we need to end the practice of using the sales tax from gasoline as if it were an additional fuel excise tax. This practice would be ended if the implied recommendations of this report were enacted. The sales tax on gasoline should continue, but the tax on the sale of gasoline should go to the general fund, as does the tax on the sale of other consumer items.

4. Reasons to Adopt a VMT Based, Road-Use Fee

From a Global Warming perspective, there is a hierarchy of favored transportation modes.

Mode 0: Telecommuting (no need to leave the house)

Mode 1: Walking

Mode 2: Cycling (skate boarding and any other device-aided, non-motorized transportation mode)

Mode 3: Transit

Mode 4: Electric cars or cars that get great mileage

Mode 5: Other cars

In terms of reducing pressure to expand road capacity, Modes 0, 1 and 2 are many times more desirable than even Mode 4, which is many times better than Mode 5. The point here is that as much as we want to see more electric cars and more cars that get exceptional mileage, we should not lose sight of the fact that unless all road users pay their fair share, those people using Modes 0, 1 and 2 are not being fully rewarded for not using road capacity, and this is

poor environmental policy, based on the desirability factors suggested. All cars are large, manufactured devices with a finite life. They promote sprawl. People that routinely use Modes 0, 1 and 2 have often set up their lives so that they could drive less. Those life-style choices need to be fully rewarded. The statements of Sections 2a and 2d of this Section apply.

5. Reasons to Adopt Road-Use Pricing Methods Tied to *Specific* VMT

a. Need to Support Section II's Feature 6

The current fuel tax is simple and, in theory it could be raised to cover the costs of driving, for those vehicles that use fuel. Alternatively, it is easy to imagine odometers that transmit their values at scheduled times to a billing computer. With vehicle-recognition schemes, implemented at the pump or within the billing computer containing odometer data, it would be possible to expand these simple methods to support Features 1 through 5, Feature 7, and Feature 8. However, these simple methods would not support congestion pricing, Feature 6, which is sufficiently important that it must be identified and supported.

b. Value Feature 6: Congestion Pricing

Various names have been proposed for Feature 6, including "congestion pricing" or "convenience pricing". Regardless of the name, it is a powerful way to reduce our society's propensity for expanding highways. Proponents of freeway expansion frequently mention the fact that highway "gridlock" harms our public safety because it can significantly delay emergency vehicles. Individuals in society see this in personal terms. We can all imagine a need to get home to attend to a child, or to get to an emergency room. The consequences of congestion can go well beyond being just a frustrating inconvenience. Sometimes people feel that they would pay almost anything to be able to drive at higher speeds. How many people have missed a plane, or a train, or a critical business meeting, "stuck in traffic"? Besides this, lanes also often support transit. Transit success requires dependable and reasonably fast bus travel. In addition, stop and go traffic wastes fuel, increases GHG, and increases unhealthy emissions.

"Convenience Lanes" could provide an option for drivers when they feel it is worth the extra money to drive beyond congestion speeds. This pricing also provides a means to keep one or more lanes operating close to their theoretical capacity, instead of at the greatly reduced flow rate that comes when demand is large. The pricing can adjust automatically so as to keep demand below capacity, on one or more lanes. This means that congestion in parallel lanes will clear sooner than if all lanes were allowed to stay severely congested.

"Convenience Lanes" also offer the hope of significant revenue generation, if enough people are willing to, in effect, bid up the price. (This will probably happen if the price of driving is kept low enough in regular lanes that there are still times and places where congestion is significant.) Feature 6 would require that proceeds (collection minus collection costs) be used for transit systems that would tend to reduce the congestion. The lanes and roads that are parallel to the "convenience priced" lanes can be counted on to fail to carry their capacity when serious congestion strikes. Fortunately, there is no comparable effect for transit. Although it is conceivable that transit demand could exceed transit carrying capacity, when this happens, the transit can be counted on to continue to carry its full capacity.

c. Feature 6 and Road Price Variability

Some roads are relatively expensive to build; others are relatively inexpensive. There is no reason we have to settle for charging the same per-mile price for all roads. Similarly, driving at different times should be priced differently. It is well understood that freeways are sized and

expanded to facilitate peak driving times. Since it is more costly to provide the added capacity needed at peak times, it is reasonable to charge peak-time drivers more. Charging more at the times that demand is high will tend to smooth out traffic demand over various times of the day.

d. Feature 6 and Pollution

Feature 6 can reduce congestion. This is important because stop-and-go traffic emits more pollution and GHG emissions than lanes operating at "optimum speed" as identified above.

e. Feature 6 Supported by the CTC

These powerful arguments have evidently been recognized by the CTC. In their *Addendum to the 2007 Regional Transportation Plan Guidelines*, *Addressing Climate Change and Greenhouse Gas Emissions During the RTP Process***,** adopted on May 29, 2008, they provide strong support to lane pricing.

http://www.catc.ca.gov/programs/rtp/Adopted_Addendum_2007_RTP_Guidelines.pdf,

In the CTC's Pricing Strategies Section (Page 3), the CTC instructs Metropolitan Planning Organizations to "model adding pricing **to existing lanes**, not just as a means for additional expansion. **Variable/congestion pricing should be considered**."

Variable/congestion pricing cannot be done without Section II's Feature 6 of its Condition 1.

f. Arguments to Support Road-Pricing Guideline

There is widespread confusion regarding who owns existing lanes and what promises were made. Converting existing, "free" lanes to be lanes that are priced can be justified by explaining that fuel taxes have always been road-use fees and that any stated or implied promise that paying fuel tax entitled drivers, for all time forward, to drive free on the roads that the fuel taxes may have been used to fund was specious. Specifically, the claim that drivers "already paid" for roads through the payment of fuel taxes is incorrect because (*i*) many drivers have just started driving; (*ii*) many drivers that paid fuel tax for many years have died; and (*iii*) paying a fee to use a public road is no different than paying rent to use property and paying rent does not lead to quasi ownership. These same arguments can be used against statements supporting the idea that drivers can forever drive free over a bridge because the tolls have paid off the loan for the bridge.

6. Reasons for Features 2 – 5

These features charge vehicles for their environmental impacts.

7. Reasons for Feature 7

The ability of low-income families to be able to drive to work and other essential family errands must be protected. However, given our challenge of global warming, this needs to be "constructive charity". The features shown in Section II suggest that a billing computer will probably be involved. If so, that computer's database can, perhaps at the individual's discretion, be supported with information such as current housing details, current salary, job location, occupation and job skills to include a full resume, childcare, location of family and friends, hobbies, or recreational pursuits, and other items that could be related to the individual's current need to drive. When the software determines that the person qualifies for a reduced multiplier of the full cost of driving (a subsidy), it could then also run various programs to offer, in creative, tailored, form letters, suggestions for changing circumstances to reduce driving. This could involve a search for jobs, a search for suitable housing, a search for daycare, and a search for better locations to pursue hobbies or recreational pursuits. The

availability of transit would be considered in the software and would be offered. Job training could be suggested or offered at a discount. If circumstances support it, the person could also be asked if they would be interested in a class on riding a bicycle in traffic. Taking such a class could earn the person a financial award, perhaps to include a new or used bicycle. The software would put a high priority on helping the person achieve a lifestyle that requires less driving. As a last resort the software would take into account the congestion level of various routes and offer a driving route that requires a reduced subsidy. If no billing computer is involved, the person receiving the subsidy might be required to send in data to support the running of these programs to reduce driving and the subsidy to driving.

8. Reasons for Feature 8

Privacy must be protected, unless confidential disclosure to law enforcement agencies is ordered by a judge based on reasonable cause. We currently rely on laws and judges to protect our privacy regarding what we say on the telephone, our emails, our internet activities, and the information we provide on our tax forms. This information could be both politically revealing and highly embarrassing, to the point where it could seriously degrade our personal and professional lives. In terms of protecting our democracy, it is especially important that our political activities be protected. Where we drive and park a car is also somewhat sensitive in this regard. However, in most cases it is less sensitive than our emails and what we say on the phone. Cell phone companies already have information about our travel. Many locations, such as Dallas, have “toll-tags” that record every time someone goes through a toll plaza and charges them accordingly. The conclusion is that the argument that many people will never accept a computer, with built in privacy protections, from having information about where we drive is overblown and not supported by the facts.

9. Reasons for Condition 2

Railroads pay property tax on the land under their tracks. Utility companies pay property taxes on the land under their transmission lines. There is no reason that large highways should not pay a property tax for the land they take off the tax rolls in each community. The favored status of roads should be eliminated.

10. California’s Budget Problem

California currently has a large budget gap. Children may lose their health care and education cuts will probably be severe. State parks may close. Most state funding for transit may be cut. This strategy might help to reduce some of these cuts.

11. Raising the Fuel Tax vs. Pricing a Road-Use Fee

There are advantages in reframing the question from should we raise the fuel tax to: Should we replace the fuel tax with a road-use fee and, if so, how should we set the price of the road-use fee? Section III. 2 showed that a 2/3rds vote is needed in the state legislature to raise a tax; while, as shown in Section III. 8, only a simple majority is needed to set and then raise a user fee. Besides this, there are a lot of common misunderstandings about our fuel taxes. Many think they are a mechanism whereby drivers somehow buy new roads. This confusion was discussed in detail in this Section’s Subsection 5f. If we can move the discussion to one of how to properly set the price of road use, we will have already made large gains in framing the question to the advantage of environmentalists and everyone that recognizes that it is time to stop favoring driving.

12. Technology

It is not our responsibility to pick the technologies that will ultimately be used in the implementation of the road-use pricing described. Email and phone conversations with employees of “Skymeter”, http://www.grushhour.blogspot.com/, indicate that they were ready to respond to a Request For Proposal (RFP) to implement VMT pricing in the Netherlands, to include every road in the country. Their proposal would have been that each car will have a GPS unit, about as large as an eye-glasses case, sitting on the dash. It will contain a database of roads and a variable set of pricing coefficients. The GPS software will determine the car’s location with sufficient accuracy so as to support software computing a running tabulation of charges, as the car is driven. They state that the final challenge was to design the software so that the unit would function when the car was being driven in the presence of GPS reflections, such as in city “canyons” which is to say around multiple large buildings. They have solved this problem with additional algorithms and have demonstrated this in the most severe conditions they could find. However, they don’t want to have to distinguish between lanes, suggesting that congestion pricing on large multi-lane roads, where pricing varies between parallel lanes, may require a Radio Frequency Identification (RFID) overlay pricing scheme, such as is currently used for “toll tags.”

There are probably several, perhaps even many, ways to accomplish road-use pricing that has the features described in this Section.

3.7.2 Conclusions

The best strategies to reduce VMT are shown here, with the estimated driving reductions for each one shown in square brackets:

- Comprehensive (equitable and environmentally sound) road use fee pricing system, as could be installed by *Skymeter*; [15%]
- Unbundling the cost of car parking; [15%] (This estimate is based on Table 1 of Reference 3.)
- Good bicycle projects and bicycle education; [5%,] (This estimate should be checked by the League of American Bicyclists.)
- Stopping all freeway expansions and reconfiguring TRANSNET to be 67% for transit and 33% for road maintenance [10%]

These strategies could be implemented by 2020, not 2035, and would decrease per capita driving by a sum of at least 45% (15+15+5+10). The strategies to do this are primarily those that increase fairness for all, especially families that drive less than average.

Equitable and Environmentally-Sound Car-Parking Policy at a Work Site

By Mike Bullock mike_bullock@earthlink.net

Aug. 30, 2015

Introduction

This paper describes a parking policy that distributes the benefit of parking to all employees, regardless of how often they choose to drive. It does this by

- Charging a fair price for the parking, per unit of time parked, and by
- Giving the total earnings (*total parking-lot earnings*) to the employees, such that each employee's share of the *total parking-lot earnings* is proportion to the time they spend at the work site served by the parking.

The following, additional, optional action would guarantee that no driver loses money under the policy:

- Adding a *must-drive bonus* to each driver's share of the *parking-lot earnings*, if it happened that their share of the *parking-lot earnings* is less than their parking-lot charge. This means that the employee's *must-drive bonus* would be equal to their *parking-lot charge* minus their share of the *parking-lot earnings*.

If an employer decided to pay a *must-drive bonus* to its employees, it would be possible to allow employees to effectively "opt out" of the program so they would not need to be mailed the car-parking statements. The system would feel like "free parking" to them.

Reference 1 describes a more comprehensive policy that will efficiently and conveniently unbundle the cost (or the benefit) of parking in all circumstances. It is available at the following URL: http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf.

The system described herein is less complex because it does not include congestion pricing, price predictions, or policies that are unique to on-street parking. These features can be eliminated, because it is assumed that there will be an adequate supply of parking, so no congestion pricing is needed; that the price can be relatively stable, so no price predictions are needed; and finally, that employees can be successfully required to park only in their employee parking, so there is no need for new, on-street parking policies, designed to protect adjoining neighborhoods from the intrusion of additional parked cars. If the adjoining neighborhoods had permit parking with a 2-hour limit for cars with no permit, very few employees would ever park in those neighborhoods, in any case.

Rationale

This system of “unbundled parking cost” will allow all stakeholders to see the actual value of the parking. It will reduce single-occupancy driving to work. Less driving will reduce traffic congestion, air pollution and greenhouse gas (GHG) emissions.

Parking is expensive to provide. Therefore, if no parking had been provided, the saved money could have been invested to increase employee salaries. The method described in this paper allows employees to gain some of that lost salary back, by driving less.

Providing free or underpriced parking only benefits employees that would drive every day, even if they had a method to recover some of their lost salary.

Methods

The parking is operated on the behalf of the employees, as if it were their own business. Those that drive to work are therefore their own customers.

Charge for parking is proportional to time parked and is charged to the employee associated with the car. (A charge rate that is acceptable to all must be established.) For example, if sixty cents per hour is selected, the charging software could round off the parking duration time to the nearest minute and apply a one-cent-per-minute charge. The data-collection method could be implemented with RFID’s on cars being detected at parking-lot entrances and exits. Unauthorized cars coming into the employee parking facilitiy would be identified with license-plate detection and, if a car belonging to a felon is driven into the parking lot, a warning notice could be sent to authorities, if this is desired by the company leaders.

Earnings (net revenue, minus the cost of collection and distribution) are given to the employees; in proportion to the time they spend at the work site. This could be based on an employee’s schedule or, for more accuracy, could be based on “time-at-the-work-site” data, collected using personal radio frequency identification units (RFIDs) and detectors that are tied to a central, implementing computer. The variables used to compute the amount of money to be paid to an employee are shown in Table 1. The corresponding formula is shown in Figure 1.

Parking statements are automatically sent out monthly, showing the individual’s charges and earnings. If desired, the statements could include a *must-drive bonus*, so that no driver losses money under the system. The *must drive bonus* would probably need to come from funds available for employee compensation.

Implementation

Since this is a new system, it would be prudent for the company leaders to have the vendor take the full responsibility for operating the system, for the first 10 years. This arrangement would ensure that the vendor would debug the system and continue to look for operational efficiencies, over the 10 year period. A sliding scale of vendor-compensation could be specified in the contract, as follows: The vendor could operate the system for 10% of the revenue, for the first 5 years; 5% of the revenue, for the next 3 years; and 2% of the revenue, for the final 2 years. For example, if it is assumed that, on average, 600 cars are parked for 8 hours, for 200 days per year, at a rate of 50 cents per hour, then the yearly revenue would be $480,000 per year. The vendor would therefore collect $240,000 over the first 5 years, $72,000 over the next 3 years, and $28,800 over the last two years. Figure 2 shows contact information and excerpts of received emails, from a San Diego vendor. This vendor has stated that the design and installation of a fully-automated system would be easy to perform.

Table 1 Variables Used to Compute an Employee's Monthly Earnings

Definitions to Compute an Employee's Monthly Earnings	
$T_{Employee}$	The Employee's Monthly Time at the Work Site
$T_{AllEmployees}$	Total Monthly Time at the Work Site, All Employees
$E_{AllEmployees}$	Total Monthly Earnings from the Employee Parking

Figure 1 Formula Used to Compute an Employee's Monthly Earnings

$$E_{Employee} = T_{Employee} * (E_{AllEmployees} / T_{AllEmployees})$$

Introducing a New Price Differential, for Driving, Compared to Not Driving

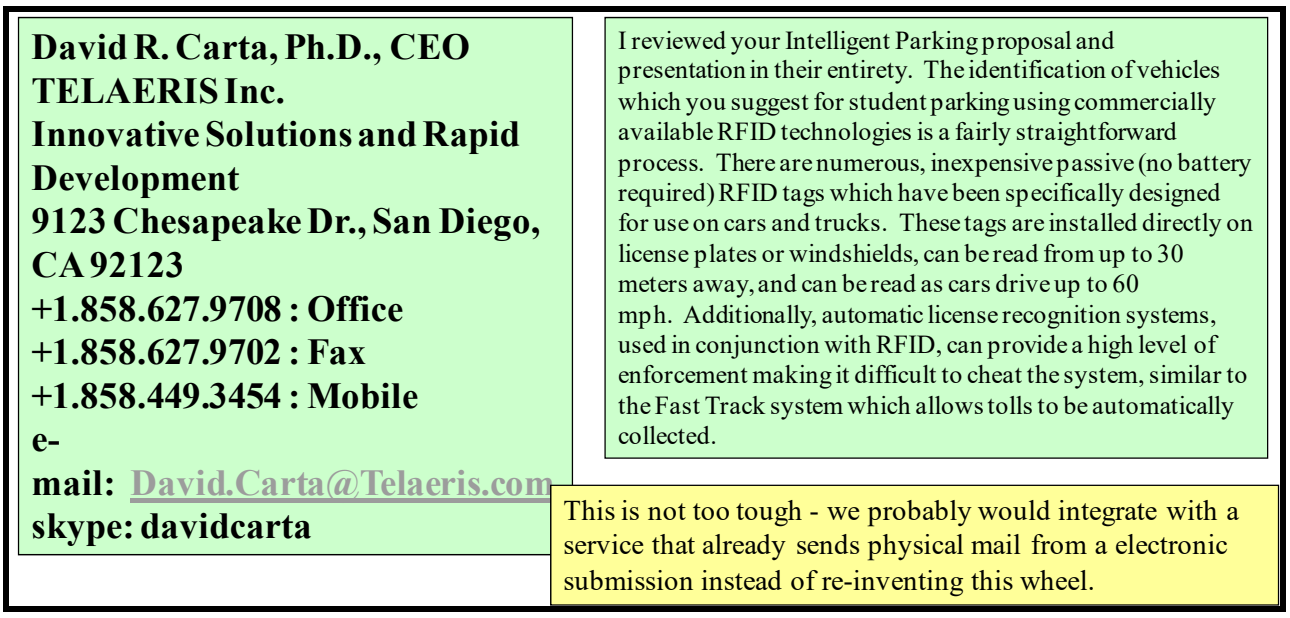
Table 2 shows that introducing a price differential into the choice of how often to drive will decrease the amount of driving.

Other Benefits

Depending on the work site's location and the size of its access roads, there could be a substantial decrease in local congestion, improving the health of all employees and those living near the congestion. This parking policy will show neighbors that the company is working to be a good citizen. This program will encourage active transportation, meaning

modes that provide exercise for the employees. It will also teach the employees the value of parking. It is recommended that the method of determining the selected rate of charge be shared with both the employees and the community at large. This program can be thought of as a demonstration project of a new approach to parking.

Figure 2 One Set of Identified-Vendor Information



Green House Gas Impacts

S-3-05 is a California Governor's Executive Order to drop the state's Year 2020 levels of greenhouse gas (GHG) emissions to the state's level of 1990 emissions and to drop the state's Year 2050 level of GHG emissions to 80% *below* the state's 1990 levels. If the world were to achieve similar reductions, the earth's level of atmospheric C02 would be capped at 450 parts per million (PPM). Figures 3, 4, and 5 show how large 450 PPM is, compared to values over the last 800 thousand years. Reference 2 shows that the goal of S-3-05 is to limit atmospheric C02 to 450 PPM and it also shows that even if this cap is achieved, the risk of a human catastrophe caused by global warming is significant. Reference 3's Figure 1 shows that a significant reduction in driving is critically needed.

Conclusion

Adopting this program would benefit the employer, the employees, and the community, in many ways. They will all gain an added understanding of economics, technology, and the power of the free-market principle that sometimes it is better to have people pay for what they use and not force people to lose money for something they don't use. All the members

of the work-place community could take pride in being part of this pioneering effort to reduce driving and greenhouse gas emissions. It would be a demonstration of the fundamental features of Reference 1. It would set an example for other employers.

Table 2 Eleven Cases of Pricing Impact on the Amount of Driving

Impact of Financial Incentives on Parking Demand			
Location	**Scope**	**1995 dollars per mo.**	**Parking Use Decrease**
Group A: Areas with little or no public transportation			
CenturyCityDistrict, West Los Angeles	3500 employees at 100+ firms	$81	15%
Cornell University, Ithaca, NY	9000 faculty & staff	$34	26%
San Fernando Valley, Los Angeles	1 employer, 850 employees	$37	30%
Costa Mesa, CA		$37	22%
Average for Group		**$47**	**23%**
Group B: Areas with fair public transportation			
Los Angeles Civic Center	10000+ employees, several firms	$125	36%
Mid-Wilshire Blvd., Los Angleles	1 mid-size firm	$89	38%
Washington DC Suburbs	5500 employees at 3 worksites	$68	26%
Downtown Los Angeles	5000 employees, 118 firms	$126	25%
Average for Group		**$102**	**31%**
Group C: Areas with good public transportation			
University of Washington, Seattle Wa.	50,000 faculty, staff & students	$18	24%
Downtown Ottowa, Canada	3500+ government staff	$72	18%
Bellevue, WA	1 firm with 430 employees	$54	39%[2]
Average for Group, but not Bellevue Washington		**$45**	**21%**
Over All Average, Excluding Bellevue Washington			**25%**

[1] **Parking vacancy would be higher!** [2] **Not used, since transit & walk/bike facilities also improved.**

Figure 3 Atmospheric CO2, Increasing Over Recent Decades

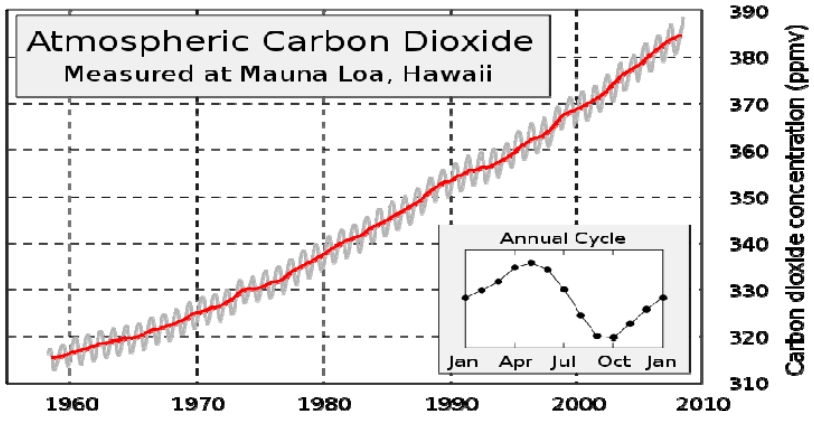


Figure 4 **Atmospheric CO2 and Mean Temperature, 800,000 Years Ago, with 450 PPM C02 Shown**

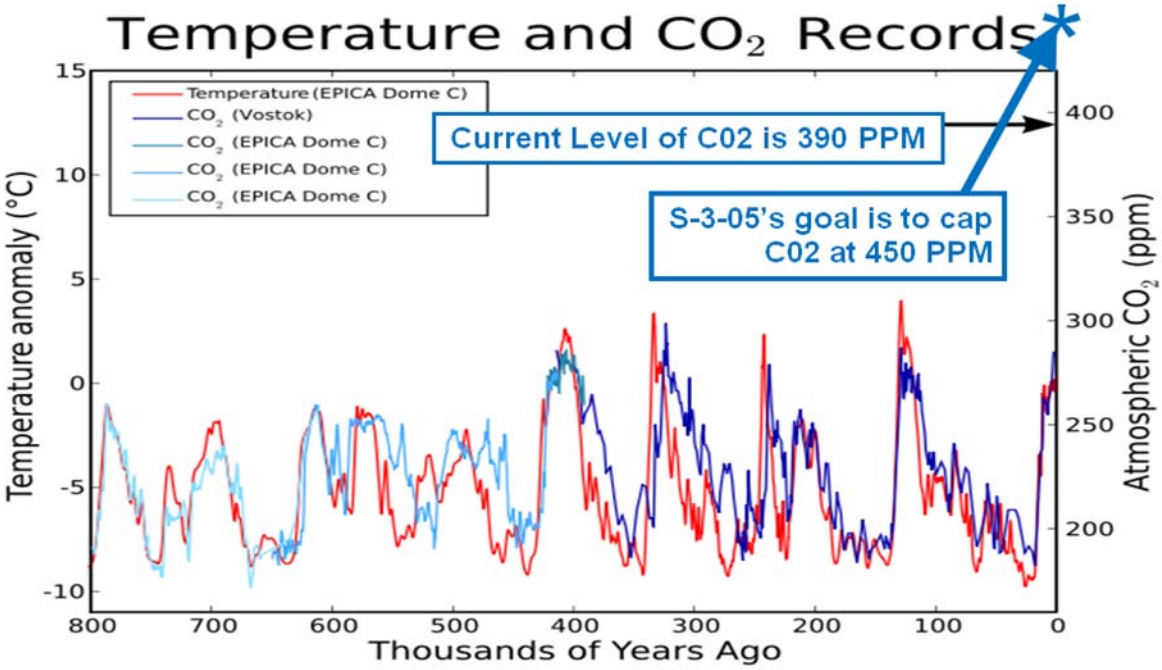
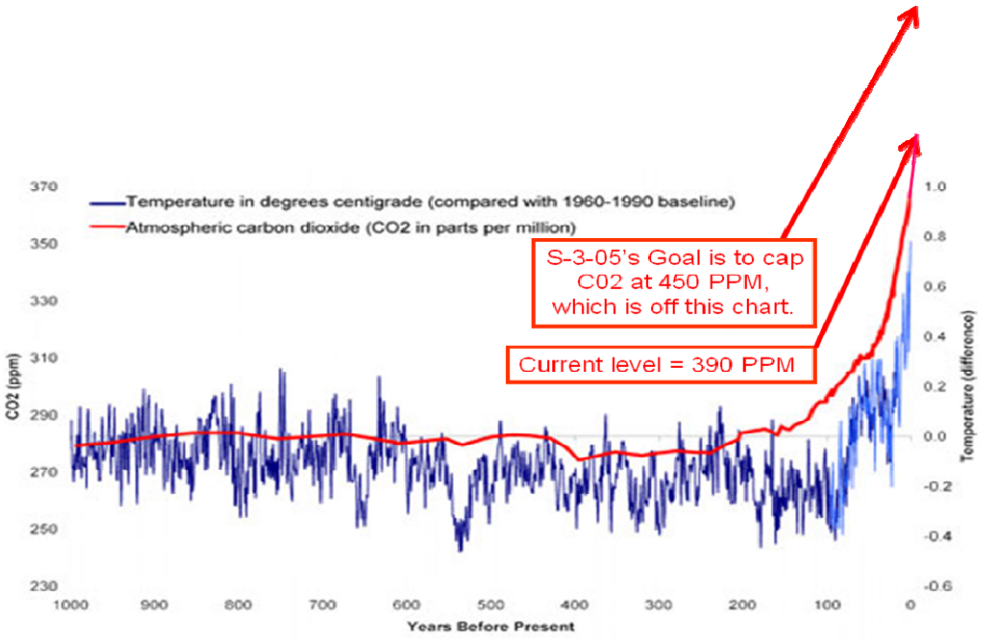


Figure 5 **Atmospheric CO2 and Mean Temperature, Over the Last 1,000 Years**



References

1.) *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*, Paper 2010-A-554-AWMA of the proceedings of the 103rd Conference and Exhibition of the Air And Waste Management Association; Mike R. Bullock and Jim R. Stewart, PhD; presented on June 22nd, 2010. http://www.sandiego.gov/environmental-services/pdf/sustainable/parkingcosts.pdf.

2.) Letter from *Center for Biological Diversity*, to Elaine Chang, Deputy Executive Officer of Planning, Rule Development, and Area Sources of the South Coast Air Quality Management District; *Comments on CAPCOA's Conceptual Approaches Regarding Potential Significance Thresholds for Greenhouse Gas Emissions*; April 17, 2008. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-1/ghg-meeting-1-comment-letter-center-for-biological-diversity.pdf

3.) *Communities Tackle Global Warming*, Tom Adams (California League of Conservation Voters), Amanda Eaken, and Ann Notthoff (Eaken and Notthoff are employees of the Natural Resources Defense Council); June 2009. http://www.nrdc.org/globalwarming/sb375/files/sb375.pdf

SUPERIOR COURT OF CALIFORNIA,
COUNTY OF SAN DIEGO
CENTRAL

MINUTE ORDER

DATE: 04/19/2013 TIME: 03:36:00 PM DEPT: C-72

JUDICIAL OFFICER PRESIDING: Timothy Taylor
CLERK: Patricia Ashworth
REPORTER/ERM: Not Reported
BAILIFF/COURT ATTENDANT:

CASE NO: **37-2012-00101054-CU-TT-CTL** CASE INIT.DATE: 07/20/2012
CASE TITLE: **SIERRA CLUB vs. County of San Diego [E-FILE]**
CASE CATEGORY: Civil - Unlimited CASE TYPE: Toxic Tort/Environmental

APPEARANCES

The Court, having taken the above-entitled matter under submission on 04/19/2013 and having fully considered the arguments of all parties, both written and oral, as well as the evidence presented, now rules as follows:

1. Overview and Procedural Posture.

In this CEQA case, this court for the second time in the last 6 months is required to address the controversial topic of global climate change. The court last addressed this subject in Cleveland Nat'l. Forest Foundation v. SANDAG, Case No. 2011-00101593; that case is now on appeal (D063288). As noted in its December 2012 ruling, this court recognizes it is but a way station in the life of most CEQA cases, and it seems this one will likely fit this pattern.

Because the trial courts are not final, it is important that they be prompt, and the court has done its best in that regard. The petition was filed on July 20, 2012. The case was assigned to Judge Hayes, but the Sierra Club challenged her, and the case was reassigned to Dept. 72. ROA 9, 11. The petition was promptly served. ROA 10.

The parties were first before the court on November 6, 2012, when they sought a hearing date and supplied the court with a stipulated briefing schedule. The court granted the requests. ROA 15, 16. The County filed its answer on January 9, 2013 (ROA 19), and the briefing began in February, 2013. ROA 21-25. The 4300+ page Certified Administrative Record (AR) is contained on a compact disk which was lodged on April 4 (the CD lodged with the opening brief, ROA 22, was either blank or incompatible with the court's aging desktop computers). The court has reviewed the briefing and the record.

Sierra Club contends that the County's June 20, 2012 "Climate Action Plan" (CAP), which is AR 002-126, is insufficient and violates CEQA in several respects: it does not comply with mitigation measures spelled out in the County's 2011 Program EIR (PEIR), adopted in connection with the 2011

General Plan Update (GPU)(AR 0441 ff); it fails to satisfy the requirements for adopting thresholds of significance for greenhouse gas emissions (GHG); and it should have been set forth in a stand-alone environmental document rather than in an addendum to the PEIR. The County denies these claims, and asserts the CEQA challenge is time-barred, the CAP complies with all legal requirements, the use of an addendum was appropriate, and that all relief is barred by the Sierra Club's failure to notify the AG as required by Pub. Res. Code section 21167.7. Although briefed by Sierra Club, neither standing nor exhaustion are challenged by the County.

Following publication of a tentative ruling on April 16, the case was argued on the afternoon of April 19 by Cory Briggs, Esq. on behalf of Sierra Club, and Ellen Pilsecker, Deputy County Counsel, on behalf of the County. The arguments were focused and thoughtful. Following the arguments, the court took the matter under submission. The court's ruling follows.

2. Overview of the CEQA Process.

A. The Court's Role in CEQA Cases.

In Mira Mar Mobile Community v. City of Oceanside, 119 Cal.App.4th 477, 486 (2004) (Mira Mar Mobile Community), the court explained that "[i]n a mandate proceeding to review an agency's decision for compliance with CEQA, [courts] review the administrative record de novo [citation], focusing on the adequacy and completeness of the EIR and whether it reflects a good faith effort at full disclosure. [Citation.] [The court's] role is to determine whether the challenged EIR is sufficient as an information document, not whether its ultimate conclusions are correct. [Citation.]" An EIR is presumed adequate. Pub. Res. Code § 21167.3, subd. (a).

Courts review an agency's action under CEQA for a prejudicial abuse of discretion. Pub. Res. Code § 21168.5. "Abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence." Id.; see Mira Mar Mobile Community, supra, 119 Cal.App.4th at 486; County of San Diego v. Grossmont-Cuyamaca Community College Dist. ("Grossmont"), 141 Cal. App. 4th 86, 96 (2006)(same).

In defining the term "substantial evidence," the CEQA Guidelines state: " 'Substantial evidence' ... means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made ... is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion[,] narrative [or] evidence which is clearly erroneous or inaccurate ... does not constitute substantial evidence." CEQA Guidelines, § 15384(a). "In applying the substantial evidence standard, [courts] resolve all reasonable doubts in favor of the administrative finding and decision. [Citation.]" Mira Mar Mobile Community, supra, 119 Cal.App.4th at 486; Grossmont, supra, 141 Cal. App. 4th at 96.
Although the lead agency's factual determinations are subject to the foregoing deferential rules of review, questions of interpretation or application of the requirements of CEQA are matters of law. While judges may not substitute their judgment for that of the decision makers, they must ensure strict compliance with the procedures and mandates of the statute. Grossmont, supra, 141 Cal. App. 4th at 96.

B. The Three Steps of CEQA.

CEQA establishes "a three-tiered process to ensure that public agencies inform their decisions with

environmental considerations." Banker's Hill, et al v. City of San Diego, 139 Cal. App. 4th 249, 257 (2006)("Banker's Hill"); see also CEQA Guidelines, § 15002(k)(describing three-step process).

First Step in the CEQA Process.

The first step "is jurisdictional, requiring that an agency conduct a preliminary review in order to determine whether CEQA applies to a proposed activity." Banker's Hill, supra, 139 Cal. App. 4th at 257; see also Guidelines, § 15060. The Guidelines give the agency 30 days to conduct this preliminary review. (Guidelines, § 15060.) The agency must first determine if the activity in question amounts to a "project." Muzzy Ranch Co. v. Solano County Airport Land Use Com. (2007) 41 Cal.4th 372, 380. "A CEQA ...project falls into one of three categories of activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment (§ 21065.)" Sunset Sky Ranch Pilots Assn. v. County of Sacramento (2009) 47 Cal.4th 902, 907.

As part of the preliminary review, the public agency must also determine the application of any statutory exemptions or categorical exemptions that would exempt the proposed project from further review under CEQA. See Guidelines, § 15282 (listing statutory exemptions); Guidelines, §§ 15300–15333 (listing 33 classes of categorical exemptions). The categorical exemptions are contained in the Guidelines and are formulated by the Secretary under authority conferred by CEQA section 21084(a). If, as a result of preliminary review, "the agency finds the project is exempt from CEQA under any of the stated exemptions, no further environmental review is necessary. The agency may prepare and file a notice of exemption, citing the relevant section of the Guidelines and including a brief 'statement of reasons to support the finding.' " Banker's Hill, supra, 139 Cal.App.4th at 258, citing Guidelines, §§ 15061(d), 15062(a)(3).

Second Step in the CEQA Process.

If the project does not fall within an exemption, the agency proceeds to the second step of the process and conducts an initial study to determine if the project may have a significant effect on the environment. (Guidelines, § 15063.) If, based on the initial study, the public agency determines that "there is substantial evidence, in light of the whole record ... that the project may have a significant effect on the environment, an environmental impact report [(EIR)] shall be prepared." [CEQA, § 21080(d).] On the other hand, if the initial study demonstrates that the project "would not have a significant effect on the environment," either because "[t]here is no substantial evidence, in light of whole record" to that effect or the revisions to the project would avoid such an effect, the agency makes a "negative declaration," briefly describing the basis for its conclusion. (CEQA, § 21080(c)(1); see Guidelines, § 15063(b)(2); Banker's Hill, supra, 139 Cal.App.4th at 259.)

The Guidelines and case law further define the standard that an agency uses to determine whether to issue a negative declaration. "[I]f a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect." (Guidelines, § 15064(f)(1), italics added.) This formulation of the standard for determining whether to issue a negative declaration is often referred to as the "fair argument" standard. See Laurel Heights Improvement Assn. v. Regents of University of California, 6 Cal.4th 1112, 1134–1135 (1993). Under the fair argument standard, a project "may" have a significant effect whenever there is a "reasonable possibility" that a significant effect will occur. No Oil v. City of Los Angeles, 13 Cal.3d 68, 83-84 (1974). Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." § 21080, subd. (e)(1).

Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate or erroneous, or evidence of social or economic impacts unrelated to physical impacts on the environment. § 21080, subd. (e)(2).

If the initial study reveals no substantial evidence that the project may have a significant environmental effect, the agency may adopt a negative declaration. Pub. Res. Code § 21080, subd. (c)(2); Guidelines, § 15070, subd. (b); Grand Terrace, supra, 160 Cal.App.4th at 1331; Save the Plastic Bag Coalition v. City of Manhattan Beach, 52 Cal. 4th 155, 175 (2011)(holding common sense is part of the substantial evidence analysis). "Alternatively, if there is no substantial evidence of any net significant environmental effect in light of revisions in the project that would mitigate any potentially significant effects, the agency may adopt [an MND]. [Citation.] [An MND] is one in which '(1) the proposed conditions "avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (§ 21064.5 . . . .)' [Citations.]" Grand Terrace, supra, at 1331-1332. The MND allows the project to go forward subject to the mitigating measures. Pub. Res. Code §§ 21064.5, 21080, subd. (c); see Grand Terrace, supra, 160 Cal. App. 4th at 1331.

Third Step in the CEQA Process.

If no negative declaration is issued, the preparation of an EIR is the third and final step in the CEQA process. Banker's Hill, supra, 139 Cal. App. 4th at 259; Guidelines, §§ 15063(b)(1), 15080; CEQA, §§ 21100, 21151.

C. The Environmental Impact Report.

Central to CEQA is the EIR, which has as its purpose informing the public and government officials of the environmental consequences of decisions before they are made. [Citation.] "An EIR must be prepared on any 'project' a local agency intends to approve or carry out which 'may have a significant effect on the environment.' Pub. Res. Code §§ 21100, 21151; Guidelines, § 15002, subd. (f)(1). The term 'project' is broadly defined and includes any activities which have a potential for resulting in a physical change in the environment, directly or ultimately. Pub Res. Code § 21065; Guidelines, §§ 15002, subd. (d), 15378, subd. (a); [Citation].) The definition encompasses a wide spectrum, ranging from the adoption of a general plan, which is by its nature tentative and subject to change, to activities with a more immediate impact, such as the issuance of a conditional use permit for a site-specific development proposal." CREED v. City of San Diego, 134 Cal. App. 4th 598, 604 (2005).

"To accommodate this diversity, the Guidelines describe several types of EIR's, which may be tailored to different situations. The most common is the project EIR, which examines the environmental impacts of a specific development project. (Guidelines, § 15161.) A quite different type is the program EIR, which 'may be prepared on a series of actions that can be characterized as one large project and are related either: (1) Geographically, (2) As logical parts in the chain of contemplated actions, (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.'" Guidelines, § 15168, subd. (a); CREED, supra, 134 Cal. App. 4th at 605. As the court held in CREED, a program EIR may serve as the EIR for a subsequently proposed project only to the extent it contemplates and adequately analyzes the potential environmental impacts of the project. CREED, supra, 134 Cal. App. 4th at 615.

As noted in part 1 above, the EIR at issue in this case is of the latter variety, a PEIR.

Under CEQA, an EIR is presumed adequate (Pub. Resources Code, § 21167.3), and the plaintiff in a CEQA action has the burden of proving otherwise. (Preserve Wild Santee v. City of Santee, 210 Cal. App. 4th 260, 275 (2012), internal quotation marks omitted, quoting Concerned Citizens of South Central L.A. v. Los Angeles Unified School Dist. (1994) 24 Cal.App.4th 826, 836.) Courts review an agency's determinations and decisions for abuse of discretion. An agency abuses its discretion when it fails to proceed in a manner required by law or there is not substantial evidence to support its determination or decision. [§§ 21168, 21168.5; Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 426-427 (2007) ("Vineyard")]. "Judicial review of these two types of error differs significantly: While [courts] determine de novo whether the agency has employed the correct procedures, 'scrupulously enforc[ing] all legislatively mandated CEQA requirements' [citation], [courts] accord greater deference to the agency's substantive factual conclusions." (Vineyard, supra, 40 Cal. 4th at 435.)

Consequently, in reviewing an EIR for CEQA compliance, courts adjust "scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a dispute over the facts." (Vineyard, supra, 40 Cal.4th at 435.) For example, where a petitioner claims an agency failed to include required information in its environmental analysis, the court's task is to determine whether the agency failed to proceed in the manner prescribed by CEQA. Conversely, where a petitioner challenges an agency's conclusion that a project's adverse environmental effects are adequately mitigated, courts review the agency's conclusion for substantial evidence. (Vineyard, supra, 40 Cal. 4th at 435.)

D. Further Requirements of CEQA.

In addition to the foregoing public process/decision maker information steps, the Legislature in enacting CEQA also intended to "provide certain substantive measures for protection of the environment. [Citations.] In particular, one court noted [Public Resources Code] section 21002 requires public agencies 'to deny approval of a project with significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen such effects.' [Citation.] (Quail Botanical Gardens Foundation, Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597, 1601-1602, citing No Oil, Inc. v. City of Los Angeles (1974) 13 Cal.3d 68, 75 and Laurel Heights Improvement Assn. v. Regents of University of California (1993) 6 Cal.4th 1112, 1123 . . . .). The Legislature declared its intention in enacting CEQA "that all public agencies responsible for regulating activities affecting the environment give prime consideration to preventing environmental damage when carrying out their duties. [Citations.] CEQA is to be interpreted 'to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.' " (Mountain Lion Foundation v. Fish & Game Com. (1997) 16 Cal.4th 105, 112.)

3. RFJN.

Sierra Club, with its reply briefing, filed a Request for Judicial Notice to which was attached a copy of the AG's letter acknowledging receipt of a copy of the petition in July of 2012 (shortly after it was filed). The court grants the request for judicial notice under Evid. Code section 452(c) and (g). This conclusively eliminates the County's third affirmative defense and the argument under Pub. Res. Code section 21167.7 contained on pp. 14-15 of the County's brief. In fact, this argument was meritless from the outset, as Sierra Club filed a proof of service on the AG last July (ROA 8). In other words, the County's

argument that "the case file contains no indication that [the AG notification requirement] was met" was demonstrably untrue when the County's answer was filed and when it brief was filed. County Counsel forthrightly acknowledged this at the April 19 hearing.

4. Discussion and Ruling.

Former Governor Schwarzenegger issued, in 2005, Executive Order S-03-05, which for the first time set a state goal of reducing greenhouse gas emissions. This Executive Order gave rise to the Global Warming Solutions Act of 2006 (AB 32), which is codified at H&S Code section 38500 et seq. Section 38550 provides:

"By January 1, 2008, the [Air Resources Board] shall, after one or more public workshops, with public notice, and an opportunity for all interested parties to comment, determine what the statewide greenhouse gas emissions level was in 1990, and approve in a public hearing, a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020. In order to ensure the most accurate determination feasible, the state board shall evaluate the best available scientific, technological, and economic information on greenhouse gas emissions to determine the 1990 level of greenhouse gas emissions."

In the 2011 PEIR for the GPU, the County concluded that the GHG and climate-change impacts from the County's own operations and from community sources were "potentially significant" both in relation to compliance with AB 32 and with regard to the updated general plan itself. AR 488 (end of first paragraph under "Summary"), 493 (end of "Summary" paragraph). Consequently, the County had to adopt a series of mitigation measures to render these impacts insignificant. AR 494-500. Among those mitigation measures was CC-1.2, which is the focus of Sierra Club's attack:

"Prepare a County Climate Change Action Plan with an update[d] baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reduction targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. Once prepared, implementation of the plan will be monitored and progress reported on a regular basis." [AR 496]

The County undertook to prepare the CAP, in accordance with Mitigation Measure CC-1.2, within six months [AR 313-314]. The County did not do so; the CAP was not approved until nearly a year after the PEIR was certified.

The central questions in this case are whether the CAP was properly approved, and whether it meets the requirements of Mitigation Measure CC-1.2. Thus, the court rejects the County's first affirmative defense which is addressed on pp. 5-7 of the County's brief. These arguments are premised on the notion that because the GPU and PEIR were adopted in the summer of 2011, an action filed in July of 2012 cannot pass muster under the 180 day limitations period of Pub. Res. Code section 21167. But the court agrees with Sierra Club that the gravamen of its petition is not an attack on the PEIR, but rather an effort to enforce the PEIR's requirement of enforceable mitigation measures. The case law relied on by the County all arose in settings in which the mitigation measures themselves were challenged as inadequate, or the cases are otherwise inapplicable. This case was filed 30 days after the June 20, 2012 approval by the County of the CAP, and it is not time-barred.

Regarding the first central question identified above: the court finds the CAP should have been the subject of a supplemental EIR instead of an addendum to the PEIR that concluded the CAP is within the scope of the PEIR. (AR 16:1372, second sentence of last paragraph.) Thus, the CAP was not properly approved and violates CEQA.

There is no explanation and no substantial evidence to justify why the CAP was not subject to a supplemental EIR with public notice and opportunity for comment. There is no showing that the County properly considered whether the CAP is within the scope of the PEIR; a supplemental EIR would require the Board of Supervisors to confront this issue. Further, environmental review is necessary to ascertain whether the CAP met the necessary GHG emission reductions when considering the CAP is merely hortatory and contains no enforcement mechanism for reducing GHG emissions.

In this regard, the case has some similarities to Center for Sierra Nevada Conservation v. County of El Dorado (2012) 202 Cal.App.4th 1156 (County of El Dorado). That case, like this one, involved a program EIR for a general plan. Id. at 1175. One of the mitigation measures called for implementation of a mitigation fee program. The county later did an initial study for the fee program, and stopped short of a more complete environmental review. The court of appeal held a tiered EIR was required to examine the specific mitigation measures and fee rate, rejecting the argument that the fee program was merely implementation of the general plan. Here, the CAP "provides the specific details associated with the ... General Plan ... strategies and measures for greenhouse gas (GHG) emissions and reductions that were not available during program-level analysis of the General Plan" (AR 16:1357), and as such, the CAP should have been the subject of a supplemental EIR [as opposed to an IS followed by addendum to the PEIR]. Thus, the CAP was not properly approved and violated CEQA.

Turning to the second central question identified above: the court finds that even if the CAP was properly approved, it does not comport with the requirements of Mitigation Measure CC-1.2; thus, the CAP violates CEQA. In this regard, there is no substantial evidence in the AR that the CAP satisfies Mitigation Measure CC-1.2; in fact, the evidence in the AR discloses the reverse is true.

For instance, the AR shows the CAP fails to meet Mitigation Measure CC-1.2 GHG emission reduction goals and targets. The CAP admits "The CAP itself does not itself ensure reductions ..." [AR 2:74]; the CAP regards its goals and strategies as mere recommendations [AR 2:27 - "The goals and strategies recommended in the CAP ..."]; and the CAP describes itself as a "living document," a "working document," and "a platform for the County to build strategies to meet its emission-reduction targets" [AR 2:15, 73.] As the court noted in its December 2012 decision, the County's adoption of the CAP occurs "in a setting in which hundreds of thousands of people in [the County] live in low-lying areas near the coast, and are thus susceptible to rising sea levels associated with global climate change." There is no time for "building strategies" or "living documents;" as the PEIR quite rightly found, enforceable mitigation measures are necessary now.

The AR shows the CAP contains no detailed deadlines for GHG emission reductions. This is borne out by the consultant who prepared the CAP for the County pointing out early on "[t]he Draft CAP neglects to describe how the County will monitor the effectiveness of the plan and its component measures over time" [AR 83:1947, last paragraph]; the County's admission "the CAP did not set such dates" [County's opposition memorandum, page 11:21-22]; and the word "deadline" appears but once in the CAP, in describing Mitigation Measure CC-1.2 [AR 2:76.]

Further, the AR shows the CAP contains no enforcement mechanism for reducing GHG emissions. The

CAP's goals and strategies are mere recommendations [AR 2:27 - "The goals and strategies recommended in the CAP..."]; there is no indication in the CAP how the measures described for community activities (Chapter 3) and the County's operations (Chapter 4) can or will be enforced [AR 2:26-57, 59-63]; the County contends five of the CAP's twenty-seven GHG reduction measures are required under state law and thus enforceable but fails to address the other twenty-two reduction measures [County's opposition memorandum, page 9:1-8; and Exhibit A to County's opposition memorandum]; and no evidence is related in the AR that supports the "belief" of the County staffer that GHG emissions reductions can be achieved through only education and incentives [AR 20:1581 and AR 23:1629 -"It is important to note that, as currently written, none of these measures are mandates. We believe that the emission reduction can be achieved through education and incentives."]

At the April 19 argument, County Counsel suggested that some of the absent benchmarks can be found in the Minutes of the Board reflecting its approval of the CAP. Having reviewed the minutes, the court agrees with Sierra Club that the minutes do not set forth enforceable standards or create any mandatory duty that could later be enforced if not carried out.

As such, the CAP, even if it was properly approved, does not comport with the requirements of Mitigation Measure CC-1.2, and thus violates CEQA.

In view of the foregoing, the court finds it unnecessary to address the subsidiary dispute over whether the guidelines for determining thresholds of significance for GHG were adopted or not. Compare Natter v. Palm Desert Rent Review Comm'n., 190 Cal. App. 3d 994, 1001 (1987); Young v. Three for One Oil Royalties, 1 Cal. 2d 639, 647-648 (1934).

Let a writ of mandate issue forthwith, directing respondent the County of San Diego to set aside its June 20, 2012 approval of the CAP. Counsel for petitioners is directed to forthwith submit same to the court for signature.

IT IS SO ORDERED.

Judge Timothy Taylor

First Update to the Climate Change Scoping Plan

Building on the Framework

From:
http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf

B. Achieving Climate Stabilization

Scientific research indicates that an increase in the global average temperature of 2°C (3.6°F) above pre-industrial levels, which is only 1.1°C (2.0°F) above present levels, poses severe risks to natural systems and human health and well-being. Considering knowledge from the paleo-climate record with changes currently observed in the Greenland and Antarctic ice sheets, we can expect substantial sea level rise, 0.4 to 0.8 meters, with upper end uncertainties approaching one meter above present day during the 21st Century and continued substantial increase after 2100 even with stringent mitigation of emissions to achieve 2°C stabilization. Increased climate extremes, already apparent at present day climate warming (~0.9°C), will no doubt be more severe. To have a good chance (not a guarantee) of avoiding temperatures above those levels, studies focused on a goal of stabilizing the concentration of heat-trapping gases in the atmosphere at or below the 450 parts per million (ppm) CO2-equivalent (CO2e, a metric that combines the climate impact of all well-mixed GHGs, such as methane and nitrous oxide, in terms of CO2).

The CO2e target is a somewhat approximate threshold, and the exact level of CO2e is not precisely known because the sensitivity of the climate system to GHGs has uncertainty. Different models show slightly different outcomes within this range. **An example of a pre-IPCC assessment study (Meinshausen et al. 2009)15 which has synthesized many studies on climate sensitivities, concluded that we would need to stabilize at about 400 ppm CO2e (Bullock note: We have already exceeded 400 PPM!!!!!!!!!) in order to likely avoid exceeding the 2°C threshold (even at that stabilization target, there is still about a 20 percent chance of exceeding the temperature target).** Further, a recent paper by an international team of scientists (**Hansen et al. 2013**)16 asserts that the **widely accepted target of limiting human-made global climate warming to 2°C above preindustrial levels is likely too high and may subject future generations and nature to irreparable harm. Recognizing this fact, the international community agreed in meetings in Cancun in 2012 to review, by 2015, progress to the 2°C target and consider whether it should be strengthened to a 1.5°C threshold.**

What is important to recognize in these studies of warming thresholds is the critical importance of non-CO2 gases, particularly the short-lived climate pollutants. For example, to avoid 2°C warming at a 66 percent confidence level, total carbon emissions (as CO2e) must be kept to 1000 GtC. Considering that we have already emitted about 500 GtC, which leaves 500 GtC to be divided up among nations. If the non-CO2 gases are included then

the total CO2e emissions are at 790 GtC, leaving only 210 GtC to be emitted. Thus, there is a compelling case to reduce the short-lived climate pollutants.
In early May 2013, the Mauna Loa monitoring station, which has been shown to provide excellent measurements of CO2 throughout the global atmosphere, recorded atmospheric CO2 of 400 ppm,17 substantially higher than the 316 ppm recorded when the station made its first measurements in 1958. The monitoring station offers the longest-running record of atmospheric CO2 measured directly from the air. This recent reading will take a few years to become the international average; however, reaching 400 ppm at Mauna Loa is significant and has surpassed a worrisome milestone.

Although stabilizing atmospheric GHG concentration below 450 ppm CO2e is important, it does not mean that once that level is reached, temperatures will immediately level off. Because of time lags inherent in the Earth's climate, the initial warming that occurs in response to a given increase in the concentration of CO2 ("transient climate change") reflects only about half the eventual total warming ("equilibrium climate change").

Observational data reveal that, in recent decades, some climate extremes are already increasing in response to relative modest warming; these extremes would likely increase considerably with warming of 2°C or more. While the findings suggest that even at relatively low levels of global warming the world will have to face significant sea level rise, the studies also demonstrate that the potential impacts are substantially greater if we allow warming to reach a level as high as 2°C. If they occur, changes such as these would not rapidly reverse, as even if the atmospheric CO2 amount declines, it would take many centuries for the deep ocean to cool.

To prevent exceeding 450 ppm CO2e, developed countries must substantially reduce their emissions in the near term. The 2008 World Energy Outlook suggests that Organization for Economic Co-operation and Development (OECD) countries must reduce emissions by about 40 percent below 2006 levels by 2030.18 The Union of Concerned Scientists has suggested a 2030 emissions target for the United States of 56 percent below 2005 levels (44 percent below 1990 levels).19 A governmental study from the Netherlands finds that Europe would have to reduce emissions by 47 percent below 1990 levels and the United States would have to reduce emissions by 37 percent below 1990 levels by 2030.20 The International Energy Agency comes to a similar conclusion, finding that the United States would have to reduce emissions by about 38 percent below 1990 levels by 2030.21 Note that percent reductions by 2030 depend on the assumed overall trajectory of emissions, including the amount after 2030.

Because of the cumulative effects of GHG emissions and resultant changes to the earth's energy balance and the inertia in the climate system, delaying efforts to reduce emissions will likely mean that global average temperature will increase by more than 2°C, increasing the costs associated with combatting climate change. Reducing the global concentration to 450 ppm CO2e after delaying mitigation actions for ten more years is estimated to cost an additional $3.5 trillion, compared to levels of investment needed now if low-carbon strategies were to be adopted immediately.22

From : http://www.cadem.org/our-california/platform/2016-platform-energy-and-environment

From the 2016 California Democratic Party (CDP) Platform

Transportation

- Support vehicle regulations to provide healthier air for all Californians, support strong and workable low-emission and zero-emission vehicle standards that will continue to be a model for the country, support Clean Vehicle Incentive programs to include the installation of charging infrastructure, and provide assistance to small businesses to meet the low-emission standards;
- Demand Regional Transportation Plan (RTP) driving-reduction targets, shown by science to support climate stabilization;
- Work for equitable and environmentally-sound road and parking operations; Support strategies to reduce driving, such as smart growth, "complete streets"; teaching bicycling traffic skills; and improving transit, from local systems to high speed rail
- Work for shared, convenient and value-priced parking, operated with a system that provides earnings to those paying higher costs or getting a reduced wage, due to the cost of providing the parking; and,
- Demand a state plan showing how cars and light-duty trucks can hit climate-stabilizing targets, by defining enforceable measures to achieve the needed fleet efficiency and per-capita driving;
- Support policies, including tax policies and the use of Greenhouse Gas Reduction Fund (GGRF) grants, that empower business owners, especially small business owners, to make investments in transportation infrastructure to ensure that freight moves by lower-emission local, short-line freight railroads, instead of adding to highway congestion and pollution.

Climate-Stabilizing, California Light-Duty Vehicle Requirements, Versus Air Resource Board Goals

Paper 881

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ABSTRACT

An Introduction is provided, including the importance of light-duty vehicles (LDVs: cars and light duty trucks) and a definition of the top-level LDV requirements to limit their carbon dioxide ("CO2") emissions.

Anthropogenic climate change fundamentals are presented, including its cause, its potential for harm, California mandates, and a greenhouse gas (GHG) reduction road map to avoid disaster.

A 2030 climate-stabilizing GHG reduction target value is calculated, using statements by climate experts. The formula for GHG emissions, as a function of per-capita driving, population, fleet CO2 emissions per mile, and the applicable low-carbon fuel standard (LCFS) is given. The ratio of the 2015 value of car-emission-per-mile to the 2005 value of car-emission-per-mile is obtained.

Internal Combustion Engine (ICE) mileage values from 2000 to 2030 are identified, as either mandates or new requirements. A table is presented that estimates 2015 LDV fleet mileage.

Zero Emission Vehicle (ZEV) parameters are given. A table is shown that uses 2030 ZEV and ICE (ICE LDVs) requirements, named the "Heroic Measures" case, to compute the LDV fleet-equivalent mileage. That equivalent fleet mileage is used, with population and the required emission reduction, to compute a required per-capita driving reduction, with respect to 2005. Measures to achieve this per-capita driving reduction are described, with reductions allocated to each measure. The energy used per year for the Heroic Measures case is estimated

The "Heroic Measures" set of fractions of ZEV's purchased, as a function of year, is compared to the California Air Resources Board (CARB) goals.

INTRODUCTION

Within the context of working the anthropogenic-climate-change problem and from a systems engineering perspective, the top-level requirement is to reduce greenhouse gas (GHG) emissions enough to support stabilizing our climate at a livable level. This top-level requirement must flow down to the subsystem of LDVs, especially due to the magnitude of their emissions. (As an example, LDVs emit 41% of the GHG in San Diego County[1].)

More specifically, LDV requirements will be identified that, taken together, will result in GHG emission reductions sufficient to "support climate stabilization". "Support climate stabilization" means that the LDV emission level will be equal to a climate-stabilizing target. Such a target is expressed as an emission level in some target year. The target is based on climate science.

From a systems engineering perspective, at the top level, the needed LDV requirements are

- LDV fleet efficiency, meaning the greenhouse gas (GHG) emissions per mile driven, applicable to the entire fleet, on the road in the year of interest and
- an upper bound on per-capita driving, given the derived fleet efficiency and the predicted population growth.

The fleet efficiency requirement will be developed as a function of lower-level requirements, such as Corporate Average Fuel Efficiency (CAFÉ) requirements, requirements on how fast Battery Electric Vehicles (BEVs) must be added into the fleet each year, and requirements to get low-efficiency vehicles off the roads. The second top-level requirement, the upper bound on per-capita driving, will spawn transportation-system requirements designed to result in less driving, such as better mass transit. This paper will derive a formulae to compute the required per-capita driving levels, based on fleet efficiency, predicted population growth, and the latest, science-based, climate-stabilizing GHG emission target.

In this work, three categories of LDV emission-reduction strategies will be considered: cleaner cars, cleaner fuels, and less driving.

BACKGROUND: OUR ANTHROPOGENIC CLIMATE CHANGE PROBLEM

Purpose of This Section

Before going to work to solve a systems-engineering problem, it is important to understand the nature of the problem. How complex is the problem? How much is at stake if the problem is not solved? Is it reasonable to take a chance and only solve the problem with a reasonably high probability or is there too much at stake to gamble? This section is an attempt to answer these questions.

Basic Cause

Anthropogenic climate change is driven by these two processes[2]: First, our combustion of fossil fuels is adding "great quantities" of CO_2 into our atmosphere. Second, that additional atmospheric CO_2 is trapping additional heat.

California's First Three Climate Mandates

California's Governor's Executive Order S-3-05[3] is similar to the Kyoto Agreement and is based on the greenhouse gas (GHG) reductions that were recommended by climate scientists for industrialized nations back in 2005. In 2005, many climate scientists believed that the reduction-targets of S-3-05 would be sufficient to support stabilizing Earth's climate at a livable level, with a reasonably high level of certainty. More specifically, this executive order aims for an average, over-the-year, atmospheric temperature rise of "only" 2 degree Celsius, above the preindustrial temperature. It attempts to do this by limiting our earth's level of atmospheric CO_2_e to 450 PPM by 2050 and then reducing emissions further, so that atmospheric levels would come down to more tolerable levels in subsequent years. The S-3-05 emission targets are 2000 emission levels by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050.

It was thought that if the world achieved S-3-05, there might be a 50% chance that the maximum temperature rise will be less than 2 degrees Celsius, thus leaving a 50% chance that it would be larger than 2 degrees Celsius. A 2 degree increase would put over a billion people on the planet into a condition described as "water stress" and it would mean a loss of 97% of the earth's coral reefs.

There would also be a 30% chance that the temperature increase would be greater than 3 degrees Celsius. A temperature change of 3 degree Celsius is described in Reference 3 as being "exponentially worse" than a 2 degree Celsius increase.

The second California climate mandate is AB 32, the *Global Warming Solutions Act of 2006*. It includes provisions for a cap and trade program, to ensure meeting S-3-05's 2020 target of the 1990 level of emissions. It continues after 2020. AB 32 requires CARB to always implement measures that achieve the maximum *technologically feasible and cost-effective* (words taken from AB 32) greenhouse-gas-emission reductions.

In 2015 Governor Brown signed Executive Order B-30-15. This Executive Order established a mandate to achieve an emission level of 40% below 2020 emissions by 2030, as can be seen by a Google search. If Executive Order S-3-05 is interpreted as a straight line between its 2020 target and its 2050 target, then the B-30-15 target of 2030 is the same as S-3-05's implied target of 2035, because 2035 is halfway between 2020 and 2050 and 40% down is halfway to 80% down.

California is on track to achieve its S-3-05 second (2020) target. However, the world emission levels have, for most years, been increasing, contrary to the S-3-05 trajectory. In part because the world has been consistently failing to follow S-3-05's 2010-to-2020 trajectory, if California is still interested in leading the way to stabilizing the climate at a livable level, it must do far better than S-3-05, going forward, as will be shown.

Failing to Achieve these Climate Mandates

What could happen if we fail to achieve S-3-05, AB 32, and B-30-15 or if we achieve them but they turn out to be too little too late and other states and countries follow our example?

It has been written[4] that, "A recent string of reports from impeccable mainstream institutions-the International Energy Agency, the World Bank, the accounting firm of PricewaterhouseCoopers-have warned that the Earth is on a trajectory to warm by at least 4 Degrees Celsius and that this would be incompatible with continued human survival."

It has also been written[5] that, "Lags in the replacement of fossil-fuel use by clean energy use have put the world on a pace for 6 degree Celsius by the end of this century. Such a large temperature rise occurred 250 million years ago and extinguished 90 percent of the life on Earth. The current rise is of the same magnitude but is occurring faster."

Pictures That Are Worth a Thousand Words

Figure 1 shows (1) atmospheric CO_2 (in blue) and (2) averaged-over-a-year-then-averaged-over-the surface-of-the-earth world atmospheric temperature (in red). This temperature is with respect to a recent preindustrial value. The data starts 800,000 years ago. It shows that the current value of atmospheric CO_2, which is now over 400 PPM, far exceeds the values of the last 800,000 years. It

also shows that we should expect the corresponding temperature to eventually be about 12 or 13 degrees above preindustrial temperatures. This would bring about a human disaster[3,4,5].

Figure 2 shows the average yearly temperature with respect to the 1960-to-1990 baseline temperature (in blue). It also shows atmospheric levels of CO_2 (in red). The S-3-05 goal of 450 PPM is literally "off the chart", in Figure 2. Figure 2 shows that, as expected, temperatures are starting to rise along with the increasing levels of CO_2. The large variations in temperature are primarily due to the random nature of the amount of solar energy being received by the earth.

FURTHER BACKGROUND: CALIFORNIA'S SB 375 AND AN IMPORTANT DATA SET

As shown in the Introduction, LDVs emit significant amounts of CO_2. The question arises: will driving need to be reduced or can cleaner cars and cleaner fuels arrive in time to avoid such behavioral change? Steve Winkelman, of the Center for Clean Air Policy (CCAP), worked on this problem.

SB 375, the *Sustainable Communities and Climate Protection Act of 2008*

Under SB 375, the California Air Resources Board (CARB) has given each Metropolitan Planning Organization (MPO) in California driving-reduction targets, for the years 2020 and 2035. "Driving" means yearly, per capita, vehicle miles travelled (VMT), by LDVs, with respect to 2005. The CARB-provided values are shown at this Wikipedia link, http://en.wikipedia.org/wiki/SB_375. It is important to note that although this link and many other sources show the targets to be "GHG" and not "VMT", SB 375 clearly states that the reductions are to be the result of the MPO's Regional Transportation Plan (RTP), or, more specifically, the Sustainable Communities Strategy (SCS) portion of the RTP. Nothing in the SCS will improve average mileage. That will be done by the state and federal government by their Corporate Average Fleet Efficiency (CAFÉ) standards. The SCS can only reduce GHG by reducing VMT. The only way an SCS can reduce GHG by 12%, for example, is to reduce VMT by 12%.

Under SB 375, every Regional Transportation Plan (RTP) must include a section called a Sustainable Communities Strategy (SCS). The SCS must include driving reduction predictions corresponding to the CARB targets. Each SCS must include only *feasible* transportation, land use, and transportation-related policy data. If the SCS driving-reduction predictions fail to meet the CARB-provided targets, the MPO must prepare an Alternative Planning Strategy (APS). An APS uses *infeasible* transportation, land use, and transportation-related policy assumptions. The total reductions, resulting from both the SCS and the APS, must at least meet the CARB-provided targets.

Critical Data: Useful Factors from Steve Winkelman's Data

Figure 3[6].shows 6 variables as a percent of its 2005 value. The year 2005 is the baseline year of SB 375. The red line is the Caltrans prediction of VMT. The purple line is California's current mandate for a Low Carbon Fuel Standard (LCFS). As shown, by 2020, fuel in California must emit 10% less per gallon than in 2005. The turquoise line is the 1990 GHG emission in California. As shown, it is 12% below the 2005 level. This is important because S-3-05 specifies that in 2020, state GHG emission levels must be at the

1990 level. The green line is the C02 emitted per mile, as specified by AB 1493, also known as "Pavley 1 and 2" named after Senator Fran Pavley. The values shown do not account for the LCFS. The yellow (or gold) line is the S-3-05 mandate, referenced to 2005 emission levels. The blue line is the product of the red, the purple, and the green line and is the percentage of GHG emissions compared to 2005. Since VMT is not being adequately controlled, the blue line is not achieving the S-3-05 line. Figure 3 shows that driving must be reduced. For this reason, Steve Winkelman can be thought of as the true father of SB 375.

Figure 1. Atmospheric CO_2 and Mean Temperature from 800,000 Years Ago

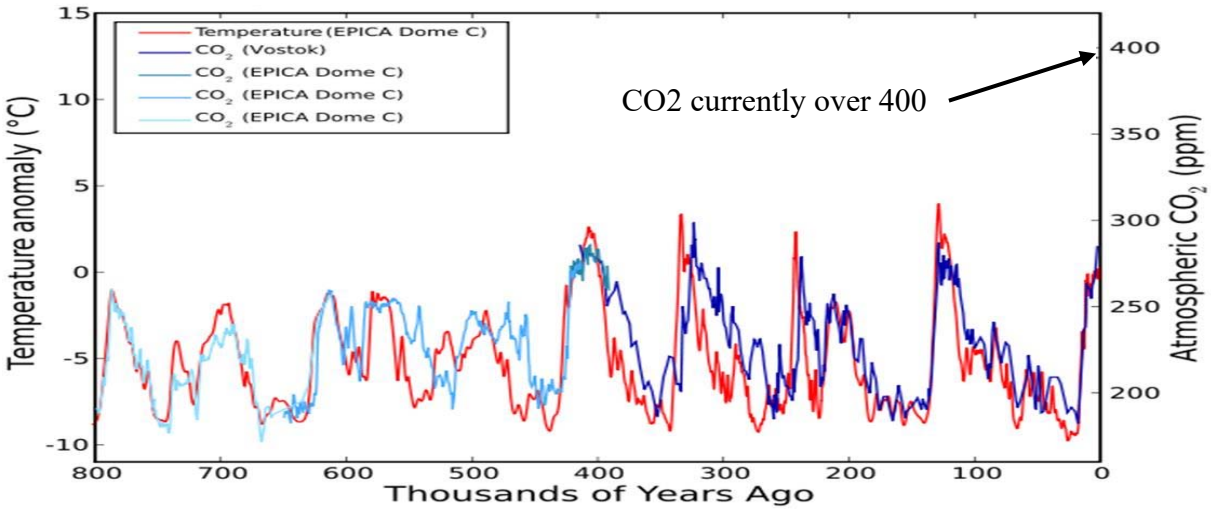
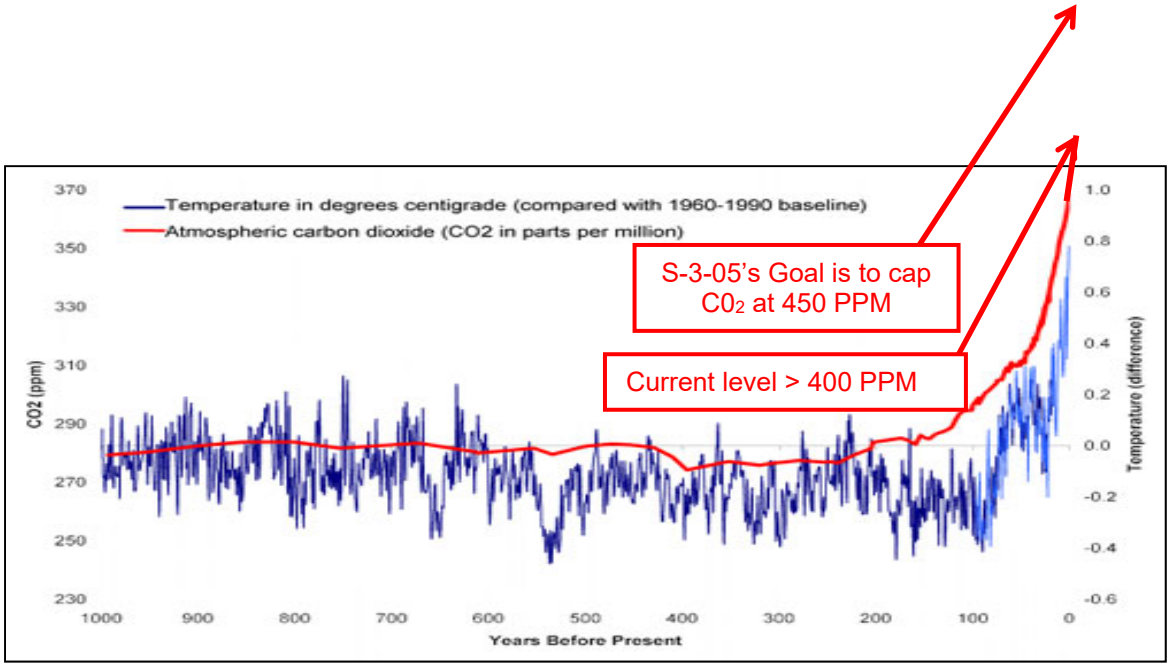
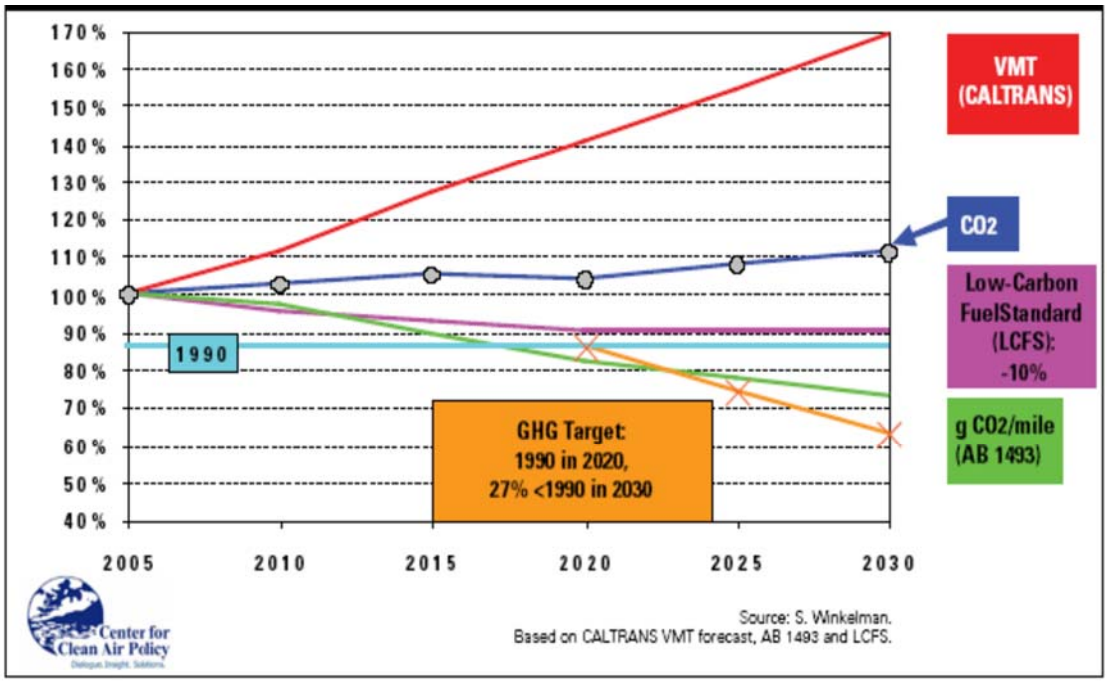


Figure 2. Atmospheric CO_2 and Mean Temperature, Over the Last 1,000 Years



This table provides inspiration for a road map to climate success for LDVs. Climate stabilization targets must be identified and achieved by a set of requirements to define fleet efficiency and per-capita driving.

Figure 3 **The S-3-05 Trajectory (the Gold Line) AND the CO_2 Emitted from Personal Driving (the Blue Line), where that CO_2 is a Function (the Product) of the California-Fleet-Average CO_2 per Mile (the Green Line), The Predicted Driving (VMT, the Red Line), and the Low-Carbon Fuel Standard (the Purple Line)**



THE DEVELOPMENT OF CALIFORNIA'S TOP-LEVEL LDV REQUIREMENTS TO SUPPORT CLIMATE STABILIZATION

It is also clear that cleaner cars will be needed and can probably be achieved. As will be seen, much cleaner cars will be needed if driving reductions are going to remain within what many people would consider achievable. Mileage and equivalent mileage will need to be specified. A significant fleet-fraction of Zero-Emission Vehicles (ZEVs, either Battery-Electric LDVs or Hydrogen Fuel Cell LDVs) will be needed. Since mileage and equivalent mileage is more heuristic than emissions per mile, they will be used instead of CO2 per mile driven.

Since the SB-375 work used 2005 as the reference year, it will remain the reference year here.

GHG Target to Support Climate Stabilization

The primary problem with S-3-05 is that California's resolve and actions have been largely ignored by other states, our federal government, and many countries. Therefore, rather than achieving 2000 levels by 2010 and being on a track to achieve 1990 levels by 2020, world emission have been increasing. Reference 7 states on Page 14 that the required rate of reduction, if commenced in 2020,

would be 15%. That rate means that the factor of 0.85 must be achieved, year after year. If this were done for 10 years, the factor would be $(0.85)^{10} = 0.2$. We don't know where world emissions will be in 2020. However, it is fairly safe to assume that California will be emitting at its 1990 level in 2020, in accordance with S-3-05. This situation shows that the correct target for California is to achieve emissions that are reduced to 80% below California's 1990 value by 2030. Note that if the reductions start sooner, the rate of reduction of emissions can be less than 15% and the 2030 target could be relaxed somewhat. However, it is doubtful that the world will get the reduction rate anywhere near the needed 15% by 2020. Therefore, the target, of 80% below 1990 levels by 2030 is considered to be correct for California. Reference 7 also calls into question the advisability of aiming for a 2 degree Celsius increase, given the possibilities of positive feedbacks that would increase warming. This concern for positive feedbacks is another reason that this paper will work towards identifying LDV requirement sets that will support achieving 80% below 1990 values by 2030.

Notes on Methods

The base year is 2005. An intermediate year of 2015 is used. The car efficiency factor of 2015 with respect to 2005 is taken directly from Figure 3. The car efficiency factor of 2030 with respect to 2015 is derived herein, resulting in a set of car-efficiency requirements. It is assumed that cars last 15 years.

Primary Variable Used

Table 1 defines the primary variables that are used.

Table 1 Variable Definitions

Variable Definitions	
e_k	**LDV Emitted C02, in Year "*k*"**
L_k	**Low Carbon Fuel Standard (LCFS) Factor that reduces the Per-Gallon CO2 emissions, in Year "*k*"**
C_k	**LDV CO2 emitted per mile driven, average, in Year "*k*", not accounting for the Low Carbon Fuel Standard (LCFS) Factor**
c_k	**LDV CO2 emitted per mile driven, average, in Year "*k*", accounting for the Low Carbon Fuel Standard (LCFS) Factor**
p_k	**Population, in Year "*k*"**
d_k	**Per-capita LDV driving, in Year "*k*"**
D_k	**LDV Driving, in Year "*k*"**
M_k	**LDV Mileage, miles per gallon, in Year "*k*"**
m_k	**LDV Equivalent Mileage, miles per gallon, in Year "*k*" accounting for Low Carbon Fuel Standard (LCFS) Factor, so this is M_k/L_k**
N	**Number of pounds of CO2 per gallon of fuel but not accounting for the Low Carbon Fuel Standard (LCFS) Factor**

Fundamental Equations

The emissions are equal to the CO2 per mile multiplied by the per-capita driving multiplied by the population, since per-capita driving multiplied by the population is total driving. This is true for any year.

Future Year k: $$e_k = c_k * d_k * p_k \quad \textbf{(Eq. 1)}$$

Base Year i: $$e_i = c_i * d_i * p_i \quad \textbf{(Eq. 2)}$$

Dividing both sides of Equation 1 by equal values results in an equality. The terms on the right side of the equation can be associated as shown here:

$$\frac{e_k}{e_i} = \frac{c_k}{c_i} * \frac{d_k}{d_i} * \frac{p_k}{p_i} \quad \textbf{(Eq. 3)}$$

Since carbon dioxide emitted per gallon is just a constant (about 20 pounds per gallon), the constant cancels out of the ratio of emissions per mile, leaving the following relationship.

To work with mileage: $$\frac{m_i}{m_k} = \frac{c_k}{c_i} \quad \textbf{(Eq. 4)}$$

Putting Equation 4 into Equation 3 results in the following equation:

$$\frac{e_k}{e_i} = \frac{m_i}{m_k} * \frac{d_k}{d_i} * \frac{p_k}{p_i} \quad \textbf{(Eq. 5)}$$

Showing the base year of 2005, the future year of 2030, introducing the intermediate year of 2015 and the year of 1990 (since emissions in 2030 are with respect to the 1990 value) results in Equation 6.

$$\frac{e_{2030}}{e_{1990}} * \frac{e_{1990}}{e_{2005}} = \frac{c_{2030}}{c_{2015}} * \frac{c_{2015}}{c_{2005}} * \frac{d_{2030}}{d_{2005}} * \frac{p_{2030}}{p_{2005}} \quad \textbf{(Eq. 6)}$$

The ratio on the far left is the climate-stabilizing target, which is the factor of the 2030 emission to the 1990 emission. It is shown to be 0.20 or 80% less. The next ratio is the emission of 1990 compared to 2005. It is the turquoise line of Figure 3, which is 0.87. The first ratio on the right side of the equation is the fleet emission per mile in 2030 compared to the value in 2015. This ratio will be derived in this report and it will result in a set of car efficiency requirements. Moving to the right, the next ratio is the car efficiency in 2015 compared to 2005. It can obtained by multiplying the purple line 2015 value times the green line 2015 value, which is 0.90 * 0.93.The next term is the independent variable. It is the driving reduction required, compared to the 2005 level of driving. The final term on the far right is the ratio of the population in 2030 to the population in 2005. Reference 8 shows that California's population in 2005 was 35,985,582. Reference 9 shows that California's population in 2030 is predicted to be 44,279,354. Therefore,

$$p_{2030}/p_{2005} = 44279354 \div 35985582 = 1.2305 \quad \textbf{(Eq. 7)}$$

Putting in the known values results in Equation 8:

$$0.20 * 0.87 = \frac{c_{2030}}{c_{2015}} * 0.90 * 0.93 * \frac{d_{2030}}{d_{2005}} * 1.2305 \quad \textbf{(Eq. 8)}$$

Combining the values, solving for the independent variable (the per-capita driving ratio), and changing from emission-per-mile to equivalent-miles-per-gallon results in the following:

$$\frac{d_{2030}}{d_{2005}} = 0.1689 * \frac{m_{2030}}{m_{2015}} \qquad \textbf{(Eq. 9)}$$

With the coefficient being so small, it is doubtful that we can get the equivalent mileage in 2030 to be high enough to keep the driving ratio from falling below one. The mileage of the 2005 fleet will be based on the best data we can get and by assuming cars last 15 years. The equivalent mileage in 2030 will need to be as high as possible to keep the driving-reduction factor from going too far below 1, because it is difficult to reduce driving too much. The equivalent mileage will be dependent on the fleet-efficiency requirements in the near future and going out to 2030. Those requirements are among the primary results of this report.

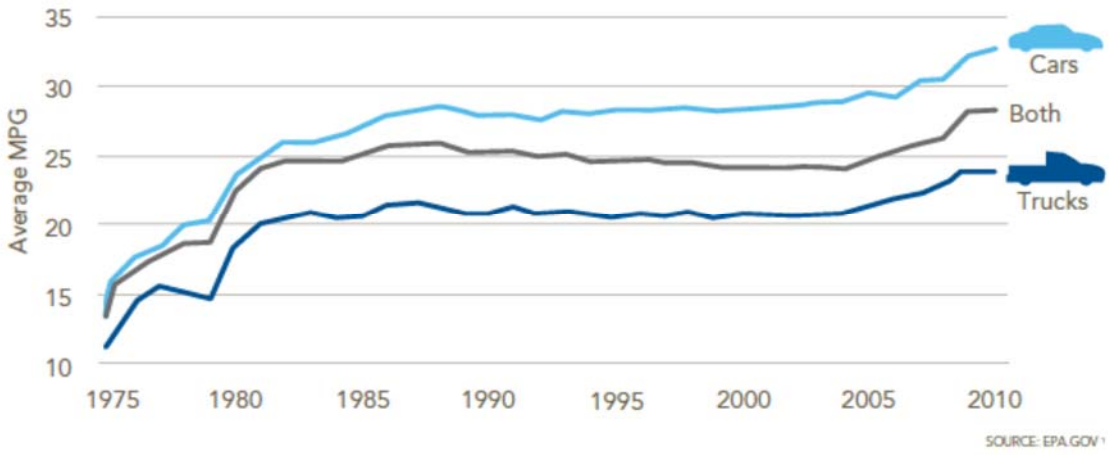
Internal Combustion Engine (ICE) Mileage, from Year 2000 to Year 2030

The years from 2000 to 2011 are taken from a plot produced by the PEW Environment Group,

http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Fact_Sheet/History%20of%20Fuel%20Economy%20Clean%20Energy%20Factsheet.pdf

The plot is shown here as Figure 4. The "Both" values are used.

Figure 4 **Mileage Values From the PEW Environment Group**



The values from 2012 to 2025 are taken from the US Energy Information Agency (EIA) as shown on their website, http://www.c2es.org/federal/executive/vehicle-standards#ldv_2012_to_2025. They are the LDV Corporate Average Fleet Efficiency (CAFÉ) values enacted into law in the first term of President Obama. From 2025 to 2030, it is assumed that the yearly ICE improvement in CAFÉ will be 2.5 MPG.

Mileage of California's LDV Fleet in 2015

Table 2 uses these values of the Internal Combustion Engine (ICE) LDV mileage to compute the mileage of the LDV fleet in 2015. It assumes that the fraction of ZEVs being used over these years is small enough to be ignored. The 100 miles driven, nominally, by each set of cars, is an arbitrary value and inconsequential in the final calculation, because it will divide out. It is never-the-less used, so that it is possible to compare the gallons of fuel used for the different years. The "f" factor could be used to account for a set of cars being driven less. It was decided to not use this option by setting all of the values to 1. The Low Carbon Fuel Standard (LCFS) values are taken from Figure 3. The gallons of fuel are computed as shown in Equation 10, using the definition for L_k that is shown in Table 1.

Table 2 Calculation of the Fleet MPG for 2015

LDV Set	Years Old	Model Year	CAFE MPG	LCFS Factor L_{Year}	Factor Driven f	Gallons Used Per f*100 Miles
1	14-15	2001	24.0	1.0	1.0	4.17
2	13-14	2002	24.0	1.0	1.0	4.17
3	12-13	2003	24.0	1.0	1.0	4.17
4	11-12	2004	24.0	1.0	1.0	4.17
5	10-11	2005	25.0	1.0	1.0	4.00
6	9-10	2006	25.7	.9933	1.0	3.87
7	8-9	2007	26.3	.9867	1.0	3.75
8	7-8	2008	27.0	.9800	1.0	3.63
9	6-7	2009	28.0	.9733	1.0	3.48
10	5-6	2010	28.0	.9667	1.0	3.45
11	4-5	2011	29.1	.9600	1.0	3.30
12	3-4	2012	29.8	.9533	1.0	3.20
13	2-3	2013	30.6	.9467	1.0	3.09
14	1-2	2014	31.4	.9400	1.0	2.99
15	0-1	2015	32.6	.9333	1.0	2.86
					Sum of Gallons:	54.29
					Miles = 100*Sum(f's):	1500
					MPG = Miles/(Sum of Gallons):	27.63

$$\textit{Gallons Used per } f * 100 \textit{ miles} = \frac{fx100}{(\textit{CAFE MPG})/L_k} \qquad \textbf{(Eq. 10)}$$

How ICE Mileage Values Will Be Used with ZEV Equivalent Mileage Values

As will be seen, after 2015, the net (computed using both ICEs and ZEVs) mileage values for each year are assumed to greatly improve by having a significant fraction of ZEVs. The ICE CAFÉ standards are used in this report as just the ICE contribution to fleet MPG. The ICE MPG values are inadequate by themselves and will therefore need to become less important because ZEVs will need to quickly take over the highways.

Federal requirements will need to change dramatically. Currently, federally-mandated corporate average fuel efficiency (CAFÉ) standards have been implemented, from 2000 to 2025. These standards require that each corporation produce and sell their fleet of cars and light-duty trucks in the needed proportions, so that the combined mileage of the cars they sell, at least meet the specified mileage.

The car companies want to maximize their profits while achieving the required CAFÉ standard. In California, the car companies will already be required to sell a specified number of electric vehicles, which have a particularly-high, equivalent-value of miles-per-gallon. If the laws are not changed, this will allow these companies to sell more low-mileage, high profit cars and light-duty trucks, and still achieve the federal CAFÉ standard.

It will be better to apply the CAFÉ standards to only the ICEs and then require that the fleet of LDVs sold achieve some mandated fraction of ZEVs. The ZEVs will get better and better equivalent mileage, as our electrical grid is powered by more renewable sources of energy. Therefore, their equivalent mileage is not fixed, but will improve over the years. Requirements developed here are for 2030. Therefore a high percentage of all the electricity generated in the state, including both the "in front of the meter" (known as the "Renewable Portfolio Standard" or "RPS") portion and the "behind the meter" portion is assumed to come from sources that do not emit CO2. More specifically, he value of 80% is assumed. This therefore becomes a fleet-efficiency requirement.

ZEV Equivalent Mileage Values

To calculate the mileage of the 2030 fleet of LDVs, it is necessary to derive a formula to compute the equivalent mileage of ZEVs, as a function of the percent of electricity generated without emitting CO2, the equivalent ZEV mileage if the electricity is from 100% fossil fuel, and the equivalent ZEV mileage if the electricity is from 100% non-C02 sources. The variables defined in Table 3 are used.

The derivation of the equation for equivalent ZEV mileage is based on the notion that the ZEV can be imagined to travel "r" fraction of the time on electricity generated from renewables and "(1-r)" fraction of the time on fossil fuel. If the vehicle travels "D" miles, then, using the definitions shown in Table 3, the following equation can be written.

$$\boldsymbol{G = \frac{r \times D}{m_{zr}} + \frac{(1-r) \times D}{m_{zf}}} \qquad \textbf{(Eq. 11)}$$

$$\boldsymbol{m_z = D/G = D/\left(\frac{r \times D}{m_{zr}} + \frac{(1-r) \times D}{m_{zf}}\right)} \qquad \textbf{(Eq. 12)}$$

Dividing the numerator and the denominator by D and multiplying them both by the product of the two equivalent mileage values results in Equations 13.

$$\boldsymbol{m_z = m_{zr} \times m_{zf} / \left(r \times m_{zf} + (1-r) \times m_{zr}\right)} \qquad \textbf{(Eq. 13)}$$

Again, using the definitions in Table 3 results in the following.

$$\boldsymbol{m_z = Num/(Den)} \qquad \textbf{(Eq. 14)}$$

Table 3 Variables Used in the Calculation of ZEV Equivalent Mileage

Variable	Definition
m_z	ZEV Equivalent mileage
m_{zr}	ZEV Equivalent mileage if the electricity is from renewables
m_{zf}	ZEV Equivalent mileage if the electricity is from fossil fuels
r	fraction of electricity generated from sources not emitting CO2
G	Gallons of equivalent fuel used
D	Arbitrary distance travelled
Num	$m_{zr} \times m_{zf}$
Den	$r \times m_{zf} + (1 - r) \times m_{zr}$

Table 4 shows an assignment of assumed values and the result of a calculation, using Equations 13, 14, and the definitions in Table 3, to produce a ZEV equivalent mileage.

Table 4 Variable Assignment and the Resulting ZEV Mileage

m_{zr}	m_{zf}	r	1-r	Num	Den	m_z
5000	70	0.8	0.2	350000.00	1056.00	331.44

Computing an LDV Fleet Mileage Assuming Heroic Measures (HM)

Table 5 shows the additional definitions that will be used in this calculation. Table 6 computes the 2030 LDV mileage, assuming "Heroic Measures" to reduce the miles driven in poor-mileage ICE's, in building and selling a significant fraction of ZEVs, and in getting the Low Carbon Fuel Standards to continue to improve beyond the Figure 3 minimum of 0.90.

Table 5 Additional Variables Used in the Calculation of 2030 LDV Mileage

Variable	Definition
D_i	Distance travelled by ICE vehicles
D_z	Distance travelled by ZEVs
G_i	Gallons of Equivalent fuel used by ICE vehicles
G_z	Gallons of Equivalent fuel used by ZEVs

As shown by the values for "f", government policies must be adopted, in 2030, to reduce the miles driven by the ICE's, from model years 2016 to 2023. The 2016 model ICE's are driven only 30% as much as the nominal amount. The 2017 year ICE's can be driving 10% more. This rate of change continues up to 2023, when the ICE's are doing less damage, due to the large fraction of ZEVs on the road.

Table 6 Calculation of 2030 LDV Mileage Assuming Heroic Measures

Year	ICE Parameters and Calculations						ZEVs			Yearly Totals		
	CAFÉ MPG	LCFS	Eq. MPG	f	D_i	G_i	z	D_z	G_z	Total Miles	Total Gallons	2030 MPG
2016	34.3	.9267	37.01	.3	30.0	.8105	.04	4	.012	32.8	.7901	41.51
2017	35.1	.9200	38.15	.4	40.0	1.0484	.07	7	.021	44.2	.9962	44.37
2018	36.1	.9133	39.53	.5	47.5	1.2018	.12	12	.036	56.0	1.1494	48.72
2019	37.1	.9000	40.92	.6	54.0	1.3197	.18	18	.054	67.2	1.2567	53.47
2020	38.3	.8500	42.56	.7	52.5	1.2337	.24	24	.072	77.2	1.3225	58.37
2021	40.3	.8000	47.41	.8	48.0	1.0124	.34	34	.103	86.8	1.2162	71.37
2022	42.3	.8000	52.88	.9	40.5	.7660	.48	48	.145	94.8	1.0299	92.05
2023	44.3	.8000	55.38	1.0	30.0	.5418	.62	62	.187	100.0	.8733	114.51
2024	46.5	.8000	58.13	1.0	15.0	.2581	.76	76	.229	100.0	.6422	155.71
2025	48.7	.8000	60.88	1.0	5.0	.0821	.90	90	.272	100.0	.4358	229.46
2026	51.2	.8000	64.00	1.0	5.0	.0781	.95	95	.287	100.0	.3648	274.16
2027	53.7	.8000	67.13	1.0	5.0	.0745	.98	98	.296	100.0	.3255	307.24
2028	56.2	.8000	70.25	1.0	5.0	.0712	.99	99	.299	100.0	.3129	319.56
2029	58.7	.8000	73.38	1.0	5.0	.0681	.99	99	.299	100.0	.3123	320.18
2030	61.2	.8000	76.50	1.0	5.0	.0654	.99	99	.299	100.0	.3118	320.75
Sum of Miles and then Gallons of Equivalent Fuel:										1259.00	11.34	
Equivalent MPG of LDV Fleet in 2030:										***111.03***		
Sum of ZEV Miles = **865**. Fraction of Miles Driven by ZEVs = **68.7%**												

As shown, the ZEV fraction of the fleet assumes the value of 12%, just 2 years from now (shown in the green field.) It then proceeds upward, to 18% in 2019; 24% in 2020; 34% in 2021; and so on, until it reaches 99% by 2028.

Achieving these fractions of ZEVs might be compared to what was done during World War II, when automobile productions lines were rapidly converted to produce tanks. This reduced the new cars that could be purchased. Besides this, rationing gasoline made it difficult to drive at times and, due to shortages of leather, which was being used to produce boots for soldiers, some citizens found it hard to even buy shoes. These rapid and inconvenient changes were tolerated, because most people agreed that the war needed to be won. The heroic measures assumed here may not be possible unless citizens and the political leaders they elect understand the dire consequences of climate destabilization and therefore accept, and even demand, the measures that are needed to support climate stabilization.

The equivalent miles per gallon of the LDV fleet in 2030, specifically 111.03 miles per gallon, will be considered as a potential 2030 LDV requirement.

Computing the Heroic-Measures (HM) Case Per-Capita and Net Driving Factor Requirements, Based on the Result Shown in Table 6

Plugging the

- equivalent MPG of the LDV fleet in Year 2030, taken from the bottom of Table 6, which is 111.03 MPG (m_{2030}), and
- the MPG of the LDV fleet in Year 2015, taken from the bottom of Table 2, which is 27.63 MPG (m_{2015}),

into Equation 9, gives the following result:

$$\frac{d_{2030}}{d_{2005}} = 0.1687 * \frac{m_{2030}}{m_{2015}} = 0.1687 * \frac{111.03}{27.63} = 0.68 \qquad \textbf{(Eq. 14)}$$

This means that the per-capita driving in 2030 will need to be about 32% less than in year 2005. The net driving can be computed by multiplying the per-capita driving, 0.68, by the population factor of 1.2305, computed in Equation 7, resulting in 0.84 (since 0.68 x 1.2305 = 0.84.) This means that, even with the 23% increase in California's population, the net driving will have to drop by 16%. If this LDV requirement set is selected, all of California's transportation money can be used to improve transit, improve active transportation (mainly walking and biking), and maintain, but not expand, roads. The good news is that there can be little or no congestion because highway capacity now is larger than it was in 2005. Policies will be needed to achieve the required reduction in driving.

Case 2: Computing LDV Requirements that Support Climate Stabilization but Still Allow 2005 Per-Capita Driving

The first step is to use Equation 9 and the value of the mileage in 2015 to compute the needed LDV equivalent fleet mileage for 2030 if the left side of the equation is equal to 1.0.

$$\mathbf{m_{2030} = 1.0 \text{ x } m_{2015} / 0.1689 = 27.63 / 0.1689 = 163.59 \text{ MPG}} \qquad \textbf{Eq. 15)}$$

Table 7 is constructed, with the fraction of ZEVs selected to achieve the needed equivalent fleet mileage of about 163.59 MPG. Since its ZEV fractions are larger and sooner than in the "Heroic Measures" table, Table 7 is showing what has been called the "Extra-Heroic Measures" (EHM) case. The ICE "f" values are unchanged; as are the LCFS values. The EHM ZEV differences from the HM case are the highlighted "z" values.

This means that with the 23% increase in California's population, computed in Equation 7, the net driving would also increase by 23%. If this LDV requirement set were to be implemented, a lot of California's transportation money would be needed to expand the highway system, leaving less to improve transit, improve active transportation (mainly walking and biking), and maintain roads.

Table 7 Calculation of 2030 LDV Mileage Assuming Extra-Heroic Measures

Year	ICE Parameters and Calculations						ZEVs			Yearly Totals		
	CAFÉ MPG	LCFS	Eq. MPG	f	D_i	G_i	z	D_z	G_z	Total Miles	Total Gallons	2030 MPG
2016	34.3	.9267	37.01	.3	30.0	.8105	.04	0	.012	32.8	.7901	41.51
2017	35.1	.9200	38.15	.4	36.0	.9436	.10	10	.030	46.0	.9738	47.24
2018	36.1	.9133	39.53	.5	35.0	.8855	.25	25	.075	62.5	1.024	61.02
2019	37.1	.9000	40.92	.6	30.0	.7332	.40	40	.121	76.0	1.000	75.96
2020	38.3	.8500	42.56	.7	21.0	.4935	.65	65	.196	89.5	.7718	115.96
2021	40.3	.8000	47.41	.8	8.0	.1687	.90	90	.272	98.0	.4403	222.59
2022	42.3	.8000	52.88	.9	4.5	.0851	.95	95	.287	99.5	.3717	267.66
2023	44.3	.8000	55.38	1.0	5.0	.0903	.95	95	.287	100.0	.3769	265.31
2024	46.5	.8000	58.13	1.0	5.0	.0860	.98	98	.296	100.0	.3301	302.95
2025	48.7	.8000	60.88	1.0	5.0	.0821	.98	98	.296	100.0	.3285	304.38
2026	51.2	.8000	64.00	1.0	5.0	.0781	.99	99	.299	100.0	.3143	318.14
2027	53.7	.8000	67.13	1.0	5.0	.0745	.99	99	.299	100.0	.3136	318.88
2028	56.2	.8000	70.25	1.0	5.0	.0712	.99	99	.299	100.0	.3129	319.56
2029	58.7	.8000	73.38	1.0	5.0	.0681	.99	99	.299	100.0	.3123	320.18
2030	61.2	.8000	76.50	1.0	5.0	.0654	.99	99	.299	100.0	.3118	320.75
Sum of Miles and then Gallons of Equivalent Fuel:										1304.30	7.97	
Equivalent MPG of LDV Fleet in 2030:										*163.59*		

Comparing the ZEV Fraction Values of the "Heroic-Measures" (HM) Case to the "Extra-Heroic Measures" (EHM) Case

Table 8 shows the direct comparison of the ZEV fractions that are ZEV requirements for the HM Case and the EHM Case. The largest differences are highlighted. The EHM case does not appear to be achievable.

Table 8 HM Case and the EHM Case Which Supports 2005 Per-Capita Driving

Cases	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
HM	.04	.07	.12	.18	.24	.34	.48	.62	.76	.90	.95	.98	.99	.99	.99
EHM	.04	.10	.25	.40	.65	.90	.95	.95	.98	.98	.99	.99	.99	.99	.99

ACHIEVING THE REQUIRED DRIVING REDUCTION OF THE HEROIC-MEASURES (HM) CASE

As shown in Equation 14, in 2030, the per-capita driving will need to at least 32% below the 2005 value. As shown in this link, http://en.wikipedia.org/wiki/SB_375, California's Metropolitan Planning Organizations (MPOs) are adopting Region Transportation Plans (RTPs) that will achieve reductions in year 2020 and 2035. As also shown there, the targets, for year 2035, range from 0% for Shasta to 16% for Sacramento Area Council of Governments. Since this is for 2030 instead of 2035, and to be reasonably conservative, it is assumed here that the state will achieve a 10% reduction in per-capita driving, in 2030, compared to 2005. This leaves 22% to be achieved by new programs.

The title of each of the following subsections contains the estimated per-capita driving reduction each strategy will achieve, by 2030.

Reallocate Funds Earmarked for Highway Expansion to Transit and Consider Transit-Design Upgrades (3%)

San Diego County has a sales tax measure called "TransNet", which allocates one-third for highway expansion, one-third for transit, and one-third for road maintenance. It has a provision that allows for a reallocation of funds, if supported by at least two-thirds of SANDAG Board members, including a so-called weighted vote, where governments are given a portion of 100 votes, proportional to their population. It is hereby proposed to reallocate the TransNet amount, earmarked for highway expansion, to transit and to do similar reallocations throughout California.

This money could be used to fund additional transit systems; improve transit operations; and/or the redesign and implementation of the redesign of existing transit systems. The redesign could include electrification and automation or even upgrading to a different technology.

A Comprehensive Road-Use Fee Pricing and Payout System to Unbundle the Cost of Operating Roads (7.5%)

Comprehensive means that pricing would be set to cover all costs (including road maintenance and externalities such as harm to the environment and health); that privacy and the interests of low-income drivers doing necessary driving would be protected; that the incentive to drive fuel-efficient cars would be at least as large as it is under the current fuels excise tax; and, as good technology becomes available, that congestion pricing is used to protect critical driving from congestion.

The words *payout* and *unbundle* mean that some of the money collected would go to people that are losing money under the current system.

User fees (gas taxes and tolls) are not enough to cover road costs[10] and California is not properly maintaining its roads. Reference 10 shows that in California user fees amount to only 24.1% of what is spent on roads. Besides this, the improved mileage of the ICEs and the large number of ZEVs needed mean that gas tax revenues will drop precipitously.

This system could be used to help reduce the ICE LDV miles driven in 2016 to 2022, as shown in the "f" column of Tables 6 and 7. This system could probably be implemented in less than 5 years.

Unbundling the Cost of Car Parking (7.5%)

Unbundling the cost of car parking[11] throughout California is conservatively estimated to decrease driving by 7.5%, based on Table 1 of Reference 11. That table shows driving reductions resulting from introducing a price for parking, for 10 cases. Its average reduction in driving is 25% and its smallest reduction is 15%.

Good Bicycle Projects and Bicycle Traffic Skills Education (3%)

The best criterion for spending money for bicycle transportation is the estimated reduction in driving per the amount spent. The following strategies may come close to maximizing this parameter.

Projects to Improve Bicycle Access

All of the smart-growth neighborhoods, central business districts, and other high trip destinations or origins, both existing and planned, should be checked to see if bicycle access could be substantially improved with either a traffic calming project, a "complete streets" project, more shoulder width, or a project to overcome some natural or made-made obstacle.

League of American Bicyclist Certified Instruction of "Traffic Skills 101"

Most serious injuries to bike riders occur in accidents that do not involve a motor vehicle[12]. Most car-bike accidents are caused by wrong-way riding and errors in intersections; the clear-cut-hit-from-behind accident is rare[12].

After attending *Traffic Skills 101,* students that pass a rigorous written test and demonstrate proficiency in riding in traffic and other challenging conditions could be paid for their time and effort.

As an example of what could be done in San Diego County, if the average class size was 3 riders per instructor and each rider passes both tests and earns $100 and if the instructor, with overhead, costs $500 dollars, for a total of $800 for each 3 students, that would mean that $160M could teach $160M/$800 = 200,000 classes of 3 students, for a total of 600,000 students. The population of San Diego County is around 3 million.

Eliminate or Greatly Increase the Maximum Height and Density Limits Close to Transit Stops that Meet Appropriate Service Standards (2%)

As sprawl is reduced, more compact, transit-oriented development (TOD) will need to be built. This strategy will incentivize a consideration of what level of transit service will be needed, how it can be achieved, and what levels of maximum height and density are appropriate. Having no limits at all is reasonable if models show that the development can function without harming the existing adjacent neighborhoods, given the level of transit service and other supporting transportation policies (such as car parking that unbundles the cost and supports the full sharing of parking[11]) that can be assumed.

Net Driving Reduction from All Identified Strategies

By 2030, the sum of these strategies should be realized. They total 23%, resulting in a 1% margin over the needed 22% (which is added to the existing 10% to get the needed 32%.)

ADDITIONAL ELECTRICITY REQUIRED

The URL http://www.energy.ca.gov/2013_energypolicy/documents/2013-06-26_workshop/presentations/09_VMT-Bob_RAS_21Jun2013.pdf shows that Californians drove about 325 Billion miles per year, from 2002 to 2011. This value can be multiplied by the 0.84 factor reduction of driving, computed right after the calculation shown in Equation 14, and the fraction of miles driven by ZEVs, shown at the bottom of Table 6, of 0.687 (from 68.7%), to give the 2030 miles driven by ZEVs = 325 Billion x 0.84 x 0.687 = 188 Billion miles per year.

Using the Tesla information here http://en.wikipedia.org/wiki/Tesla_Roadster, it is assumed that 21.7 kW-h is used per 100 miles, or 0.217 kW-h per mile. The total energy used per year is therefore 188 Billion miles x 0.217 kW-h = 40,699 GW-h.

http://www.cpuc.ca.gov/cfaqs/howhighiscaliforniaselectricitydemandandwheredoesthepowercomefrom.htm, shows that California is using about 265,000 GW-h per year. Therefore the electricity needed to power California's HM ZEV LDF fleet in 2030 is 100% x 40,648/265,000 = 15.34% of the amount of electricity California is currently using. Table 4 shows that 80% (r = 0.80, with "r" defined in Table 3) of electricity must generated without producing CO2. This estimated 15.34% increase in demand should help the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) with their planning.

COMPARISON WITH CALIFORNIA AIR RESOURCES BOARD (CARB) PLANNING

The following quote[13] allows us to compare the CARB plan for LDVs with what would be required to stabilize the climate at a livable level, in the form of the Heroic Measures case:

> *Regulations on the books in California, set in 2012, require that 2.7 percent of new cars sold in the state this year be, in the regulatory jargon, ZEVs. These are defined as battery-only or fuel-cell cars, and plug-in hybrids. The quota rises every year starting in 2018 and reaches 22 percent in 2025. Nichols wants 100 percent of the new vehicles sold to be zero- or almost-zero-emissions by 2030*

Table 9 shows the values implied by this statement and compares them to the HM values. Table 10, which is similar to Tables 6 and 7, computes the overall mileage of the 2030 fleet, using the CARB values.

Computing the Heroic-Measures (HM) Case Per-Capita and Net Driving Factor Requirements, Based on the Result Shown in Table 10

Plugging the

- equivalent MPG of the LDV fleet in Year 2030, taken from the bottom of Table 10, which is 74.25 MPG, and
- the MPG of the LDV fleet in Year 2015, taken from the bottom of Table 2, which is 27.63 MPG,

into Equation 8, gives the following result:

$$\frac{d_{2030}}{d_{2005}} = 0.1687 * \frac{m_{2030}}{m_{2015}} = 0.1687 * \frac{74.25}{27.63} = 0.45 \qquad \textbf{(Eq. 16)}$$

Table 9 Zero Emission Vehicle (ZEV) % of Fleet, for Two Cases

Year	CARB	Heroic Measures	Year	CARB	Heroic Measures
2016	2.7%	4.0%	**2024**	19.6%	76.0%
2017	2.7%	7.0%	**2025**	22.0%	90.0%
2018	5.1%	12.0%	**2026**	37.6%	95.0%
2019	7.5%	18.0%	**2027**	53.2%	98.0%
2020	9.9%	24.0%	**2028**	68.8%	99.0%
2021	12.4%	34.0%	**2029**	84.4%	99.0%
2022	14.8%	48.0%	**2030**	100.0%	99.0%
2023	17.2%	62.0%			

This means that the per-capita driving will need to be about 55% less in 2030 than in year 2005. The net driving can be computed by multiplying the per-capita driving, 0.45, by the population factor of 1.2305, computed in Equation 7, resulting in 0.55. This means that, even with the 23% increase in California's population, the net driving will have to drop by 45%. If CARB wants the LDV sector to achieve a reasonable climate-stabilizing target, it will need to require ZEV adoption profile closer to the Heroic Measures Case. The adoption profile they have now will required a reduction in driving that will probably be very difficult to achieve.

CONCLUSION

A requirement set named "Heroic Measures" (HM) is quantified. Table 8 shows that the HM LDV efficiency requirements are much easier to achieve than those needed to allow per-capita driving to remain close to its 2005 level, which has been quantified as the "Extra Heroic Measures Case". Strategies to achieve the required HM driving reductions are also allocated and described. They are perhaps about as difficult as achieving the HM LDV fleet efficiency. It is computed that the 2030 fleet of LDV HM ZEVs would require an amount of electricity which is equal to about 15% of what California is using today. The current CARB plan for ZEV adoption is shown to require a very large reduction in driving if LDVs are to achieve a climate-stabilizing target.

Table 10 Calculation of 2030 LDV Mileage Assuming the CARB Values

Year	ICE Parameters and Calculations						ZEVs			Yearly Totals		
	CAFÉ MPG	LCFS	Eq. MPG	f	D_i	G_i	z	D_z	G_z	Total Miles	Total Gallons	2030 MPG
2016	34.3	.9267	37.01	.3	30.0	.8105	.03	3	.008	31.9	.79681	40.02
2017	35.1	.9200	38.15	.4	40.0	1.0484	.03	3	.008	41.6	1.0283	40.48
2018	36.1	.9133	39.53	.5	47.5	1.2018	.05	5	.015	52.6	1.2158	43.23
2019	37.1	.9000	40.92	.6	54.0	1.3197	.08	8	.023	63.0	1.3787	45.70
2020	38.3	.8500	42.56	.7	52.5	1.2337	.10	10	.030	73.0	1.5114	48.29
2021	40.3	.8000	47.41	.8	48.0	1.0124	.12	12	.037	82.5	1.5162	54.39
2022	42.3	.8000	52.88	.9	40.5	.7660	.15	15	.045	91.5	1.4954	61.17
2023	44.3	.8000	55.38	1.0	30.0	.5418	.17	17	.052	100.0	1.5475	64.62
2024	46.5	.8000	58.13	1.0	15.0	.2581	.20	20	.059	100.0	1.4425	69.32
2025	48.7	.8000	60.88	1.0	5.0	.0821	.22	22	.066	100.0	1.3477	74.20
2026	51.2	.8000	64.00	1.0	5.0	.0781	.38	38	.113	100.0	1.0884	91.87
2027	53.7	.8000	67.13	1.0	5.0	.0745	.53	53	.161	100.0	.8577	116.59
2028	56.2	.8000	70.25	1.0	5.0	.0712	.69	69	.208	100.0	.6517	153.44
2029	58.7	.8000	73.38	1.0	5.0	.0681	.84	84	.255	100.0	.4673	214.02
2030	61.2	.8000	76.50	1.0	5.0	.0654	1.0	100	.302	100.0	.3017	331.44
Sum of Miles and then Gallons of Equivalent Fuel:										1236.00	16.65	
Equivalent MPG of LDV Fleet in 2030:										*74.25*		

ABREVIATIONS AND ACRONYMS

AB 1493	California's Assembly Bill 1493	**HM**	"Heroic Measures" LDV Case
AB 32	California's Assembly Bill 32	**ICE**	Internal Combustion Engine LDV
APS	Alternative Planning Strategy	**kW-h**	Kilo Watt-hour
CAFE	Corporate Average Fuel Efficiency	**LCFS**	Low Carbon Fuel Standard
CARB	California Air Resources Board	**LDV**	Light-Duty Vehicle
CBD	Center for Biological Diversity	**MPO**	Metropolitan Planning Organization
CEC	California Energy Commission	**Pavley**	Senator Pavley's AB 1493
CEQA	California Environmental Quality Act	**PPM**	Parts per Million
CPUC	California Public Utilities Commission	**RPS**	Renewable Portfolio Standard
CCAP	Center for Clean Air Policy	**RTP**	Regional Transportation Plan
CNFF	Cleveland National Forest Foundation	**S-3-05**	Governor's Executive Order S-3-05
SB 375	California's Senate Bill 375	**SANDAG**	San Diego Association of Governments
CO_2	Carbon Dioxide		
CO_2_e	Carbon Dioxide Equivalent GHG	**SCS**	Sustainable Community Strategy
EHM	"Extra Heroic Measures" LDV Case	**TransNet**	San Diego County sales tax
GEO	Governor's Executive Order	**URL**	Universal Resource Locator
GHG	Greenhouse gas	**VMT**	Vehicle Miles Travelled
GW-h	Giga Watt-Hours	**ZEV**	Zero Emission Vehicle LDV

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A Plan to Efficiently and Conveniently Unbundle Car Parking Costs

Air and Waste Management Association Paper 2010-A-554-AWMA

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ABSTRACT

The *Introduction* shows documented driving reductions due to the pricing of parking. It notes that although the benefits of priced and shared parking are known, such parking has not been widely implemented, due to various concerns. It states that a solution, called "*Intelligent Parking,"* will overcome some of these concerns, because it is easy to use and naturally transparent. It asserts that this description will support a "Request for Proposal" (RFP) process. Eight background information items are provided, including how priced parking would help California achieve greenhouse gas reduction targets. A story demonstrates some of the key features of *Intelligent Parking*. Arguments for less parking, shared parking, and priced parking are made. Barriers to progress are identified. The fair pricing of parking is described. New ways to characterize transportation demand management are presented. Seven goals of *Intelligent Parking* are listed. Eleven definitions and concepts, that together define *Intelligent Parking*, are described. This includes a method to compute a baseline price of parking and how to adjust that price instantaneously to keep the vacancy above 15% ("Congestion Pricing"). An implementation strategy is described.

INTRODUCTION:

It has been well established that appropriately priced parking will significantly reduce driving[1]. Most case studies presented in Table 1 are evaluations of the most general type of "car-parking cash-out": *a program that pays employees extra money each time they get to work without driving*. They show that a price differential between using parking and not using parking will significantly reduce driving, even when transit is described as poor. Since driving *must* be reduced[2], the pricing of parking is desirable.

Shared parking is also recognized as desirable because it can sometimes result in less parking being needed.

Although the advantages of pricing and sharing parking have been recognized for many years, these practices are still rare. This paper identifies some of the reasons for this lack of progress. The pricing and sharing method of this paper has a natural transparency and ease of use that would reduce many of the concerns. This paper also suggests that those governments that have the necessary resources can take the lead role in developing and implementing the described systems. These governments will recover their investments, over time.

This paper describes how parking facilities could be tied together and operated in an optimum system, named *Intelligent Parking*. The description of *Intelligent Parking* is sufficient to support a "Request for Proposal" process, leading to full implementation.

There are two distinct parts to *Intelligent Parking*. The first is how to set the price. The second is how to distribute the earnings. Briefly, the earnings go to the individuals in the group for whom the parking is built.

Table 1 Eleven Cases of Pricing Impact on Parking Demand

Location	Number of Workers @ Number of Firms	1995 $'s Per Mo.	Parking Use Decrease
Group A: Areas with poor public transportation			
West Los Angeles	3500 @ 100+	$81	15%
Cornell University, Ithaca, NY	9000 Faculty & Staff	$34	26%
San Fernando Valley, Los Angeles	850 @ 1	$37	30%
Costa Mesa, CA	Not Shown	$37	22%
Average for Group		**$47**	**23%**
Group B: Areas with fair public transportation			
Los Angeles Civic Center	10,000+ @ "Several"	$125	36%
Mid-Wilshire Blvd, Los Angeles	1 "Mid-Size" Firm	$89	38%
Washington DC Suburbs	5,500 @ 3	$68	26%
Downtown Los Angeles	5,000 @ 118	$126	25%
Average for Group		**$102**	**31%**
Group C: Areas with good public transportation			
U. of Washington, Seattle, WA	50,000 employees, students	$18	24%
Downtown Ottawa, Canada	3,500 government staff	$72	18%
Bellevue, WA	430 @ 1	$54	39%*
Average for Group, except Bellevue, WA Case*		**$45**	**21%**
Overall Average, Excluding Bellevue, WA Case*			**25%**

* Bellevue, WA case was not used in the averages because its walk/bike facilities also improved and those improvements could have caused part of the decrease in driving.

PERTINENT BACKGROUND INFORMATION

- Vehicle miles traveled (VMT) are a major cause of global warming and pollution[2, 3].
- California's Metropolitan Planning Organizations (MPOs) will need to adopt strategies that reduce vehicle miles traveled (VMT), in order to meet SB375 GHG reduction targets, to be issued by the California Air Resources Board in late 2010, for years 2020 and 2035[2].
- The appropriate pricing of parking is one of the least costly documented tools to reduce VMT.
- New technologies, such as sensors feeding computer-generated billing, offer the potential to efficiently bill drivers for parking and alert law enforcement of trespassers.
- Reformed parking policies can increase fairness, so that, for example, people who use transit or walk do not have to pay higher prices or suffer reduced wages, due to parking.

- Methods to unbundle parking cost are inefficient unless they support the spontaneous sharing of parking spaces. Shared parking with unbundled cost would ultimately allow cities to require significantly less parking.
- Typical systems of timed parking and metered parking are far from ideal. Parking has no automated record keeping, so it is difficult to know where there is too much or too little.
- Good policies will eventually let cities turn parking minimums into parking maximums.

A GLIMPSE INTO A POSSIBLE FUTURE

Jason is driving to work for the first time in several years. He has decided to save money by carrying home a new 3-D, big-screen computer, which he plans to purchase at a store near his office after work. He wanted to avoid paying delivery charges.

Things have been changing around his office development since they unbundled the cost of parking at the near-by train station. Many people who caught the early trains and lived close to the station stopped driving and parking in the best parking spaces; demand for housing close to the station went up; and wealthy riders, who insisted on driving, did so, confidant that they could always find parking as close to the platform as their schedules required, due to congestion pricing. Who would have guessed how much those people were willing to pay? It was shocking. Parking-lot earnings, paid to round-trip train riders, meant that the net cost to ride the train went significantly down. Ridership and neighborhood vitality both went significantly up. All Jason knew was that the price to park at his office had been going up yearly because of increased land values. His parking-lot earnings from his office had been increasing almost every month, due to the ripple effect of train riders parking off-site at cheaper parking. Some of them were using his office parking.

As he pulls out of his driveway, he tells his GPS navigation unit his work hours (it already knew his office location), the location of the store where he plans to buy the computer, and his estimated arrival and departure times at the store. He tells the GPS unit he wants to park once, park no more than 1 block from the store, walk no more than 1 mile total, and pay no more than an average of $2 per hour to park. He is not surprised to hear the GPS tell him that his request is impossible. He tells the GPS he will pay an average of $3 per hour and learns that the GPS has located parking.

It guides him into a church parking lot. He hopes the church will use his money wisely. The GPS tells him the location of a bus stop he could use to get to work and the bus's next arrival time at the stop. With automatic passenger identification and billing, the bus has become easy to use, except that it is often crowded. Jason gets out of the car and walks to work, with no action required regarding the parking.

Three weeks later, when Jason gets his monthly statement for his charges and income for automotive road use, transit use, parking charges, and parking earnings, he finds that the day's parking did indeed cost about $30 for the 10 total hours that he parked. He notes that the parking-lot earnings for his office parking averaged about $10 per day that month. He then notices the parking lot earnings from the store, where he spent about $1000 dollars. He sees that the parking-lot earnings percent for the store that month was 1.7%, giving him about $17. So for the day, Jason only spent a net of about $3 on parking. Then he realized that he should have had the computer delivered after all. If he would have bicycled that day, as he usually did, he would have still gotten the $27 earnings from the two parking facilities and he would have paid nothing

for parking. So the choice to drive cost him $30. He remembers that the delivery would have only been $25 dollars. Oh well. He enjoyed his before-work and after-work walks.

THE CASE FOR LESS PARKING

Less parking will support more compact development.[1] This makes walking and biking more enjoyable and less time consuming. There would certainly be less "dead space", which is how parking lots feel to people, whether they arrive by car or not, after they become pedestrians.

Since parking can be expensive, less parking can reduce overhead costs significantly, such as leasing expense and parking-lot maintenance cost. Less overhead means more profit and less expense for everyone. A need for less parking can create redevelopment opportunities at existing developments and reduce project cost at new developments.

At new developments, car-parking costs could prevent a project from getting built.[2]

THE CASE FOR SHARED PARKING

Shared parking for mixed uses means that less parking is needed. For example, shared parking could be used mostly by employees during the day and mostly by residents at night.

Fully shared parking means that very little parking would be off limits to anyone. In a central business district with shared parking, drivers would be more likely to park one time per visit, even when going to several locations. Pedestrian activity adds vitality to any area.

THE CASE FOR APPROPRIATELY-PRICED PARKING

To Reduce Driving Relative to Zero Pricing

Traditional Charging or Paying Cash-out Payments

As shown in the Introduction, this relationship (pricing parking reduces driving) is not new.[3]

Using results like Table 1, at least one study[4] has used an assumption of widespread pricing to show how driving reductions could help meet greenhouse gas (GHG) target reductions. Dr. Silva Send of EPIC http://www.sandiego.edu/epic/ghgpolicy/ assumes that all work locations with 100 employees or more in San Diego County will implement cash-out, to result in 12% less driving to work. Currently, almost all employees in San Diego County "park for free", unless they happen to work in a downtown core area.

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[1] This is especially true of surface parking, which only accommodates 120 cars per acre.

[2] On September 23, 2008, a panel of developers reviewed the Oceanside, Ca. "Coast Highway Vision" http://www.ci.oceanside.ca.us/pdf/chv_finalvisionstrategicplan.pdf. Parts of this plan were described as smart growth.

At the review, developer Tom Wiegel said, "Parking is the number 1 reason to do nothing," where "do nothing" meant "build no project." The other developers at the meeting agreed.

[3] For many years the Victoria Transport Policy Institute (VTPI) has been recognized as a source of reliable information on "Transportation Demand Management", or TDM.

From http://www.vtpi.org/tdm/tdm72.htm#_Price_Parking:

> Even a relatively small parking fee can cause significant travel impacts and provide significant TDM benefits.

"TDM Benefits" refers to the many public and private benefits of having fewer people choosing to drive.

Current, Best-Practice "Unbundling"

The "best-practice" use of the phrase, "unbundled parking cost", is to describe the case where either the cost of parking, for the case of a condominium, or the rent for parking, for the case of an apartment, is separated from either the purchase price and common fees or the rent of the dwelling unit.

This gives the resident families the choice of selecting the number of parking spaces they would like to rent or buy, including the choice of zero. This would tend to reduce the average number of cars owned per dwelling unit and, in this way, would also tend to reduce driving. Its major drawback is that this method does not encourage sharing.

To Increase Fairness and Protect the US Economy

It is stated above that almost all employees in San Diego County "park for free". Of course there is really no such thing as "parking for free". So-called "free parking" always reduces wages or increases costs. At a work site, it reduces everyone's wage, even those employees that never drive. At an apartment complex, so-called "free parking" increases the rent. Therefore, "free parking" at work or at apartments violates the fundamental rule of the free market, which is that people should pay for what they use and not be forced to pay for what they do not use. Parking should at least be priced to achieve fairness to non-drivers.

The US economy would also benefit. Reductions in driving would lead to reductions in oil imports, which would reduce the US trade deficit.[4]

BARRIERS TO PROGRESS

Given all this, it might seem that the widespread pricing of parking should have happened by now. However there are barriers. In 2007, a majority of the City Council of Cupertino, Ca. indicated that they wanted their City Manger to negotiate reduced parking requirements with any company that would agree to pay sufficient cash-out payments. To this date, no company, including Apple Inc., has expressed an interest. Most companies probably perceive cash-out as expensive. Even if they realize they could get a reduced parking requirement in exchange for paying sufficient cash-out amounts and even if the economics worked in support of this action (quite possible where land is expensive), they want to stay focused on their core business, instead of getting involved in new approaches to parking, real estate, and redevelopment.

On the other hand, simply charging for parking and then giving all the employees a pay raise is probably going to run into opposition from the employees, who will feel that they would be losing a useful benefit.

In addition, neighbors fear the intrusion of parked cars on their streets. Permit parking, which could offer protection, is not always embraced. City Council members know that a sizable fraction of voting citizens believe that there can actually never be too much "free parking",

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[4] From http://en.wikipedia.org/wiki/Balance_of_trade#Warren_Buffett_on_trade_deficits, Warren Buffet wrote in 2006,

> "The U.S. trade deficit is a bigger threat to the domestic economy than either the federal budget deficit or consumer debt and could lead to political turmoil. Right now, the rest of the world owns $3 trillion more of us than we own of them."

Professor Shoup's famous book[5] notwithstanding. Some Council members probably feel that way themselves.

It doesn't help that current methods of charging for downtown parking are often very inefficient.[5] For example, downtown Oceanside, California has parking meters that will only accept coins. Besides this, all their on-street, downtown parking is timed, with maximums from 10 minutes to 4 hours. These time limits are enforced by a city employee, who applies chalk from a tire to the street and then records the time. However, by watching the time and moving their car soon enough, drivers can avoid getting a ticket. Of course, they could instead drive to the mall and not have to worry about having coins or elapsed time since parking. It is not surprising that downtown merchants often object to charging for parking.

In summary, those that resist charging for parking, *based on their perceptions*, include

- Companies, *who fear the complexity and expense of paying cash-out payments*;
- Employees, *who fear of losing a current benefit*;
- City leaders, *who fear the political repercussions*;
- Downtown patrons, *who dislike the inconvenience and worry*;
- Downtown business owners, *who fear that it will drive away customers*.

THE COST, VALUE, AND FAIR PRICE OF PARKING

Estimated and Actual Capital Cost

Surface Parking

One acre of surface parking will accommodate 120 cars. Land zoned for mixed use is sometimes expensive. At $1.2 million per acre, the land for a single parking space costs $10,000. Construction cost should be added to this to get the actual, as-built cost of each parking space. Estimated cost can be determined by using appraised land value and construction estimates. For new developments, after the parking is constructed, it is important to note the actual, as-built cost.

Parking-Garage Parking

One acre of parking-garage will accommodate considerably more than 120 cars. The construction cost of the garage and the value of its land can be added together to get the total cost. Dividing that total cost by the number of parking spaces yields the total, as-built cost of each parking space. Adding levels to a parking garage may seem like a way to cut the cost of each parking space, for the case of expensive land. However, there is a limit to the usefulness of this strategy because the taller the parking garage, the more massive the supporting structural members must be on the lower levels, which increases total cost. Parking-garage parking spaces are often said to cost between $20,000 and $40,000. The actual costs should be noted.

Underground Parking

In order to compute an estimate for the cost of a parking space that is under a building, it is necessary to get an estimate of the building cost with and without the underground parking. The difference, divided by the number of parking spaces, yields the cost of each parking space. The

[5] According to Bern Grush, Chief Scientist of Skymeter Corporation http://www.skymetercorp.com/cms/index.php, often two-thirds of the money collected from parking meters is used for collection and enforcement costs.

cost or value of land plays no role in the cost of this parking. However, it does not follow that this parking is cheap. Underground parking spaces are often said to cost between $60,000 and $90,000 dollars each. Although there will be an "as built" cost of the building with the parking, there will never be an "as built" cost of the building without the parking. However, after the construction is done, the estimate for the cost of the underground parking should be reconsidered and re-estimated if that is needed. The final, best-estimate cost should be noted.

Value

Initially, value and cost are the same. For surface parking and parking-garage parking, the value would initially be the same as the as-built cost. For underground parking, the value would initially be the same as the best-estimate cost. However, over time, the value must be updated. Both construction costs and land-value costs will change. The value assigned to a parking place should always be based on the current conditions.

Fair Pricing

Parking space "values", as described above, must first be converted to a yearly price by using a reasonable conversion factor. This conversion factor could be based on either the "cost of money" or the "earnings potential of money". It is expected that this conversion factor would be 2% to 5% during times of low interest rates and slow growth; but could be over 10% during times of high-interest and high growth. For example, if the surface parking value is $12,000 and it is agreed upon to use 5% as the conversion factor, then each parking spot should generate $600 per year, just to cover capital costs. The amount needed for operations, collection, maintenance, depreciation, and any special applicable tax is then added to the amount that covers capital cost. This sum is the amount that needs to be generated in a year, by the parking space.

The yearly amount of money to cover capital cost needs to be re-calculated every year or so, since both the value and the conversion factor will, in general, change each year. The cost of operations, collection, maintenance, depreciation, and any special applicable tax will also need to be reconsidered.

Once the amount generated per year is known, the base price, per unit year, can be computed by dividing it (the amount generated per year) by the estimated fraction of time that the space will be occupied, over a year. For example, if a parking space needs to generate $900 per year but it will only be occupied 50% of the time, the time rate charge is $1800 per year. This charge rate per year can then be converted to an hourly or even a per-minute rate. The estimated fraction of time that the parking is occupied over a year will need to be reconsidered at least yearly.

NEW DEFINITIONS TO PROMOTE AN OBJECTIVE VIEW OF PRICING

- The "fair price" means the price that accounts for all costs.
- The "baseline amount of driving" means the driving that results from the application of the fair price.
- "Zero transportation demand management" ("zero TDM") is the amount of demand management that results when the fair price is used. It will result in the baseline amount of driving.
- "Negative TDM" refers to the case where the price is set below the fair price. This will cause driving to exceed the baseline amount. Since TDM is commonly thought to be an action that reduces driving, it follows that negative TDM would have the opposite effect.
- "Positive TDM" refers to the case where the price is set above the fair price. This would cause the amount of driving to fall below the baseline amount.

Clearly, so-called "free parking" is an extreme case of negative TDM. The only way to further encourage driving would be to have a system that pays a driver for the time their car is parked.

THE GOALS OF *INTELLIGENT PARKING*

- There is only one agency operating all parking. ("All parking" does not include driveways and garages in single-family homes.) *Intelligent Parking* is designed and installed by regional or state government, using low-bid contractors, with design and start-up costs covered by the overhead portion of collection fees.
- Nearly all parking is shared. Almost always, anyone can park anywhere. Those who want exclusive rights to parking will pay "24/7" (all day, every day).
- Parking is operated so that the potential users of parking will escape the expense of parking by choosing to not use the parking. This characteristic is named "unbundled" because the cost of parking is effectively unbundled from other costs.
- Parking is priced and marketed to eliminate the need to drive around looking for parking.
- Parking at any desired price is made as easy as possible to find and use.
- Records of the use of each parking space are kept, to facilitate decisions to either add or subtract parking spaces.
- The special needs of disabled drivers, the privacy of all drivers, and, if desired, the economic interests of low-income drivers are protected.

DEFINITIONS & CONCEPTS OF *INTELLIGENT PARKING*

Parking Beneficiary Groups

There are at least 7 types of beneficiary groups. Note that in all cases, members of beneficiary groups must be old enough to drive.

1.) People who have already paid for the capital cost of parking. An example of this type of beneficiary group would be the owners of condominiums, where parking has been built and the cost is included in the price of the condominium. Note that although they have technically already paid for the parking, if they borrowed money to pay for some portion of the price, the cost is built into their monthly payment. This illustrates why the value of parking and the cost of borrowing money (rate of return on money) are key input variables to use to compute the appropriate base, hourly charge for parking.

2.) People who are incurring on-going costs of parking. An example of this type of beneficiary group is a set of office workers, where the cost of 'their" parking is contained in either the building lease or the cost of the building. Either way, the parking costs are reducing the wages that can be paid to these employees.[6]

3.) People who are purchasing or renting something where the cost of the parking is included in the price. Examples of this beneficiary group are people that rent hotel rooms, rent an apartment, buy items, or dine in establishments that have parking.

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[6] Such parking is often said to be "for the benefit of the employees". Defining this beneficiary group will tend to make this statement true, as opposed to the common situation where the employees benefit only in proportion to their use of the parking.

4.) People who own off-street parking as a business. They could be the individual investors or could be a government or government-formed entity.

5.) People who are said to benefit from parking, even though the money for the parking has been supplied by a source that may have very little relationship to those that are said to benefit. An example of this group would be train riders that make round trips from a station which has parking that is said to be "for riders". Students at a school with parking would be another example.

6.) People who are considered by many to be the logical beneficiaries of on-street parking. Owners of single-family homes are the beneficiaries of the parking that is along the boundaries of their property. The same status is given to residents of multi-family housing.

7.) Governments. Since they build and maintain the streets, they should get a significant benefit from on-street parking.

Unbundled Cost and Spontaneous Sharing

"Unbundled cost" means those who use the parking can see exactly what it costs and those who don't use the parking will either avoid its cost entirely or will get earnings to make up for the hidden parking cost they had to pay. This conforms to the usual rule of the free market where a person only pays for what they choose to use. Unbundled cost is fair.

"Spontaneous sharing" means that anyone can park anywhere at any time and for any length of time. Proper pricing makes this feasible.

How to Unbundle

The method of unbundling can be simply stated, using the concept of "beneficiary group" as discussed above. First, the fair price for the parking is charged. The resulting earnings[7] amount is given to the members of the beneficiary group in a manner that is fair to each member. Methods are described below.

Why this Supports Sharing

Members of a beneficiary group benefit financially when "their" parking is used. They will appreciate users increasing their earnings. They are also not obligated to park in "their" parking. If there is less-expensive parking within a reasonable distance, they might park there, to save money. This is fine, because all parking is included in the *Intelligent Parking* system.

Computing the Earnings for Individuals

Intelligent Parking must be rigorous in paying out earnings[7]. For a mixed use, the total number of parking spaces must first be allocated to the various beneficiary groups. For example in an office/housing complex, 63.5% of the parking might have been sold with the office. If so, the housing portion must be paying for the other 36.5%. For this case, it would follow that the first step is to allocate 63.5% of the earnings to the workers and 36.5% to the residents.

[7] The earnings amount is the revenue collected minus the collection cost and any other costs that will have to be paid due to the implementation of *Intelligent Parking*. The costs associated with the parking, paid *before* the implementation of *Intelligent Parking*, should *not* be subtracted from the revenue because they will continue to be paid as they were before the implementation of *Intelligent Parking*. Therefore, these costs will continue to reduce wages and increase the prices of goods and services.

How the monthly earnings are divided up among the members of the beneficiary group depends on the beneficiary group type. For each member, the group's total monthly earnings amount is always multiplied by a quantity and divided by the sum (the sum is the denominator) of that quantity, for all members.

For example, for each employee, the multiplier is the number of hours that the employee worked over the month while the denominator is the total number of hours worked by all employees over the month. At a school, for each student, the numerator is the total time spent at the school, over the month, while the denominator is the sum of the same quantity, for all the students.

For a train station with parking being supplied for passengers that ride on round trips of one day or less, the numerator is the passenger's monthly hours spent on such round trips, over the month; while the denominator is the total number of hours spent by all passengers on such round trips, over the month. Radio Frequency Identification (RFID) units on passengers could support an automated calculation of monthly charges for fares, as well as monthly hours on round trips.

At a shopping center, the numerator is the sum of the money spent by the shopper, over the month, while the denominator is the total amount of money spent by all shoppers over the month.

At a condominium, the numerator is the number of parking places that were paid for (directly or indirectly) by the resident family and the denominator is the total number of parking places at the condominium project; similarly, for apartment complexes.

Where Earnings Are Low

The goal is that if someone doesn't park, they don't pay, either directly or indirectly, because the earnings that they get will balance out their losses (like reduced wages, for example). However, charging for parking that few want to use will not sufficiently compensate the people that have been forced, or are being forced, to pay for such parking. The only remedy in this case is to redevelop the parking or lease the parking in some other way, for storage, for example. The earnings from the new use should go to those that are in the beneficiary group that was associated with the low-performing parking.

Why This Method of Unbundling Will Feel Familiar to Leaders

Developers will still be required to provide parking and will still pass this cost on, as has been discussed. There will be no need to force an owner of an exiting office with parking to break his single business into two separate businesses (office and parking).

Parking beneficiaries are identified that conform to traditional ideas about who should benefit from parking.[8]

Unbundling the Cost of On-Street Parking

The revenue from on-street parking in front of businesses will be split evenly between the city and the business's parking beneficiaries. All of the earnings from on-street parking in front of apartments or single-family homes will be given to the resident families.[9]

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[8] Showing exactly where parking earnings go will reduce the political difficulties of adopting pay parking in a democracy where the high cost of parking is often hidden and rarely discussed.

[9] Although governments own the streets, often, back in history, developers paid for them and this cost became embedded in property values. Admittedly, how to allocate on-street parking earnings is somewhat arbitrary. With

Special Considerations for Condominiums

Unbundling for a condominium owner means that, although their allocated amount of parking has added to their initial cost, their allocated amount of parking also earns money for them. Unbundling for a condominium could also mean that an owner can choose to have control over a single or several parking places. Such parking spaces could be equipped with a red light and a green light. If the red light is lit, this will mean that the space is not available for parking, except for the person who is controlling the spot. If the green light is lit, it will mean that the space is available to anyone. A space that is being reserved with a red light is charged at the full price to the condominium owner that has control over the space. The owner that controls these spaces can change the state of the parking space (available or not available) by either a phone call, on line, or at any pay station system that might be in use for the system. After condominium owners experience the cost of reserving a space for themselves, they might give up on the idea of having their own, personal, unshared parking space; especially since *Intelligent Parking* will give most owners and their guests all the flexibility they need in terms of parking their cars.

Some people think that condominium parking should be gated, for security reasons. However, parking within parking garages needs to be patrolled at the same frequency level as on-street parking, which is enough to ensure that crime around either type of parking is very rare. Cameras can help make parking garages that are open to the public safe from criminal activity.

Special Considerations for Renters

Unbundling for renters means that, although their allocated amount of parking increases their rent, their allocated amount of parking also earns money for them. Therefore, their traditional rent (includes parking) is effectively reduced by the money earned by those parking spaces allocated to them. Renters will be motivated to either not own a car or to park in a cheaper location. Parking in a cheaper location is not a problem because all parking is part of the *Intelligent Parking* system. Renters will welcome anyone to park in "their" parking, because it will increase their earnings.

Special Considerations for Employers

At first, companies may want the option of offering "free parking" to their employees so as to be able to compete with traditional job sites. This means giving employees that drive every single day an "add-in" amount of pay so that the sum of the add-in and their parking-lot earnings equals their charge, for any given monthly statement. The operator of the parking, which sends out statements, can pay out the "add in" amount, in accordance with the company's instruction. The company will then be billed for these amounts. There could be no requirement for the company to provide any such "add-in" amount to the employees that don't drive every day. This would allow the company to treat its every-day drivers better than other employees and so this would be a negative TDM. However, this economic discrimination would be substantially less than the current, status-quo, economic discrimination, where drivers get "free" parking and non-drivers get nothing.

Clusters of Parking

Clusters are a contiguous set of parking spaces that are nearly equal in desirability and thus can be assigned the same price. They should probably consist of from 20 to 40 spaces. For off-street

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congestion pricing and efficient methods, governments may earn significantly more than they are under current practices.

parking, they could be on either side of the access lane to the parking spaces, so that an observer could see the 20 to 40 cars, and get a feel for the vacancy rate. At a train station, clusters will normally be organized so that their parking spaces are approximately an equal distance from the boarding area. On-street clusters would normally conform to our current understanding of what a block is, which is to say from one cross street to the next cross street. The width of the street and the length of the block should be taken into account in defining on-street clusters of parking and in deciding if the parking on either side of the street should or should not be in the same cluster of parking spaces.

Examples of Good and Bad Technology

Parking Meters or Pay Stations

Parking meters are a relic of an earlier period, before computers. Pay stations do not add enough usefulness to merit their inclusion in *Intelligent Parking*, except as a bridge technology. Once good systems are set up, pay stations should cost additional money to use because of their expense. It would be best to devise an implementation strategy that will minimize their use when the system is first put into effect and will take them out of service as soon as possible.

Radio Frequency Identification Backed Up by Video-Based "Car Present" and License Recognition

Government will eventually enter into an RFID (Radio Frequency Identification) age. Organizers of large athletic events already have. Organizers that put on large open-water swims, foot races, and bike rides have routinely used RFID for many years.[10] An RFID vendor in San Diego[11] states that passive RFID units cost less than $5, are reliable, are durable, and they could be used to identify cars as well as people. He also sees no problem in implementing most of the features of *Intelligent Parking*.[12]

Automatic Data Collection and Sending Out Statements

Note that the "back end database" of Dr. Carta's written statement[12] refers to the ability to send statements of earnings and billing to students.[13]

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[10] For example, over 20,000 people ran the 2008 Bay-to-Breakers foot race in San Francisco. Each runner had a "chip" in their shoe lace. Each runner's start time and finish time were recorded and all results were available as soon as the last runner crossed the finish line.

[11]David R. Carta, PhD, CEO Telaeris Inc., 858-449-3454

[12] Concerning a Final Environmental Impact Report-approved and funded new high school in Carlsbad, California, where the School Board has signed a *Settlement Agreement* to consider "*unbundled parking*", "*cash-out*", and "*pricing*", Dr. Carta wrote, in a January 13th, 2010 written statement to the Board,

> I wanted to send a quick note discussing the technical feasibility of tracking cars into a lot without impacting students or requiring the need for gates. Mike Bullock and I have discussed this project; it can be accomplished straightforwardly by utilizing Radio Frequency Identification and/or Video Cameras integrated with automated license recognition systems. The cars would need to register with the system at the start, but it would be fairly painless for the users after the initial installation. The back end database system can also be implemented both straightforwardly and at a reasonable price.
>
> This is not necessarily a recommendation of the proposal for unbundled parking. Rather it is strictly an unbiased view of the technical feasibility of the proposal to easily and unobtrusively track cars, both registered and unregistered, into a fixed lot.

[13] In an earlier email on this subject, Dr. Carta wrote,

Putting it Together

Certainly, government, and in particular transit agencies and parking agencies, could use RFID-based technology. For example, when a person with an RFID unit which is tied to a billable address or a credit card with an open account gets on a bus or a train, they should not have to pay at that time, visit a pay station, or "swipe a card" that has a positive balance. Utility customers that pay their bills are not required to pre-pay. The same courtesy should be extended to transit riders, people that drive on roads, people that get parking-lot earnings, and people that park cars. There should be one monthly bill or statement, for all four activities.

Global Positioning Systems GPS

An alternative model is to have GPS systems in cars that would detect the car's parking location, that location's current charge rate, and would perform all of the charging functions in the car. The only information the parking-lot-enforcement system would need is whether or not a car being parked is owned by a bill-paying owner. The car owner's responsibility would be to pay the bills indicated by the box in the car. The box would need to process a signal that a bill had been paid. It would also need to process pricing signals.

Not Picking Winners

The purpose of this report is to describe what an ideal system would do, *not* how it is done. How a proposed system works is left to the systems, software, and hardware engineers that work together to submit a proposal based on this description of what an ideal system does.

Privacy

Privacy means that no one can see where someone has parked, without a search warrant. Also, the level of the detail of information that appears on a bill is selected by the customer.[14]

Ease of Use for Drivers

For credit-worthy drivers that have followed the rules of the system, pay parking will not require any actions other than parking. Paying for all parking fees over a month is then done in response to a monthly billing statement. Parking will feel to the consumer like a service provided by a municipality, such as water, energy, or garbage. One important difference is that users belonging to a "beneficiary group" will get an earnings amount in their monthly statement. Those that earn more than what they are charged will receive a check for the difference. This ease of use will make all parking less stressful.

Base Price

Off-Street

This is not too tough - we probably would integrate with a service that already sends physical mail from an electronic submission instead of re-inventing this wheel.

[14] License plates that have no RFID tags fail to use the best technology to accomplish the primary purpose of license plates, which is to identify and help intercept cars used in a crime. Identifying cars is a legitimate government goal. Protecting privacy is also a legitimate goal. Both goals can be realized with good laws, good enforcement, and good systems engineering.

Off-street parking is priced so that even if demand does not threaten to fill the parking beyond 85%, the money generated will at least equate to an agreed-upon return on the parking value and pay all yearly costs. Equation 1 shows the calculation of the hourly rate.

$$r_{BaselineHourly} = \frac{(r_{Investment} \times v_{Parking}) + c_{YOPD}}{(n_{HoursPerYear} \times f_{TO})} \quad \textbf{(Eq. 1)}$$

where:

$r_{BaselineHourly}$	=	the computed baseline hourly rate to park
$r_{Investment}$	=	yearly return on investment, such as .06
$v_{Parking}$	=	value of a parking space, such as (parking garage) $40,000
c_{YOPD}	=	yearly operations[15] plus depreciation, per space, such as $100
$n_{HoursPerYear}$	=	number of hours per year, 24 x 365 = 8760 Hours per Year
f_{TO}	=	fraction of time occupied, such as 0.55.

For the example values given, the base hourly rate of parking, to cover the cost of the investment, operations[15], and depreciation is $0.519 per hour. This could be rounded up to $0.52 per hour. This price could also be increased to result in positive TDM, to reduce driving more than the fair-price, zero-TDM amount.

On-Street

If on-street parking is located within walking distance (one-quarter mile) of off-street parking, its base price is set equal to the closest off-street parking's base price. Otherwise, it is set to some agreed-upon value, like fifty cents per hour. However, on-street parking has a special meaning for downtown merchants and for neighborhoods, two powerful political forces in any city. Merchants that have few cars parking on their street, even though it is permitted, are probably failing in their businesses. They would like free parking to help draw visitors to their store front. Neighborhoods that are not impacted by parking would probably prefer no pricing. For these reasons, for any on-street parking cluster, no price is charged until the cluster occupancy reaches 50%. (Time of day is irrelevant.)

Congestion Pricing

The time-rate price of parking is dynamically set on each cluster of parking, to prevent the occupancy rate from exceeding 85% (to reduce the need to drive around looking for parking). An 85% occupancy rate (15% vacancy) results in just over one vacant parking space per city block[5]. If the vacancy rate is above 30%, the price is left at the baseline hourly rate. If vacancies fall below 30%, the price can be calculated in a stair-step method, such as shown in Table 2.

Equation 2 is an alternative method.

In either case, the total charge is time parked, multiplied by the time-averaged, time-rate price. The base multiplier would be adjusted to be just large enough to keep the vacancy rate from falling below a desired level, such as 15%, so it is always easy to find parking.

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[15] This includes money for policing, cleaning, maintenance, any applicable parking tax, and all collection costs. Collection costs will need to include an amount to recover the development and installation costs of *Intelligent Parking*.

Table 2 Hourly Rates for 2 Base Multipliers and a Baseline Hourly Rate of $0.52

Vacancy Rate	Base Multiplier = 2			Base Multiplier = 2.5		
	Multiplication		Hourly Rate	Multiplication		Hourly Rate
	Formula	Value		Formula	Value	
Above 30%	2^0	1	$0.52	2.5^0	1	$0.52
25% to 30%	2^1	2	$1.04	2.5^1	2.5	$1.30
20% to 25%	2^2	4	$2.08	2.5^2	6.25	$3.25
15% to 20%	2^3	8	$4.16	2.5^3	15.625	$8.13
10% to 15%	2^4	16	$8.32	2.5^4	39.0625	$20.31
5% to 10%	2^5	32	$16.64	2.5^5	97.6563	$50.78
Below 5%	2^6	64	$33.28	2.5^6	244.1406	$126.95

$$r_{HourlyRate} = r_{BaselineHourly} \times \left(B^{(30-V)/8}\right), for\ V < 30;\ r_{BaselineHourly}, otherwise \quad \textbf{(Eq. 2)}$$

where:

$r_{HourlyRate}$ = the congestion-priced hourly rate to park

$r_{BaselineHourly}$ = the baseline hourly rate to park, such as $0.52 per hour (taken from from Eq. 1.

B = the base of the multiplier being computed, such as 2.50

V = the vacancy rate percent, such as 17.5, for 7 vacancies in a cluster of 40 spaces, 100*(7/40) = 17.5

For the example values given, the hourly rate of parking would be $9.88 per hour.

Pricing Predictions and Notifications

Drivers will develop strategies for their routine trips. The computer system that keeps records of parking use will also provide help for users. The *Intelligent Parking* website will direct a user to an appropriate cluster of parking if the user provides the destination location or locations, the time and date, and the hourly rate they wish to pay. If the walk is going to be long, the website could suggest using transit to get from the cheaply-priced parking to the destination. In such cases, the website may also suggest using transit for the entire trip.

Another user option is to specify the time, location, and the distance the user is willing to walk. In this case, the computer would give the cheapest cluster of parking available at the specified walk distance. The price prediction would be provided.

All price predictions would also have a probability of correctness associated with them. If a user can show that a computer has predicted a much lower price than what actually occurred, with a sufficiently high probability, it would be reasonable to charge the user the predicted price rather than the actual price.

Websites could routinely inform viewers when occupancy rates are expected to be unusually high, due to a special event (for example, a sporting event). The parking system website will always give current and predicted hourly rates for all locations. The hourly rates of parking will

also be available at a phone number and possibly at pay stations. The base-price hourly rate, for any parking cluster, would be stable and could therefore be shown on signs. Parking garage entrances could have large video screens showing both predicted and existing price. Users will also learn to look at parking and judge whether congestion pricing applies, or could apply, while their car is parked. It would not be long before these capabilities are added into GPS navigation systems.

Prepaid RFID

To be inclusive, pay stations or convenience stores will offer a pre-paid RFID that can be set on the dashboard of a car. This will support drivers with poor credit or drivers who have not obtained the necessary equipment to support the normal, trouble-free methods. This will also work for drivers that do not trust the system to protect their privacy for a certain trip (by removing or disabling the permanent RFID) or for all trips. No billing would occur.

Enforcement

The system would notify the appropriate law enforcement agency if an unauthorized car was parked. Authorized cars would need either a pre-paid RFID or equipment indicating that their owners had *Intelligent Parking* accounts and were sufficiently paid up on their bills.

IMPLEMENTATION

This description of *Intelligent Parking* will help to implement efficient parking systems. Parking at train stations, schools, and government buildings could introduce many of these concepts. This description of *Intelligent Parking* is sufficient to support a "Request for Proposal" process, which could lead to full implementation. Widespread installation should be done by a government agency, to minimize actions required on the part of the private sector. Laws would simply require the cooperation of all private-sector and government entities.

SUMMARY

A parking plan, *Intelligent Parking* has been described.

1. Technology will make it easy to use for most drivers.
2. Its parking is almost always shared, to support mixed uses.
3. It unbundles cost by charging and having earnings go to the parking beneficiaries.
4. Traditional groups, such as single-family home owners, employees, tenants, train riders, and students benefit from parking. The benefit is equal for drivers and non-drivers.
5. Baseline prices are computed primarily from the value of the parking and an agreed-upon rate of return. On-street parking is free until it is half full, at which time its base price often matches that of the closest off-street parking.
6. For all parking, price is dynamically increased to guarantee availability. Earnings are therefore only limited by what people are willing to pay.
7. Technology helps drivers find parking and decide if they want to drive or use transit.
8. Prepaid RFIDs provide service to those who have poor credit or don't want to be billed.
9. Disabled and perhaps low-income drivers will have accounts that allow them to park at reduced prices and perhaps avoid congestion pricing. Specially designated spots might also be required for disabled drivers.

10. The system will provide reports showing where additional parking would be a good investment and where it would be wise to convert existing parking to some other use.
11. Privacy will be protected. Law enforcement officials would need a search warrant to see where someone's car has been parked. The level of detail on billing would be selected by the car's owner.
12. Implementations could begin in carefully selected locations and expand.

Global warming, air pollution, trade deficits, and fairness are some of the significant reasons that governments have a responsibility to implement *Intelligent Parking*.

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