

# Meeting Summary



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<b>Date:</b>	November 15 and 16, 2016	<b>Time:</b>	6:00 to 8:00 p.m.
<b>Location:</b>	3821 41st Ave., Sacramento, CA and 6050 Watt Ave., North Highlands, CA		
<b>Subject:</b>	Summary of Comments from Public Workshops, Round #1		
<b>Project:</b>	Sacramento County Climate Action Plan: Communitywide Greenhouse Gas Reduction and Climate Change Adaptation (Communitywide CAP)		

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Sacramento County held two public workshops on the County’s climate action planning process. The attendees were asked to share ideas and provide feedback on what the County should consider in the climate action plan. The two workshops were at the following venues:

November 15, 2016

6-8 p.m.

Louise Perez Resource Center

3821 41st Ave., Sacramento, CA

November 16, 2016

6-8 p.m.

F.C. Joyce Elementary

6050 Watt Ave., North Highlands, CA

The following is a summary of the comments provided by attendees at both the November 15<sup>th</sup> and 16<sup>th</sup> public workshops organized by topics. This includes comments provided during the large group discussion as taken by the facilitation team as well as those written on notepads during the open house. Photos of the comments as written down at the workshops are included in the appendix. Additionally, two sets of comments were provided at the workshops in a written form, and are also included in the appendix.

## LAND USE

- ▲ Reduce sprawl with an urban limit line (per the discussion at the meeting, Sacramento County has an “Urban Services Boundary” which is used to limit where urban development might be located).

## TRANSPORTATION

- ▲ Transit connectivity:
  - East/West and North/South.
  - Franklin Blvd.
  - Increased school service.
  - Increased evening/weekend.
  - Reduced fares.
- ▲ Consider unbanked people when providing access for transit payment systems, tax credits, etc.
- ▲ Prioritize active transportation investments in disadvantaged communities.
- ▲ Plan to use space freed up by autonomous vehicles for housing density, parks, and transit!

- ▲ Bike lanes with high visibility.
- ▲ Provide bike helmet access to residents.
- ▲ Transit between cities.
- ▲ Connectivity for bikes.
- ▲ Provide signal light detection for bicycles.
- ▲ What are transportation plans after Measure B defeat? How can we help?

## ENERGY

- ▲ Challenges to address energy consumption and renewable energy installations for residences include bad roofs, electrical boxes that can't support solar panels, and other structure issues. Create a subsidized weatherization/home improvement loan program which is paid back when a home is sold or refinanced.
- ▲ The County should encourage more electric vehicle use:
  - Encourage employee electric vehicle use as well as changing the fleet to more electric vehicles.
  - Provide electric vehicle parking/charging at work.
  - Provide incentives to allow low-income residents to pay for electric vehicles.
- ▲ Incentivize rooftop solar and reduce the difficulty of the permitting process.
- ▲ Look at example communities which are "energy neutral". Consider making Sacramento County an energy neutral community.
- ▲ Encourage signups for SMUD's Greenergy program.
- ▲ Consider how much fuel is brought into the County and used and what the potential emissions from such fuel would be.
- ▲ Improve and make the electrical grid more efficient.

## WATER

- ▲ Consider the amount of consumption of water to produce electricity and goods.
- ▲ Install water meters.

## SOLID WASTE

- ▲ Prioritize food recovery/donation and source reduction before composting.
- ▲ Allow food waste to be collected into yard waste containers.
- ▲ County should put a zero-waste goal in place.

## AGRICULTURE/LANDSCAPING/OTHER

- ▲ Consider the importance of protecting farmland. Look at where easements are expiring and make sure those lands are protected.
- ▲ Consider how the County can provide for tree maintenance so that trees are kept healthy and don't need to be removed. A better tree maintenance program would encourage more tree planting.
- ▲ Provide funding for tree maintenance.
- ▲ Provide for ways to remove grass more easily with less regulations. (per discussion at the meeting, there is a resource available for people interested in removing their lawn: "Kiss your Grass Goodbye" – Sarah Sutton)
- ▲ Agriculture is vulnerable to climate change due to temperature changes, heat, flooding, etc. In addition, it can capture greenhouse gases.
- ▲ Focus on soil management.
- ▲ Provide resources to farmers.
- ▲ Urban agriculture.
- ▲ Farmland conservation.
- ▲ Incentivize local food markets and local production/distribution centers.
- ▲ Incentivize soil management practices for farmers (cover crops, mulch, rotation, reduced till, etc.)
- ▲ Promote use of compost versus synthetic fertilizers.
- ▲ Streamline state model landscape water ordinance compliance for lawn removal.
- ▲ Promote dairy digesters.
- ▲ Funding for collection services, not just for composting/anaerobic digestion (AD) infrastructure, especially for rural communities.
- ▲ More community gardens.
- ▲ Replace grass with fake turf or support other methods to convert lawn.
- ▲ Reintegrate Class 1 agricultural soils into food production.

## ADAPTATION

- ▲ Hot droughts are harder to deal with than colder droughts.
- ▲ Incorporate systematic methods of addressing neighborhoods for measures such as tree cover and complete streets; don't wait until something new is built to address these issues.
- ▲ Prioritize measures that both reduce GHG emissions and facilitate climate adaptation

- ▲ Address and reduce urban heat islands:
  - Encourage cool roofs.
  - More greening.
  - Promote urban greening.
  - This would address personal health.
  - Provide community engagement on this issue.
  - Provide cooling centers where people want to go. One example was to equip bus shelters with shade structures, power outlets, radios, and other tools that would make them more helpful/desirable in an emergency.
- ▲ Consider how urbanization may increase flooding risk.
- ▲ Consider the longer-term effects of climate change (don't just look at the next 90 years).
- ▲ Address sea level rise.

## **LOW-INCOME AND DISADVANTAGED COMMUNITIES**

- ▲ The County should apply for funding and use Cap-and-Trade funds to help low-income residents.
- ▲ Help low-income residents use available programs.
- ▲ Focus resources and prioritize disadvantaged and low-income communities.

## **GENERAL**

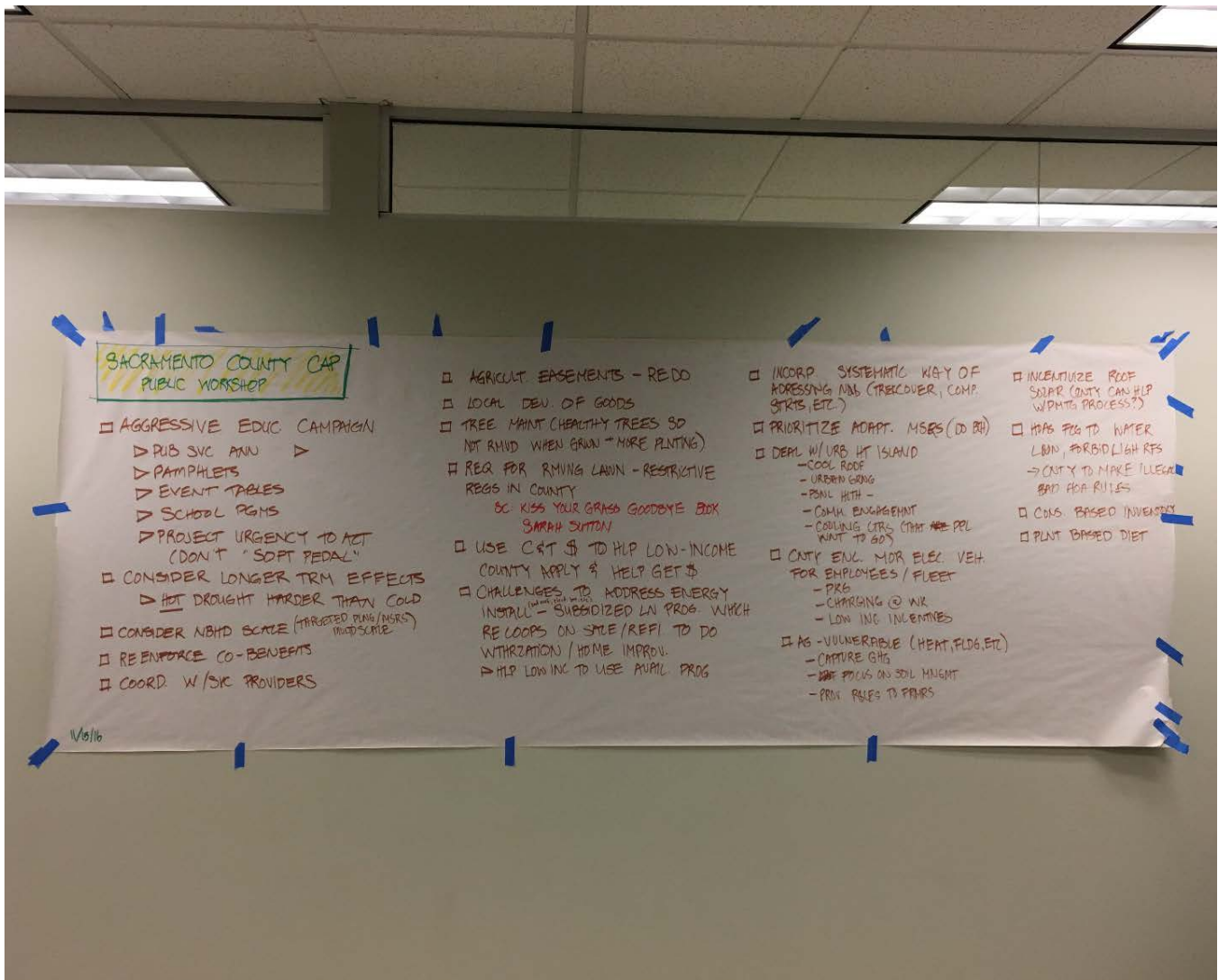
- ▲ Coordinate the climate action planning process with service providers such as SMUD and the water districts.
- ▲ Consider neighborhood scale planning. Use targeted planning and measures at multiple geographic scales.
- ▲ Re-enforce co-benefits of measures which provide for adaptation or mitigation as well as economic, social, health, or other benefits.
- ▲ Address the tension of multiple goals: cost, climate change, economy, etc.
- ▲ Consider the short-term costs in relationship to long-term savings and community resiliency.
- ▲ What about local cities? Are they making plans?
- ▲ Who will pay for costs?
- ▲ Support local development of goods.

- ▲ The County should make “bad” HOA rules illegal or work with HOAs to remove rules that are not helpful, such as:
  - Not allowing “cool” roofs.
  - Requiring green lawns.
- ▲ Use a consumption based inventory approach.
- ▲ Encourage a plant-based diet.
- ▲ Incorporate an overarching policy/strategy for including climate change considerations in all County actions (i.e., Measure B, Tree Protection, etc.)
- ▲ Label groceries with carbon dioxide used per pound of product (carbon intensity information next to nutrition label).

## **OUTREACH/EDUCATION**

- ▲ Conduct an aggressive educational campaign to market climate adaptation and climate change mitigation strategies. Project that it is urgent to act and don’t “soft pedal” the importance of the need to act. Consider the following techniques:
  - Public service announcements.
  - Pamphlets.
  - Setting up tables at community events.
  - School programs.
- ▲ Inform residents about carbon fee and dividend programs.
- ▲ Schools should teach climate change. Maybe the County could provide a liaison to charter schools to help them create educational programs.
- ▲ More education and awareness.
- ▲ Work with credit card companies to provide residents with a monthly statement showing pounds of emissions per day per person to inform how they could reduce their emissions. This would be real-time data that would help educate people and inform them on how to reduce. See Appendix for letter which further explains this idea.
- ▲ Use social media to inform the public about the climate action planning process as well as after to keep them informed about strategies and measures.
- ▲ Provide better alerts to let people know that the climate action planning process is happening and that it exists. Use social media as one tool.

APPENDIX



SACRAMENTO COUNTY CAP  
 PUBLIC WORKSHOP

- AGGRESSIVE EDUC. CAMPAIGN
  - ▷ PUB SVC ANN
  - ▷ PAMPHLETS
  - ▷ EVENT TABLES
  - ▷ SCHOOL PGMS
  - ▷ PROJECT URGENCY TO ACT (DON'T "SOFT PEDAL")
- CONSIDER LONGER TRM EFFECTS
  - ▷ HOT DROUGHT HARDER THAN COLD
- CONSIDER NBHD SCALE (TARGETED PLNG/MSRS) PRODSCAPE
- REINFORCE CO-BENEFITS
- COORD W/SVC PROVIDERS

- AGRICULT. EASEMENTS - REDD
- LOCAL DEV. OF GOODS
- TREE MAINT (HEALTHY TREES SO NOT RMVD WHEN GRWN → MORE PLNTNG)
- REG. FOR RMVING LAWN - RESTRICTIVE REGS IN COUNTY
  - OC: KISS YOUR GRASS GOODBYE BOOK
  - SARAH SUTTON
- USE CRT \$ TO HELP LOW-INCOME COUNTY APPLY & HELP GET \$
- CHALLENGES TO ADDRESS ENERGY INSTAL - SUBSIDIZED LN PROG. WHICH RE LOOPS ON SALE/REFI TO DO WITHRIZATION / HOME IMPROV.
  - ▷ HELP LOW INC TO USE AVAIL. PROG

- INCORP. SYSTEMATIC WAY OF ADDRESSING NBHD (TREECOVER, COMP. GRTS, ETC.)
- PRIORITIZE ADAPT. MSRS (DO BUI)
- DEAL W/URB HT ISLAND
  - COOL ROOF
  - URBAN GRING
  - PBNL HTH -
  - COMM. ENGAGEMENT
  - CALLING CRTS (THAT ARE PPL WANT TO GO)
- CNTY ENL. MOR ELEC. VEH. FOR EMPLOYEES / FLEET
  - PRG
  - CHARGING @ WK
  - LOW INC INCENTIVES
- AG - VULNERABLE (HEAT, FLDG, ETC.)
  - CAPTURE CHG
  - ~~PRG~~ FOCUS ON SOIL HIGHT
  - PRM. PLNTS TO FRRS

- INCENTIVIZE ROOF SOLAR (CNTY CAN HELP W/PLNG PROCESS?)
- H2O5 REG TO WATER LBN, FORBID LGH RFS
  - CNTY TO MAKE ILLEGAL BND FOR RILES
- CMS. BASED INVENTORY
- PLNT BASED DIET

11/16

## - Transit connectivity

- East/West & North/South
- Franklin Blvd
- Increased school service
- Increased evening / weekend  
\*reduced fares

- Consider unbanked people → access to transit payment systems, ~~trans~~ tax credits, etc.

- Prioritize active transp.  
investments in DACs

- Plan to use space freed up by autonomous cars for housing density, parks + transit!

- bike lanes w/ high visibility; bike helmet access to residents

- transit btwn cities



SUPERSTICKY EASELPAD  
TABLEAU À FEUILLES MOBILES SUPERCOLLANTES  
SUPERADHESIVAS BLOC DE HOJAS REPOSICIONABLES



30 25 IN/PO x 30 IN/PO  
63,5 cm x 76,2 cm  
5.2 SQ FT/PI² (0,48 m²) 3M

## Farmland conservation

### Urban Ag

Incentivize local food markets ← and production/distribution centers

### Incentivize soil management practices for farmers

- promote production of local compost for local farmland application (small farms can't afford Potomac, Redwood-fill, etc.) (small farms can't have capital to purchase "industrial" compost)
- prioritize food recovery/donation and source reduction before composting
- education on how to make recycling/organic recycling easier
- promote use of compost vs. Synthetic fertilizers

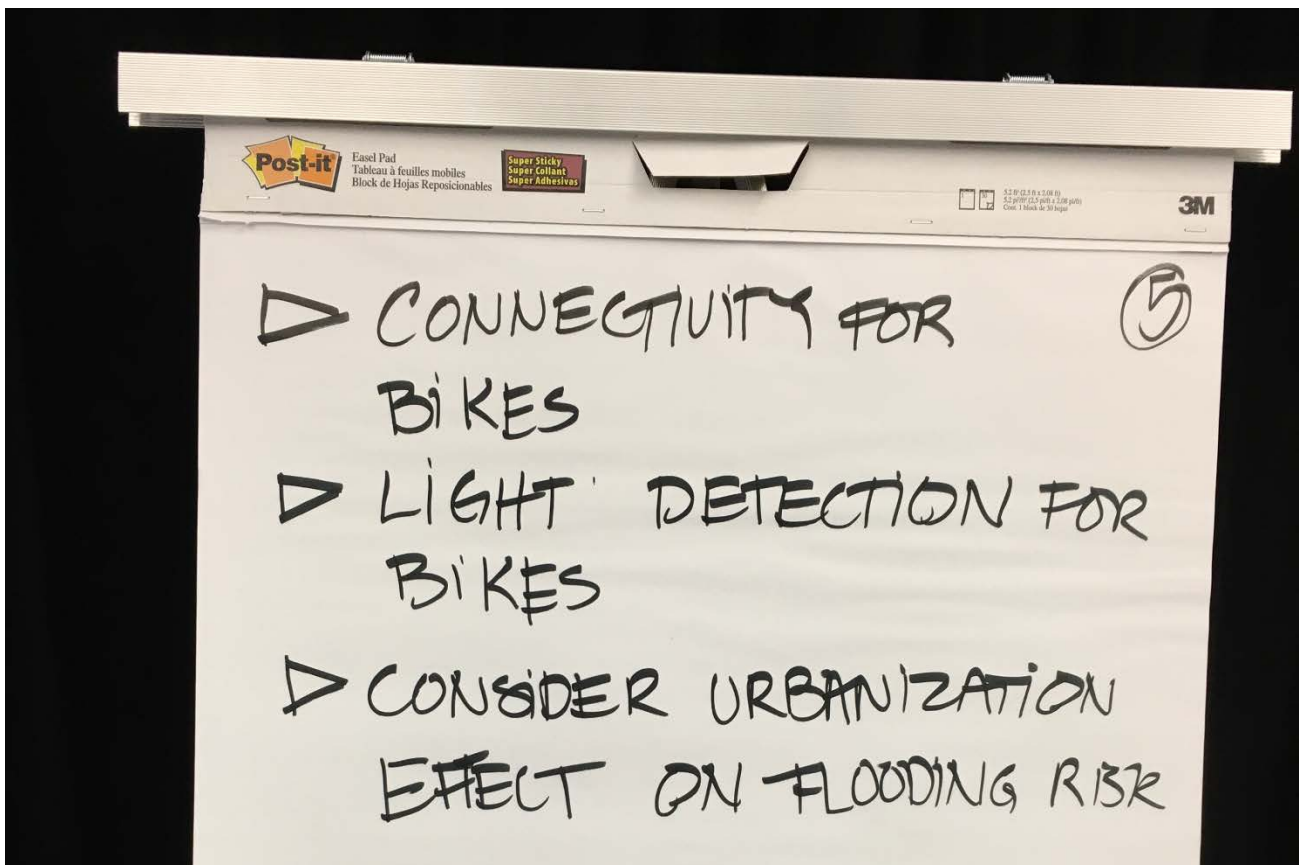
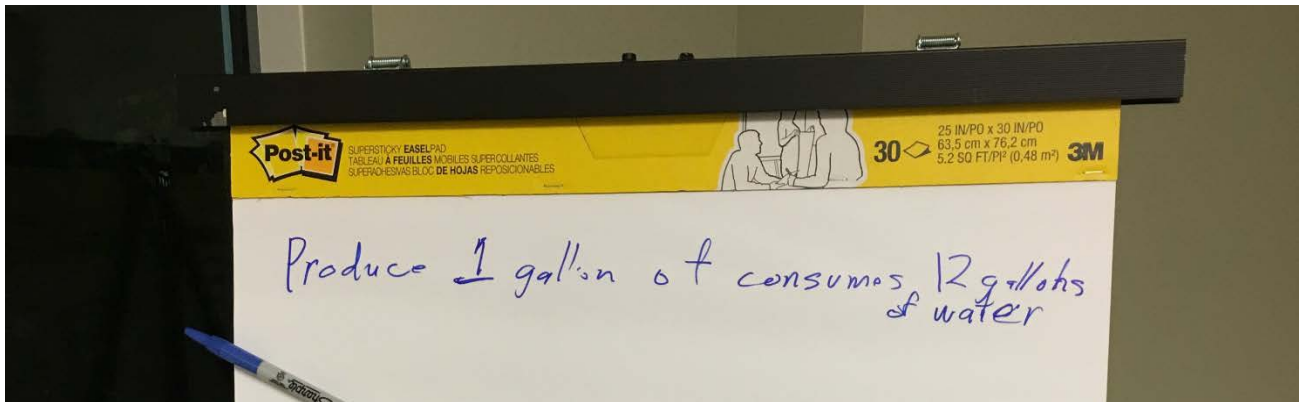
• Streamline State Model Landscape Waste ordinance compliance for lawn removal

• Tree maintenance funding

• promote dairy digesters

• funding for collection services, not just for composting/AD infrastructure, esp for rural communities





What about local  
cities — are they making  
plans?

Who will pay for costs?

> BETTER ALERTS TO LET PPL KNOW THAT  
CAP IS HAPPENING & THAT IT EXISTS — SOCIAL MEDIA

• Zero Waste @ County Level

What are transportation plans  
after Measure B defeat?

How can we help?

# SACRAMENTO COUNTY CAP PUBLIC WORKSHOP

①

- ▷ REDUCE SPRAWL - URBAN  
LIMIT LINE
- ▷ ALLOW FOOD WASTE INTO YARD  
WASTE CONTAINERS
- ▷ LOOK @ ENERGY NEUTRAL EXAMPLES  
& CONSIDER FOR SAC
- ▷ INFORM RES. ABOUT CARBON FEE  
& DIVIDEND
- ▷ ENC. SIGNUPS FOR GREENENERGY
- ▷ INCORP. OVERARCHING POLICY/  
STRATEGIES FOR INC. CC  
CONSIDERATIONS IN ALL COUNTY  
ACTIONS (MSR B, TREE PROT)

▷ HOW CAN YOU MONITOR IF YOU DONT MSR? ②

▷ CONSIDER HOW MUCH FUEL IS BROUGHT INTO COUNTY.

▷ FOCUS ON HEAT & URBAN HEAT ISLAND - MORE GRNG, RED. HT ISL.

▷ CONSUMPTION-BASED INVENTORY

↳ GROCERIES LABELING CO<sub>2</sub> USED PER lb OF PRODUCT (CARBON INTENSITY) NEXT TO NUT FACT

▷ SCHOOLS TEACH CC?

- COUNTY LIAISON TO CHARTERS?  
GET INFO OUT THERE

▷ EDUC / AWARENESS

- ③
- ▷ USE SOCIAL MEDIA TO INFORM ON PROCESS
  - ▷ HOW TO ADDRESS TENSION AMONG MULTIPLE GOALS?  
\$, CC, JOBS, ETC.
    - SHORT-TERM COSTS VS. LONG TERM SAVINGS & RESILIENCY
  - ▷ ADDRESS SLR
  - ▷ FOCUS RESOURCES & PRIORITIZE DISADV. COMM & LOW-INCOME

Thruelsen

(4)

- ▷ MORE COMM. GRDAS.
- ▷ REPLACE GRASS W/FAKE TURF OR OTHER (MORE PROG TO HELP RES. CONU)
- ▷ WATERING SCHEDULE / MANAGE WHEN USED
- ▷ WATER METERS!
- ▷ IMPROVE / MORE EFFICIENT GRID
- ▷ RE INTEGRATE CLASS 1 SOIL INTO FOOD PRODUCTION
- ▷ MONTHLY STATEMENT FOR LB EMISSIONS / DAY & HOW TO REDUCE (USE VISA STATEMENT TO ESTIMATE)  
REAL TIME DATA TO HELP EDUC & RED.

Meal App  
for our  
Bring you

RITIZ  
1E

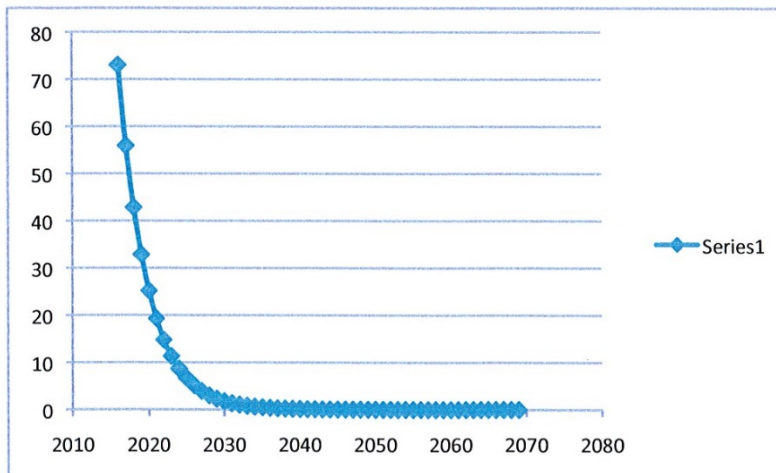
November 15, 2016

Dear [ClimateActionPlan@saccounty.net](mailto:ClimateActionPlan@saccounty.net) and Todd Taylor at (916) 874-3125 or [taylorlo@saccounty.net](mailto:taylorlo@saccounty.net) .

Thank you for asking for suggestions on the County Climate Action Plan

Might the goals of the Sacramento County Climate Action Plan include the following?

- To inform every Sacramento resident that climate change is a threat to our national security.
- That the CO2 we emit each day are contributing to that climate change.
- That the Paris talks recommended limiting global warming to 1.5 degrees C.
- That limiting global warming to 1.5 degrees C gives us each 101,309 pounds of CO2 per person if world population grows to 9.4 billion in 2070 as the UN predicts.
- that limiting warming to 1.5 degrees C gives us each 128,000 pounds of CO2 if the world's population were to stabilize at 7 billion people.
- If Californian's spread their 101,309 pounds of CO2 out over 54 years, they must average 5.14 pounds of CO2 per person per day.
- If Californian's spread their 128,000 pounds of CO2 out over 54 years, they could average 6.4 pounds of CO2 equivalents per person per day.
- Californians' averaged 73 pounds of CO2 per day in 2013. To average 5.14 pounds of CO2 per person per day over the next 54 years, their "pounds of CO2 per day" must follow the following curve:



How can Sacramento residents decrease their "pounds of CO2 per day" from an average of 73 pounds of CO2 per day to 5.14 pounds of CO2 per day?

Every time a Sacramento resident engages in an activity that emits CO2, they should have a prompt that asks them "Can I emit less CO2 by doing something else?"

What might those prompts be?

In grocery stores, items might be labeled with the "pounds of CO2 emitted per pound of product" like on the Greeneatz website.

Stores might total the "pounds of CO2 emitted", and their receipts might read "it took \_\_\_X\_\_\_ pounds of CO2 to provide you with your groceries today. The average Californian emitted 73 pounds of CO2 per

day in 2013. To avoid 1.5 degrees of global warming, the average world citizen must average 5.14 pounds of CO2 per day for the next 54 years, and then stop emitting all CO2 and all greenhouse gases.

Sacramento County might ask VISA Companies to estimate our "pounds of CO2 equivalents emitted per day" from our last month's VISA bill. This can be done by multiplying every expense by 33 pounds of CO2 for every \$100 spent. (If you divide the California per capita pounds of CO2 emitted by the California per capita Gross Domestic Product, you get about 33 pounds of CO2 per \$100 of Gross Domestic Product.)

The VISA monthly statement could estimate the "pounds of CO2 equivalents emitted per day" from last months purchases.

The VISA Company could estimate the "pounds of CO2 per day" we can emit next month to be on track to avoid 1.5 degrees of global warming.

The VISA Statement would not at first include all our "estimated pounds of CO2 per day." The US military is emitting many "pounds of CO2 per day" on our behalf, and it would take time to include those in the VISA statement.

Still, it is important to begin with even a very crude estimate, for currently we all emit CO2 every day without being aware of the CO2 we are emitting, and we have no idea how much we need to decrease our "pounds of CO2 per day" to avoid 1.5 degrees of global warming.

It will take time for people to become interested in the "pounds of CO2 equivalents per day" that they emit. Religious leaders might be asked to have their friends get VISA Cards that tell them the "pounds of CO2 equivalents emitted per day", for our CO2 emissions are the cause of climate change, and climate change is recognized as a problem by Jewish, Christian and Muslim leaders.

**The Islamic Declaration on Global Climate Change**  
calls on the people of all nations and their leaders to –

- Aim to phase out greenhouse gas emissions as soon as possible in order to stabilize greenhouse gas concentrations in the atmosphere;

We call on all groups to join us in collaboration, co-operation and friendly competition in this endeavour and we welcome the significant contributions taken by other faiths, as we can all be winners in this race

If the Sacramento County Climate Action Plan states the "pounds of CO2 equivalents emitted per Sacramento County resident per day", it will be easier for Sacramento County to enter into a friendly competition with other counties.

If the Sacramento County Climate Action Plan states the "pounds of CO2 equivalents emitted per Sacramento County resident per day", it will be easier for each of us to look at our VISA Statement and see how well we are doing in decreasing our own "pounds of CO2 equivalents per person per day" in our family.

Reference:

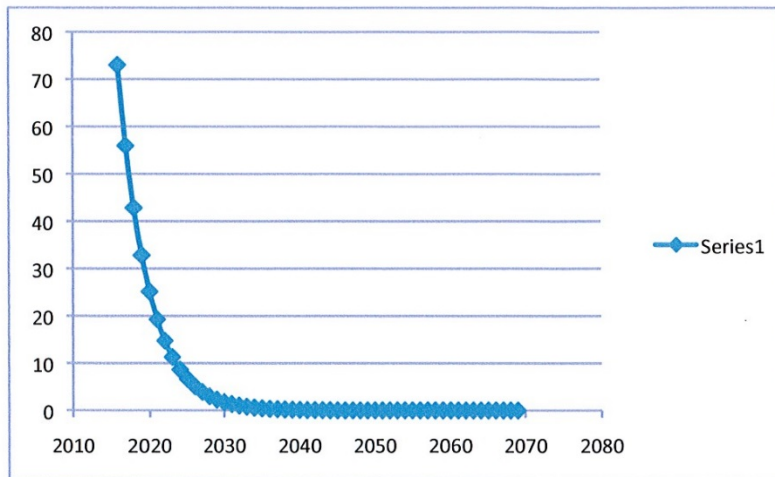
<http://islamicclimatedeclaration.org/islamic-declaration-on-global-climate-change/>

I suspect all this is difficult to imagine, and you might want to discuss this with climate experts. Could I come talk to you about making "pounds of CO2 equivalents per person per day" one of your units for GHG inventory and forecasts?

Would you consider having one of your GHG reduction targets be the "pounds of CO2 equivalents per person per day" required to avoid 1.5 degrees of global warming?



Would you agree the following graph shows the targets for the "pounds of CO<sub>2</sub> equivalents per person per day" for the "ideal average Californian" for the next 54 years in order to avoid 1.5 degrees of global warming?



Would you recommend that stores in Sacramento County display the "pounds of CO<sub>2</sub> equivalents" required to make and transport the items that they sell?

(This will help Sacramento County residents buy those items requiring the least amount of CO<sub>2</sub> equivalents to make and transport to store.

This will help supplier reduce the CO<sub>2</sub> equivalents required to make and transport their products to stores

This will help Sacramento County meet its GHG reduction targets.

When Sacramento County Residents make a major purchase that significantly affects their "pounds of CO<sub>2</sub> per day", might they need to sign a statement saying something like the following:

- I recognize that climate change is a threat to our national security.
- I recognize that the pounds of CO<sub>2</sub> I put into the air contribute to climate change.
- I have considered the "pounds of CO<sub>2</sub> per day" in making this purchase, and feel it is necessary, even though I will be emitting much more than 73 pounds of CO<sub>2</sub> equivalents on the day I make this purchase.

This statement might include the following:

The Department of Defense recognizes that "climate change is an urgent and growing threat to our national security, contributing to increased natural disasters, refugee flows, and conflicts over basic

resources such as food and water.<sup>1</sup> These impacts are already occurring, and the scope, scale, and intensity of these impacts are projected to increase over time." (1)

Climate scientists tell us that the "pounds of CO<sub>2</sub>" we put into the air each day are a major cause of global warming and climate change.

- I have watched the online video Journey to Planet Earth Extreme Realities

<http://video.pbs.org/video/2365380402/>

which describes some of these threats to our national security.

Thank you for considering these thoughts,

Sincerely,

Bruce



Bruce Burdick  
brucenburdick@icloud.com4

1) 150724-congressional-report-on-national-implications-of-climate-change.pdf

Dear Kathleen Ave (SMUD Representative),

Nov 15, 2016

Thank you for coming to the Climate Action Plan talk tonight.

I am hoping the Sacramento County Climate Action Plan will have part of its inventory expressed in "pounds of CO2 equivalents per Sacramento resident per day."

I realize this will be hard for people to learn, but I think "pounds of CO2 equivalents emitted per day" has advantages.

- it would encourage us to think about the pounds of CO2 we emit each day
- it can be related to 1.5 degrees of global warming as discussed below. Currently Californians emit about 73 pounds of CO2 per day. IN order to avoid 1.5 degrees of global warming, we must decrease our "pounds of CO2 emitted per day" so that the average over 54 years is 5.14 pounds of CO2 per day.
- To decrease our "pounds of CO2 emitted per day" to zero over the next 54 years, we will need to do more than have 100% renewable energy. We will need to make cars and roads and buildings with materials that do not involve CO2 emissions. That is possible, as in the following TED Talk, but it won't be easy.

[https://www.ted.com/talks/oded\\_shoseyov\\_how\\_we\\_re\\_harnessing\\_nature\\_s\\_hidden\\_superpowers](https://www.ted.com/talks/oded_shoseyov_how_we_re_harnessing_nature_s_hidden_superpowers)

I hope SMUD will teach us about the "pounds of CO2 we emit each day" supplying us with electricity.

That will start us on the road of thinking about all the ways we emit CO2 equivalents each day (like when we buy food, or cars, or houses, or anything.)

Might you like to discuss my "pounds of CO2 equivalents emitted per day"? I went to the Cool California Carbon Calculator website, found out the tonnes of CO2 I emitted last year, multiplied them by 2205 pounds per tonne, and divided them by 365 days per year to find out I emitted about 88 pounds of CO2 per day last year.

I need a lot of help decreasing my "pounds of CO2 emitted per day", as well as all the "pounds of CO2 emitted per day" of my neighbors.

I hope you and SMUD would like to teach us all how to decrease our "pounds of CO2 emitted per day" as seen in the following graphs.

Thank you for considering it,

Bruce

Bruce Burdick  
[brucenburdick@icloud.com](mailto:brucenburdick@icloud.com)

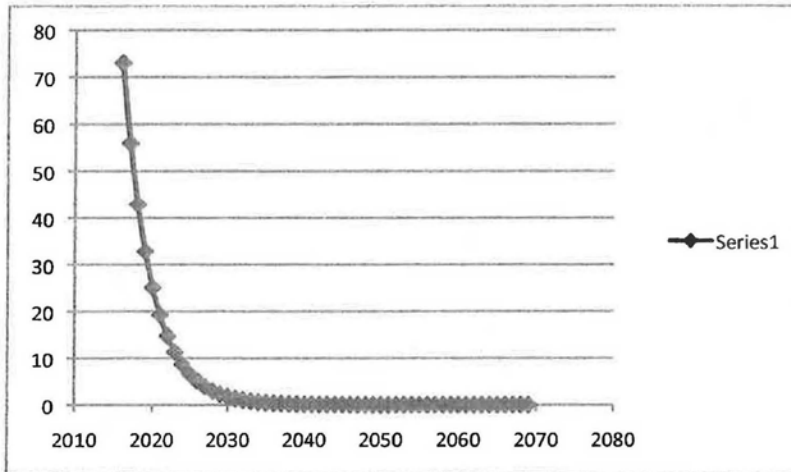
**From:** Bruce Burdick <[bburdick@surewest.net](mailto:bburdick@surewest.net)>  
**Subject:** Might the Climate Action Plan include an inventory and targets expressed in "pounds of CO2 equivalents per Sacramento resident per day"?  
**Date:** November 16, 2016 at 12:24:59 AM PST  
**To:** [ClimateActionPlan@saccounty.net](mailto:ClimateActionPlan@saccounty.net), Sacramento Air Todd Taylor <[taylor@t@saccounty.net](mailto:taylor@t@saccounty.net)>  
**Cc:** Bruce Burdick <[brucenburdick@icloud.com](mailto:brucenburdick@icloud.com)>

Dear [ClimateActionPlan@saccounty.net](mailto:ClimateActionPlan@saccounty.net) and Todd Taylor at (916) 874-3125 or [taylor@t@saccounty.net](mailto:taylor@t@saccounty.net).

Thank you for the Sacramento County Climate Action Plan presentation tonight Tuesday Nov 15, 2016.

I got to discuss the following Graph 1 with Erik DeKok

2



and am hoping you might discuss it with him. Might you modify this graph according to your liking, and make your version part of the Sacramento County Climate Action Plan?

The graph shows the "pounds of CO2 equivalents per ideal Californian per day" decreasing so that global temperatures rise less than 1.5 degrees C.

It shows the ideal average Californian's "pounds of CO2 emitted per day" starting at 73 pounds of CO2 per day in 2016. The average Californian emits about 73 pounds of CO2 per person per day.

This number is derived from The California Air Resources Board Scoping Plan which says that Californians emitted 458 million metric tonnes of CO2 equivalents within the State of California in 2013

[http://www.arb.ca.gov/cc/inventory/data/tables/ghg\\_inventory\\_scopingplan\\_2000-13\\_20150831.pdf](http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_2000-13_20150831.pdf)

Dividing 458 million metric tonnes of CO2 among 38 million Californians, and expressing it in pounds per day comes to about 73 pounds of CO2 per California per day

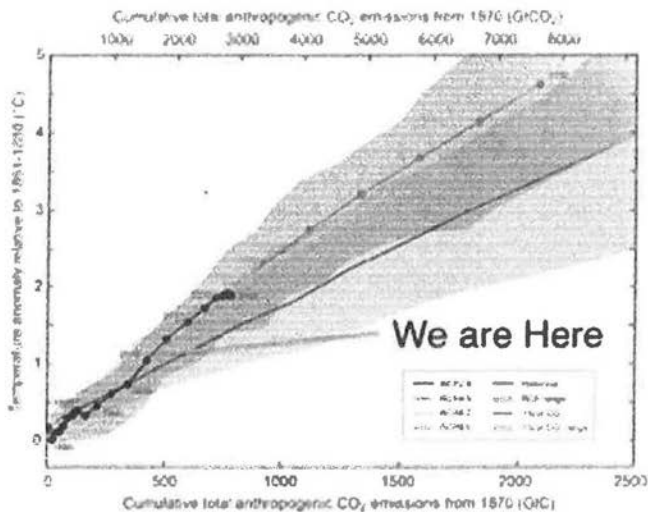
It assumes every Californian and every world citizen emits less than 101,309 pounds of CO2 from 2016 to 2070, and decreases their "pounds of CO2 emitted per day" so that they average about 5.14 pounds of CO2 per person per day.

Here is the spreadsheet used to make the data for the graph.

Here is the spreadsheet with transcribed data in a more compact form so that my computer could make the graph:

What is the basis for this graph?

The following graph shows global temperatures rising with world CO2 emissions.



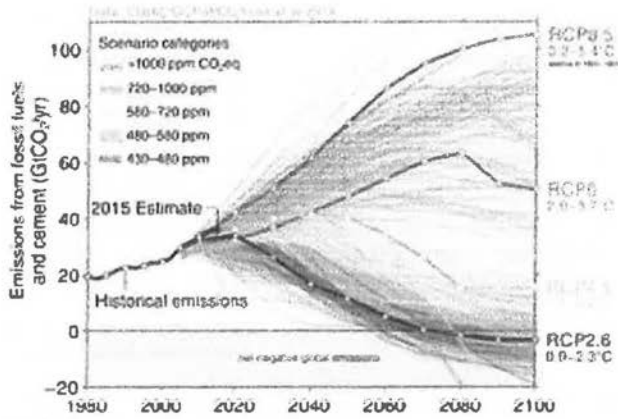
The following website says that when the world releases 400 billion metric tonnes of CO<sub>2</sub>, there is a 66% chance the world will warm 1.5 degrees.

<https://www.carbonbrief.org/analysis-only-five-years-left-before-one-point-five-c-budget-is-blown>

If you divide 400 billion metric tonnes of CO<sub>2</sub> between 8.7 billion people (the average population between now and 2070 according to the UN), each person gets 101,379 pounds of CO<sub>2</sub> over the next 54 years. There are 19,710 days in the next 54 years. Dividing 101,379 by 19,710 comes to 5.14 pounds of CO<sub>2</sub> per person per day.

The following spreadsheet shows that if you decrease the average Californian's 73 pounds of CO<sub>2</sub> per day by 73 one thousandths of 1% per day, every day for 54 years, you average about 5.14 pounds of CO<sub>2</sub> per day, and you end up using about 101,309 pounds of CO<sub>2</sub> over that 54 year period.

The blue line of the following IPCC graph shows world CO<sub>2</sub> emissions going to zero in 2070, and so 2070 was used as the year world CO<sub>2</sub> emissions would go to zero.



Do you think Graph 1 and its spreadsheet are accurate?

Note that Graph 1 is of the ideal average Californian's total CO<sub>2</sub> emissions. It includes all of the CO<sub>2</sub> emissions in the California Air Resources Board Scoping Plan, as well as the following CO<sub>2</sub> emissions not included in the CARB Scoping Plan.

- CO<sub>2</sub> emissions of airline flights outside of California.
- CO<sub>2</sub> emissions of products made in China and other foreign countries, and bought by Californians.
- investments by Californians. (What are the CO<sub>2</sub> emissions that result from a Californian investing \$10,000 in stocks or muscular funds like Exxon or the Vanguard S&P 500?
- CO<sub>2</sub> emissions made on our behalf by the U.S. military, including the 1 trillion dollars which Congress is considering spending to upgrad and maintain our nuclear arsenal over the next 30 years. I do not believe this graph gives us the CO<sub>2</sub> emissions to upgrade and maintain our nuclear arsenal, and so I think this graph is another argument for pursuing serious nuclear arms reduction talks with Russia and other countries with nuclear weapons.

If the world population were to remain stable at 7 billion people, would we each individually be able to emit more pounds of CO<sub>2</sub> and still keep global warming below 1.5 degrees C?

Yes.

If you divide 400 billion metric tonnes of CO<sub>2</sub> by 7 billion people, we would each get 126,000 pounds of CO<sub>2</sub>.

(400 billion divided by 7 billion = 57.14 metric tonnes of CO<sub>2</sub>.)

57.14 metric tonnes of CO<sub>2</sub> times 2205 pounds per metric tonne = 126,000 pounds of CO<sub>2</sub>.)

If you divide 400 billion metric tonnes of CO<sub>2</sub> by 8.7 billion people, we would each get 101,309 pounds of CO<sub>2</sub>.

(400 billion divided by 8.7 billion = 45.9 metric tonnes of CO<sub>2</sub>.)

45.9 metric tonnes of CO<sub>2</sub> times 2205 pounds of CO<sub>2</sub> per metric tonne = 101,309 pounds of CO<sub>2</sub>.)

If our "pounds of CO<sub>2</sub> emitted per day" have to decrease according to Graph 1, It will be much easier to avoid 1.5 degrees of global warming if we don't have to emit CO<sub>2</sub> building homes for an additional 2.4

I suspect all this is difficult to imagine, and you might want to discuss this with climate experts. Could I come talk to you about making "pounds of CO2 equivalents per person per day" one of your units for GHG inventory and forecasts?

Would you consider having one of your GHG reduction targets be the "pounds of CO2 equivalents per ideal Californian per day" required to avoid 1.5 degrees of global warming?

Would you agree Graph 1 shows the targets for the "pounds of CO2 equivalents per person per day" for the "ideal average Californian" for the next 54 years in order to avoid 1.5 degrees of global warming?

Would you recommend that stores in Sacramento County display the "pounds of CO2 equivalents" required to make and transport the items that they sell?

(This will help Sacramento County residents buy those items requiring the least amount of CO2 equivalents to make and transport to store.

This will help supplier reduce the CO2 equivalents required to make and transport their products to stores

This will help Sacramento County meet its GHG reduction targets.)

When Sacramento County Residents make a major purchase that significantly affects their "pounds of CO2 per day", might they need to sign a statement saying something like the following:

- I recognize that climate change is a threat to our national security.
- I recognize that the pounds of CO2 I put into the air contribute to climate change.
- I have considered the "pounds of CO2 per day" in making this purchase, and feel it is necessary, even though I will be emitting much more than 73 pounds of CO2 equivalents on the day I make this purchase.

This statement might include the following:

The Department of Defense recognizes that "climate change is an urgent and growing threat to our national security, contributing to increased natural disasters, refugee flows, and conflicts over basic resources such as food and water.<sup>1</sup> These impacts are already occurring, and the scope, scale, and intensity of these impacts are projected to increase over time." (1)

Climate scientists tell us that the "pounds of CO2" we put into the air each day are a major cause of global warming and climate change.

- I have watched the online video Journey to Planet Earth Extreme Realities

<http://video.pbs.org/video/2365380402/>

which describes some of these threats to our national security.

Thank you for considering these thoughts,

Sincerely,

Bruce



Bruce Burdick  
brucenburdick@icloud.com16

1) 150724-congressional-report-on-national-implications-of-climate-change.pdf