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Public Comments

Climate Action Plan
Planning Commission Hearing Date July 5, 2017

Public Comments Received on Public Draft Climate Action Plan

Climate Action Plan
Planning Commission Hearing Date July 5, 2017

L1

16 Dogwood Court
Napa, CA 94558
February 21, 2017

Planning Dept
Attn: David Morrison
1195 Third Street, 2nd Floor
Napa, CA 94559

Dear Mr. Morrison,

I am writing to request that you do not finalize Napa County's Climate Action Plan without the CAP Checklist being published so that the public can comment on it. Why is the County trying to finalize CAP without a chance for in-depth public comment? The public has a right to review the Checklist to determine if it complies with recent GHG laws and regulations. It would appear that the public's well being is once again being sacrificed in the best interests of developers.

CAP is being finalized using antiquated measuring standards at a time when both the State and our regional air district (Bay Area Air Quality Management District) are shifting focus to "short-lived climate pollutants" which have a much greater warming effect than CO2 (i.e. methane, black carbon, F-gases and ozone). Methane is 34 times and black carbon 900 times more powerful than CO2. Their global warming potential is even higher in the near term (ten years) when we still have a chance to postpone irreversible climate change tipping points. Napa County needs to focus where GHG reductions can be most effective because the CAP will determine what future measures developers take to reduce emissions. This is the only chance for the County to get it right.

There are many deficiencies in the Draft CAP, including:

1 - CAP fails to provide feasible forest conversion mitigation.

2- CAP fails to account for any wetlands and soil conversion GHG emissions.

3 - CAP fails to fully account for winery and vineyard operations GHG emissions.

4 - CAP fails to fully account for visitation GHG emissions.

5 - CAP fails to provide adaptive management monitoring standards as required by CEQA.

6 - CAP fails to comply with S.B. 1383 on methane, black carbon and hydrofluorocarbon emission reduction standards.

7 - CAP fails to comply with BAAQMD GHG emissions accounting standards.

8 - CAP fails to set measurable targets for reducing Vehicle Miles Travelled.

9 - CAP fails to set standards for new project emissions.

Napa County must hire an independent third party expert to address these and the many other inadequacies of the proposed CAP. At the very least, the County cannot approve CAP without the Checklist being published for adequate public comment. There is only one chance to get this right and secure the best possible protections for Napa County. I have a right to a livable climate on a livable planet, especially for my children, today and in the future.

Thank you,

Lisa Hirayama

L2

16 Dogwood Court
Napa, CA 94558
February 23, 2017

Planning Dept
Attn: David Morrison
1195 Third Street, 2nd Floor
Napa, CA 94559

Dear Mr. Morrison,

As a young adult, I am writing to request that you do not finalize Napa County's Climate Action Plan without the CAP Checklist being published so that the public can comment on it. Why is the County trying to finalize CAP without a chance for in-depth public comment? The public has a right to review the Checklist to determine if it complies with recent GHG laws and regulations. It would appear that the public's well being is once again being sacrificed in the best interests of developers.

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Thank you,

Linnea Carr

L3

From: Joshua Tikhonoff
To: Hade, Jason
Subject: Combat Climate Change
Date: Wednesday, February 22, 2017 6:36:10 PM

I recently saw the article about the plan proposals to help combat global warming. I would like to suggest looking at our food. One area to start should be the schools lunches in the district and what they provide. I suggest a whole plant based menues to be served. Removing meat and dairy, if possible 100% Oakland school district is already taking steps and setting examples by doing this. Not only would it greatly improve our children's health, it would also help reduce our carbon footprint through eliminating emissions from animal agricultural farming. Let us help lead an example of healthy eating, living while combating climate changes.

Thanks for your time,
Napa local, Joshua Tikhonoff

From: Chris Benz
To: Morrison, David; Hade, Jason
Cc: Kit Long
Subject: Comments on Napa County Climate Action Plan
Date: Saturday, March 04, 2017 12:04:43 PM

March 4, 2017

To: Planning Director David Morrison
From: Napa Climate NOW!
Re: Comments on Napa County Climate Action Plan

Thank you for working to improve our county Climate Action Plan by soliciting and considering suggestions for improvements.

1. Update CAP to align with state and regional goals for short-lived climate pollutants so that the County will be able to apply for funding for mitigation measures.
   - Incorporate goals for reducing methane, black carbon, and hydrofluorocarbons as given by SB1383.
   - Include inventories of methane, black carbon, and black carbon for all sectors in addition to the current "mTCO2e" inventory of emissions.
   - Use updated CARB or BAAQMD metrics for methane (GWP20=72 (ARB); =86 (BAAQMD)), F-gases (GWP20=3800 (ARB)), and black carbon (GWP20=3235 (BAAQMD)).
2. Methane reduction measures
   - Incorporate ARB local action measure (from proposed Scoping Plan update, January 2017) to support incorporation of methane digesters in the Calistoga and St. Helena waste water treatment plants.
   - **Correct Measure MS-2**. Napa Valley Vintners have a goal of having all eligible members be Napa Green Winery or Land certified by 2020, not 2030 as stated in CAP. See https://napavintners.com/napa_valley/environmental_leadership.asp Also, Napa Green Wineries are allowed to have open-air waste water treatment ponds which generate methane. These emissions should

be included in the inventory.

Amend Measure MS-2 to incentivize wineries to replace methane-emitting waste water treatment ponds with low-emissions treatment systems.

This should be included in the CAP checklist.

<!--[if !supportLists]-->3. <!--[endif]-->Hydrofluorocarbon reduction measure

- <!--[if !supportLists]--><!--[endif]-->Correct the High-GWP gas inventory. The current inventory is based on a per capita inventory with additional use for refrigerated transport. In actuality, refrigerated transport is rare, while both wineries and wine warehouses are large users of refrigeration.
- <!--[if !supportLists]--><!--[endif]-->ARB has a Refrigerant Management Program (RMP) that requires facilities with refrigeration systems using over 50 lbs of high-global warming refrigerants to register. This registry could be used to update our county inventory. Contact rmp@arb.ca.gov or RMP Helpline is (916)324-2517.
- <!--[if !supportLists]--><!--[endif]-->Add a measure to incentivize facilities to install low-GWP refrigerant systems. The state does not require air-conditioning systems used exclusively to cool building occupants to be registered, but the CAP measure incentivize all cooling systems to use low-GWP refrigerants.

  Include in CAP checklist.
- <!--[if !supportLists]--><!--[endif]-->ARB suggests requiring that air conditioning and refrigeration units in new construction rely on refrigerants with low global warming potential (e.g. CO2 or ammonia).

<!--[if !supportLists]-->4. <!--[endif]-->Black Carbon reduction measures

- <!--[if !supportLists]--><!--[endif]-->Evaluate “low smoke” ag burning technique, as promoted by Napa Valley Grapegrowers, to determine if this results in a sufficient decrease in black carbon production. If so, support the use of this method.
- <!--[if !supportLists]--><!--[endif]-->Eliminate wood burning fireplaces from new commercial and residential construction. Provide incentives to change out uncertified wood heating devices.
- <!--[if !supportLists]--><!--[endif]-->Re-evaluate the Agricultural methods

that are intended to reduce black carbon emissions. Jim Lincoln from the Napa County Farm Bureau did not think than any of the Agriculture measures were feasible, i.e. that they would be carried out and deliver the required reductions.

<!--[if !supportLists]-->5. <!--[endif]-->Land Use Change measures

- <!--[if !supportLists]-->● <!--[endif]-->Most importantly, preventing further deforestation is the most effective way to retain the carbon sequestration we have. We propose that Measure LU-1 increase the minimum amount of canopy preserved to 50% or 70%.
- <!--[if !supportLists]-->● <!--[endif]-->Add a measure that requires complete accounting of GHG emissions and carbon sequestration for projects incorporating land use changes. Include support for carbon farming plans.
- <!--[if !supportLists]-->● <!--[endif]-->Measure LU-2: Include incentives to replant riparian areas (in addition to protect these areas), e.g. the Rutherford Reach Restoration Project.

<!--[if !supportLists]-->6. <!--[endif]-->Require initial CAP review and update **1 year** after adoption so that feasibility of Plan can be evaluated and Plan can be realigned with state and regional strategies.

Respectfully,
Kit Long and Chris Benz, Co-Chairs, Napa Climate NOW!

<!--[if !vml]--> 

<!--[endif]-->

L5

STEPHEN J. DONOVIEL
1177 Ragatz Lane
Napa, California 94558
(707) 255-2357

February 22, 2017

David Morrison, Director PBES
Jason R. Hade, AICP, Planner III
Patrick Lowe, Secretary NRC Mgr.
Jeff Sharp, Principal Planner, Public Works
County of Napa

Re: Public Review Draft Climate Action Plan (CAP)

Gentlemen:

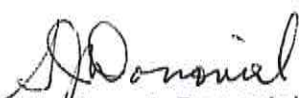
Thank you for providing opportunity for comments and questions concerning the above document. As noted in many sections of CAP, so-called human progress and expansionistic excesses have resulted in serious consequences for mankind which hopefully can be reversed before a tipping point occurs. I have questions about some of the assessments, e.g., while the off-road emissions of tractors, etc., are more straight forward, how were the unincorporated parts of the county's share of pollutants caused by on-road vehicular causes determined. Regardless, electric tractors are a way off and I suspect there will be negligible support to stop the big-rig delivery trucks and wine- tasting tourist traffic from contributing to the daily bumper-to-bumper traffic and accompanying pollution.

It was interesting to see the quantification and marked variation of the GHG scrubbers and the role woodlands can play in decisions about land use and reducing pollutants for the region. However, for the oaks and other woodlands to make a dent in helping solve the problem, I think there must be an absolute ban on further deforestation for the purpose of any form of land development. Planting acorns, as valuable as it is to make up for past abuses, will not help offset destruction of mature oaks and other trees, at least not for decades. As you know, one vineyard project, if not stopped by the court, will be permitted to deforest several years' worth of trees allocated for destruction per the CAP plan. In several regards, there seems to be a negative push-pull between the County Plan and the needs of CAP. To keep our valley from collapsing from its own success and the resultant vicious circle of demands for more vineyards, wineries, restaurants, population growth while the infrastructure, e.g., housing, roads, water, and other resources cannot support it, requires bold leadership to draw a line in the sand (mud, lately) to put a moratorium on further projects until we are able to set roads, water and other infrastructure needs right.

I note that Appendix D is not yet available. Since this is a critical part of CAP, I recommend that final action not be taken until the public has had a chance to review and comment.

Thank you for considering my input and, if there are questions, please call at 815-1316.

Respectfully,



Stephen J. Donoviel

February 23, 2017

Napa County Department of Planning Building and Environmental Services
Attn: Director David Morrison
1195 Third Street Napa, CA 94559

RE: Napa County Climate Action Plan Public Hearing: February 23, 2017

I very much appreciate the opportunity to comment on the proposed Climate Action Plan and associated Implementation Measures.

While the Building Energy Uses generate 31% of the total County's GHG emissions, only 10% are from residential. Home owners will bear a burden disproportional to their contribution.

BE-1: Work with PG&E, PACE financing programs, and other regional partners to incentivize energy efficiency improvements in existing buildings.
While this measure is voluntary, the County can do much more than just provide information, brochures, etc. Some of these programs, like PACE, have minimum dollar limits which make them inappropriate. If the County is serious in GHG emissions, they should provide opportunities similar to the City of Napa's Toilet Retrofit program.

BE-2: Require energy audits for major additions to or alterations of existing buildings.
What is the cost of an energy audit for a residential owner? It is mandatory to have an energy audit but not clear that the audit will identify any cost saving measures to offset the cost of the audit. There is no County contribution – so the total cost is borne by the homeowner. And, the current codes (or planned revisions) should already require new construction to meet a higher energy efficiencies. What is the follow up? Will the homeowner be required to upgrade the part of the house not impacted by the additions or alterations?

BE-6: Require new or replacement residential water heating systems to be electrically powered and/or alternately fueled systems.
Why is this only a requirement of residential water heating systems? Why is the County only **considering** a program to help offset the incremental cost? A great example of government participation is the City of Napa's toilet retrofit program with free toilets.

The Implementation chart incorrectly, and deceptively, lists this measure as LOW COST. Almost all replacements outside of any remodeling work are due to a failed water heater. When the homeowner learns they cannot get a permit to replace it with gas unit, they are more than likely to go to a local big box store, buy a gas unit and replace it themselves. Why? Because to install an electric water heater requires a 220W plug. This requires a complete rewiring to the water heater location, and possibly an upgrade to the electric panel. If there is not sufficient capacity, PG&E must come out and upgrade the line as well. All this time the homeowner is without hot water! What starts out looking like a $100 increase in cost (electric vs gas water heater) turns into thousands of dollars and weeks of time.

Yes, if a homeowner is upgrading to solar, it is very appropriate to require that an electric water heater be installed. But to require a replacement at time of failure is too large a burden for any homeowner to absorb. Please consider other approaches to get the results you desire.

Thanks and regards,

Eve Kahn, Chair
Get a Grip on Growth
PO Box 805
Napa, CA 94559

From: Morrison, David
To: "Erik de Kok"; Hade, Jason
Subject: FW: Climate Action Plan
Date: Tuesday, February 21, 2017 10:12:28 PM

-----Original Message-----
From: Chris Gillespie [mailto:cgillesp@sbcglobal.net]
Sent: Tuesday, February 21, 2017 7:32 PM
To: Morrison, David
Subject: Climate Action Plan

Dave,

The climate action plan looks good.

I especially liked using the Vine rail for light transit commuter and tourist transportation.

BART should be extended into the North Bay.

Chris

February 23, 2017

David Morrison
Planning Director
Napa County Planning Department
Third Street
Napa CA

Ref: P11-00010 Climate Action Plan

Dear Mr. Morrison:

I have had the opportunity to review the Climate Action Plan. While the plan does touch on many familiar themes relating to greenhouse gas reductions, it makes no reference nor any projections on the benefits of bike and non-motorized forms of transportation. These forms of alternative transportation result in vehicle trip reductions and corresponding greenhouse gas reductions. I do note that the front cover does have a photograph of cyclists is on the cover of Chapter 1 but the omission of any discussion re bikes and non-motorized forms of transportation is startling.

The Napa Valley Vine Trail is a 47 mile multi -use path available to walkers and cyclists. When complete, the Vine Trail will have an estimated three and a half million uses a year. Over the past three years the Napa Valley Vine Trail Coalition in collaboration with the Napa Valley Transportation Authority and Solano County Transportation Authority have successfully applied for three grants through the State Active Transportation Program (ATP) for various sections of the Vine Trail. These applications have required us to calculate not only the mode shift, whereby people would choose to walk or ride a bike instead of driving, but also reductions in greenhouse gas emissions as a result of the mode shift. These are based on evaluation tools developed by Caltrans and the California Transportation Commission.

Based on calculations, using the latest evaluation tool in the ATP applications, it is estimated that the Vine Trail in Napa County, when completed, will reduce vehicle trips by 2.4 million miles/year. This results in terms of dollars saved per year are: $412,774 in fuel savings and $30,263 in emissions savings (2014 dollar values).

In addition, bicycle and pedestrian counters installed in January 2017 on the Vine Trail between Yountville and Kennedy Park in Napa have been recording over 300 uses a day and this is in wet and rainy weather we have been

experiencing. This is bearing out the original premise behind the Vine Trail that it will be used by the as an alternative to the automobile.

I hope that in the Final Climate Action Plan the value of the Vine Trail and other multi use trails connecting our communities in the Valley will be included.

Sincerely,

Philip Sales
Executive Director

Cc: Diana Meehan, NVTA

Susan Wagner
66 Juniper Drive
Napa, California 94558
email: suezeeque19@yahoo.com

February 23, 2017

Napa County Department of Planning
Building and Environmental Services
Attn: Director David Morrison
1195 Third Street
Napa, CA 94559

Via email: David.Morrison@countyofnapa.org

RE: Napa County Climate Action Plan
Public Hearing: February 23, 2017

Dear Director Morrison,

I have just learned that the Napa County Climate Action Plan is scheduled for a further Public Hearing today. I have been monitoring the County's website page for the Napa County Climate Action Plan and see no updates since June 30, 2016. Today's Public Hearing is not even listed as an upcoming event. Why is that?

I am very concerned that the current draft which is apparently intended to be a "final" draft of the Climate Action Plan has failed to provide feasible forest mitigation. This issue is very concerning, in that after having recently endured numerous public hearings on the Walt Ranch Vineyard Conversion Project, it appears that the County of Napa continues to believe that planting 2 Oak seedlings, as a "one size fits all" approach to mitigation for the loss of a mature Oak tree is patently ridiculous and unsupportable. It is very well established that it takes about 30 years for an Oak tree to reach 5" dbh, and decades more before the tree reaches full maturity. A mature Oak tree can remove up to 500 lbs of atmospheric carbon per year. How then can it be considered adequate mitigation to replace a mature Oak tree with (2) seedlings, which will take 50-60 years to actually provide the same air cleansing effects of the tree which was removed. This is not a credible method for mitigation and the continued willful destruction of oak woodland forests for vineyard conversion will have tragic consequences. My concern about this issue prompted me to research and write an article which was published in the Napa Vision 2050 August 2016 Newsletter. (See attached).

Please explain to me why the CAP, in its current form, has failed to include appropriate oak woodland/forest conversion mitigation measures. This is especially troubling when the County's General Plan anticipates further destruction of oak woodland forests to allow for future expansion of vineyards into the hillsides and watersheds of the Napa Valley.

A second very troubling issue is that vineyard developers are allowed to dispose of vegetation removed during vineyard conversion projects by burning the vegetation on site. This is presumably allowed as being the most economically feasible alternative for the vineyard owner, however the ultimate cost to the environment and the nearby human "receptors" is far in excess of what should be allowed by our local government who is entrusted with the task of being stewards of the land (and environment).

I am a Circle Oaks resident and recently the County of Napa gave approval to Walt Ranch to destroy and burn over 14,000 trees on the Walt Ranch property which is adjacent to where I live. While these trees, under-story and brush are being burned, my family and I will be subjected to the smoke and ash for days on end. Every member of my household has Asthma or more serious lung condition. The health and well being of our entire neighborhood was not even considered when the Walt Ranch was given the "green light" to create an environmental disaster a short distance from our homes.

Why is it that the CAP does not require vineyard owners to dispose of vegetation created by vineyard conversion projects in a more environmentally friendly manner which doesn't result in the release of noxious gases into the atmosphere and place the health of countless local Napa Valley residents at risk?

Finally, it is my understanding that the CAP does not even address Black Carbon which will be created by the burning of the oak woodland forest next to the subdivision where I live. I recall at the recent Board of Supervisor's hearing on Appeal of the Walt Project, that it was the County's position that we shouldn't be concerned about Black Carbon because there is no accumulated snow fall on the ground. Besides being the most absurd argument I've ever heard, I am very concerned that given Black Carbon is 900 times more powerful (e.g. "destructive") than CO2, why is Black Carbon not addressed in the proposed Napa County CAP? To illustrate my concern, I am attaching to my letter a very well written and informative letter written by Nancy Tamarisk of the Napa Sierra Club which eruditely and eloquently sets forth the risks of not "getting it right" as Napa County considers finalizing its Climate Action Plan. In her letter, Ms. Tamarisk (pg. 3) explains the fallacy of the County's untenable position (as stated in the Walt Ranch Conversion Appeal hearing referenced therein), debunking Napa County's erroneous conclusions about Black Carbon and stressing that it is actually far worse than CO2. Further, Black Carbon is an airborne carcinogen and doesn't need to land on snow or ice to hasten global warming.

Ms. Tamarisk's letter goes further into subjects that are beyond my comprehension as a lay person, however, do seem to point to the inescapable conclusion that Napa County is playing fast and loose with the handling vineyard conversion projects and how it interprets and calculates green house gas emissions created by these types of projects. This is unacceptable and does not appear to comply with standards for GHG emissions which are enforced by the Bay Area Air Quality Management District, let alone monitoring standards required under CEQA.

Mr. Morrison, as your Department goes through the final phases of drafting of Napa County's Climate Action Plan, I hope that you will keep in mind that we are all part of a living biosphere and bad decisions now will create catastrophic consequences down the road which our children and grandchildren will pay dearly for. Please provide the guidance and leadership necessary to ensure that Napa County's Climate Action Plan is designed to protect humans and the environment alike. To do any less would be a disservice to all.

Thank you for your consideration.

Sincerely,
[signed]
Sue Wagner

Attachment:
Letter from Napa Sierra Club to
Chairman Alfredo Pedroza, dtd. 12/13/2016
CC: Napa County Board of Supervisors

L9

Update: Water, Forest and Oak Woodland Protection Initiative

Jim Wilson and Mike Hacket, Organizers

Disappearing Oak Savanna, Anthem Winery

Climate Action Protection and Walt Ranch Vineyard Conversion Project

Sue Wagner, Resident Circle Oaks and member of Defenders of the East Napa Watersheds

Destruction of thousands of oak and other indigenous trees for vineyard conversion projects has created a collision course with the environment, steadily reducing the ability of our earth to naturally offset green house gas (GHG) emissions.

Enduring the Heat! Halt Walt Demonstration at Hall Winery, July 31, 2016

In 2006, the California Global Warming Solutions Act of 2006 (AB 32) was passed requiring a sharp reduction in GHG emissions in California. It mandates all counties develop a Climate Action Plan (CAP) to help mitigate risks associated with climate change.

Each county is required to establish baseline GHG levels and then demonstrate that it has reduced its GHG levels by at least 15% to reach 1990 levels by 2020.

According to the 2012 draft of Napa County's CAP, Napa County's baseline was established in 2005 as 443,670 metric tons of carbon dioxide (CO_2). In order to meet the mandates of

AB32, Napa County must reduce its carbon footprint by 139,550 metric tons of CO2 by 2020.

Following extensive efforts by the Planning Commission and input from other concerned environmental groups and residents to develop a Napa County Climate Action Plan (CAP), a final draft was recommended for adoption in early 2012. However, the Board of Supervisors (BOS) fell short of taking decisive action, sending the document back for further review. It is only now resurfacing for further reconsideration.

On June 30, 2016, the Napa County Department of Planning, Building, and Environmental Services (PBES) hosted a meeting for the purpose of revisiting and updating its approach to GHG in Napa County. Although Napa County's 2008 General Plan has committed to reduce GHG emissions to 1990 levels, less than 4 years remain to meet this commitment.

On August 1, 2016 Napa County approved the Walt Ranch Vineyard Conversion Project which, according to the approved FEIR, is slated to destroy 24,000 + trees. Director Donald Morrison has stated that there are more than 900 acres of vineyard conversion projects pending approval.

One mature oak can remove nearly 500 pounds of atmospheric carbon per year. While a leaf of grapevine and a leaf of an oak have similar photosynthetic rates per unit area (or similar rates of removal of CO2 from the air per unit of surface area), a tree has far more surface areas and layers of foliage, making it much more effective in sequestering carbon.

This is not a time to lose trees!

Napa County policy makers need to recognize the cumulative effects of their actions. Continually approving new vineyard projects that encroach into the Napa Valley hillsides and watersheds will ultimately result in a very high cost.

Interview: Ginny Simms, County Supervisor 1972-1977

Eve Kahn, Chair of Get a Grip on Growth, local realtor, and V2050 director

Ginny Simms, the first woman elected to the Napa County Board of Supervisors, has long been an advocate for slow growth. She has been described as "one of those 'visionaries' that politicians and pundits clamor for when they can't come up with their own vision". In this interview, Eve Kahn asks for her visions on the current challenges Napa County is facing.

Ginny Simms and Eve Kahn at Mike Thompson's Pasta Feed

What would you do if you were a Supervisor now?

The Board of Supervisors (BOS) needs to articulate to staff the rules for new wineries. The staff is drifting and needs clear direction. It is very dangerous to negotiate with lawbreakers. [Ginny's comments here refer to the Halls who left a trail of problems with their investments in Texas]. When there is a (known) history with owner/developer, County should require protections, enforcements, penalties, etc that send clear message that we won't tolerate having County/taxpayers accountable for cleanup, damages…

The BOS should re-look at the Winery Definition Ordinance (WDO) and the unintended consequences (and evolution) of wine and food pairing. Changes to the General Plan (GP) in 2008 included marketing as part of the definition of agriculture. Changes to the WDO in 2010 added wine and food pairings. The combination of these two has significantly altered the activities in the Ag Preserve, impacting the cities as well.

The Board's attempt at 'saving' the wine industry during the down economic cycle has been

January 23, 2016
Meeting re Napa County Climate Action Plan
County Planner Jason Hade
Napa Climate NOW! members: Chris Benz, Kit Long, Inda Shirley, Shelly Ryan

Items of Discussion

Short Lived Climate Pollutant Strategy:
Required to be implemented Jan 1, 2018. **Will County CAP include goals of this plan** (per Senate Bill 1383) to lower methane and hydrofluorocarbon gases by 40% and anthropogenic black carbon by 50% below 2013 levels by 2030? Will County CAP employ updated value for methane?

Land use sector:
Require complete (direct and indirect) GHG, climate emissions, and sequestration calculations for each project. **Is this being included?**

Solid Waste Sector:
SW1 does not appear to take into account the operation of a methane-powered generator at Clover Flat.
SW2 goal may not be possible without **providing alternative disposal option for urban wood waste**, e.g. biomass gasification power plant. Has this been considered?

Agriculture Sector:
AW1: Ag burning emissions. **Where is data used to calculate GHG reductions?**

Transportation Sector:
Has NVTA Board reviewed measures for feasibility and impact on GHG reductions?
Will County charge Transportation Impact Fee? For which projects?
TR1: As large county employer, Napa County should include the County's plan for reducing employee Vehicle Miles Travelled.

From: TrustMeJ@aol.com
To: Hade, Jason
Cc: Pedroza, Alfredo; Gregory, Ryan; Lederer, Steven
Subject: Napa Climate Action Plan Comments
Date: Tuesday, February 21, 2017 5:24:24 PM

Comments below forwarded for consideration at the climate action plan meeting this Thursday.
Jack Gray

Napa Climate Action Plan Comments

1. Implementation of AB32 has cost billions of dollars in California (~ $8 billion has been collected by sales of CO2 offset credits to date with over 50% going to CA general fund). In addition residents are already paying some of the highest gasoline prices in the US as a result of AB32 requirements. No measurable results from these actions have been identified.

2. Demonstrating the integrity of any plan requires measurement and verification of results. Otherwise the plan is simply another tax on the businesses and citizens in California.

3. California residents have not been afforded an opportunity to vote on the increased costs (taxes) to residents and businesses associated with implementation of the new requirements of this plan. (Reference my NVR opinion Article "Is Affordable Napacare Next?" of April 17, 2017.)

4. The California Building League has estimated that implementation of SB32 (which extended AB32) will add $58,000 to the cost of building a house in California.

5. Responsible governance at the local level should lead in providing an opportunity for the residents to vote for implementation of the new taxes resulting from this plan in accordance with the provisions of the California constitution.

Jack Gray
Director, Napa County Taxpayers Association

From: Leigh Sharp [mailto:leigh@naparcd.org]
Sent: Monday, February 27, 2017 11:07 AM
To: Wagenknecht, Brad
Cc: Hade, Jason; Morrison, David
Subject: HCV Carbon Farm Plan

Hello Brad (cc: David and Jason):

Good to touch base with you last week at the Open Space District Celebration. Attached is the Napa RCD's updated carbon farm plan for our demonstration vineyard. We're encouraged that use of compost in the vineyard has potential to sequester more carbon than we originally calculated.

As I mentioned at a public meeting last week, the Napa RCD encourages inclusion of these types of efforts in the County's Climate Action Plan and are willing to work with County staff to incorporate them.

Take care and enjoy the sunshine.

Leigh

Leigh Sharp
Executive Director

Napa County Resource Conservation District
1303 Jefferson Street, Suite 500B
Napa, California 94559
707/690-3119
www.naparcd.org

From: Charles Schembre
Sent: Monday, February 27, 2017 8:28 AM
To: Leigh Sharp <leigh@naparcd.org>
Subject: RE: HCV Carbon Farm Plan

Here is the attached final plan.

Charles Schembre, CPESC
Vineyard Conservation Coordinator
Napa Resource Conservation District
1303 Jefferson St Suite 500B
707-252-4189 x 3122

From: Leigh Sharp
Sent: Thursday, February 23, 2017 2:28 PM
To: Charles Schembre <Charles@naparcd.org>
Subject: HCV Carbon Farm Plan

Hi Charles,

Do you have an updated HCV carbon farm plan with the new numbers and pie charts for compost application? I'd like to share with Brad Wagenknecht and staff at Inland Empire RCD, who are contemplating carbon farm planning with vineyards in their area.

Leigh

HUICHICA CREEK SUSTAINABLE DEMONSTRATION VINEYARD

CARBON FARM PLAN

Prepared by:

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Napa County RCD
www.naparcd.org

TABLE OF CONTENTS

Hucihica Creek Sustainable Demonstration Vineyard

Carbon Farm Plan

Figures and Maps

Introduction

In response to the rapid pace of global climate change, the North Coast Regional Resource Conservation Districts in partnership with other local resource organizations are working to engage agricultural producers as ecosystem stewards to provide on-farm ecological benefits, improve agricultural productivity, enhance agroecosystem resilience, and mitigate global climate change through a planning and implementation process known as "Carbon Farming."

Carbon can be beneficially stored long-term (decades to centuries or more) in soils and vegetation through biological carbon sequestration. Carbon Farming involves implementing on-farm practices that are known to improve the rate at which a given land area can support photosynthetically-driven transfer of carbon dioxide (CO2) from the atmosphere to plant productivity and/or soil organic matter. Enhancing agroecosystem carbon, whether in plants or soil, is known to drive beneficial changes in other system attributes, including soil water holding capacity, hydrological function, soil fertility, biodiversity, ecosystem resilience and agricultural productivity.

Carbon entering the farm from the atmosphere ends up in one of three locations: in the harvested portion of the crop, in the soil as soil organic matter, or in standing carbon stocks on the farm, such as woody perennials or other permanent vegetation such as windbreaks or riparian vegetation or other perennial vegetation. While all farming is completely dependent upon atmospheric carbon dioxide in order to produce its products, different farming practices, and different farm designs, can lead to very different amounts of carbon capture on the farm.

The Carbon Farm Planning Process

The Carbon Farm Planning (CFP) process differs from other approaches to agriculture by focusing on *increasing* the capacity of the farm or ranch to capture carbon and to store it beneficially as soil organic matter and/or standing carbon stocks in permanent vegetation. While most modern agriculture results in a gradual loss of carbon from the farm system, CFP works when it leads to a *net increase* in farm-system carbon. By increasing the amount of photosynthetically captured carbon held, or sequestered, in long-term carbon pools on the farm or ranch, such as soil organic matter, perennial plant roots and standing woody biomass, carbon farming results in a direct reduction in the amount of carbon dioxide in the atmosphere.

On-farm carbon in all its forms (soil organic matter, living and dead plant and animal material), represents embodied solar energy. As such, carbon provides the energy needed to drive on-farm processes, including the essential soil ecological processes that determine water and nutrient availability for the growing crop. Consequently, the CFP process views carbon as the single most important element, upon which all other on-farm processes depend. Carbon Farm Planning (CFP) is similar to Conservation Planning, but uses carbon and carbon capture as the organizing principle around which the Plan is constructed. This both simplifies the planning process and

connects on-farm practices directly with ecosystem processes, including climate change mitigation and increases in on-farm climate resilience, soil health and farm productivity.

Like the NRCS Conservation Planning Process, CFP begins with an overall inventory of natural resource conditions on the farm or ranch. Through that process, opportunities for enhanced carbon capture by both plants and soils are identified. Building this list of opportunities is a brainstorming process and is as extensive as possible, including everything the farmer and the planners can think of that could potentially sequester carbon on the farm. Financial considerations should not limit the brainstorming process. A map of the ranch is then developed, showing all potential carbon capture opportunities and practices and their locations on the ranch.

Next, needs and goals for the farm and economic considerations are used to filter the comprehensive list of options. The carbon benefits of each practice, if actually applied at the farm scale, are quantified using the USDA greenhouse gas model, COMET-Farm, COMET-Planner, or similar tool, and data sources, to estimate tons of carbon dioxide equivalent (CO2e) that would be 1) avoided or 2) removed from the atmosphere and sequestered on farm by implementing each practice. A list of potential practices and their on-farm and climate mitigation benefits is then developed.

Finally, practices are prioritized based on needs and goals of the farm or ranch, choosing high carbon-benefit practices wherever possible. Economic considerations may be used to filter the comprehensive list of options, and funding mechanisms are identified, including; cap and trade, CEQA, or other greenhouse gas mitigation offset credits, USDANRCS and other state and federal programs, and private funding. Projects are implemented as funding, technical assistance and farm scheduling allow. Over time, the CFP is evaluated, updated, and altered as needed to meet changing farm objectives and implementation opportunities, using the fully implemented plan scenario as a goal or point of reference.

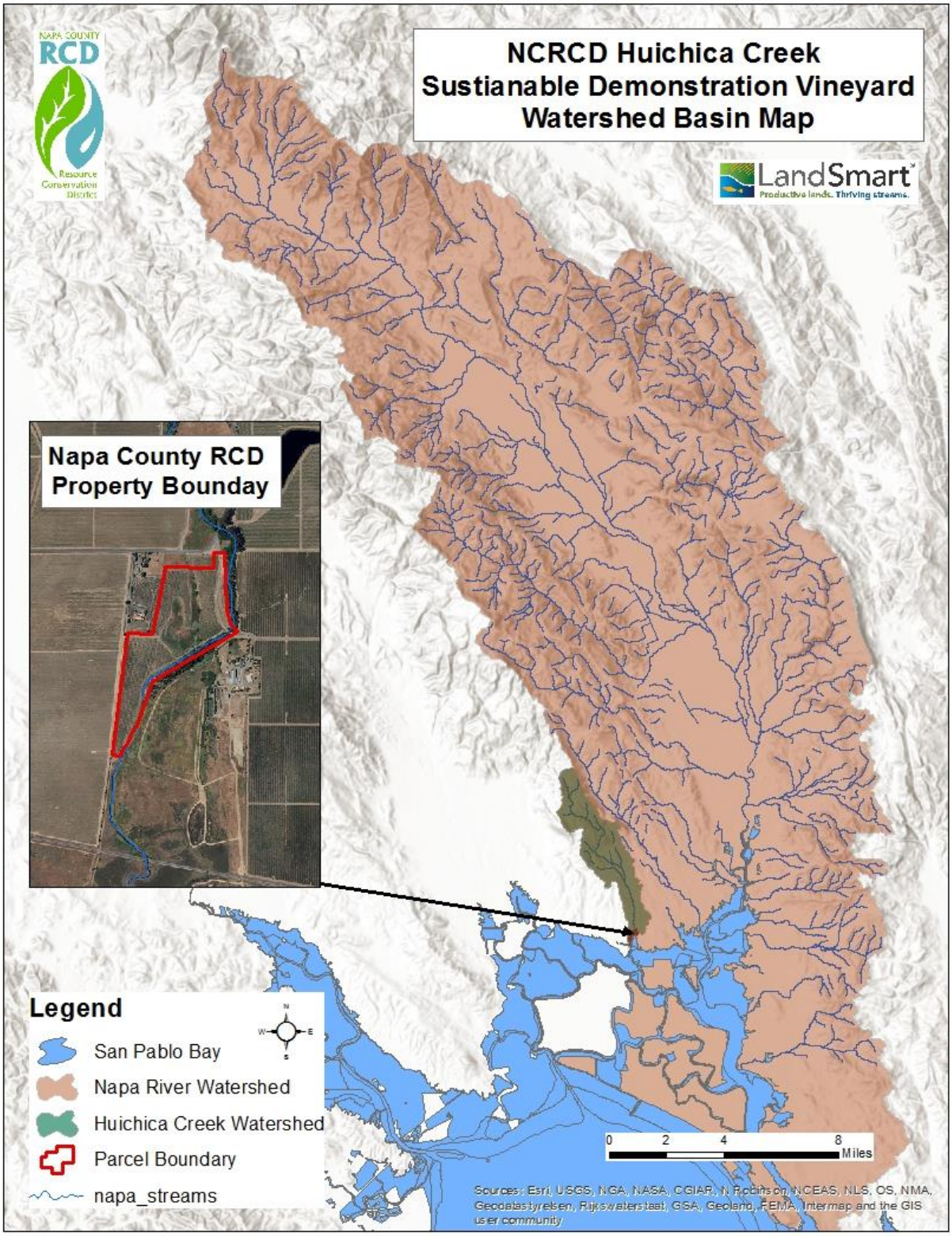
Huichica Creek Sustainable Demonstration Vineyard

The Huichica Creek Sustainable Demonstration Vineyard (HCV) is located in the Carneros AVA region of southwest Napa County. As the name of the vineyard implies, the property is within the Huichica Creek Watershed and Huichica Creek flows through the property. Huichica Creek is a salmon-bearing stream, and is home to many water fowl and migratory birds. HCV borders the Napa Marsh State Wildlife Area and was purchased by the Napa County Resource Conservation District in 1990 via a grant from the State Coastal Conservancy and the State Wildlife Conservation Board. The parcel is 21 acres total with 14 acres of existing vineyard planted to Pinot Noir and Chardonnay and 6 acres of riparian and wetland habitat. The philosophy and management plan of the vineyard property has been to combine sustainable conservation farming techniques with wetland enhancement and riparian restoration. The primary goal of the demonstration, as originally conceived, was to demonstrate cost effective vineyard practices that protect water quality and produce high quality wine grapes, to encourage broad adoption of such practices, and to provide education and assistance to growers and landowners. Beginning in 2015, the vineyard has been implementing programs funded by the

NRCS to develop the vineyard property as a demonstration site of drought resilient and climate mitigation farming practices.

Prior to RCD acquisition, the land had been intensively grazed and farmed for hay production for more than a generation. Adjacent reaches of Huichica Creek and seasonal wetland habitat areas within the parcel had been impacted significantly. Stream channelization, removal of riparian vegetation, draining and modification of the wetlands accompanied the historical agricultural operations within the Lower Huichica Creek Watershed. Since purchase of the property, the RCD has planted a demonstration vineyard, utilized conservation farming practices recommended by NRCS, and restored 1/2 mile of riparian habitat and over 4 acres of wetland habitat. The vineyard has served as a demonstration model for diverse cover cropping systems and conservation tillage practices that have been adopted around the Napa Valley and has further demonstrated the compatibility of riparian and wetland habitat in a productive vineyard setting.

Map. 1 Huichica Creek Vineyard Watershed Basin



Huichica Creek Vineyard Soil

The soil series at Huichica Creek Vineyard is Haire Loam, soil mapping unit 145 in the Napa County Soil Survey, USDA-SCS, 1978. The Haire soil is an Ultisol, a soil that is characteristic of a moist-warm climate, with an accumulation of clay minerals in the B horizon. The Haire loam soil at the vineyard property is characterized by silt loam and silty-clay loam in the top 18-24 inches, and heavy clay-argillic B horizons from 24 – 40 inches, and sandy clay loam 40+ inches in the C horizons. Soil analysis conducted in block F of the ranch resulted in a pH range from 6.6-7.0. Soil structure is sub-angular blocky to blocky in the A-horizons and columnar to prismatic in the B horizons. Percent organic matter content ranges from 4.8% in the A horizon to 2.8% in the B horizons, and organic carbon ranges from 2.8 % to 1.63% in the A and B horizon, respectively.

Permeability is generally slow in Haire loam soils. The effective rooting depth is generally 60 inches or more. The available water holding capacity is 3-6 inches. The soil gravel content varies throughout the property. Areas that have a high to extremely high gravel content will have greater permeability and a reduction in water holding capacity, compared to the areas with no gravel. In general, the water holding capacity is at the higher range as a result of abundant organic matter and a high clay content. The site frequently floods during large winter storm events, however, anaerobic soil conditions and mottling were not found in two soil pit analyses.

Soil resource issues as a result of vineyard production

Currently, throughout the majority of the vineyard, the soil within the drip zone, has high pH (7.9), moderately-high Sodium Adsorption Ration (SAR - 5.3), and higher than desirable sodium percentage (6.7%) occupying the cation exchange sites. These issues are caused by the well water quality, which has high pH, 8.2, and a very high adjustable SAR of 10.0. These issues are high enough to negatively impact plant growth, and low yields and poor plant health are notable throughout the vineyard, and many of the symptoms are characteristic of plant stress due to sodium. When SAR is high (generally 12+), soil physical problems arise and crops have

difficulty absorbing water. In addition, there is substantial compaction issues in the non-tillage alleyways (cover crop middles).

Existing and Historical Carbon Beneficial Practices

Since the inception of the Huichica Creek Sustainable Demonstration, the Napa County RCD has restored and planted riparian vegetation on 1/2 mile of Huichica creek and allowed natives to establish naturally. Many non-native plants exist within the riparian zone, and the vineyard cover crop alleys and under the vine have many non-native weed species intermixed with the intentional cover crop. Below is an inventory of native riparian species provided by the Napa NRCS.

Tree	
Aesculus californica	California buckeye
Fraxinus latifolia	Oregon ash
Juglans hindsii	Black walnut
Populus fremontii	Fremont cottonwood
Quercus lobata	Valley oak
Salix exigua	Sandbar willow
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willow
Shrub	
Sambucus mexicana	Blue elderberry

Herbaceous	
Artemesia douglasiana	Mugwort
Bromus carinatus	California brome
Conium maculatum	Poison hemlock
Elymus triticoides	Creepign wild rye
Foeniculum vulgare	Fennel
Galium aparine	Bedstraw
Juncus balticus	Baltic rush
Lepidium latifolium	Perennia pepperweed
Phalaris aquatica	Harding grass
Poa annua	Annual blue-grass
Raphanus sativa	Wild radish
Rumex crispus	Curly dock
Salicornia pacifica	Pickleweed
Schoenoplectus acutus?	Common tule
Scrofularia californica	Bee plant
Sonchus oleraceus	Annual sow thistle
Typha sp.	Cattail

Four acres of wetland habitat was also restored from pastureland to native woody and herbaceous perennial cover. There is also a large population of non-native herbaceous vegetation that has colonized sections of the wetland.

Tree		**Herb**	
Salix laevigata	Red Willow	*Eleocharis macrostachya*	Creeping spike-rush
Salix lasiolepis	Arroyo willow	*Elymus triticoides*	Creeping wild rye
Shrub		*Epilobium brachycarpum*	Willow herb
Baccharis pilularis	Coyote brush	*Frankenia salina*	Alkali heath

Pleuropogon californicus	Annual semaphorgrass

In addition, approximately 1700 square feet of native shrubs, sedges, forbs and wildflowers have been established as a hedgerow in the Northern corner of the property. Native species include, Redbud, Ceanothus, CA Coffeeberry, Toyon, Elderberry, Santa Barbara Sedge, Ribes, Sages, Penstemon, Santa Barbara Sedge, CA Yarrow, and CA Poppy.

Since the inception of the project in 1991, fourteen acres of pastureland has been planted to vineyard. Initially, the RCD attempted to farm all 14 acres under non-tillage practices. Due to poor vigor issues in some blocks, tillage was incorporated in every other row over a portion of the property. Approximately 11 acres are farmed in alternate row tillage, where the tillage rows are annually tilled and the permanent no-till rows remain untilled. The tillage rows are annually seeded with a standard plow-down green manure cover crop, which is disked and incorporated into the soil each spring. A diverse permanent ground cover has been established in the non-tillage rows. Many species include Zorro Fescue, Blando Brome, clovers native CA annuals, and CA perennial bunch grasses were attempted with limited success. Approximately 3 acres of vineyard has been under non-tillage practices for the lifetime of the vineyard and the permanent cover cropping efforts were very similar to the non-tillage rows in the alternate tilled vineyard blocks.

Left Photo; Huichica Creek riparian corridor in 1991 when the RCD purchased the property. Right Photo: Huichica Creek Riparian corridor from the same angle in December 2016.

Considering the carbon benefits of the restoration efforts and implemented soil health farming practices, using metrics from COMET-PLANNER and research, an estimated potential of 117.97 tons of CO2e has been sequestered or mitigated as a greenhouse gas per year. Table 1. below breaks down each practice and the estimated carbon dioxide reduction equivalent in metric tons per acre.

Figure 1. Estimated Carbon Sequestration and Greenhouse Gas Emission Reductions per year between 1991 – 2015.

Huichica Creek Sustainable Demonstration Farm Approximate Carbon Sequestration and Greenhouse Gas Emission Reductions 1991-2015 (tons CO2 equivalent per year)

NRCS Conservation Practice	Acres	Carbon Dioxide (CO_2)	Nitrous Oxide (N_2O)	Methane (CH_4)	1yr - Metric tons CO_2e Reduction	20yrs - Metric Tons of $C0_2e$ Reduction
		Per Acre Per Year				
* Riparian Restoration (CPS 390)	4.70	*n/a	*n/a	0.00	76.80	1535.96
Conventional Tillage to Reduce Tillage (CPS 345)	11.00	0.13	0.07	0.00	2.20	44.00
Conventional Tillage to No Tillage (CPS 329)	3.00	0.42	-0.11	0.00	0.93	18.60
Cover Crop Establishment (CPS 340)	14.00	0.32	0.05	n/a	5.18	103.60
Nutrient Management - Repalce Synthetic N Fertilizers with Soil Ammendments (CPS 590)	14.00	1.75	n/a	0.00	24.50	490.00
Wetland Restoration (CPS 657)	4.00	1.81	0.28	n/a	8.36	167.20
				Totals	**117.97**	**2359.36**

* Values generated from "Mitigating Greenhouse Gas Emissions through Riparian Revegetation", Lewis et al 2015. 16.34 MT CO2e/acre
All other values estimated by COMET-Planner USDA, 2014

Carbon Farm Plan Proposed Goals and Objectives

- Increase soil organic carbon to enhance, or improve the following
    - Improve cover crop productively and rooting depth
        - Convert tillage areas to non-tillage
    - Improve soil available water holding capacity
    - Reduce compaction and improve soil infiltration
    - Potentially buffer pH and Na issue in the drip zone (along with water treatment)
    - Enhance drought resiliency of vineyard and reduce irrigation inputs
- Enhance riparian, wetland vegetation, and insectary habitat

- Increase grapes yields to an average 4 ton/ acre.

Huichica Creek Sustainable Demonstration Vineyard Future Potential Carbon Beneficial Practices and Anticipated Outcomes

1. Riparian Restoration (NRCS Practice 390)
   Locations along the creek banks that are devoid of large riparian trees and shrubs will be planted and composed of species that are currently existing and thriving within the property riparian corridor. An estimated 2.76 acres of additional riparian acreage will be planted. At a rate of 16.34 tons of CO2e per acre per year, implementation of these practices provides for an estimated 901.97 tons of CO2e sequestered over a 20-year period (Lewis et al, 2015).

2. Hedgerow Planting (NRCS Practice 422)
   Approximately 0.15 acres of hedgerow planting is proposed along the main vineyard access road and Block F. At rate of 1.7 tons of CO2e per acre per year, an estimated 0.19 tons per year could be sequestered. Over a 20-year period there is a potential to sequester a total of 3.8 tons CO2e (COMET-Planner USDA, 2014).

3. Conventional tillage to Non-tillage (NRCS Practice 329)
   Currently 4 acres of vineyard are tilled annually. Current tillage practices include 2-3 disk cultivations to a depth of 10 inches for incorporating a green manure cover crop and reducing weed competition. At a rate of 0.31 tons of CO2e per acre per year for the practice of converting 4 acres from reduced tillage to non-tillage, an estimated 24.80 tons of CO2e could be sequestered over a 20-year period (COMET-Planner USDA, 2014).

4. Compost Application (NRCS Practices 484)
   Application of ¼ " of compost to 14 acres of vineyard. With the assumption that ¼ inch application of compost per acre is roughly 17 tons/ acre compost, and 25% of the compost mass composed of carbon, we estimate a potential 15.6 tons of C02e will be sequestered as result of each application. Application will occur every 3 years, with a total of 6 applications in 20 years, results in a total potential of 1310.4 tons of C02e could be sequestered. (17 tons compost is approximately 4.25 tons of carbon. One metric ton of soil carbon is equal to 3.67 metric tons of C02e).

5. Permanent Cover Crop Establishment (NRCS Practice 327)
   Conservation Cover metrics are used to quantify the transition from a plow down cover crop to a permanent no-till cover crop. The use of this metric also assumes enhanced productivity of the permanent cover crop that is already established. At a rate of 1.26 tons of CO2e per acre per year, a potential of 100.8 tons of CO2e could be sequestered in a 20-year period (COMET-Planner USDA, 2014).

6. Mulch Application (NRCS CPS 484)

   All vine row strips, the base of orchard trees, and hedgerows will be mulched with wood-based or straw based material. All vines that are extracted for replant, will be chipped, composed for one year, and applied as mulched throughout the property. We estimate approximately 4 acres of land will receive mulch application. At rate of 0.32 tons of C02e per acre per year, an estimated 25.60 tons CO2e will be sequestered over a 20-year period (COMET-Planner USDA, 2014).

7. Multistory Cropping (NRCS Practice 379)

   Approximately ¾ acre of grapes is being converted to a mixed apple orchard which will have an understory managed to replicate an oak-woodland savanna. Native plant populations will be established to the highest degree feasible. At rate of 1.71 tons of CO2e per acre per year, on ¾ acre an estimated 26.1 tons CO2e will be sequestered over a 20-year period (COMET-Planner USDA, 2014).

8. Windbreak / Shelterbelt Establishment (NRCS Practice 380)

   Remove one ¼ mile length row of vines in replant and establish a shelterbelt on at the windward fence line. At a rate of 2.09 tons of C02 per acre per year, an estimated 20.90 tons of C02 could be sequestered over a 20-year period (COMET-Planner USDA, 2014).

9. Wetland Restoration and Enhancement (NRCS 657)

   The restoration proposal includes incorporating large shrubs and small trees of the perimeters, and planting wetland grasses in the more prominent inundated locations. Using windbreak (CPS 380) metrics, at rate of 2.09 tons of C02 per acre per year, an estimated 167.20 tons of C02 could be sequestered over a 20 – year period.

Table 2 estimates the additional carbon sequestration and GHG emission reduction potential from the implementation of the NRCS Conservation Practices listed above. Using COMET-PLANNER and published regional research, we estimate a potential of 66.22 tons of CO_2 equivalent sequestered or mitigated as greenhouse gas emissions per year for the entire property. COMET-Farm Tool will be used to quantify actual changes as projects are implemented.

Figure 2. Estimated Annual Carbon Sequestration and Greenhouse Gas Emission Reductions Associated with Implementation of Suggested Conservation Practices.

Huichica Creek Sustainable Demonstration Farm Approximate Carbon Sequestration and Greenhouse Gas Emission Reductions 2016 - Future (tons CO2 equivalent per year)

NRCS Conservation Practice	Acres	Carbon Dioxide (CO_2)	Nitrous Oxide (N_2O)	Methane (CH_4)	1yr - Metric tons CO_2e Reduction	20yrs - Metric Tons of $C0_2e$ Reduction
		Per Acre Per Year				
* Riparian Restoration (CPS 390)	2.76	*n/a	*n/a	0.00	45.10	901.97
Hedgerow Planting (CPS 422)	0.15	1.42	0.28	0.00	0.26	5.10
Conventional Tillage to No Tillage (CPS 329)	4.00	0.42	-0.11	0.00	1.24	24.80
Permenant Cover Crop Establishment (CPS 327)	4.00	0.98	0.28	n/a	5.04	100.80
**Compost Application (CPS 484)	14.00	15.60	n/a	0.00	218.40	1310.40
Mulching (CPS 484)	4.00	0.32	n/a	n/a	1.28	25.60
Multistory Cropping (CPS 379)	0.75	1.71	0.03	0.00	1.31	26.10
Windbreak/ Shelterbreak Establishment (CPS 380)	0.50	1.81	0.28	n/a	1.05	20.90
Wetland Restoration (CPS 657)	4.00	1.81	0.28	n/a	8.36	167.20
				Totals	**282.02**	**2582.87**

* Values generated from "Mitigating Greenhouse Gas Emissions through Riparian Revegetation", Lewis et al 2015. 16.34 MT CO2e/acre

** Assumption: 6 application of 1/4 inch compost in 20 yrs. 17 tons compost = 15.6 MT C02e reduction/acre/yr
All other values estimated by COMET-Planner USDA, 2014

Below, Map 3 spatially identifies current land use practices and proposed conservation practices that have been identified by the NRCS to result in carbon sequestration and or greenhouse gas reduction. Table 3 illustrates the relative potential impact each practices is estimated to have, as a proportion to each other.

MAP. 2 Carbon Farm Plan Map

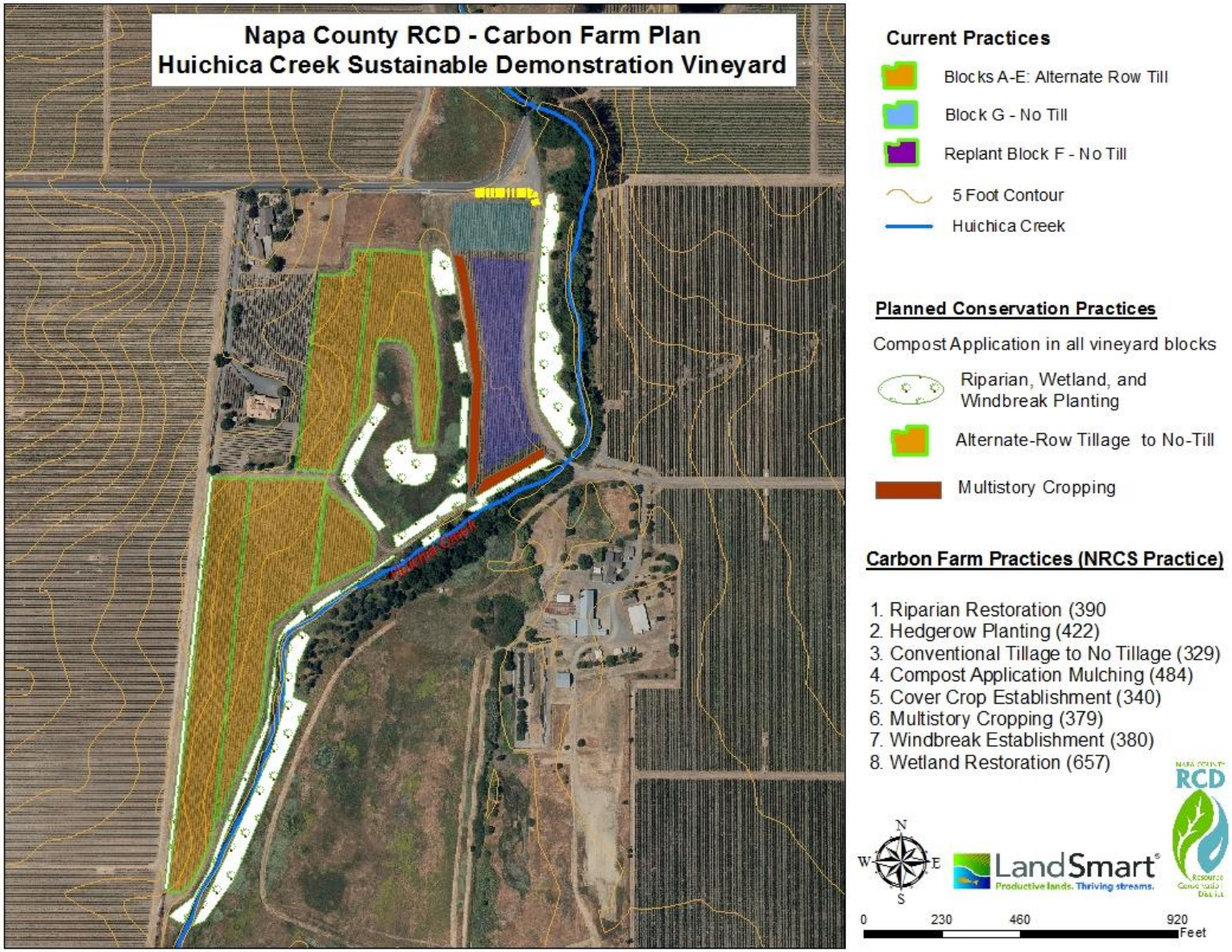
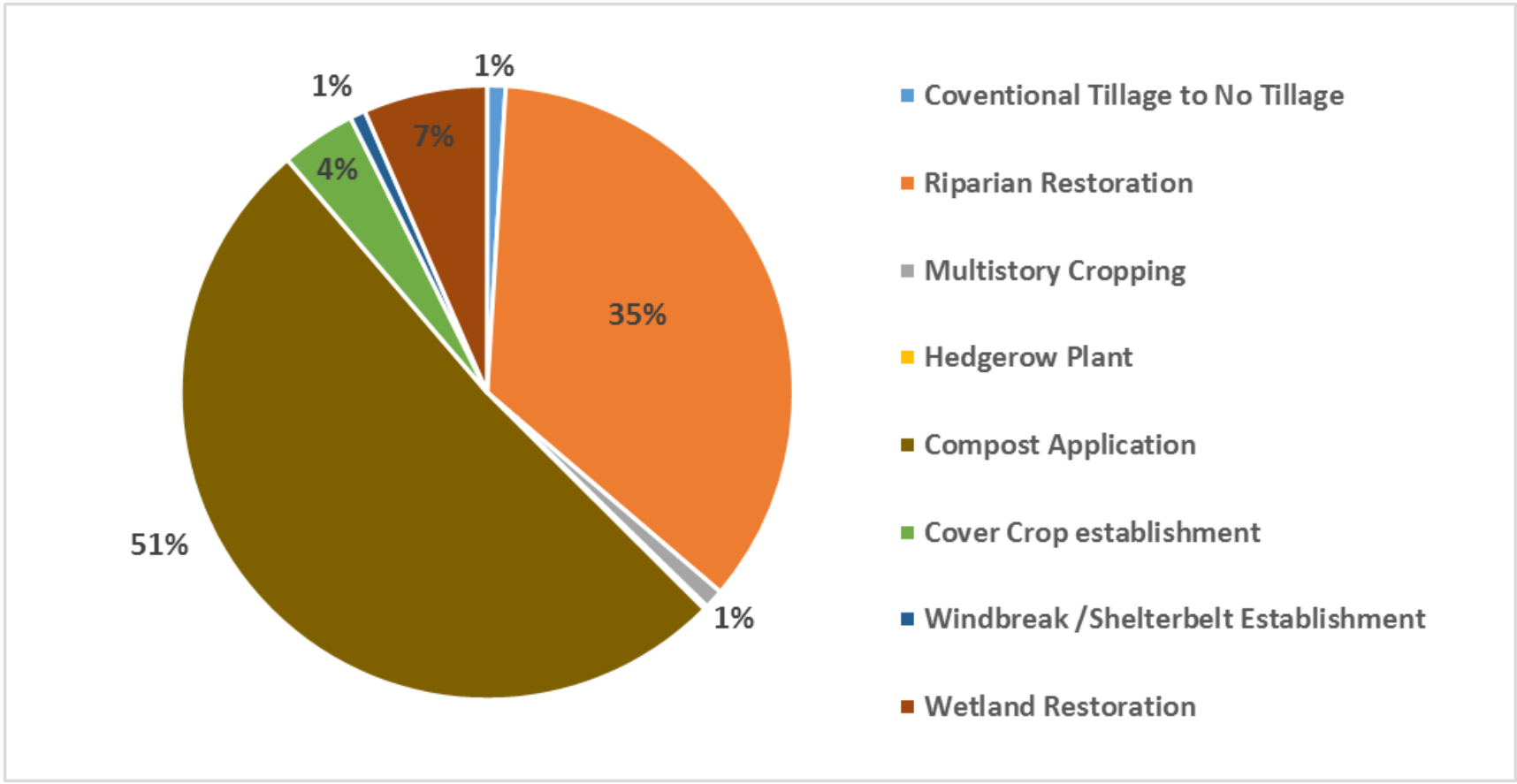


Figure. 3 Relative Impact of Proposed NRCS Conservation Practice Standards



By analyzing the potential carbon sequestration as a relative proportion of each proposed practice from the pie chart we can see that the most effective conservation practices for capturing carbon at the Huichica Creek vineyard is through compost application. Riparian restoration has the second greatest potential, followed by wetland restoration.

Soil-Water and Carbon Connection

The Natural Resource Conservation Service suggests that a 1% increase in soil organic matter (SOM) results in an increase in soil water holding capacity of approximately 1-acre inch, or 27,152 gallons of increased soil water storage capacity per acre. A 1% increase in SOM represents roughly 20,000 pounds of organic matter, or 5 short tons of organic carbon.

An estimated 7 acre feet of additional water storage capacity associated with soil carbon increases at Huichica Creek Vineyard property can result from the implementation of the Carbon Farm Plan. After 20 years of implementation of each proposed practice, the assumption can be made that there will be a potential to store 7 more acre feet of water, every year in the top soil.

Additional Climate Beneficial Practices with Potential Carbon Sequestration and Emission Reduction Impacts

Biochar

Six tons of biochar has been applied within the vine row and incorporated to a depth of 6 inches to 1.5 acres in block F. Although currently, there is no accepted C-sequestration or C02e reduction quantification of biochar, many farmers, agencies, resources organizations, and academic researchers are recognizing biochar has a soil amendment that has many benefits to soil health and is a significant carbon amendment that may lead to additional soil carbon sequestration for decades. An estimated potential of 26.5 metric tons C02e reduction per acre per year, has been calculated using the CAPCOA GHG Rx Protocol, with an application rate of 4 tons of biochar to the acre, to all 14 agricultural acres at HCV.

Sheep grazing management plan

Grazing sheep throughout the vineyard during the vine dormancy season can have many beneficial impacts to reducing carbon emissions, and potentially contribute to building organic matter in the soil, enhancing the site soil carbon storage. The sheep grazing would reduce our need for mowing, herbicide application under the vine, and under the vine mechanical weed cultivation. Currently, 2-3 tractor passes are made each year to mow the vineyard cover crop, one pass for herbicide application under the vine, and an additional 1-2 passes with in under the vine cultivator for organic weed management. This is a total of 4-6 tractor passes per year, that potentially could be eliminated. The production and shipping of herbicide alone has a carbon life cycle that could be considered in the CO2e reduction calculations. In addition, sheep excrement throughout the vineyard may reduce the need for compost and fertilizer applications, further reducing the carbon footprint of the operation.

References

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NAPA VALLEY TRANSPORTATION AUTHORITY

February 27, 2017

County of Napa
Jason Hade
Planning, Building & Environmental Services
1195 Third Street, Suite 210
Napa, CA 94559

Re: NVTA Comments on Napa County's Draft Climate Action Plan

Dear Mr. Hade,

Napa Valley Transportation Authority (NVTA) commends the County on preparing a Climate Action Plan and is in support of many of the implementation strategies outlined in the Plan such as the County subsidizing shuttles for visitors and participating in an industry-wide transportation demand management program.

NVTA provides the following comments:

1. Measure TR-2: Expand EV to low and zero emission vehicles e.g. hydrogen fuel cell.
2. Measure TR-3: NVTA is in support of workforce housing but has limited influence on housing in Napa County and does not control land-use decisions.
3. Measure TR-4: NVTA cannot use public transit funds to support private rail operations. NVTA would be supportive of partnering by coordinating with the Wine Train and the County on providing public transportation solutions between rail stations and destination points.
4. Measure TR-6: NVTA should be named as a "responsible party" to support alternative vehicle travel modes. Not only is NVTA the Countywide Transportation Planning organization it operates the transit system and serves as the Countywide Active Transportation coordinator. Encouraging active transportation commute modes such as walking and biking should be highlighted in the Climate Action Plan. NVTA completed the Countywide Pedestrian Plan (2016) and is in the process of updating the Countywide Bicycle Plan.
5. Measure TR-7: NVTA's limited influence on transit oriented developments (TODs) is through transportation project development and funding. NVTA does not have authority over housing and land-use development decisions.
6. Measure TR-9: The measure should include first-and-last last mile active transportation facility connections to park and rides.
7. Measure Flood-9 and Measure SLR-3: NVTA should be involved in mapping critical transportation routes that are vulnerable to sea-level rise and flooding. NVTA is involved with this work on the SR-37 corridor through the SR-37 policy board that was convened as part of a MOU between the four northern county congestion management agencies. NVTA is also an emergency transportation

provider and serves as a first responder should mass evacuation be required as a result of flooding or other disaster.

8. Measure SLR-4: The County should also keep informed on the climate adaptation work being completed by the Bay Conservation Development Commission (BCDC) and the Bay Area Regional Collaborative (BARC) such as the Adapting to Rising Tides (ART) mapping effort.

NVTA appreciates the opportunity to comment on this very important Plan. We look forward to coordinating with the County on actions that will improve Napa's environment and reduce harmful emissions that contribute to climate change

Sincerely,

Danielle Schmitz
NVTA Planning Manager

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December 13, 2016

Chair Pedroza
Board of Supervisors
1195 Third St., Ste. 310
Napa, CA 94559

Re: Walt Ranch Appeal

Dear Chair Pedroza:

The Sierra Club is writing to protest the last minute inclusion of the AES memorandum of December 2 without allowing adequate time for appellants to review, or opportunity for response.

We are also responding to misstatements made during the hearing by a planning staff member and a representative of AES.

We have two major objections to the material in the AES memorandum.

First, AES claimed to have redone their calculations on GHG emissions related to loss of woodland according to the "Leff methodology". Here is the response of Ron Cowan, the chief developer of the "Leff methodology" :

"The authors of the Leff GHG biogenic emissions analysis vehemently reject the AES misrepresentation that Walt Ranch incorporates the GHG biogenic emissions methodology applied to the Leff vineyard conversion project."

12/5/2016 email, **Re: new GHG memo**, from Ron Cowan, *Quercus Group,*
Forest & Greenhouse Gas Consultants, Expert consultant to Napa Sierra Club

To note some of AES's deviations from the Leff model:

The Leff methodology appropriated for this memorandum was from the draft

EIR; the methodology had been modified for the final EIR.

The Leff methodology analyzed the biogenic GHG emissions according to the tree disposal method of the project. The County still refuses to specify the tree disposal method of the Walt Project.

The Leff project calculated the carbon which would be emitted as methane and nitrous oxide, both of which are much higher in GHG equivalent impact than carbon dioxide. The Walt project does not provide any projections or analysis for methane and nitrous oxide emissions.

The Leff project only used replanting of trees as mitigation for tree loss. The Walt project uses only conservation easements as mitigation.

Secondly this document cites California Cap and Trade rules as support for allowing conservation easements as mitigation. However, California Cap and Trade requires that any land being placed under protection as carbon mitigation meet the criteria of the Compliance Offset Protocol, US Forests. This protocol requires a thorough assessment and documentation that the land fulfills the requirements of the protocol, the first and central one being that

> *"It can be demonstrated that there is a significant threat of conversion of project land to a non-forest land use"*

As we have already argued, the land placed under conservation easement for the Walt Project mitigation of loss of woodland GHG services has not been shown to meet this requirement.

This misinformation was reinforced in the hearing, both by a Planning Staff employee, (not introduced by name, but in the minutes identified as Annalee Sanborn) and Erin Quinn of AES. Both gave the distinct impression in their remarks to the Board that the conservation easements of the Walt Project meet the requirements of the CARB Cap and Trade program. Since the required assessment of the characteristics of the lands placed under protection has not been performed, it is a falsehood to maintain that Walt meets the Cap and Trade criteria.

Specifically, Ms Sanborn stated that the Cap and Trade Program "also allows conservation easements on existing woodlands… as valid mitigation… there is a very clear route to use this as mitigation". Indeed there is a clear route which requires an assessment of the land, and the EIR did not take that route.

Erin Quinn of AES then also stated "voluntary markets have provided protocols for years which were adopted by CARB… we have seen a progression for years

of this type of mitigation". Mr Quinn is correct, CARB has a protocol, (again, Compliance Offset Protocol, US Forests) but the Walt project did not follow it.

Ms. Sanborn also made other errors of fact related to GHG analysis. We had testified that CalEEMod, the model used for GHG sequestration, did not allow land conservation as mitigation. She responded that we were in error, that CalEEMod does allow land conservation as mitigation, it just didn't supply the relevant calculations, so they had to take the calculations from someplace else. Here is the text from the CalEEMod Appendix A, section 11.1, page 50:

> Overall change in sequestered CO2 is the summation of sequestered CO2 from initial land use type multiplied by area of land for initial land use type subtracted by the summation of sequestered CO2 from final land use type multiplied by area of land for final land use type. **There is no reduction in GHG emissions associated with preservation of a land.**
> (boldface not in original).

Translation: CalEEMod says that if you have 100 acres of trees, and fell the trees on 50 acres, you are down 50% on carbon sequestration. End of story. No credit for putting the other 50 acres under a conservation easement.

In point of fact, the County has not cited a single example of policy by any state agency which allows mitigation for loss of woodland carbon sequestration by placing a conservation easement on any old patch of trees.

Ms Sanborn also baldly stated that black carbon only acts as a climate warmer when it covers ice or snow, therefore it is not a problem in Napa, which rarely sees snow. This is untrue. Airborne black carbon is actually rated as one of the strongest "climate forcers" which captures and holds heat in the atmosphere. It doesn't have to land on snow or ice to hasten global warming.

Finally, she stated that methane is only emitted from decaying wood under anaerobic conditions, therefore since the Walt trees would not be buried in a swamp, it would not be a factor. On the contrary, wood chips/sawdust emit varied amounts of methane depending on how they are stored or distributed. I am not qualified to argue correct calculations for determining amounts of methane emitted by tree decay. That is for the experts. And since the EIR does not reveal the fate of the downed trees, there are no calculations to be made anyway. But the remark about "swamps" runs counter to scientific research.

These misrepresentations by staff/consultant served to reassure the Supervisors that the County is on solid legal ground by a) allowing non-protocol conservation easements as mitigation for woodland destruction and b) not analyzing the biogenic emissions of tree disposal methods – in fact, even refusing to specify the tree disposal method. My lay opinion is that the county's legal terra is not so firma with this approach.

It is just plain wrong to find County Staff and consultants paid by the County asserting such glaring misstatements of scientific and technical fact during an official hearing, errors which even a layperson can spot. This performance did not enhance the credibility of PBES.

Sincerely,

Nancy Tamarisk
Chair, Napa Sierra Club

Cc: Supervisors Dillon, Wagenknecht, Caldwell, Luce;
Laura Anderson
David Morrison
Brian Bordona

From: AT&T
To: Hade, Jason
Subject: Comments are due before 4:45 p.m. on February 24, 2017. For more information of questions, contact Mr. Hade.
Date: Friday, February 24, 2017 6:36:39 AM

Mr. Hade,

I was directed to send Comments regarding CAP to your email site.

I know the CAP is already decided, but I thought I would get my two cents in and possibly use this as a future commentary in the Napa Valley Register.

My wife Robbi and I have lived in Napa County for over 50 years. I am always telling people "Our Napa County Supervisors and City Council members are Napa County's most "useful idiots" of all time...but don't worry the next generation will be even more useful."

To clarify, a "useful idiot" is a naïve public official that not only helps to enact policies that enslave their constituents, but also themselves. They don't really think, but continually react to the propaganda they are wired to, continually creating more controls. The controls don't go away, they multiply. Useful idiots are so sure of their actions that no amount of contrary facts can sway their determination for more control.

It's been seven years since I wrote my commentary in the Napa Valley Register "Sustainable Nightmare to Plague Napa County," which warned about the Agenda 21 (Sustainable Development) policies being adopted in Napa County. The "Sustainable Development" Napa County public officials bought into is defined by global socialist Gro Harlem Bruntland—County public officials even had her definition posted on their website as a badge of honor.

It makes sense that if a socialist defined the policy for Napa County, then it is a socialist top-down control policy. One more thing about a "Useful Idiot" is they have to think like socialist central planners, because the controls they enact would not be possible without a socialist mindset. And, of course, it also takes socialist minded citizens to allow the controls over their lives.

The whole idea behind Sustainable Development is that the world's resources are limited; therefore someone, such as our public officials, must preserve them. The only way to preserve them is for public officials to control them. With absolute control over resources comes absolute control over people. 2+2=4. Thus the "Sustainable Nightmare" I wrote about is Napa citizens being absolutely controlled in all aspects of life within Napa County using the environment as the excuse.

This is where “Climate Change” comes in. Climate changes every day and it varies year to year. CO2 Climate change propaganda is being played to the hilt and is designed to work on the emotions of naïve citizens. They want citizens to tell government “Control us” to save the Earth.

When my wife and I were married June 26, 1982 it rained. During our honeymoon, July 1, we had 1 ½ feet of fresh snow on Mount Lassen. Did we think it was CO2 causing the strange weather? No. But if you have the same scenario today, what does the typical citizen think? This is the power of propaganda.

Truly, it’s like Napa’s public officials are thinking and moving in slow motion. I know what they are going to do before they do it. The Sustainable control game was written into the Agenda 21 global to local plans (actual documents, not theory), including how “stakeholders” are to be used to accomplish the goals.

Note that the typical Napa citizen is not a stakeholder. Stakeholders have to be very naïve or control freaks that have bought into the environmental “We want to be controlled” propaganda.

At the climate change meeting I attended a couple years back we kept hearing about the stakeholders. I already knew the answer, but I asked the question “What is a stakeholder.” The response was that it was the people at the meeting that cared. Wouldn’t you think that all Napa citizens are stakeholders? This is how it works, control who the stakeholders are and have them supposedly involved in deciding the policies.

By the way, unlike the first round of climate change workshops I was emailed about and attended, I wasn’t emailed this time by County officials. Imagine that...keep the dissenters out of the meetings, so their “stakeholders” can blissfully come together and create their vision for Napa’s future—except this vision is like all the other socialist visions. There isn’t any originality in this Sustainable Nightmare plan for Napa County.

The UN Agenda 21 I wrote against seven years ago is now called UN Agenda 2030, which our federal government fully supports on their website (again, it’s on their website, not a theory).

Napa’s public officials are naively marching toward their sustainable nightmare, even stating their CO2 control goals they seek to accomplish by “2030.” Really, using 2030 as a goal date, just like UN Agenda 2030? Are Napa’s public officials really this slow in their thinking and originality? Again, Useful Idiots don’t really think, they react.

I know you won't care, but here's some advice to our public officials. Disconnect from the propaganda machine and Read Dr. Ed Berry, PHD, Physics "Scientists Use Cult Science To Promote Global Warming Agenda." Read his other articles regarding CO2.

Thank you,

Kevin Eggers

440 Monroe Street

Napa, CA 94559 707-815-7708

L16

From:	Michelle Benvenuto
To:	Hade, Jason
Cc:	Morrison, David
Subject:	Vineyard projections for CAP
Date:	Thursday, February 09, 2017 2:24:09 PM
Attachments:	SCN_0007.pdf

Hi Jason,
I appreciate your patience to walk through my concerns on the CAP yesterday.

As we discussed, the County had previously determined that the vineyard projections noted in the 2008 General Plan were not appropriate for CAP use and stated this revision in the attached memo dated October 31, 2011. "Revisions to the plan include more refined projections of future vineyard development based on historical data.." (page 2, paragraph 3).

Thank you,

Michelle Benvenuto
Executive Director
Winegrowers of Napa County

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CAP

L16

- LIVING DOCUMENT - REVIEW EVERY 2 YEARS
- LARGE VINEYARD DEVELOPMENT WILL MOST LIKELY MEET THE REQTS W/ CURRENT PRACTICES BUT SMALL VINEYARDS WILL MOST LIKELY NEED TO BUY OFFSETS

A Tradition of Stewardship
A Commitment to Service

Conservation, Development and Planning
1195 Third Street, Suite 210
Napa, CA 94559
www.co.napa.ca.us
Main: (707) 253-4417
Fax: (707) 253-4336

Hillary Gitelman
Director

October 31, 2011

Notice of Public Review & Public Hearing

REVISED Climate Action Plan for Unincorporated Napa County

The Napa County Departments of Conservation, Development & Planning and Environmental Management have released a REVISED Climate Action Plan for unincorporated Napa County. Copies of the revised plan and a proposed checklist that would be used to implement the plan are available upon request at Suite 210, 1195 Third Street in Napa or on the County's website at http://www.countyofnapa.org/CAP/.

The Planning Commission will conduct a public hearing about the revised plan and the checklist at 1:30 PM on January 18, 2012 in Suite 305 at 1195 Third Street in downtown Napa. At that time, the Commission will decide whether to forward the revised plan to the Board of Supervisors for adoption and whether to begin use of the proposed checklist on a trial basis.

A

Project Description & Objectives

The REVISED Climate Action Plan provides a baseline inventory of green house gas (GHG) emissions from all sources in unincorporated Napa County as well as strategies for reducing those emissions to 1990 levels by 2020 consistent with California Assembly Bill 32 from 2006. Emission reduction strategies included in the revised plan would be implemented by the State and the County itself, as well as by individual project applicants. Specifically, the revised plan would require discretionary projects approved by the County to reduce their "business as usual" emissions by 39%. The proposed checklist would be used by project applicants to select the emission reduction strategies they would implement, and would allow staff and consultants to calculate project emissions and emission reductions.

In addition to reducing Napa County's GHG emissions consistent with State policy, the revised plan is intended to (a) reduce uncertainties and risks for individual projects being reviewed pursuant to the California Environmental Quality Act (CEQA); (b) give project applicants the information and the flexibility they need to meet plan requirements by selecting emission reduction strategies that are consistent with their objectives and lower in cost than other possible strategies; and (c) lay the foundation for a local offset program so that any resulting habitat restoration, land conservation, and energy efficiencies would accrue to Napa County rather than elsewhere.

Background

Preparation of a GHG inventory and emission reduction plan for unincorporated Napa County implements Action Items CON CPSP-1 and 2 from the Napa County General Plan (2008), and builds off of the non-binding Climate Action Framework that was developed and adopted by the Napa County Transportation & Planning Agency (NCTPA) in 2009.

On January 28, 2011, the Napa County Department of Conservation, Development & Planning, released a draft Climate Action Plan for the unincorporated Napa County. The Planning Commission conducted a public hearing on the draft plan on February 16, 2011 and written comments were accepted until the close of business on April 4, 2011.

Since April, County staff and consultants have met with interested stakeholders and worked to ensure that all comments have been addressed and/or responded to. Revisions to the plan include more refined projections of future vineyard development based on historic data, more refined calculations of agricultural emissions from a variety of sources, and an analysis of emission reduction "credits" available to business which participate in a third party certification program such as Napa Green.

In accordance with CEQA and the State CEQA Guidelines (Sections 15168), the County is proposing to use the program level Environmental Impact Report (EIR) for the General Plan Update (SCH# 2005102088, certified June 2008) as the EIR for the Climate Action Plan. As discussed in a separate memorandum and checklist (initial study) dated January 28, 2011, this approach is consistent with CEQA and the State CEQA Guidelines because (1) the proposed plan is within the scope of the General Plan approved in 2008, and (2) the program EIR prepared for the General Plan Update adequately describes the activity for purposes of CEQA. In addition, (3) the County has not identified any changes in the General Plan, changes in circumstances under which the General Plan Update was adopted, or new information of substantial importance that would necessitate subsequent environmental review pursuant to CEQA Guidelines Section 15162. A copy of the General Plan Update EIR may be reviewed during business hours at the Department of Conservation, Development and Planning, 1195 Third Street, Suite 210, in Napa, CA or on the County's website at http://www.countyofnapa.org/Pages/DepartmentDocuments.aspx?id=4294967660. Reviewers are particularly directed to Section 3.4.4 of the Final EIR (on the website, see the document called "FEIR Responses Intro" and scroll to p. 3.0-49).

Next Steps

Interested members of the public are encouraged to review the revised plan and to submit written or oral comments at the meeting on January 18, 2012. Comments and questions may also be submitted in advance by emailing hillary.gitelman@countyofnapa.org or steve.lederer@countyofnapa.org. At the close of the hearing on January 18, 2012, the Planning Commission will decide whether to forward the revised plan to the Board of Supervisors for adoption and whether to begin use of the proposed checklist on a trial basis. The plan will not become effective until it is adopted by the Board of Supervisors.

Once adopted, the plan will not be static, but will be reviewed and revised to reflect changes in circumstances and new information. This will be particularly important as the year 2020 approaches.

From: Michelle Benvenuto [mailto:michelle@napawinegrowers.com]
Sent: Thursday, February 23, 2017 11:15 AM
To: Morrison, David
Subject: Re: Climate Action Plan

What is most problematic is the Land-use going from 1.5% to 11% because the study did not heed the Board's previous direction to use more realistic numbers. Why would the County want to imply that Vineyards are a detriment (11% of all emissions in 2020?!) to Napa County. Everyone understands that the system does not allow Napa to obtain "credit" for having done the right thing by enacting the Ag Preserve, therefore the Board directed staff to not use "conservative" and "worst case" scenarios but to use realistic projections. This was explicit in the County's REVISED Climate Action Plan, Chapter 2, Section 2.5 Revisions to the Draft CAP issued on October 31, 2011. See attachment and link on the County's website below: http://www.countyofnapa.org/WorkArea/DownloadAsset.aspx?id=4294975400

You asked what measures are concerning, please see below:

Proposed Measure	Current Regulation
Preservation minimum of 30 percent of all existing on-site trees.	60/40 requirement (maintain/retain 60% of trees or canopy cover and 40% of brush), but this only applies in the municipal watersheds. You are taking the VOLUNTARY Oak Woodland Management plan, applying it to all trees, then making it MANDATORY.
A minimum of 80% of the total removed weight of trees shall be repurposed	How do propose weighing the trees and who is overseeing all of this?
Ban on burning vegetation	Allowed, but must obtain ARB permit. There are times when buying may actually be the more sustainable option. To BAN it altogether is rash.

Michelle Benvenuto
Executive Director
Winegrowers of Napa County

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michelle@napawinegrowers.com

On Feb 21, 2017, at 12:29 AM, Morrison, David <David.Morrison@countyofnapa.org> wrote:

Michelle,

As you know, the CAP has not been formally reviewed by the Board. As I mentioned, the Board has received each technical memorandum that has been issued. Supervisors Wagenknecht and Ramos have attended workshops. I have talked individually with Board members throughout the process.

As the CAP indicates, state/federal programs meet more than 100% of the gap in 2020, 75% of the gap in 2030 and 65% of the gap in 2050. They do address most of our needs, but not all of them. The County has to take action on the remainder.

As for the measures, half of the 42 measures are voluntary, the other half are required. Of the 21 required measures, 6 are mid-term timeframe, which is 4-7 years.

The near-term required measures are:

- End burning of ag biomass
- Convert irrigation pumps to electric
- Support electric or alternative fuel ag vehicles.
- Energy audits for new construction
- Tier I for new construction
- Zero Net Energy for new construction
- Electric water heaters for residential
- County Deep Green energy from MCE
- Programs for oak preservation/replanting
- Guidelines for riparian lands
- Increase Napa Green Certified
- Increase waste diversion goal to 80%
- Update Transportation System Management Ordinance
- Reduce parking requirements

Which of these are problematic? Open to discusss.

David

From: Michelle Benvenuto [mailto:michelle@napawinegrowers.com]
Sent: Friday, February 10, 2017 3:56 PM
To: Morrison, David
Subject: Re: Climate Action Plan

Could you please send me the dates that the CAP was reviewed by the BOS. I only recall you giving updates without actually specifying or confirming direction. In addition, I've always heard your updates discuss voluntary measures and that the state and federal programs will address most of the needs.

Michelle Benvenuto
Executive Director
Winegrowers of Napa County

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On Feb 10, 2017, at 12:08 PM, Morrison, David <David.Morrison@countyofnapa.org> wrote:

Michelle,

I strongly take exception to your statement that staff has not heeded Board direction. Three of the Board members currently sitting are not cited in your 2011 summary. The current Board has received each of the CAP memoranda released so far and have been regularly updated regarding the CAP's progress.

Part of my responsibility and direction is to provide the Board with recommendations that comply with State law.

Having said that, I don't disagree with many of the prior Board comments as you summarized them.

AB 32, SB 375, Governor's Executive Orders, etc. all are written primarily for urban areas and unfairly impact rural areas.

Yolo County in 2010 made that argument numerous times with CARB and (then) Attorney General Brown. We enlisted UCD and showed that preserving farmland is 10 times more effective at reducing potential GHG, than urban sprawl even with effective development standards.

And got nowhere.

The GHG modeling and regulations do not allow jurisdictions to cite past no-growth performance.

GHG regulation and litigation have significantly increased in the past 7 years in California.

The CAP as drafted meets the State standards, unreasonable as they may be.

If we decide to go a different path, then individual development projects will not be able to tier from the CAP for CEQA purposes.

We have already factored transportation into the CAP. Legislative efforts are factored in. Building standards are factored in. 50% of our compliance strategy is building/transportation.

There are only four recommended measures for Ag, three of which are "support" not require.

How would you specifically suggest the CAP be changed in moving forward?

I look forward to any and all additional information you can provide on this topic.

David

From: Michelle Benvenuto [mailto:michelle@napawinegrowers.com]
Sent: Friday, February 10, 2017 9:40 AM
To: Morrison, David
Cc: Hade, Jason
Subject: Fwd: Climate Action Plan

Hi David,
I understand that you weren't here in 2011, which is why I had forwarded you the information below regarding the BOS direction on the CAP.

I found additional information on the subject and justification,but I am out of the office today. I will forward this weekend. It is disappointing that County staff and its new consultant did not heed the BOS direction when drafting the current CAP.

Michelle Benvenuto
Executive Director
Winegrowers of Napa County

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michelle@napawinegrowers.com

Begin forwarded message:

From: Michelle Benvenuto
Subject: Climate Action Plan
Date: November 10, 2015 at 12:56:42 PM PST
To: David Morrison <David.Morrison@countyofnapa.org>, "Hade, Jason" <Jason.Hade@countyofnapa.org>

David and Jason,
Thank you for the Climate Action Plan public meeting last night. Napa has been down this path previously and was somewhat derailed by the CAP presented not aligning with the BOS goals. I encourage to watch the video of the December 11, 2012 BOS meeting where the Supervisors discussed the previously proposed CAP. I've also attached my minutes from the meeting.

Thank you,

Michelle Benvenuto
Executive Director
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From: John Rose [mailto:jrose@biologicaldiversity.org]
Sent: Thursday, March 09, 2017 10:50 AM
To: Hade, Jason
Cc: Aruna Prabhala
Subject: Comments on Napa County Draft Climate Action Plan

Dear Mr. Hade,

Attached please find a comment letter from the Center for Biological Diversity regarding Napa County's Draft Climate Action Plan. A hard copy of the comment letter has been mailed to you along with a disc containing the references.

Please kindly confirm receipt of this email. Thank you for your attention to this matter.

--J.P.

John P. Rose
Urban Wildlands Staff Attorney
Center for Biological Diversity
phone: 408.497.7675
jrose@biologicaldiversity.org

Via Electronic Mail and USPS (w/attachments)

Jason R. Hade
Napa County Planning Building & Environmental Services Department
1195 Third Street, Suite 210
Napa, California 94559
jason.hade@countyofnapa.org

Re: Comments on Napa County's Draft Climate Action Plan

Dear Mr. Hade:

These comments are submitted on behalf of the Center for Biological Diversity (the "Center") regarding Napa County's Draft Climate Action Plan (the "Draft CAP"). While the Draft CAP identifies many significant sources of greenhouse gas ("GHG") emissions in the Napa County and proposes some measures to address them, the Draft CAP does not provide specific, mandatory, and enforceable policies necessary to adequately fulfill the County's legal responsibilities under state law.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over one million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in Napa County.

I. The County's Role in Combating Climate Change.

The County is charged with reducing GHG emissions in the County. As the California Air Resources Board ("CARB") explains:

> ***Essential partners in achieving California's goals to reduce GHGs, local governments have broad influence and authority over activities that contribute to significant direct and indirect GHG emissions***. Through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations many local governments have become leaders in reducing GHG emissions.[1]

[1] California Air Resources Board, "Local Government Actions for Climate Change" (Apr. 2016), available at https://www.arb.ca.gov/cc/localgovernment/localgovernment.htm.

The County thus has the opportunity – and responsibility – to holistically assess the GHG emissions of activities in the County and develop and implement policies to significantly reduce these emissions.

II. The Draft CAP Cannot Allow Projects to Evade CEQA Review.

The Draft CAP states that the County will "streamline" the CEQA analysis of individual projects with a checklist in Appendix D. As a preliminary matter, this checklist was not included with the Draft CAP, rendering it impossible to evaluate. Moreover, the specific impacts and required mitigation measures for individual projects will vary widely. As such, it is unlikely that a checklist – even if it is developed – will adequately analyze and mitigate GHG impacts of all individual projects in the County in the future.

At the conclusion of the Draft CAP, the County claims that the "CAP meets the criteria identified in Section 15183.5 and is therefore considered a 'qualified' CAP." As currently drafted, the County's CAP does not come close to meeting the requirements for streamlined CEQA review. A guidance document from the California Attorney General states that while a CAP may constitute "reasonable mitigation" under CEQA, the CAP should include the following elements: "an emissions inventory (to assist in developing appropriate emission targets and mitigation measures); emission targets that apply at reasonable intervals through the life of the plan; enforceable GHG control measures; monitoring and reporting (to ensure that targets are met); and mechanisms to allow for the revision of the plan, if necessary, to stay on target."[2]

The Draft CAP does not contain binding and enforceable GHG control measures. Notably, the words "encourage," "promote," or "support" occur many dozens of times in the sections describing the Draft CAP's implementation measures. The California Attorney General expressly disapproved such non-binding measures:

> **Can a lead agency rely on policies and measures that simply "encourage" GHG efficiency and emissions reductions?**
>
> No. Mitigation measures must be "fully enforceable." ***Adequate mitigation does not, for example, merely "encourage" or "support" carpools and transit options, green building practices, and development in urban centers***. While a menu of hortatory GHG policies is positive, it does not count as adequate mitigation because there is no certainty that the policies will be implemented.[3]

The California Attorney General further states that programmatic plans to reduce GHG emissions pursuant to CEQA Guidelines section 15183.5 must "[i]dentify a set of specific, enforceable measures that, collectively, will achieve the emissions targets…."[4] Such vague

[2] California Attorney General's Office, "Climate Change, the California Environmental Quality Act, and General Plan Updates: Straightforward Answers to Some Frequently Asked Questions" (Sept. 2009) available at http://ag.ca.gov/globalwarming/pdf/CEQA_GP_FAQs.pdf.
[3] *Id.*
[4] California Attorney General's Office, "CEQA and General Planning," available at https://oag.ca.gov/environment/ceqa/planning.

measures also are clearly inconsistent with CEQA Guidelines section 15183.5(b)(1)(D), which states that measures should have "performance standards" which demonstrate they will achieve the planned reductions on a project by project basis.

Accordingly, while the Draft CAP may contain a set of worthwhile goals for the County to pursue, the Draft CAP fails as a CEQA compliance tool because it generally relies upon non-enforceable measures. In Table 5-1, which summarizes all measures, the Draft CAP expressly notes that many of these implementation measures are "voluntary." Even many of the measures characterized as "mandatory" are not truly mandatory because they just require the County to "support" or "promote" the actions of other entities.

In addition, other measures in Table 5-1 which are characterized as "mandatory" cryptically state in the "other considerations" column that the measure "requires County collaboration & administrative capacity." This suggests that even these purportedly "mandatory" measures will be implemented only if sufficient administrative capacity (e.g., funds) is available. The Draft CAP never explains what this phrase means or whether it essentially conditions implementation of these implementations on the potential availability of unspecified funds or other "capacity." Given the budget shortages routinely facing local governments, the Center is concerned that these implementation measures will never be implemented due to lack of funding (and that the Draft CAP allows this result).

III. The Emissions Inventory Is Incomplete.

The Draft CAP lists nine categories of GHG emissions in its GHG inventory: Building Energy Use, On-Road Vehicles, Solid Waste, Agriculture, Off-Road Vehicles, High GWP Gases, Wastewater, Land Use Change, and Imported Water Conveyance. However, the Draft CAP does not appear to include some potentially significant categories of emissions, such as rail emissions. Other Draft CAPs, such as the San Francisco Draft CAP, include rail emissions.[5]

The CAP should also set forth the emissions categories in more detail. A guide prepared by the Bay Area Air Quality Management District ("BAAQMD") recommends listing the GHG emissions of specific items such as streetlights and traffic signals.[6]

In addition, other agencies, including CARB, separately categorize emissions from the residential, industrial, and commercial sectors. In contrast, the Draft CAP appears to aggregate at least some of these emissions together in the "Building Energy Use" category. While Appendix A does appear to list the separate emissions totals for these sectors (Appx. A at Table 4), this information should be in the text of the CAP and separate mitigation strategies should be developed for each sector.

---

[5] Climate Action Plan for San Francisco (Sept. 2004) https://sfenvironment.org/sites/default/files/fliers/files/climateactionplan.pdf.

[6] Strategic Energy Innovations and Bay Area Air Quality Management District, "Conducting A Municipal Greenhouse Gas Emissions Inventory: A Practical Guide" (Aug. 2009), available at http://www.ca-ilg.org/sites/main/files/file-attachments/Municipal_GHG_Inventory_Guidebook.pdf.

IV. The Draft CAP Should Not Plan On Failing To Meet Long-Term Goals.

Table 3-2 claims that – with the Draft CAP's GHG reduction measures – the County's GHG emissions will exceed the County's 2020 target by 57,138 metric tons of carbon dioxide equivalents ("MTCO2e") per year and the County's 2030 target by 145 MTCO2e per year. (Draft CAP at 3-5.) Exceeding the County's 2030 target by only 145 MTCO2e per year leaves very little room for variations between the County's estimated and actual reductions in GHG emissions – it is possible that the County will miss the 2030 target.

Furthermore, Table 3-2 states that the County would still need to reduce emissions by 158,306 MTCO2e per year to meet the County's 2050 target. In other words, the Draft CAP expects the County ***not*** to reach this long-term target. The County should not be enacting a Draft CAP that contemplates failing to achieve long-term targets in GHG reductions. Instead, the County should be evaluating and implementing stronger mitigation measures to put the County on track to reach all of its goals.

The County's plan not to meet its long-term GHG targets also makes the Draft CAP not consistent with CEQA Guidelines section 15183.5(b)(1)(D), which requires that the document demonstrate that it will achieve planned reductions on a project by project basis. Accordingly, compliance with the CAP, even if fully implemented, cannot be used to demonstrate that a particular project is consistent with the County's targets.

V. The Draft CAP's GHG Reduction Strategies and Measures Are Inadequate.

A. The Building Energy Measures do not demonstrate that they will result in significant GHG reductions.

The County acknowledges the very significant role of buildings in generating GHG emissions. For example, the Draft CAP estimates that building energy currently accounts for 31 percent of the County's emissions. (Draft CAP at 4.) Unfortunately, the Draft CAP does not set forth long-term strategies to curb emissions generated by new development. This is especially unacceptable because the County plans to allow such projects to move forward merely by meeting certain unspecified requirements on a "checklist." Because (a) these projects will lock in significant GHG emissions for many decades and (b) the County has conceded its proposed measures will fail to meet long-term targets, these projects should be required to implement stronger mitigation measures.

In particular, the Draft CAP sets forth ten "Building Energy Measures" in Table 3-3. Unfortunately, many of these measures are extremely vague and do not require any specific actions of regulated parties. For instance, BE-1 merely provides that the County will "work with" PG&E and other utilities on efficiency programs. This fails to actually require any utilities or regulated parties to take any concrete actions to reduce GHG emissions. Likewise, BE-2 does not require regulated parties to actually reduce GHG emissions – it just suggests that the County will perform more energy audits. Furthermore, despite the lack of any identifiable GHG reductions of BE-1 and BE-2, the Draft CAP incorrectly concludes that "improved air quality" and "reduced fossil fuel reliance" will be "co-benefits" of these measures. (Draft CAP at 3-8.)

BE-3 and BE-4 require compliance with California Green Building Standards. However, significant portions of the California Green Building Standards are already mandatory.[7] BE-3 and BE-4 do not specify what standards (if any) will be required under the Draft CAP that go above and beyond what state law already requires.

The Draft CAP also does not explain how it arrived at the 15 percent reduction under Tier 1 Standards and 30 percent reduction above current standards. (*See* Draft CAP at 3-8.) Indeed, California's 2016 Building Standards, which are effective on January 1, 2017, already require that buildings are 28 percent more efficient the 2013 Building Standards.[8]

The Draft CAP further notes that the state is likely to adopt a zero net energy ("ZNE") standard in 2020, and that the County would incorporate the ZNE standard into its local building code. The Center urges the County to be a leader in fighting climate change by adopting the ZNE ***now*** instead of waiting for action on the state level.

BE-5 also does not require the County to actual take any concrete steps. Rather, it simply requires the County to "consider" subsidizing the extra cost of the Marin Clean Energy Deep Green Program. The County thus cannot claim either GHG reductions or "co-benefits" of improved air quality and reduced fossil fuel reliance merely because it considers taking a concrete action.

BE-6 states that the County will reduce GHG emissions by requiring electric or alternatively fueled water heaters. Yet, BE-6 does not appear to expressly require that the electricity powering these water heaters come from renewable or low-carbon sources.

BE-7 states that the County "will continue to provide expedited permitting incentives for installing solar panels, electric vehicle charging stations, and wind turbines." (Draft CAP at 3-10.) While incentives are helpful in increasing user adoption of these technologies, incentives alone are insufficient. The County should take steps to *require* certain amounts of solar or wind and EV charging stations in new residential and commercial development. Likewise, the Center appreciates that the County has "set a goal" of approving 20,000 kw of solar permits by 2030. Yet, once again, the Draft CAP does not explain how merely "incentivizing" solar will result in the County reaching this goal. The Draft CAP should set forth both "carrot" and "stick" approaches to reach aggressive renewable energy goals instead of relying solely upon voluntary incentives.

BE-8 indicates that the County will develop a program for new development to offset its emissions by retrofitting existing buildings. (Draft CAP at 3-10.) While retrofitting existing buildings is a critical strategy for reducing GHG emissions, such retrofitting activities should not serve as a substitute for reducing emissions from new buildings. New buildings should

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[7] *See* California Building Standards Commission, "California's Green Building Code," available at http://www.bsc.ca.gov/Home/CALGreen.aspx.

[8] *See* California Energy Commission, "2016 Building Energy Efficiency Standards Frequently Asked Questions," available at http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf.

independently be required to reduce their GHG emissions through energy efficiency and renewable energy, and other programs should incentivize or require retrofits to existing buildings. Implementing GHG reduction measures within the new construction can also sometimes be the most cost-effective means to significant reduce emissions.

As noted above, none of these measures explain how they will result in quantifiable reductions in GHG emissions. Nonetheless, the Draft CAP claims without citation to facts or evidence that BE-4, BE-5, BE-6, BE-7, and BE-9 will reduce GHG emissions by specific amounts. The CAP must explain how these mostly voluntary programs will actually lead to these claimed GHG emission reductions.

B. The Draft CAP should require implementation of proven green building techniques, including LEED.

Using green building techniques can substantially reduce GHG emissions from buildings. Green buildings help reduce the amount of energy used to light, heat, cool and operate buildings and substitute carbon-based energy sources with alternatives that do not result in GHG emissions. (Commission for Environmental Cooperation 2008.) Currently, green buildings can reduce energy usage by 30 percent or more and carbon emissions by 35 percent. (Commission for Environmental Cooperation 2008.) The technologies available for green building are already in wide use and include "passive solar design, high-efficiency lighting and appliances, highly efficient ventilation and cooling systems, solar water heaters, insulation materials and techniques, high-reflectivity building materials and multiple glazing. Additionally, the U.S. Green Building Council (USGBC), a private, nonprofit corporation, has established a nationwide green building rating system, called Leadership in Energy and Environmental Design ("LEED"). The LEED standard supports and certifies successful green building design, construction and operations. It is one of the most widely used and recognized systems, and to obtain LEED certification from the USGBC, project architects must verify in writing that design elements meet established LEED goals. Below are some specific measures the CAP should include:

- Incorporating the USBGC's LEED or comparable standards for energy- and resource efficient building;
- Requiring buildings to be designed for passive heating and cooling, and natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.;
- Requiring buildings to be designed for maximum energy efficiency, including the maximum possible insulation, use of compact florescent or other low-energy lighting, use of energy efficient appliances, etc.;
- Reducing the use of pavement and impermeable surfaces;
- Requiring water re-use systems;
- Installing light emitting diodes (LEDs) for traffic, street and other outdoor lighting
- Limiting the hours of operation of outdoor lighting;
- Maximizing water conservation measures in buildings and landscaping, using drought tolerant plants in lieu of turf, planting shade trees;

- Requiring installation of the maximum possible photovoltaic array on building roofs and/or building sites to generate all of the electricity required by the building, and utilizing wind energy to the extent necessary and feasible;
- Installing solar water heating systems to generate all of the building's hot water requirements; and
- Installing solar or wind powered electric vehicle and plug-in hybrid vehicle charging stations to reduce emissions from vehicle trips.

The California Energy Commission also published a report that details numerous strategies that local governments can use to reduce GHG emissions through green building ordinances and solar programs.[9]

C. The Draft CAP does not contain adequate measures to mitigate sprawl development.

The Building Energy Measures section is further inadequate because it fails to consider holistic strategies to create low-carbon communities. More specifically, while this section provides some measures attempting to reduce emissions at the level of individual buildings, it does not contain planning strategies to require growth to occur near employment centers and walkable neighborhoods. While the Transportation Measures section touches upon these topics, neither section provides concrete measures to limit sprawl development and require any new development to occur near existing job centers.

D. The On-Road Transportation Measures are impermissibly vague.

The On-Road Transportation Measures suffer from many of the same defects as the Building Energy Measures. Many of these measures do not require the County or regulated parties to take any concrete steps to reduce GHG emissions. Instead, they require the County to "consider," "promote," or "support" certain plans or programs.

For example, TR-3 states that the County will "encourage" and "promote" transit-oriented development. (Draft CAP at 3-13.) TR-3 does not explain in any detail how it will encourage and promote this worthy goal, but still claims quantifiable reductions in GHGs from its "promoting" activities. (*See* Table 3-4.)

TR-9 states that the County will "work" with neighboring jurisdictions to install park and ride facilities. Again, while park and ride facilities might assist in reducing transportation-related GHG emissions, the CAP should include specific proposed locations for park and ride facilities and a plan with adequate funding to establish these facilities. Without any specific details and commitments, the County cannot claim any GHG reductions from this measure.

Moreover, TR-11 does not actually require electric vehicle charging stations at wineries, industrial centers, hotels, major visitor attractions, and multifamily complexes; it just requires the County to "promote" them. (Draft CAP at 3-15.) The County should incentivize such charging

[9] *See* California Energy Commission, "Energy Aware Planning Guide" (Feb. 2011), available at http://www.energy.ca.gov/2009publications/CEC-600-2009-013/CEC-600-2009-013.PDF.

stations through substantial rebates and also require a minimum number of stations on new construction.

TR-1 comes close to actually requiring concrete actions, but stops short of establishing measurable targets in increased vanpool ridership. (Draft CAP at 3-12.) It also does not commit to any particular ordinance and instead generally cites to a few other ordinances. This is insufficient to demonstrate an annual GHG reduction of 4,818 MTCO2e. (*See* Table 3-4.)

There are many other measures which the County could implement to reduce GHG emissions from the transportation sector. For example, the County could offer rebates to consumers who purchase or lease plug-in or electric passenger cars and trucks; CARB has already implemented a similar program called the Clean Vehicle Rebate Project.[10] The County also could implement a local program similar to CARB's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project.[11] This program provides vouchers to purchasers of California purchasers and lessees of hybrid and zero-emission trucks.

E. The Draft CAP does not contain adequate Solid Waste Measures.

The Draft CAP contains only two Solid Waste Measures – "encouraging" expansion of composting programs (SW-1) and meeting an 80 percent waste diversion goal by 2020 and 90 percent by 2030 (SW-2). Regarding SW-1, the Draft CAP should demonstrate what concrete steps the County will be taking to actually expand composting programs. Regarding SW-2, the Draft CAP states that the 80 percent waste diversion goal is just that – a "target" or goal. (Draft CAP at 3-17.) The Draft CAP should specifically demonstrate how that goal will be met. The County could work towards meeting these goals by establishing local programs similar to CalRecycle's Greenhouse Gas Reduction Grant and Loan Programs, which provides financial incentives for capital investments in infrastructure for aerobic composting, anaerobic digestion and recycling and manufacturing facilities that will reduce GHG emissions.[12]

The Draft CAP also does not provide evidence indicating that all forms of Solid Waste emissions were considered in the inventory, including methane emissions. Similarly, the Draft CAP does not explain how emissions from solid waste sources such as landfills were calculated.

F. The Draft CAP does not contain adequate Agriculture Measures.

As with measures in other categories, the Agriculture Measures contain vague and non-binding language regarding the County's desire to "support" or "work" with various entities. Given agriculture's significant role in producing GHG emissions, such measures are plainly inadequate. The Agriculture Measures section of the Draft CAP also does not acknowledge the

[10] *See* California Air Resources Board, "Clean Vehicle Rebate Project," available at https://www.arb.ca.gov/msprog/aqip/cvrp.htm.
[11] *See* California Air Resources Board, "Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project," available at https://www.arb.ca.gov/msprog/aqip/hvip.htm.
[12] *See* CalRecycle, "Greenhouse Gas Reduction Grant and Loan Programs," available at http://www.calrecycle.ca.gov/Climate/GrantsLoans/.

role of agriculture in deforestation, and the carbon sequestration benefits of keeping forests intact.

Researchers have identified other specific measures to reduce GHG emissions associated with agricultural operations. For example, GHG emissions can be reduced through decreasing fertilizer use and limiting tillage.[13] In addition, the California Attorney General encourages local governments to consider requirements for carbon and nitrogen-efficient agricultural practices.[14]

In addition, the County should take what steps it can within its jurisdiction to reduce GHG emissions from livestock operations. The County should proactively work to comply with California's new policies regulating methane emissions, perhaps by offering incentives to agricultural operations that voluntary implement the new standards prior to their effective dates.

G. The Draft CAP should contain stronger Water and Wastewater Measures.

Water conservation measures are beneficial not only because they conserve scarce water resources but also because wastewater and water importation generate GHG emissions. (*See, e.g.*, Table 2 in Appx. A of Draft CAP.) While the Water and Wastewater Measures outlined in the Draft CAP are a step in the right direction, the County should incorporate additional water conservation measures into the Draft CAP. For example, the Draft CAP should require that new construction include "purple" piping and provide incentives to include purple piping in existing construction. Other cities in Northern California are already adopting purple piping programs – for example, the City of Pleasanton is implementing a purple piping program.[15] Similarly, the Draft CAP should require or at least incentivize the use of wastewater recycling facilities. In addition, the County should consider implementing the water savings strategies detailed on CARB's Local Government Toolkit for AB 32 (known as "CoolCalifornia").[16]

In section 4.3.3 of the Draft CAP, the County proposes other measures to "prepare for variable water supplies and preserve water quality." (Draft CAP at 4-18.) The Draft CAP should more specifically detail the steps it will take with respect to Measures Water 1 through 6. By their own terms, these measures only require the County to "evaluate," "consider," and "promote," certain systems or programs to reduce water usage. The Draft CAP should instead set forth plans to adopt mandatory programs for on-site graywater systems and use of recycled water. The Draft CAP also should not defer these measures for four to eight years ("mid-term"), as proposed for Measure Water 2, 3, 5, and 6. (*See* Table 4-3.) Instead, measures should be adopted and implemented as soon as possible.

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[13] *See* Duke Nicholas Institute, "Greenhouse Gas Mitigation Opportunities in California Agriculture" (Feb. 2014), available at http://aic.ucdavis.edu/publications/california%20economics%20for%20GHG%20dduke%20report.pdf.
[14] California Attorney General's Office, "Climate Change, the California Environmental Quality Act, and General Plan Updates: Straightforward Answers to Some Frequently Asked Questions" (Sept. 2009) available at http://ag.ca.gov/globalwarming/pdf/CEQA_GP_FAQs.pdf.
[15] *See* http://www.cityofpleasantonca.gov/gov/depts/os/env/purple_pipes_project.asp
[16] *See* CoolCalifornia.org, "Water-saving strategies," available at http://www.coolcalifornia.org/tip/water-lg.

H. The Draft CAP's Land Use Change Measures are not sufficient to reduce GHGs.

The County plays a crucial role in ensuring that land use changes in the County do not generate significant GHG emissions. The California Supreme Court recently recognized this role when it stated that "[l]ocal governments [] bear the primary burden of evaluating a land use project's impact on greenhouse gas emissions." (*Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal.4th 204, 230.)

While the Draft CAP correctly identifies the critical role that trees play in sequestering carbon, the Draft CAP states that the County expects to allow 8,000 acres of forests to be destroyed pursuant to due to general plan projections. (Draft CAP at 3-32.) The Air Resources Board's most recent climate change Scoping Plan makes clear that local land use planning must take an integrated approach that *avoids* conversion of forests to other uses.[17] In an era of climate change and deforestation, the deforestation sanctioned in the CAP is not only contrary to explicit state policy but also scientifically unacceptable. The County should be finding ways to save its remaining forests instead of planning for their destruction in a Climate Action Plan.

The Land Use Change Measures will not protect Napa's forests or achieve significant GHG reductions. LU-1 proposes compensating for the destruction of each tree by planting two more. Planting trees does not guarantee that the planted trees will grow to a size that mitigates the carbon sequestration benefits lost by destroying the pre-existing tree. The Draft CAP further does not explain where these trees will be planted, or who will be responsible for ensuring that the trees grow over their lifespan. Tree planting activities also are plainly insufficient to compensate for the carbon sequestration and biological benefits of old growth forests in the County. Moreover, neither the Draft CAP nor any of its appendices provide any evidence suggesting that merely planting additional trees will adequately mitigate for the loss of pre-existing trees.

The County's recent conduct with respect to specific projects has been particularly troubling. Citing the same policies listed in the Draft CAP, the County recently greenlighted the destruction of over 14,000 large trees and countless smaller trees near Atlas Peak for the Walt Ranch Erosion Control Plan. The County should be safeguarding its remaining natural resources and their carbon sequestration benefits instead of allowing them to be destroyed for more vineyards and development.

The County should implement much stronger measures to protect its remaining trees. For instance, the Draft CAP states its program will "target a minimum preservation rate of 30 percent of existing onsite trees." (Draft CAP at 3-25.) This appears to mean that the Draft CAP would allow destruction of 70 percent of onsite trees. The Draft CAP should instead require a minimum preservation rate of 95 percent, and require mitigation through conservation easements for preexisting forests to the extent that requirement cannot be reached. In short, the Draft CAP

[17] California Air Resources Board, First Update to the Climate Change Scoping Plan: Building on the Framework at 60, 74 (May 2014), available at https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf (visited March 6, 2017).

should seek to adopt a "no net loss" policy for forest carbon stocks, much as it attempts to do in LU-2 for riparian lands.

Finally, the Draft CAP does not provide adequate evidence supporting the emissions data for the Land Use emissions, or whether it has calculated emissions from all types of GHGs, including black carbon. The Draft CAP also does not contain analysis of the GHG emissions associated with burning trees or other biomass.

VI. The Vulnerability Assessment Should Consider Impacts on Fish and Wildlife.

The Vulnerability Assessment in the Draft CAP explains many of the impacts and risks arising from climate change, including increased temperatures, increased wildfire risk, and increased likelihood of flooding. The Draft CAP further explains how these changes can impact the wine and agricultural industries and sensitive populations of people. However, neither the Draft CAP nor Appendix C analyze or consider the impacts on fish and wildlife of increased temperatures, wildfires, and flooding.

Climate change already is having a major adverse impact on numerous plant and animal species. (Cameron and Scheel, 2001.) Climate change impacts species by altering the climatic conditions that species need to survive or use a particular location as habitat, including particular temperature, type of food, water levels and water abundance, or weather conditions. (Schwartz, et. al., 2006.) This causes massive migration shifts, with species seeking out other areas featuring their needed climatic conditions. (Schwartz, et. al., 2006.) However, such migration shifts are not simple. For many species, their habitat is already so limited that there is no other location they can practically relocate to. In addition, major impediments such as urban areas can keep species from reaching other habitats. Species migration can also cause increased food and habitat competition as more species attempt to forage, hunt, or breed, in smaller areas. Migration also has the potential to cause many of the issues commonly associated with invasive species.

For many species, migration just is not possible – as their habitats quickly change, they will be unable to adapt in time, and will become extinct. Extinction as a direct result of climate change is an imminent possibility for numerous species. (Cameron and Scheel, 2001).

The threat of climate change-induced species extinction is found to be highest in species with a small current distribution (Schwartz, et. al. 2006). This makes sense given that the reason that these species have small habitats in the first place is that they are "habitat specialists," meaning they can only survive in a very specific set of climatic/habitat conditions. (Schwartz, et al., 2006.)

The Draft CAP should acknowledge and disclose the profound impacts that climate change is and will continue to have on fish and wildlife in the County. Because the Draft CAP does not acknowledge or analyze these issues, the section on Adaptation Strategies and Measures does not include any measures to assist fish, wildlife, or special status species in adapting to climate change. The Draft CAP should closely consider measures to protect special status species that inhabit the County, which are most at risk to extinction. For instance, the California

foothill yellow legged frog is currently at risk of extinction, and studies indicate that the effects of climate change will further impede the species ability to survive.[18]

VII. The Implementation Strategy Should Provide More Detail Regarding The County's Implementation Plans.

The Draft CAP correctly acknowledges that ensuring that measures translate into actual GHG emissions reductions is critical to the success of the Draft CAP. (Draft CAP at 5-3.) The Draft CAP further states that the County will develop "more detailed implementation schedules for each measure." (CAP at 5-4.) Again, the CAP cannot function as a means to "streamline" future CEQA review when the timeframes and details regarding the implementation of the CAP's mitigation measures are not even included in the document. (*See Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must be fully enforceable through permit conditions, agreements, or other measures so that feasible mitigation measures will actually be implemented as a condition of development].)

VIII. The Draft CAP Should Require More Consistent Monitoring Of Progress.

The Draft CAP provides that the County will need to review and update the GHG emissions inventory periodically every five years, track the community's progress on the implementation status of each measure in the Draft CAP, and report back to the Board of Supervisors and the public at least every five years. (Draft CAP at 6.) Delaying an update on these items for an additional five years could frustrate the County's ability to meet its climate change goals. The Draft CAP should provide for more sustained monitoring in order to ensure that objectives are being met, such as updates on the above items every two or three years.

The CAP should specify what categories of information will be included in monitoring reports. For example, monitoring reports should include data on the projected and actual GHG reductions for each individual implementation measure.[19] In section 5.3 ("Monitoring and Updates"), the Draft CAP does indicate that County staff will evaluate the GHG emission reduction measures' capacity, cost, effectiveness, and benefits of each individual measure. The CAP should make it clear that these evaluations will be included in the monitoring report. Without such data specific to each implementation measure, the County will be unable to evaluate whether measures are achieving planned reductions in GHGs.

Finally, the CAP should provide for public participation in the monitoring process and allow for notice and opportunity to comment on each monitoring report. The public should be notified when evaluations occur on specific mitigation measures and invited to provide input.

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[18] *See* Center for Biological Diversity, "Comments on Status Review of Foothill Yellow Legged Frog," Docket No. #FWS-R8-ES-2015-0050 (Aug. 2015) at 122-123 (referencing studies), available at https://www.biologicaldiversity.org/species/amphibians/foothill_yellow-legged_frog/pdfs/CBD_comments_on_FYLF_8-28-15.pdf.

[19] *See* California Air Resources Board, "Climate Action Planning Resource Guide," available at http://www.coolcalifornia.org/climate-action-planning-resource-guide.

IX. The County Should Prepare An EIR.

CEQA Guidelines section 15183.5(b)(1)(F) expressly requires that a climate action plan be adopted in a public process "after environmental review. Similarly, subdivision (b)(2) provides that "[a] plan for the reduction of greenhouse gas emissions, ***once adopted following certification of an EIR or adoption of an environmental document***, may be used in the cumulative impacts analysis of later project." Accordingly, the statute expressly contemplates that a local agency will prepare an EIR in connection with a CAP. In reviewing the County's CAP website[20] there does not appear to be any indication that the County is preparing an EIR for the CAP. The CAP cannot be used to streamline CEQA review absent this analysis.

X. Conclusion.

Thank you for the opportunity to submit comments on the Draft CAP. We look forward to working to assure that the Final CAP sets forth a specific and enforceable plan to reduce the County's GHG emission in accordance with state law. Please do not hesitate to contact the Center with any questions at the number listed below.

Sincerely,

J.P. Rose
Staff Attorney
Center for Biological Diversity
1212 Broadway, Suite #800
Oakland, CA 94612
Tel: (510) 844-7100
jrose@biologicaldiversity.org

[20] http://www.countyofnapa.org/CAP/.

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-----Original Message-----
From: Nancy McCoy Blotzke [mailto:nancymccoy@sonic.net]
Sent: Wednesday, March 08, 2017 3:19 PM
To: Morrison, David; Hade, Jason
Cc: Lee Zuckerman
Subject: Questions on the Climate Action Plan

Please let us know where and when you will post answers.
Thank you.

To: David Morrison, Director of PBES and Jason Hade, AICP, Planner III
Re: Comments on Napa County Climate Action Plan

We want to thank you for encouraging public comment that will help make Napa County, through its CAP and subsequent General Plan, an outstanding climate leader. Our comments and questions are below:

A. How is the Napa County Climate Action Plan planning to adequately address the issue of forest preservation, the most important resource that the planet has to keep its CO2, water, and other resources in balance?

1) Replanting to replace forests that have been removed is not adequate. It will take too many years (40, 50 or more) for new plantings to recoup the carbon sequestration that is lost from forest removal. We need to understand that the severe affects of Climate damage are occurring in a much shorter time frame.
2) There are not enough places to replant that many trees.
3) Disposing of dead trees would produce even more environmental degradation.
4) The CAP is rightfully concerned about ground water recapture. Forests are the most adequate way to hold water that can then seep into the ground to replenish the aquifers.

How are you planning to address these issues?

Prevention is always a better option than solving the aftermath of destruction. Even though it may not be that measurable for reporting to the State, wouldn't preventing deforestation be a much better option than trying to remedy the aftermath?

B. How is the CAP planning to account for the emissions due the disposal of construction wood waste including it's hauling out of county if that is necessary?

C. Are you planning to use the most updated metrics available in creating the Climate Action Plan so that you are ahead of the game rather than having to catch up?

D. Based on the rapidly deteriorating climate, and the increasing need for the most updated climate science, will you open the CAP for additional review and modification in another year rather than waiting for 5 years?

Where and when may we find the County's responses to our questions and comments?

Respectfully,
Nancy McCoy-Blotzke nancymccoy@sonic.net

Virginia Gadilauskas

Lee Zuckerman zinjanthropus@mail.com

Heidi Williams

-----Original Message-----
From: Michelle Novi [mailto:MNovi@napavintners.com]
Sent: Thursday, March 09, 2017 3:09 PM
To: Hade, Jason
Cc: Morrison, David
Subject: NVV - Draft Climate Action Plan Comments

Hi Jason,

Attached is the NVV's comment letter on the Draft Napa County Climate Action Plan.

Thank you for all of the county's work on this important project.

Best,

Michelle

Michelle Novi, Industry Relations Manager Napa Valley Vintners
707.968.4206 - direct
mnovi@napavintners.com

napa valley vintners

March 9, 2017

Jason Hade
Senior Planner
County Administration Building
1195 Third Street, Suite 210
Napa, CA 94559

Dear Mr. Hade:

The Napa Valley Vintners (NVV), the nonprofit trade association representing more than 530 Napa Valley wineries, is a proud partner in the continued stewardship and protection of the Napa Valley's natural resources. The NVV is pleased to have the opportunity to provide comments on the Draft Napa County Climate Action Plan (Draft CAP). Our current strategic plan, which was created with abundant member input and approved by our Board of Directors, directs the NVV to fully support the adoption of a scientifically valid Climate Action Plan. We hope that these comments will be constructive and provide the Napa County (County) and Ascent Environmental with useful input.

1. **Building Energy Use**
   Building Energy Use is the County's largest source of greenhouse gas (ghg) emissions, accounting for 31% of total emissions in the County. The County should make reference to the purpose and role of the existing California Air Resource Board's (CARB) Refrigerant Management Program (RMP) and its role in limiting ghg emissions. We would encourage the County to examine extending CARB's RMP to apply to commercial HVAC systems using 300lbs of refrigerant or greater.

   We recommend that an additional measure be added to this section.

   > **(New Measure) BE-11:** Significant warehouse space exists in Napa County, particularly in the industrial areas in south County. The County will work with MCE and other stakeholders to develop a program designed to accept and encourage solar panel installation for Feed-In Tariff arrangements on warehouse roof space.

2. **On-Road Transportation**
   Measure TR-13 states that "the County will encourage solid waste services to convert diesel and gasoline solid waste collection vehicles to compressed natural gas or other alternative fuels, thereby reducing fleetwide emissions." TR-13 should be revised to

include the preferential purchasing of hybrid collection vehicles, which would utilize alternative fuels and electricity.

3. **Agricultural Measures**
We encourage the County to develop emission reduction measures for the agricultural sector that will be both realistic to implement and that will significantly reduce ghg emissions. We support local efforts to develop comprehensive "carbon-farming" resources and encourage the County to support these efforts by adopting associated "carbon-farming" policies in the CAP.

AG-1: As stated during the public meeting on February 23, 2017, burning agricultural debris is the only current feasible method of disposing of diseased or pest-infested vines. Industry groups have been vocal in advocating that growers implement Best Management Practices that minimize the release of particulate matter and to implement Biochar burns when feasible. The County is well positioned to help promote these efforts and we encourage the County and the Napa County Agricultural Commissioner's Office to actively share this information frequently. Open burning is a unique agricultural tool that should not be prohibited until there is a viable alternative. The NVV, while recognizing the value of this tool, is however supportive of the Bay Area Air Quality Management District developing refined guidelines about when agricultural debris should be burned and the condition of the debris (wet/dry) required in order to proceed with an approved burn. We recommend that AG-1 be revised to reflect these concerns and to place the emphasis of the measure on additional educational outreach.

AG-2: The assumption that all irrigation pumps will be converted away from stationary diesel or gas-power to electricity by 2020 is unrealistic. For many vineyards, powerlines don't run anywhere near existing or operationally possible pump locations. We encourage the County to work with PG&E, MCE and other utilities to provide incentives for the transition where feasible, but recommend that this measure is not adopted as a mandatory requirement.

AG-3: We support any County efforts to work with partners to provide additional incentives to vintners and growers to purchase alternatively-fueled equipment. However, because agricultural equipment is not replaced often, we recommend that this measure be implemented, but not adopted as a requirement for growers. Further, the emissions forecast for this measure be reduced.

AG-4: As champions of the Napa Green program, the NVV will recommend that the program encourages the adoption of Tier 4 final equipment whenever possible. However, given that agricultural equipment is only replaced when necessary, we cannot support AG-4 as an effective emissions-reducing measure.

4. **Water and Wastewater**
Measure WA-2: This measure should be revised to require that any new water conservation ordinance for commercial and residential land use that focuses on

limiting on-site outdoor water use provides that the use of graywater will be permitted.

5. **Land Use Change**

Measure LU-1: The Draft CAP should clarify what type of trees will be prioritized for preservation. For example, LU-1 as written would suggest that the removal of old, unstable Eucalyptus trees would require to be replaced at a 2:1 ratio.

Measure LU-2: We request that County staff provide more information about how existing regulations would be refined to ensure that no net loss of riparian lands will occur.

6. **Multi-Sector Strategy**

We applaud the County's proposed Multi-Sector measures. Each helps ensure a more sustainable future for our community by recognizing the value of existing programs, creative ideas and the necessity of working together to create more cohesive and substantial positive results.

MS-1: We strongly encourage all local jurisdictions and the County to partner on pursuing a unified, countywide climate action policy framework. Separate efforts created disjointed policies and do little to leverage the collective insights and potential solutions offered by a collaborative process. As an example, an immediate area in need of more interagency cooperation is around the issue of "hold and haul" for winery wastewater. There is a need to find financially viable alternatives that keep wastewater in Napa County. Not unlike the pressing issues of affordable housing and transportation, climate planning is another issue best addressed as a community.

MS-2: As founding members of the Napa Green program, the NVV is encouraged and supportive of measure MS-2 and Water-4. Currently, funding for the program is provided by the NVV, partner programs (Fish Friendly Farming and LandSmart), grants and through the County. More resources are needed in order to ensure the sustainability of the program to meet the ambitious objectives of MS-2. We support MS-2's analysis that increased staffing at the County is needed.

We recommend that the County and Ascent Environmental work with Napa Green staff to verify the annual wine production by volume in the County assumed by the Draft CAP attributable to Napa Green wineries and to verify other assumptions made about Napa Green, including emissions from waste processes.

7. **Additional Edits**

On page 4-8, the Draft CAP states that "the wine industry in Napa, which produces an average of **90 percent** of American wine…" This statistic is incorrect. Napa County harvests around 4% of all winegrapes grown in California. CA produces around 90% of all the wine made in the U.S. (*The Economic Impact of Napa County's Wine and*

Grapes, B.Insel, 2012). Extrapolating from this data, we are confident that Napa Valley Appellation grapes account for less than 4% of the wine sold in America.

8. **Appendix D**
   The Climate Action Plan Consistency Checklist (Appendix D) will be a vital document for all project applicants and decision-makers to evaluate the efficacy of a proposed project's ghg emission reduction features. Appendix D was not made available during this initial comment period. We request that the County provide no less than 45 days to interested stakeholders to review and comment on Appendix D, once it becomes available. Further, we request that Appendix D be made available to the public prior to the Napa County Planning Commission's review of the Draft CAP.

We look forward to continuing to work with the County, Ascent Environmental and other stakeholders to develop a viable, inclusive and scientifically valid Climate Action Plan for our community.

Sincerely,

Russell Weis
Chairman, NVV Community and Industry Issues Committee
President, Silverado Vineyards

L21

From: Jesse Ramer [mailto:jramer@napafarmbureau.org]
Sent: Thursday, March 09, 2017 2:53 PM
To: Hade, Jason; Jim Lincoln
Subject: Farm Bureau comment letter re: CAP

Hi Jason, thanks for the chance to collaborate / comment on CAP, attached please find Farm Bureau's letter.

Thanks for your work and please let us know if you have any questions, also copying Jim Lincoln our Natural Resources Committee Chairman.

Many thanks,

Jesse Ramer

NCFB Executive Director

(707) 224-5403 x103 | (707) 739-6232 cell

jramer@napafarmbureau.org

NAPA COUNTY FARM BUREAU

March 10, 2017

Submitted via email

Jason Hade
Napa County Planning, Building & Environmental Services
1195 Third Street, 2nd Floor
Napa, CA 94559

Re: Napa County's Draft Climate Action Plan

Dear Jason:

The Napa County Farm Bureau would like to thank the Department of Planning, Building & Environmental Services (PBES) for the opportunity to comment on the Draft Climate Action Plan.

We appreciate the work that the County has undertaken in identifying sources of greenhouse gas (GHG) emissions and ways to limit GHGs moving forward. Section 3.3.4 (Agriculture) and the table 3-6 "Summary of Agricultural Measures" raise concerns based on the following:

Ag-1 Prohibition of burning of Ag material – Greenhouse gases (GHG's) emitted from alternatives to ag burning would be substantial due to the labor and equipment required to separate the vines from the trellis, trellis removal, and subsequent vine removal. Vines would still be pushed into piles which then require chipping and disposal either back to the field or off site. All of this requires additional fuel. We would like to see an analysis of GHGs released based on this scenario. We are available to assist with assumptions of hours of labor and equipment required.

Ag-2. Farm Bureau wishes to confirm that the stationary engines mentioned in this order don't include frost pumps & fans. Engines used for frost protection are not significant generators of GHGs based on the low hours of run time per year usually in the 50 hour max range. Viably of irrigation pumps to be converted to electric is questionable because they are not near available power sources, and the cost of extending power to them would be prohibitive. Current rates for PG&E to bring power to a pump are in the $50/ft range on flat accessible ground. Many of these pumps are well over a 1000' from available power. In general the reason these pumps are not electric was because power wasn't available at the time of installation.

Ag-3. Electric or alternatively-fueled agricultural equipment (namely, tractors) is a laudable research topic but despite years of research and design efforts even a viable electric all-terrain vehicle has not yet been produced.

Ag-4. Tier 4 engines are extremely expensive and their viability is concerning based on their limited longevity. Tier 4 engines run significantly hotter than tier 3s and a 5% increase in efficiency over the tier 3s will quickly be offset by a reduction in engine life.

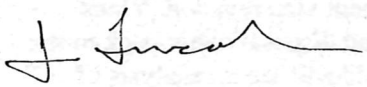
Napa County Farm Bureau and our members are focused on long-term land and resource stewardship and we look forward to collaboration with the County as the Draft Climate Action Plan is reviewed and finalized. We are concerned the current suite of ag measures wont achieve measurable results and suggest the county work with the Ag industry to identify real opportunities to sequester carbon and reduces GHGs. Exploring voluntary carbon farm planning and compost in place of synthetic fertilizer are just a few measures available.

The Ag industry can make a significant contribution to the CAP in the form of Carbon sequestration. It was shown in past iterations of the CAP that vineyards using standard practices are carbon neutral, however the potential to sequester carbon as soil organic matter (SOM) is very significant. A voluntary carbon farm plan of selected BMPs can greatly increase SOM. Practices such as using permanent cover and/or reduced tillage, applications of compost or growing winter legume cover crops are examples of BMPs which will build soil organic matter and sequester carbon.

Soil organic matter can be easily measured with a simple soil test to establish baseline quantities. From there voluntary target increases can be established with industry participation. Additionally, the COMET carbon farm planning tool is available from USDA-NRCS to help quantify actual carbon sequestered.

We feel this approach is something the Ag industry will embrace and be far more effective than the summary of Ag measures AG1-4

Sincerely,



Jim Lincoln, Natural Resources Committee Chairman
Napa County Farm Bureau

From:	Ron
To:	Hade, Jason
Cc:	mmoran@napagrowers.org
Subject:	CAP Implementation
Date:	Friday, March 10, 2017 10:14:49 AM
Attachments:	Napa Valley Grapegrowers Proposed CAP Comment Letter.pdf

Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards, as well as appreciate Napa County's effort to develop a comprehensive Climate Action Plan (CAP). As a vineyard owner and manager, the success of my business relies upon the protection of Napa Valley's environmental resources, and as such, I am a committed partner in working toward targeted reductions of GHGs to the benefit of the community at large as well as to the agricultural industry.

On a daily basis, my farming operation, which includes over three hundred acres in Napa County, has pioneered many of the best management practices (BMPs) used today in an effort to sequester carbon, including but not limited to:

- Low carbon farming
- Low impact farming including minimizing tractor passes
- Low or no-till practices
- Cover cropping strategies
- In field nitrogen replenishment
- Water conservation strategies including use of high technology moisture and vine monitoring
- Re-use of organic matter, as in the case of composting

I am very concerned about the potential implementation of regulations, that will have a very real effect on actual farming operations, in an industry that already has some of the most stringent environmental regulations in the World. Furthermore, I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers (*copy attached*) and request further clarification on the efficacy and costliness of proposed CAP measures. I believe that the County should recognize and take credit for the environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve (AP). Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place in other Bay Area jurisdictions since 1990.

Thank you for the opportunity to comment.

Sincerely,

Ron Wicker

P.O. Box 18
Rutherford, CA 94573

(707) 963-2251 Office
(707) 486-5800 Cell

ron@wickervineyards.com
www.wickervineyards.com

No Tasting Room?
Napa Valley Grower of the Year 2010
Napa Valley Gems - Marie Elena Martinez

YOUNT MILL
Vineyards

Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards, as well as appreciate Napa County's effort to develop a comprehensive Climate Action Plan (CAP). As a 5th Generation Grapegrower the success of my business relies upon the protection of Napa Valley's environmental resources, and as such, I am a committed partner in working toward targeted reductions of GHGs to the benefit of the community at large as well as to the agricultural industry.

On a daily basis, my farming operation, which includes 500+ acres in Napa County, employs many best management practices (BMPs) in an effort to sequester carbon, including but not limited to:

- Low carbon farming
- Low impact farming including minimizing tractor passes
- Low or no-till practices
- Cover cropping strategies
- Low nitrogen usage
- Low water usage
- Re-use of organic matter, as in the case of composting
- Use of modernized, fuel efficient equipment that is compliant with EPA Tier 4 standards

Furthermore, I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers and request further clarification on the efficacy and costliness of proposed CAP measures. I believe that the County should recognize and take credit for the environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve (AP). Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place in other Bay Area jurisdictions since 1990.

Thank you for the opportunity to comment.

Sincerely,

Kendall Hoxsey- Onysko

Business Manager, Yount Mill Vineyards

L24

Headquarters: 2235 Challenger Way, Suite 100
Santa Rosa, CA 95407
(707) 542-1579 Fax (707) 542-1008
Service Center: 625 Imperial Way, Suite 2
Napa, CA 94558
(707) 255-1040 Fax (707) 252-5330

March 10, 2017

Jason R. Hade, Planner III
Napa County Planning, Building & Environmental Services Department
1195 3rd Street, Suite 210
Napa, CA 94559

RE: Napa Climate Action Plan

Dear Mr. Hade:

The North Bay Association of REALTORS® (NorBAR) has been active in land use issues throughout Napa county. Our organization represents the interests of current and future homeowners. NorBAR is therefore interested in the County's efforts to reduce greenhouse gas emissions and preserve the County's natural features.

NorBAR believes that staff should revisit **GHG Reduction Measure: BE-6: Require new or replacement residential water heating systems to be electrically powered and/or alternatively fueled systems**.

The requirement that new or replacement residential water heating systems be electrically powered is not realistic for homeowners. When homeowners replace their water heaters, they do so because the existing water heater has failed, and therefore requires a quick installation. Most homes do not have the required 240-watt power needed for an electric water heater. This means that the cost to potentially upgrade the main electric panel is significantly more expensive than the water heater. The potential need to increase the home's electric capacity would add costs and increase the time to replace a water heater. Homeowners do not want to wait a week without hot water to have an electric water heater installed.

NorBAR is concerned that, given the potential time delays and costs of adding an electric water heater, homeowners will forgo permits and have the standard water heater installed. NorBAR recommends that this proposal become a voluntary measure with additional incentives such as adding solar panels. Furthermore, since residential uses comprise only a third of total building energy use, commercial and industrial buildings should be included in more reduction efforts.

Our organization looks forward to continuing to work with the County in preserving our community's natural resources.

Please feel free to contact Daniel Sanchez (707) 324-6610 or daniel@northbayrealtors.org, with the North Bay Association of REALTORS® to discuss this proposal.

Chris Wunderlich
Chair, Local Government Relations Committee
North Bay Association of REALTORS®

L25

Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards, as well as appreciate Napa County's effort to develop a comprehensive Climate Action Plan (CAP). As a grower and owner, the success of my business relies upon the protection of Napa Valley's environmental resources, and as such, I am a committed partner in working toward targeted reductions of GHGs to the benefit of the community at large as well as to the agricultural industry.

On a daily basis, my farming operation, which includes 21 acres in Napa County, employs many best management practices (BMPs) in an effort to sequester carbon, including but not limited to:

- Low carbon farming
- Low impact farming including minimizing tractor passes
- Low or no-till practices
- Cover cropping strategies
- Low nitrogen usage
- Low water usage
- Re-use of organic matter, as in the case of composting
- Use of modernized, fuel efficient equipment that is compliant with EPA Tier 4 standards

Furthermore, I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers and request further clarification on the efficacy and costliness of proposed CAP measures. I believe that the County should recognize and take credit for the environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve (AP). Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place in other Bay Area jurisdictions since 1990.

Thank you for the opportunity to comment.

Sincerely,

Donald Sodaro

Sodaro Wines, LLC

Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards, as well as appreciate Napa County's effort to develop a comprehensive Climate Action Plan (CAP). As a Wine Grape Grower, the success of my business relies upon the protection of Napa Valley's environmental resources, and as such, I am a committed partner in working toward targeted reductions of GHGs to the benefit of the community at large as well as to the agricultural industry.

On a daily basis, my farming operation, which includes three in Napa County, employs many best management practices (BMPs) in an effort to sequester carbon, including but not limited to:

- Low carbon farming
- Low impact farming including minimizing tractor passes
- Low or no-till practices
- Cover cropping strategies
- Low nitrogen usage
- Low water usage
- 2005-06-07 CCOF now sustainable farming
- Use of modernized, fuel efficient equipment that is compliant with EPA Tier 4 standards

Furthermore, I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers and request further clarification on the efficacy and costliness of proposed CAP measures. I believe that the County should recognize and take credit for the environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve (AP). Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place in other Bay Area jurisdictions since 1990.

Thank you for the opportunity to comment.

Sincerely,

J. James Meehan, GM and Co-Owner

Le Lagniappe Vineyards, LLC

From: David Wilson
To: Hade, Jason
Subject: Napa County Climate Action Plan
Date: Friday, March 10, 2017 10:52:51 AM

Dear Mr. Hade,

I am writing to express concerns with the draft Climate Action Plan. As a lifelong resident of rural Napa County and having followed a career in Agriculture, I am especially concerned with the potential impacts on the rural and Agricultural way of life in Napa. There has not been enough work done on specifics for the plan, and there has not been enough scientific evidence provided that a Climate Action Plan is necessary. Below are a few points:

- Has the carbon sequestration of vineyards, ranches, and orchards in Napa County been taken in to consideration? Especially in non-tillage farming operations?

- Where does Napa County stand in comparison with other Bay Area counties with Agricultural and Forested land vs. urbanized land? Has the Agricultural Preserve been considered for it's reduction in greenhouse emissions?

- Has any consideration been made to the potential economic impacts on smaller, family-owned ranches to modify/replace equipment and infrastructure?

- Why wouldn't the county be allocating more resources to addressing traffic congestion and infrastructure to reduce greenhouse emissions? The city of Napa and the towns within the County need more affordable housing, our workforce continues to commute from neighboring counties, which produces real greenhouse emissions. People should be able to live where they work.

In closing, I would like to encourage you and your colleagues to consider other priorities in this County.

Sincerely,

David Wilson

From: TrustMeJ@aol.com
To: Hade, Jason
Cc: Gregory, Ryan; publicworks
Subject: Napa county drafy climate action plan comments
Date: Friday, March 10, 2017 8:06:54 AM

Comments on Napa County's Draft "Climate Action Plan"

California's AB32 & its extension SB32 "Solution for Global Warming" have been challenged by court actions claiming they have not received the constitutionally required 2/3rds vote for new taxes. They specify reducing of 1990 green house gas (GHG) emissions 20% by 2020 and 40% below this level by 2030. The draft Climate Action Plan for the unincorporated portion of Napa county is based on these goals. Napa's draft includes "Netzero" requirements for new homes estimated to add $58,000 to the construction costs for a new home plus other actions including cap and trade options to comply with the new SB32 goals. This plan (like Obamacare) would mandate actions that residents have not voted for and do not want. Some examples; Electrical power would be mandated to be CALGREEN Tier1 adding to our existing highest in the nation energy bills, replacement or conversion of diesel or gas powered agricultural equipment with alternately fueled equipment, requirimg all new or replacement residential water heaters to be electrically powered. No cost considerations have been included for any of the measures dictated in this plan.
California residents are currently paying an estimated 12 cents per gallon for their gasoline to help fund unspecified climate mitigation actions. Additionally AB32 and SB32 have resulted in sales of "Cap and Trade" GHG offsets sold (primarily to fuel and energy companies) which are, or will be, passed on to the consumers in California. Since November of 2014 these GHG offset sales have totaled approximately $8 billion. Over half (~$5B) have gone to the CA general fund.
Measurements of effectiveness of climate actions are scientifically and technically impossible. None can be or have been identified as a result of implementing California's AB32, SB32 or cap and trade actions. They have had and will continue to have zero measurable effect on the climate while failing to accomplish their stated purpose. I believe residents should be better informed about the increased costs they are paying or will be paying to promote the outright fraud, deception and corruption of these California scams that purport to mitigate climate.

Jack Gray
Director, Napa County Taxpayers Association

Carbon Cycle Institute
245 Kentucky Street, Suite A • Petaluma, CA 94952 •
Phone: 707-992-5009 • web: www.carboncycle.org

March 10, 2017

Jason Hade, AICP, Planner III
Napa County Planning Building & Environmental Services Department
Planning Department
1195 Third Street, Suite 210
Napa, California 94559

Re: **Draft Comments and Recommendations on NAPA CAP**

Dear Jason Hade:

Thank you for your continued work and leadership on climate change in Napa County. Please find below our comments and recommendations on the draft Napa CAP. In addition to the suggested amendments and recommendations below, we wanted to highlight two important issues and gaps in the Napa CAP relative to agriculture.

Recognition and Inclusion of Baseline Climate Strategies in Agriculture

The NAPA CAP does not adequately capture existing baseline activities that are reducing GHG emissions, increasing carbon stocks, and creating climate resilience on working lands in the County. First, and most important, the ongoing on-farm conservation work of the Napa RCD in partnership with NRCS to plan, implement and maintain conservation practices on Sonoma farms and ranches are not adequately captured and discussed in the CAP. Second, the CAP excludes significant state, regional and federal policies, programs, and activities that support existing and future emissions reduction, carbon sequestration and climate adaptation impacts for agriculture in the County. CCI can provide specific language on the latter.

Carbon Sequestration Potential Absent Due to Emissions Inventory Focus

While recognizing that conventional CAPs have been emissions inventory-based, we remain concerned that this framework inaccurately depicts carbon sequestration and agricultural climate strategies as only qualitative measures and not quantifiable. And, in doing so, only "quantifiable" emissions from agriculture are given priority, although they may not be the most robust or scalable approaches in this sector. To be clear, the science and quantification methodologies exist and are robust for carbon sequestration, albeit different than typical emissions reduction approaches (see COMET-Planner tool by USDA/NRCS, which is being proposed by State of California for its Healthy Soils Program at the CA Department of Food and Agriculture).

The CAP should and can create a separate but equally important framework for carbon sequestration for working lands. We would recommend that the CAP establish a stronger platform for agricultural-based climate strategies by: 1) recommending that an assessment of

countywide potential for carbon sequestration on working lands be completed, tailored to the climate, soils and agricultural systems in the County; 2) a carbon sequestration target/goal be created for the agricultural sector based upon this assessment and in consultation with the agricultural community, including the RCDs and NRCS; and 3) identify near-term agricultural "best practices" that could be supported by the County that could be quantified and goals set assuming voluntary participation of farmers and ranchers in the County.

Comments and Recommendations (by page number)

iii: add Terrestrial Carbon Sequestration to the Glossary of Terms, e.g.; "the movement of carbon from the atmospheric pool to the vegetation and soil organic matter pools."

1-3: The climate science section does not provide any background on the carbon cycle and its fundamental role in climate change, including the importance of soils and vegetation/trees (terrestrial carbon pool) and oceans in carbon cycling and climate mitigation.

It also does not reflect the best scientific understanding of how to address climate change. Reducing GHG emissions is no longer optional, nor sufficient alone to address climate change and its impacts. Given the magnitude of human induced climate change and the projected catastrophic effects from continued global warming, reducing GHG emissions and net carbon removal have become an environmental and societal imperative. ***Per IPCC, below, emission reductions approaches are not enough. We must include an effective terrestrial sequestration component in the CAP if climate action is to be effective.*** California climate policy pillars reflect the importance of land-based (terrestrial) carbon sequestration, https://www.arb.ca.gov/cc/pillars/pillars.htm.

> "A large fraction of anthropogenic climate change resulting from CO2 emissions is irreversible on a multi-century to millennial time scale, ***except in the case of a large net removal of CO2 from the atmosphere over a sustained period.***"

1-5: This section is missing substantial state and regional level climate policies and programs focused on working lands and carbon sequestration, including the Governor's Healthy Soils Initiative, AB32 Scoping Plan (with working lands and carbon sequestration as one of the five pillars of state climate policy priorities), and several other state and regional initiatives focused on agriculture, working lands and climate: Sustainable Agricultural Land Conservation Program at Strategic Growth Council, CA Department of Food and Agriculture's Healthy Soils Program,. State Coastal Conservancy's Climate Ready Program, and BAAQMD's regional climate plan (which has sections with goals and strategies for agriculture and working lands related to carbon sequestration).

Section 2.2: The inventory seems to be missing significant reference to below and above ground carbon stocks, including accounting for current and past land and soil management efforts that have impacted those stocks.

Section 3.3.4. The agriculture/working lands section is missing readily available and feasible approaches to reducing greenhouse gases and sequestering carbon in its land base.

We would strongly urge the County to include the existing work of Napa RCD and other agricultural-based conservation strategies that reduce greenhouse gas emissions and sequestering atmospheric carbon in vegetation and soils, including carbon farming and Land Smart programs. These efforts can be scaled, with support from the Napa CAP and existing federal, state and regional programs focused on terrestrial carbon, healthy soils, and land restoration.

We recommend adding an agricultural measure to increase carbon sequestration on agricultural lands by setting a goal of one tonne CO2e per acre per year - a very modest estimate, based on modeling and empirical data (Lewis et al, 2015; Ryals and Silver 2013; Ryals et al 2015, Lal 2015, Lal 2004). Terrestrial carbon sequestration stands as a potent, cost effective, and largely unrecognized strategy for helping Napa County meet its climate change response goals. See the proposed agricultural measure below along with an analysis we have developed that estimates that potential for carbon sequestration on Napa agricultural lands assuming a 1% increase in soil carbon levels.

AG-5: Carbon Farming and Agricultural Carbon Sequestration

GHG Reductions by 2020: TBD MTCO2e per year
GHG Reductions by 2030: TBD MTCO2e per year

Engage 10% of Napa County's working lands in Carbon Farming by 2020 (and 2030?) to sequester carbon in soils and permanent vegetation and reduce GHG emissions on- farm.

Implementation:
Resource Conservation Districts and USDA-NRCS will work with Napa County farmers and ranchers to identify and implement climate-beneficial practices in conjunction with Regional, State and Federal incentive programs. The County would help to identify grant sources to fund projects with voluntary producer participation.

Measure Commitments:

10% of agricultural working lands engaged in carbon farming by 2020 (and 2030?), sequestering on average 1 tonne CO2e/acre.

Key Progress Indicators:

The number carbon farm plans developed

The quantity of CO2e sequestered/reduced

Climate-beneficial agricultural best practices (as identified by NRCS and State of CA)

PRELIMINARY DRAFT
CARBON SEQUESTRATION POTENTIAL
NAPA COUNTY AGRICULTURAL SOILS

This analysis provides estimates of the potential for carbon sequestration in agricultural soils of Napa County, including a subset of the county's grazing lands, assuming implementation of management practices resulting in a 1% increase in soil organic matter in the plow layer alone. Acreage values are from 2015 Napa County Crop Report. We look forward to working with the County, Napa RCD and others to further refine this analysis and to develop approaches to agricultural carbon sequestration and climate strategies on Napa's working lands.

Table 1. CO2e Potential of Napa County Agricultural Lands
with 1% increase in Soil C
(2015 Crop Report Acreage Data)

Crop Type	Acres	Assumed Available Acres	1% SOM increase, short tons	SOC increase, short tons	Metric tons CO2e
Range/Pasture	95,000	23,750	237,500	118,750	39,6154
Nursery	19	19	190	95	317
Hay	1,032	1,032	10,320	5,160	17,214
Wine Grapes	42,988	42,988	429,880	214,940	717,046
Orchards	140	140	1,400	700	2,335
Vegetables	32	32	320	160	534
TOTAL	**139,211**	**67,961**	**679,610**	**339,805**	**1,133,599**

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Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

On behalf of 700 grower and vineyard manager members, the Napa Valley Grapegrowers appreciates the County of Napa's efforts to develop a comprehensive Climate Action Plan (CAP) and the willingness to address questions, explain the program, and solicit feedback. NVG's mission 'to preserve and promote Napa Valley's world-class vineyards' makes us a committed partner in protecting Napa Valley's environmental assets. We understand the importance of developing a CAP that is both feasible and effective at preserving our local environment, to the benefit of the community at large as well as to the agricultural industry. Comments are provided with the following aims:

- To aid the County in understanding how proposed measures translate "in the field"
- To promote the implementation of a robust, science-based CAP that recognizes successful policies and best practices programs
- To ensure that proposed measures do not unintentionally increase the risk of crop losses
- To ensure that measures do not encourage growth inducing impacts leading to the loss of farmland
- To track the goals of the CAP against the landscape of current County regulations

NVG is supportive of the County's goals to reduce agriculture-related emissions, and furthermore, understands the County's need to adhere to standards regulated at the State level. However, after analyzing the proposed measures, we believe more clarification and further consideration is needed prior to adoption. The summary table below includes suggestions and our concerns related to the CAP as written.

SECTION	CURRENT LANGUAGE	COMMENT	SUGGESTION
Measure AG-1	Support BAAQMD in ending open burning of removed agricultural biomass and flood debris	- The county should not end open burning of agricultural crops for disease removal until providing a viable industrywide alternative to the agricultural community. As written, AG-1 does not account for cases in which vines are burned to prevent the risk of spreading pests,	- Promote the use of *NVG's Best Practices for Low Smoke Agricultural Burning* (CLICK HERE AND ATTACHED), which offers a 6-step approach to burning virtually smoke free. - NVG encourages the County to conduct a

Measure AG-1 continued		diseases, and pathogens that could have **detrimental** effects on Napa Valley vineyards. There is no suitable alternative method for this kind of disposal. - There is insufficient evidence to suggest that 236 MTCO2e/year will be reduced as a result of proposed alternative methods. Currently, the most cost effective, potential alternative to burning diseased vines would be to haul plant material to a landfill. Excessive organic matter buried under anaerobic conditions such as a landfill produces methane and other detrimental GHGs and competes for extremely valuable landfill space. - Burning also allows growers to effectively segregate recyclable trellis material from diseased grapevines, while other proposed methods make the recycling process more difficult and extremely expensive. For all proposed alternatives, the County should consider the effect of emissions resulting from hauling, machinery, and natural decomposition.	comparative carbon analysis of burning and proposed alternative methods that accounts for the long and short term of CO2 impact, in order to identify the most sustainable approach prior to adoption.
Measure AG-2	Convert all stationary diesel, or gas powered irrigation pumps to electric pumps	- This measure needs clarification. Does "gas powered" mean propane? Is biodiesel included in this? - NVG views the conversion of infrequently used, stationary pumps to full-	- This needs to be voluntary with a grant program put in place, similar to the Carl Moyer program that pays for replacement of old tractors with tractors that meet the EPA's Tier 4 requirements.

Measure AG-2 continued		time, on-demand electric power as a growth inducing impact. To what extent will the County do additional environmental impact studies prior to adoption? - Many vineyards have no other need for being serviced by PG&E. In most cases, use of this service will be infrequent, while still incurring extremely high standby costs. This measure seems growth inducing and a poor use of resources. - Current wait times for new PG&E service delivery can be a year or more. - To implement would require costly infrastructure and easements on properties, which may require tree removal for access. - The appearance of above ground power lines is inconstant with the rural beauty of our County.	- Provide clarification prior to adoption on the true financial and environmental costs of compliance, factoring in the lack of infrastructure at a significant number of vineyard operations. - Evaluate the true CO2 savings of this potentially growth inducing impact, if any.
Measure AG-3	Support use of electric or alternatively-fueled agricultural equipment	- This measure needs more clarification. - Does biodiesel qualify as an alternative fuel? - What types of agricultural equipment does this refer to specifically? - Has a comprehensive cost analysis been done? - Many vineyards have no other need for being serviced by PG&E. In most	- This needs to be voluntary with a grant program put in place, similar to the Carl Moyer program that pays for replacement of old tractors with tractors that meet the EPA's Tier 4 requirements. - Provide clarification prior to implementing on the true financial and environmental costs of compliance, factoring in the lack of infrastructure at a

Measure AG-3 continued		cases, use of this service will be infrequent, while still incurring extremely high standby costs. This measure seems growth inducing and a poor use of resources. - This measure may heighten risk related to protecting crops during a seasonal frost event.	significant number of vineyard operations. - Ensure that measures do not unintentionally create high-risk scenarios that could lead to crop losses.
Measure LU-1	Establish targets and enhanced programs for oak woodland and coniferous forest preservation and mandatory replanting	- There should be clarification on the type of modifications that will be made to County Code, particularly since Measures LU-1 and LU-2 appear to be in alignment with current General Plan policies, EIR processes, Conservation Regulations and other County policies. - If County Code changes voluntary BMP programs to mandatory, this action would require the County to undergo a costly EIR process.	- Take account of existing policies and voluntary BMPs as a pathway for future reductions of GHGs, as more vineyards become subject to requirements. - The County should continue successful efforts of encouraging and promoting conservation easements on working agricultural lands and other open space properties that help to achieve the outcomes desired by LU-1. - Ensure that any change made to County Code clarifies rather than creates duplication and complexity.
Measure LU-2	Refine protection guidelines for existing riparian lands	- Clarification is needed to ensure that this measure will not hinder ongoing restoration work, such as the *Napa River Rutherford Reach Restoration Project*, and similar projects. - Confirmation is needed that measures will not conflict with other entities such as the Army Corp of Engineers and the Department of Fish and Game.	- Take account of existing policies and voluntary BMPs as a pathway for future reductions of GHGs, as more vineyards become subject to requirements. - Clarify that changes in County policy will not prevent the removal of non-native disease hosts along riparian corridors. - Ensure that any change made to County Code

Measure LU-2 continued			clarifies rather than creates duplication and complexity.
1.3.2 Napa County	Over the last decade, the County has taken several steps to begin addressing climate change, sustainability, and reductions in GHG emissions…notable County efforts are highlighted below.	- It is good for the County to highlight steps already taken that address climate change, and the Ag Preserve should be included in this section as having been instrumental in preventing the urbanization that has taken place in other Bay Area jurisdictions.	- Acknowledge the benefits that have been achieved by the County's commitment to agriculture, specifically through the creation of the Agricultural Preserve. - Model after other counties' CAPs (i.e. Yolo and San Joaquin Valley) that recognize best practice standards and the valuable contributions made by working farmland and other open space. - Include measures to create funding and incentives to assist farmers in implementation of goals.

To elaborate on the above summary, NVG suggests that the County recognize that there is currently no viable industrywide alternative to burning for disease control. Furthermore, an all-out ban significantly increases the risk of spreading detrimental pests and pathogens that could have as devastating an effect as the European Grapevine Moth (EGVM). EGVM and most invasive pests are vectored by moving vine material, including chipped and woody debris. The recent eradication of EGVM required mandating federal and state permits, inspections, quarantine zones, and strict restrictions on movement of all grapevine plant material—at the cost of $115 million in public and private funds. Dozens of vineyard pests currently pose a similar threat, where moving material from a vineyard to other locations could hasten their spread. As such, grapevine woody debris is best disposed of on-site and through disease eliminative processes such as burning.

However, recognizing the need to preserve air quality and reduce the occurrence of smoky burns, NVG instituted a Vineyard Burning Task Force in November 2015 that has since developed a low-impact burning technique and best practices program. This program promotes proper vine drying times, removing excess dirt, and tarping to keep the center of the piles dry prior to burning. The result is a virtually smoke-free burn (similar to methods used to burn for biochar). Since its inception, NVG's Vineyard Burning Task Force is hosting its second annual 'Best Practices for Agricultural Burning' event for vineyard managers and crews. NVG also broadly provides educational resources on these best practices to the Napa community through the Agricultural Commissioner's office.

The costliness of complying with AG-1, AG-2 and AG-3 must also be addressed. NVG has significant concerns over the effect these measures may have on the economic viability of farming operations. A vine's relatively long life-cycle necessitates structural and financial planning that projects at least 20 to 30

years ahead. AG-2 and AG-3, in particular, will force landowners mid-cycle to make costly, un-forecasted changes to vineyard infrastructure and agricultural equipment regardless of long-term farm plans. Furthermore, many vineyards in Napa County do not have access the PG&E services, rendering the proposed measure unduly difficult to comply with.

NVG wants Napa County to achieve its targeted reductions and play an active role in the process. At the same time, the County has proposed agricultural measures that represent extremely high costs for implementation. When taking a comprehensive look at the draft CAP, and given the aforementioned concerns, NVG has two important additional questions:

1. Can the County provide evidence that the draft mitigations effectively sequester carbon within the proposed timeline?
2. Can the County provide a comprehensive cost analysis that measures these costs against the overall impact of proposed mitigations?

It is also important to note that NVG considers the intended outcomes--the actual GHG reduction goals—to be both commendable and feasible. In the interest of these outcomes, NVG urges the County to compare common soil tillage practices pre-1991 to those broadly adopted as a result of the Conservation Regulations established at that time. Beginning in 1991, Erosion Control Plans (ECPs) mandated practices such as permanent cover cropping that have since resulted in significant increases in carbon storage. Does the County's current analysis recognize this extremely important factor in carbon sequestration?

If the County's analysis does not include this factor, we encourage you to estimate the amount of carbon sequestration that has occurred. The Track II ECP process for replants requires vineyards that exist on slopes greater than 5% to retain permanent or every other row cover crops where previously not required. We feel this carbon inventory and reduction in CO2 emissions is significant and may achieve many of the reduction targets the CAP seeks. The County should recognize and take credit for this foresight in setting up a mechanism with continued returns as was done with the implementation of ECPs.

Finally, when considering the path forward, NVG hopes that the County recognizes the environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve. Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place since 1990. According to the Bay Area Air Quality Management District,

> *"Over the past 50 years, a large amount of agricultural land has been converted to urban/suburban uses in the Bay Area, with losses of over one-third of farmland. Agricultural lands are currently under threat from development in the Bay Area. In addition to the loss of habitat, carbon sequestration, and other ecological benefits of agriculture, conversion of farmland to urban/suburban uses also results in higher emissions of GHGs, as urban/suburban land use is associated with greater emissions of GHGs and other air pollutants."*[1]

[1] http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/agriculture_sector-pdf.pdf?la=en

Furthermore, analyses have found that an acre of agricultural land on average produces 58 times fewer GHG emissions than an acre of urban use.[2] Therefore, when proceeding in the development of the CAP, NVG urges the County to be mindful of recognizing the environmental accomplishments of the Ag Preserve and to craft measures that prevent, rather than promote, the conversion of agricultural land.

Thank you again for the opportunity to comment.

Sincerely,

Garrett Buckland
President, Napa Valley Grapegrowers

cc: Director David Morrison, Napa County Department of PBES

[2] http://www.farmlandinfo.org/sites/default/files/AFTCrop-UrbanGreenhouseGasReport-Feburary2015%20Edited%20May2015.pdf

March 10, 2017

Jason Hade, AICP, Planner III
Napa County Planning Building & Environmental Services Department
Planning Department
1195 Third Street, Suite 210
Napa, California 94559

RE Comments and Recommendations for Draft Napa Climate Action Plan (CAP)

Dear Mr. Hade:

Thank you for your ongoing efforts to lead development of a climate action plan (CAP) for Napa County that will address the challenges of climate change and improve our community's resilience over the long term. A forward-thinking and dynamic plan is needed to take advantage of GHG reduction and carbon sequestration opportunities to maximize co-benefits now and into the future. Within the draft CAP, the Napa County Resource Conservation District (RCD) recognizes a significant gap relative to the contribution that agriculture can make to mitigate climate change and build resilience into our agricultural systems.

While recognizing that conventional CAPs have been emissions-inventory-based, we are concerned that the framework inaccurately depicts carbon sequestration and agricultural climate strategies as only qualitative measures. In emissions-inventory framework, only "quantifiable" emissions from agriculture are given priority and these may not be the most robust or scalable approaches for the agricultural sector. Albeit different than typical emissions reduction approaches, scientific quantification methodologies exist and are robust for carbon sequestration, (see COMET-Planner tool by USDA-NRCS, which is being proposed by the State of California for its Healthy Soils Program at the California Department of Food and Agriculture).

We recommend that the Napa CAP create a separate but equally important framework for carbon sequestration in the agriculture section of the plan. Specifically, we recommend that the Napa CAP establish a stronger platform for agricultural-based climate strategies by: 1) completing an assessment of countywide potential for carbon sequestration on working lands, tailored to the climate, soils and agricultural systems in the County; 2) establishing a carbon sequestration target/goal for the agricultural sector based upon this assessment and in consultation with the agricultural community, Napa County RCD, and the Napa Field Office of the USDA-NRCS; and 3) identifying near-term agricultural "best practices" to help meet established goals that could be supported by the County, quantified through COMET-Planner, and implemented through voluntary participation of farmers and ranchers in Napa County. Attached to this letter is a preliminary estimate of carbon sequestration potential for Napa County Agricultural Lands, developed by Carbon Cycle Institute, assuming the agricultural community established a goal of increasing soil organic matter in their agricultural operations by 1%. This analysis is provided for example purposes only, but Napa County RCD and our partner Carbon Cycle Institute are committed to assisting Napa County in more fully exploring the potential of carbon sequestration in agricultural lands as Napa County revises the draft CAP.

Napa County RCD, as part of California's Healthy Soils Initiative and the USDA's Soil Health Initiative, has been working with USDA-NRCS, partners of the Marin Carbon Project, Carbon Cycle Institute, California Department of Food and Agriculture, and RCDs throughout the State to better understand the potential of agricultural landscapes to sequester carbon through conservation practices. While these efforts, programs, and quantitative tools are still evolving, as is much of climate science, Napa County RCD is actively engaged and is piloting the concept of "carbon farm planning" at our sustainable demonstration vineyard and with a handful of other pilot vineyards in Napa County. Several standard USDA-NRCS practices have been identified as "climate beneficial" by USDA-NRCS and can help the agricultural industry increase soil organic matter in their soils. Such practices include but are not limited to: mulching/compost application, tillage management, nutrient management, riparian restoration, and tree/shrub establishment (a practice already recognized in the land use section of the draft CAP). Addition of a framework for carbon sequestration in the Napa CAP will recognize the benefits of soil management and conservation practices and will provide growers with reasonable options beyond the traditional GHG reduction strategies that are currently included in the draft CAP.

Through omission of carbon sequestration in the Napa CAP as a mechanism for agriculture to address the challenge of climate change and improve community resilience, Napa County is missing an important opportunity to meet local goals and to align local actions with significant state, regional and federal policies, programs and activities that support existing and future emission reduction and carbon sequestration opportunities. Though omission, Napa County also misses the opportunity to account for the co-benefits of agricultural practices that sequester carbon, benefits such as protecting water quality, improving water holding capacity of soil, and creating habitat.

Thank you for the opportunity to provide comments to Napa County's Climate Action Plan. The plan is important to our community. Our community deserves a plan that will provide a framework to meet our goals and set us up to take advantage of a variety of State and Federal programs that are in place to help communities build a more resilient future.

Sincerely,

Leigh Sharp
Executive Director
leigh@naparcd.org

PRELIMINARY DRAFT
CARBON SEQUESTRATION POTENTIAL
NAPA COUNTY AGRICULTURAL SOILS

This analysis provides estimates of the potential for carbon sequestration in agricultural soils of Napa County, including a subset of the county's grazing lands, assuming implementation of management practices resulting in a 1% increase in soil organic matter in the plow layer alone. Acreage values are from 2015 Napa County Crop Report.

Table 1. CO2e Potential of Napa County Agricultural Lands
with 1% increase in Soil C
(2015 Crop Report Acreage Data)

Crop Type	Acres	Assumed Available Acres	1% SOM increase, short tons	SOC increase, short tons	Metric tons CO2e
Range/Pasture	95,000	23,750	237,500	118,750	396,154
Nursery	19	19	190	95	317
Hay	1,032	1,032	10,320	5,160	17,214
Wine Grapes	42,988	42,988	429,880	214,940	717,046
Orchards	140	140	1,400	700	2,335
Vegetables	32	32	320	160	534
TOTAL	**139,211**	**67,961**	**679,610**	**339,805**	**1,133,599**

From: Jerry Bernhaut
To: Hade, Jason
Subject: Re: Questions regarding Napa Climate Action Plan
Date: Friday, March 10, 2017 7:58:09 AM

Mr. Hade,

Thank you for this detailed response. Based on the acknowledgement that the model used by the Napa CAP does not include VMT beyond he bay area region and he reality that Napa County includes facilities, vineyards and wineries producing wine for global distribution, and based on the fact that Napa County is a major tourist destination, the Napa CAP is grossly understating GHG emissions generated by activities in Napa County. These same allegations are the basis of my current legal action against the Sonoma County CAP. The hearing is today and Judge Shaffer has indicated she is inclined to rule in our favor.

Please submit these comments to your staff.

Thank you,

Jerry Bernhaut

On Fri, Mar 3, 2017 at 3:04 PM, Hade, Jason <Jason.Hade@countyofnapa.org> wrote:

> Mr. Bernhaut,
>
> I followed up with our consultant team and have the following responses for you.
>
> Thanks.
>
> **Jason R. Hade, AICP**
>
> Planner III
>
> County of Napa Planning, Building, & Environmental Services
>
> Planning Division
>
> 1195 Third Street, Suite 210
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From: Jerry Bernhaut [mailto:j3bernhaut@gmail.com]
Sent: Monday, February 27, 2017 2:20 PM
To: Hade, Jason; Jim Wilson
Subject: Questions regarding Napa Climate Action Plan

Mr. Hade,

I attended the workshop on Thursday but I did not have the opportunity to ask the following related questions regarding the methodology for calculating VMT from on-road transportation. Hopefully I can get a response from yourself or the gentleman who made the presentation.

1. Regarding the passenger vehicle trip accounting method- for internal-external or external-internal trips- what range of external origins or destinations are included in calculating vehicle miles traveled based on the MTC regional travel demand model? Are trips to or from anywhere in the U.S. included, anywhere in the State of California, or is it limited to trips to or from certain regional travel zones? MTC uses an activity-based travel demand model to estimate overall VMT by region and sub-region. This activity-based model is primarily based on analyzing travel behavior of the population within the Bay Area region. Thus, the VMT estimated by MTC and used in the CAP do not include trips originating outside of the region. Further explanation of MTC's methodology can be found in the attached white paper published by MTC entitled, "Using Activity-based Travel Models to Inform Climate Action Plans: A Proposed Approach" published in August 2011.

2. How is commercial VMT distinguished from passenger VMT, i.e. how is a commercial trip defined as opposed to a passenger trip? MTC uses the ratio between commercial and passenger VMT modeled by ARB in the EMFAC model and applies this ratio to the overall VMT estimated by their travel demand model. MTC assumes passenger trips are represented by the light duty vehicle categories in EMFAC (i.e., light duty auto, light duty trucks, medium duty vehicles, motorhomes, and motorcycles) (See the EMFAC2011 vehicle category definitions attached and here: https://www.arb.ca.gov/msei/vehicle-categories.xlsx). Commercial trips are assumed to be represented by all other categories.

3. Where commercial VMT is scaled based on the ratio between passenger VMT calculated by the RTAC method (origin-destination) and passenger VMT calculated by the boundary method, wouldn't this involve an inherent bias to understate commercial VMT beyond county boundaries. Passenger VMT within county boundaries would include many commute trips and other routine daily trips as compared to what is probably trips within regional boundaries (depending on the answer to question 1).

Whereas commercial trips within county boundaries would be a smaller per cent of regional commercial trips. Section 1.5 of the *Revised Final Technical Memo #1* (August 25, 2016) acknowledges the issue of boundary-method based commercial VMT being inherently lower than if the commercial VMT was estimated using the RTAC method. See the excerpt below from the technical memo for the method used to adjust commercial VMT.

> *As a proxy, the available commercial VMT was scaled based on the ratio between passenger VMT calculated by the RTAC method (available from MTC) and passenger VMT calculated by the boundary method (calculated from Caltrans VMT data) (Caltrans 2014:72, Caltrans 2016). This alternative method for estimating commercial VMT is consistent with MTC recommendations (Brazil, pers. comm., 2016).*

4. Does the Napa CAP, similar to the Sonoma CAP, exclude any calculation of VMT emissions from travel by air or sea? Yes, the Napa CAP excludes emissions from air and maritime travel.

Thanks for your attention.

Jerry Bernhaut

Napa Group,
PO Box 5531
Napa, CA 94581

March 10, 2017
To: Planning Director David Morrison
From: Napa Group Sierra Club
RE: Comments on Napa County Draft Climate Action Plan

Director Morrison:

Thank you for requesting public comment on the Draft Climate Action Plan (CAP). We appreciate that past comments and suggestions were taken into account and used to improve the Measures of the plan.

Please consider our suggestions, questions and observations offered below.

1) Overall Comment
The CAP measures GHG emissions and reductions in terms of metric tons of CO2 equivalents ($MTCO_{2e}$/year) using a 100-year Global Warming Potential (GWP_{100}) to calculate the value of emissions. Reducing CO2 emissions is important for the long term, however both the State Air Resources Board (ARB) and the regional Bay Area Air Quality Management District (BAAQMD) are shifting the focus on reducing emissions of short-lived climate pollutants (SLCP's), the ARB designation, or "super GHG's", the BAAQMD designation, in order to achieve a meaningful near-term reduction in emissions. To that point, in the near future there will be state and regional goals for the reduction of these compounds: methane, black carbon, hydrofluorcarbons, and other high GWP gases. In addition, both ARB and BAAQMD use updated GWP values to evaluate these emissions and their reductions.
    - Question: How can the CAP inventory be expanded to show super-GHG and black carbon emissions for each sector and each proposed reduction measure?
    - Question: How can the CAP be automatically updated to come into compliance with new state and regional goals in a 6-month timeframe (rather than the current 5 years)?

2) Comments on specific measures

    - Measure BE-10: Provide metrics showing the reduction in emissions if wood waste is used to generate electricity in a biomass gasification plant

vs. being disposed of through shipping out of county or through landfill burial. (This may also be included in Measure SW-2)

- Measure TR-1: Include language that says "The Transportation System Management Ordinance will establish a measurable target in terms of Vehicle Miles Travelled (VMT)."

- Measure AG-1: Show assumptions and data for this. They are missing from Appendix B, Reduction Measure Quantification.
  We support the County's participation in the development of a wood waste to energy plant.

- Measures WA-3 and WA-4: Include language that incentivizes installation of low-emission winery wastewater treatment methods and use of recycled water in winery operations.

- Measure LU-1:

  We would like some clarification regarding this measure, which reads:

  "Establish targets and enhanced programs for oak woodland and coniferous forest preservation and mandatory replanting".

  The discussion of LU-1 states "Trees that cannot be preserved will be required to be replaced at a 2:1 ratio, consistent with GP policy CON-24….. Considering County resources, staffing and physical space limitations on available lands, it is assumed that an average of 2,500 replacement trees will be planted per year beginning in 2017. This target could be achieved by a combination of existing or enhanced volunteer replanting efforts (e.g. 5000 Oaks Initiative) and compliance with the County's 2:1 tree replacement policy".

- LU-1 states that replanting is "mandatory", and the discussion refers to a requirement for a 2:1 ratio. However, the discussion seems to project a ceiling of 2,500 trees annually to be replanted, and that the number actually replanted depends on County resources, staffing and physical space limitations. This seems to be a contradiction.

  Question: Is 2:1 replanting mandatory, or is it mandatory only up to the limit of County resources? That is to say, is the County's program of planting 2,500 trees in addition to the requirement for 2:1 replanting, or does the 2,500 trees relieve project developers of any further replanting requirement?

Question: Given that the amount of County resources dedicated to replanting can fluctuate based on policy and on budgetary limitations, is the annual goal of 2,500 trees guaranteed, or could the actual number replanted be only 250, or 25 or zero, depending on the available County resources?

The 2008 General Plan Update EIR predicted 12,500 acres of new vineyards between 2005 and 2030, with a loss of between 2,682 and 3,065 acres of woodlands.

If we accept the lower number (2682 acres) of woodland, and divide it by the 25 year span of 2005 – 2030, it averages out to a loss of 107 acres of woodland annually. In the 13 years remaining until 2030, that would be a total of 1395 acres.

Ron Cowan, an expert on Napa oak woodlands, cites the Forest Service, Forest Inventory Data Online (FIDO)5 2011-2015 dataset which estimates Napa County oak woodlands stocking to be ±70 trees per acre for ≥ 3 inches dbh, which is the tree size standard established by the state's Climate Action Reserve Forest Project Protocol to measure countable tree carbon stocks. (The Walt Ranch project averaged 107 trees per acre of woodland, at ≥ 5" dbh.)

Based on these numbers, average annual tree loss due to land use change is projected to be 7,490, and mitigation by replanting at a 2:1 ratio would require an average of 14,980 trees be planted annually.

Therefore, if the intent of LU-1 is to limit required replanting to 2500 trees annually, and if the above projections of tree loss are accepted, then LU-1 is woefully inadequate, because at best the annual County replanting upper limit of 2500 trees will mitigate for only 17.9 acres of woodland destruction, which is less than 17% of the projected annual woodland lost.

If all replanting efforts are the County's responsibility, we would question why the cost for the mitigation should be assumed by County taxpayers and volunteers.

Recommendations for LU-1:

Clarify the language to remove the uncertainty about whether the County's planting program constitutes the sole replanting mandate for projects which remove trees.

- LU-1 prioritizes preservation of existing trees on converted lands. We suggest that the preservation target of 30% be increased to at

least 50%. The preservation of healthy forest ecosystems (not simply individual trees) is important to capturing GHG emissions and carbon sequestration.

- Include language that requires accounting for direct and indirect changes in GHG emissions and carbon sequestration due to the project

- The implementation of the replacement rate of 2:1 is not specified. Planting and replacement measures should be spelled out in terms of survival rates (i.e., 80% of plantings must be well-established, meaning healthy and growing, after 5 years).

- Measure LU-3: We support this measure and would like to see wood waste from land conversions used to fuel a local biomass gasification power plant rather than buried.

- Impacts of LU-1 through LU-3:

  - County General Plan Policy CON-65 states that the County "strives to maintain current levels of CO2 Sequestration". AB 32 includes a goal to maintain the current amount of carbon sequestration in forests in California. The Sierra Club agrees that a goal of no net decrease in carbon sequestration capacity is appropriate for Napa County.

    Question: Given the projected loss of woodland carbon sequestration of 2800 acres or more, what is the projected saving in woodland carbon sequestration between 2017 and 2030 if this CAP is adopted with the current Land Use mitigation measures, vs. if no CAP or other new measures are adopted? In other words, can you quantify by how much the measures in this CAP will move Napa County closer to the goal of no net loss of carbon sequestration?

  - The Sierra Club, as well as other organizations, has commented on several projects over the years regarding the lack of mitigation for GHG effects. In almost every case the County has responded that the individual project was too small to have a significant impact on the County's GHG balance. (See attached letter from the County responding to our comments on the Galatea vineyard conversion –Dgalatea Vineyard EIR).

    Question: What threshold will be applied to determine if projects which destroy trees are subjected to the mandatory GHG mitigation measures for carbon sequestration loss?

3) Requests for additional measures
    - Update accounting of F-gas use in industrial settings such as wineries, warehouses and resorts. Then develop a measure to incentivize use of low-GWP refrigerants. The current CAP inventory is based on population and does not take into account the heavy use of refrigeration by our main industries.

    - Develop a Land Use measure that incentivizes carbon farming plans, such as those being developed by the Napa County Resource Conservation District, to increase carbon sequestration on agricultural lands.

4) Climate Accounting
   As we have previously recommended to the County Planning Department, the climate accounting methods currently in use are woefully out of date. For instance, methane is undervalued by 4- to 5- times, and the contribution to regional tropospheric ozone, a short-lived climate pollutant, is left out altogether. While the County is understandably tied to the accounting methods currently in use by the State, it would be beneficial for the County to simultaneously reassess its footprint using up-to-date climate accounting protocols based on Radiative Force Management, derived from the IPCC Fifth Assessment framework.

   The benefits to the County of applying the updated climate accounting protocols would be as follows: 1) a much better understanding of our true climate footprint, and the chief sources contributing to this footprint; 2) a clearer understanding of the type and scale of response needed to offset this footprint, with a focus on the mitigation actions most beneficial in the near-term; and 3) an opportunity to set an example for the State of California and other counties struggling to understand how to address the issue of short-lived climate pollutants.

5) Feasibility of proposed measures
   At the public meeting on February 23, several commenters questioned the feasibility of some of the CAP measures. In particular, Measure BE-6 (water heaters) and the AG Measures were called into question regarding their ability to be implemented and thus, their ability to provide the estimated GHG reductions. Measure BE-6 and Measure AG-3 are two of the top five measures providing the most reductions. If indeed these aren't feasible, our plan will need a major overhaul.

6) CAP Consistency Checklist
    - What threshold of increase in GHG emissions are required for a project's emissions require mitigation?

- Will the Bay Area Air Quality Management District's Threshold of Significance continue to be used for projects in Napa County? This allows an annual increase of 1100 mTCO2 eq.
- When will the CAP Consistency Checklist be available for review?
- Will there be a comment period for the CAP Consistency Checklist?

We look forward to seeing the responses to comments. Please let us know when those will be available.

Respectfully,
Chris Benz
Chair, Napa Group Sierra Club

Conservation Development and Planning

1195 Third Street, Suite 210
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Main: (707) 253-4417
Fax: (707) 253-4336

Hillary Gitelman
Director

A Tradition of Stewardship
A Commitment to Service

TO: Application File #P10-00018-ECPA

FROM: Daniel Zador, Planner II

DATE: January 26, 2011

RE: Response to Comments on Galatea Vineyard Conversion
File# P10-00018-ECPA: SCH# 2010102023: APN: 021-420-008

INTRODUCTION

This memorandum has been prepared by County staff to respond to comments received by the Napa County Conservation, Development and Planning Department (Napa County) on the Initial Study/ Proposed Mitigated Negative Declaration (IS/PMND) for the Galatea Vineyard Conversion #P10-00018-ECPA (the proposed project). An Initial Study/Mitigated Negative Declaration is an informational document prepared by a Lead Agency, in this case Napa County, that provides environmental analysis for public review and for the agency decision-makers to consider before taking discretionary actions related to any proposed project that may have a significant effect on the environment. The IS/PMND for the proposed project analyzed the impacts resulting from the project and found the impacts to be less than significant with imposition of certain mitigation measures.

This memorandum for the Galatea Vineyard Conversion #P10-00018-ECPA IS/PMND presents the name of the persons and/or organizations commenting on the IS/PMND and responses to the received comments. This memorandum, in combination with the IS/PMND, completes the Final Initial Study/ Mitigated Negative Declaration.

CEQA PROCESS

In accordance with Section 15073 of the CEQA Guidelines, Napa County submitted the IS/PMND to the State Clearinghouse for a 30-day public review period beginning on October 17, 2010. In addition, Napa County circulated a Notice of Intent to Adopt the IS/PMND to interested agencies and individuals. The public review period ended on November 16, 2010. During the public review period, Napa County received two comment letters on the IS/PMND. Table 1 below lists the entities that submitted comments on the IS/PMND during the public review and comment period. The comment letters are attached.

TABLE 1

PERSON(S) COMMENTING ON DRAFT IS/MND

Comments Received from	Date Received
Department of Forestry and Fire Protection (Kimberley Sone)	November 8, 2010
Kenyon / Yeates LLP (Bill Yeates on behalf of Napa Sierra Club)	November 10, 2010

In accordance with CEQA Guidelines Section 15074(b), Napa County considers the IS/PMND together with comments received, both during the public review process and before action on the project, prior to adopting the IS/PMND and rendering a decision on the project. The CEQA Guidelines do not require the preparation of a response to comments for mitigated negative declarations; however, this memorandum responds to comments received. Based on review of the comments received, no new, potentially significant impacts beyond those identified in the IS/PMND would occur, no mitigation measures or project revisions must be added to reduce impacts to a less than significant level and none of the grounds for recirculation of the IS/PMND as specified in State CEQA Guidelines Section 15073.5 have been identified. All potential impacts identified in the IS/PMND were determined to be less-than-significant.

RESPONSES TO COMMENTS

Comment Letter No. 1: Department of Forestry and Fire Protection (Attachment A)

Response to Comment #1.1: The commenter is correct that the proposed project site is located in areas that contain oak woodlands. Consistent with the recommendation by the commenter, the project applicant has retained and utilized the services of a professional biologist to assess biological impacts including the potential impacts to oaks. In this case, the project biologist found the loss of oak woodland less than significant. As discussed on page 12 of the IS/PMND also under Biological Resources, "the biological reports confirm that 2.1 acres of oak woodlands are proposed to be removed within the project site. However, the project parcel is 46.45 acres in size, which would result in retention of greater than 95% of the trees on the project parcel, or a preservation ratio of greater than 22:1. With the project's proposed design, approximately 95% of the trees on the project parcel would be retained. The proposed project site is largely the only area with natural slopes less than 30%. The trees remaining after the development of the proposed project are located on slopes greater than 30% and as a result are protected by the County Conservation Regulations." Therefore, future development of the existing 42 acres of oak woodlands is of very low likelihood.

This comment does not claim the project would have any specific potentially significant impacts, it simply recommends the retention of an environmental professional to evaluate oak woodland removal, which has been accomplished by the applicant. Since this paragraph does not identify any impacts, no further response is necessary.

Response to Comment #1.2: The commenter identifies California Public Resources Codes and Regulations pertaining to fire and life safety related to roadways, driveways, turnarounds, and emergency water standards. However, no new structures, improved roadways, or emergency water

systems are proposed by the project, so these codes and regulations do not apply to the proposed project. Moreover, the project parcel has an existing residence and associated driveway that was constructed according to building code standards. The proposed vineyard avenue that connects to the driveway would only access the vineyard blocks and would not need any emergency access. As stated on page 28 of the IS/PMND under Transportation/Traffic, "All interior roads have been designed to comply with County of Napa standards, resulting in adequate access for emergency vehicles such as fire engines and ambulances." Thus, there is no impact.

Comment Letter No. 2: Kenyon / Yeates LLP (Attachment B)

Response to Comment #2.1: Napa County's Local Procedures for Implementing the California Environmental Quality Act (Napa County Procedures) were first adopted in 2004, and first amended in August 2006. Pursuant to State CEQA Guidelines Section 15022(c), Napa County has 120 days (after the effective date of amendments to the State CEQA Guidelines) to review its local procedures for implementing CEQA to see if changes are needed to reflect changes in the State Guidelines. As indicated by the commenter the State CEQA Guidelines were recently amended, which included a number of sections related to greenhouse gas emissions as well as a revised Initial Study checklist (Appendix G). The checklist is commonly used -- with or without local amendments -- by local lead agencies in conducting Initial Studies pursuant to CEQA and the State CEQA Guidelines (Section 15022.a.2 State CEQA Guidelines: http://ceres.ca.gov/ceqa/guidelines/).

In response to these revisions Napa County adopted a new checklist, consistent with the recently adopted version found in the State CEQA Guidelines at a County Board of Supervisors public hearing held on September 14, 2010. The County adopted Initial Study checklist includes, among other things, a specific section on Greenhouse Gas Emission (Section VII). The new initial study checklist will be used in future environmental reviews. Furthermore, the IS/PMND for the subject proposal was completed around the time the new checklist was adopted and the public review period commenced on October 17th, about a month after the adoption of the new Initial Study checklist by the County. Given that all topics were addressed in the document prepared, revising the document to embrace the new format was not deemed necessary.

Response to Comment #2.2: In light of the evidence in the record, including carbon cycling/climate change calculations available to the County from other similar projects proposing to develop lands with native vegetation to vineyard, the County conducted an analysis using the most relevant information in the proposed IS/MND to attempt to determine the significance of potential impacts.

As indicated in the IS/MND, the County is currently working on a Climate Action Plan (CAP) that will include measures to reduce potential impacts associated with GHG emissions; however, it has not yet been completed. This effort includes updating and revising a Green House Gas (GHG) emissions inventory and "Climate Action Framework" prepared by the Napa County Transportation and Planning Agency (NCTPA) to better account for agricultural emissions. It is expected that the CAP will be a "qualified" plan meeting criteria established by the Bay Area Air Quality Management District (BAAQMD), and will contain specific measures to reduce emissions from agricultural

development and operations. Even though a CAP has not yet been adopted this has not prevented the County from conducting a thorough review of agricultural development projects.

As discussed in Section III (Air Quality) of the IS/PMND the County has evaluated the significance of one-time project-generated emissions of ±337.3 MT CO2e by considering the size of the proposed vineyard in relation to projected vineyard development in the County. The County also considered other factors in its analysis, including the applicable elements of the recently adopted Guidelines prepared by the Bay Area Air Quality Management District and the applicant's commitment to "best practices" including maintaining a permanent cover crop within the project area. Since publication of the IS/PMND, the applicant has informed the County of tree plantings and oak tree preservation work conducted on the property to date, including: planting at least 25 oak trees, approximately 25 orchard and landscape trees, and approximately 50 olive trees. In addition, the property owner has already made efforts to consult with local arborists and gardeners in an effort to save about 50 mature oaks around the existing residence and designing infrastructure around them including building stone retaining walls to protect the trees. The property owner has already implemented an additional "best practice" that further reduces potential GHG emissions with the recent construction of a 45 watt solar system to provide the power for all uses on the property. The property owner has also indicated a preference to either compost and/or chip and mulch the existing vegetation proposed to be cleared from the site, use the mulch around the residence within the landscaped areas of the site, and to use the appropriate pieces of woody vegetation as firewood for heating purposes or landscaping lumber. For all of these reasons, the County reasonably concluded that the proposed project would not make a considerable contribution to a cumulatively significant impact on greenhouse gas emissions.

The program level EIR for the 2008 Napa County General Plan Update (SCH#2005102088 certified June 3, 2008[1]) projected there would be 12,500 acres of new vineyard development in the County between 2005 and 2030. The County's conclusion in the General Plan EIR was that emissions from all sources (i.e. land uses and development), not just agriculture, over the planning period would result in significant and unavoidable GHG emissions despite measures adopted to address the impact. Therefore, the General Plan did not determine that emissions solely from projected agricultural development would result in significant unavoidable impacts.

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than ±0.02 percent of the predicted vineyard development total. As noted above, the comparison provided was not the only basis of the subject initial study's conclusion. Conclusions are also based on the project design and proposed mitigation measures to reduce potentially significant environmental impacts. As proposed, the project would retain approximately 42-acres (95%) of the parcel's native vegetation including oak woodland. The project design also includes features to reduce and/or offset emissions from vineyard development and vineyard operations such as establishment of a no-till vineyard cover crop, vegetated and rock surfaced vineyard avenues, the maintenance and establishment of grape vines. Additionally, if approved, the project would be subject to standard air quality conditions (below) that would further reduce potential air quality impacts associated with construction and ongoing operation, including emissions of GHG emissions.

[1] A copy of the General Plan EIR is available for review during normal business hours at the Department of Conservation, Development and Planning, 1195 Third Street, Suite 210 in Napa, CA.

Air Quality - Standard Conditions of Approval:

- *Apply water twice per day on all areas where ground disturbance is actively taking place. (graded areas, staging areas, and unpaved roads).*
- *Disturbed areas shall be seeded as quickly as possible.*
- *Grading and earthmoving activities shall be suspended when winds exceed 25 mph*

With regard to ongoing emissions, as discussed in Section III (Air Quality) of the IS/PMND the total annual on-going emissions associated with the project are anticipated to be ±1.24 MT CO_2e per year which is well below the threshold of 1,100 MT CO_2e per year that BAAQMD has defined as significant for CEQA purposes when considering land development projects (BAAQMD CEQA Guidelines June 2010).

Pursuant to Section 15183(a) of the California Code of Regulation (CCR) projects which are consistent with the general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific effects which are peculiar to the project or its site. As discussed in the IS/MND project specific impacts were analyzed and mitigation measures are incorporated where necessary to reduce potentially significant impacts. (While the identified mitigation measures are not specific to air quality impacts their implementation would reduce potential biological impacts anticipated due to the project.)

For all of the reasons explained in this response, including those discussed in Section III (Air Quality) of the IS/PMND, the County does not consider one-time GHG emissions from the proposed vineyard development, or on-going emissions associated with implementation of the project, to be a significant impact on a project level basis or to be a "considerable" contribution to the significant unavoidable impact identified in the General Plan EIR. Preparation of an EIR for this project as suggested by the commenter would add nothing to the discussion or analysis presented in the IS/PMND or here, and is not necessary in light of the County's conclusion that project-related emissions would be less than significant.

Response to Comment 2.3: As detailed in these responses to comments and in the IS/PMND, the project as proposed with mitigation incorporated would not result in either project level or cumulative significant environmental impacts related to air quality and greenhouse gas. Based on this determination, Napa County prepared a mitigated negative declaration. Also see *CDF Response to Comment #1.1* regarding cumulative impacts.

Pursuant to Section 15183(c) if an impact is not peculiar to the parcel or the project, and has been addressed as a significant effect in the prior EIR, then an additional EIR need not be prepared for the project solely on the basis of that impact.

Attachment A: **Letter from Kimberley Sone, Department of Forestry and Fire Protection**
Attachment B: **Letter from Bill Yeates, Kenyon / Yeates LLP**

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STATE OF CALIFORNIA—THE NATRUAL RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
2210 West College Ave
Santa Rosa, CA 95401
(707) 576-2344
Website: www.fire.ca.gov

November 8, 2010

County of Napa
Daniel Zador, Project Planner
1195 Third Street, Ste 210
Napa, CA 94559

Reference: Galatea Vineyard & Winery LLC SCH# 2010102023

Dear Project Planner:

The California Department of Forestry and Fire Protect (CAL FIRE) appreciates the opportunity to review and provide the following input on this proposed project.

It appears the proposed project might be located in oak woodlands. If this is correct, the plan proponent might be responsible to retain the services of a Registered Professional Forester or other environmental professional who would be able to provide an assessment of the potential impacts to oaks. 1.1

In addition, any development must comply with Public Resource Code (PRC) 4290 and California Code Regulations (CCR) 1270-1276 which address fire and life safety regulations. These regulations include, but are not limited to the following issues: roadway design and length, driveway grades, dead-end road lengths, turnarounds, turnouts, signage, and emergency water standards. 1.2

Sincerely,

KIMBERLEY SONE
Division Chief, Resource Management

cc: Allen Robertson, CAL FIRE, Environmental Protection, PO Box 944246, Sacramento, CA 94244-2460
Scot Morgan, State Clearinghouse, Director, PO Box 3044, Sacramento, CA 95812-3044

L33

CHARITY KENYON

kenyon | yeates LLP

BILL YEATES

2001 N STREET, SUITE 100
SACRAMENTO, CALIFORNIA 95811
916.609.5000 FAX 916.609.5001

November 10, 2010

Sent Electronically and by U.S. Mail

Daniel Zador, Planner II
Napa County Conservation, Development & Planning Dept.
1195 3rd Street, Suite 210
Napa, CA 94559
Email: daniel.zador@countyofnapa.org
Fax: (707) 299-4491

Re: Galatea Vineyards & Winery LLC – Vineyard Conversion (Erosion Control Plan #P10-00018 – ECPA)

Dear Mr. Zador:

On behalf of Napa County Sierra Club we are providing comments on the Initial Study/Mitigated Negative Declaration prepared of the above-referenced project.

From the outset we would point out that Napa County needs to update its Initial Study format to conform to the recently amended form attached as Appendix G to the State CEQA Guidelines. On December 30, 2009, the California Natural Resources Agency adopted changes to the State CEQA Guidelines that were certified by the California Secretary of State on March 18, 2010. Many of these changes were in response to the California Legislature's request that the Governor's Office of Research and Natural Resources Agency adopt guidelines on greenhouse gas generation in order to provide guidance to lead agencies. (Pub. Resources Code, § 21083.05.) Appendix G (Initial Study) was amended to provide a specific section on Greenhouse Gas Emission (Section VII). 2.1

The proposed project would convert approximately 2.1 acres of primarily blue oak woodland and grassland habitat to vineyard. According to the Initial Study/Proposed Mitigated Negative Declaration ("IS/MND"): 2.2

> The project proposes the conversion of 2.1 acres of primarily blue oak woodland native vegetation and the development and operation of the proposed vineyard analyzed in this initial study may contribute to the overall increases in GHG emission by generating emissions associated with transportation of construction and maintenance vehicles to and from the site, emissions from the use of

> construction and farming equipment, and emissions from the project site soils during cultivation and layout of the vineyard floor.

(IS/MND, p. 10.)

The IS/MND estimates,

> the proposed project could result in one time emissions of up to 80.18 metric tons of carbon if all existing vegetation is removed prior to vineyard construction. This would be equivalent to 294.3 metric tons of Carbon Dioxide equivalents (C02e), the most commonly reported type of GHG emission. (footnote omitted) Ripping of site soils would also release carbon, although there is no scientific agreement about the percentage that would be lost and some recent analyses have suggested 20-25% while others have suggested 50%.9 Using 50% as a more conservative estimate, the project could result in one time emissions of up to 91.9 metric tons of carbon from vegetation removal plus soil preparation. This would be equivalent to 337.3 metric tons of C02e, and could be reduced if some of the woody debris is retained and composted [on] site rather than removed and discarded.

(IS/MND, p. 11.) The IS/MND goes on to estimate that the "overall carbon storage of the subject property would be reduced by ±4% from about 2,293 tons to ±2,201.1 tons (existing storage of 2,293 tons minus the anticipated 91.9 ton release), or from ±8,415.3 to ±8,078 MT C02e." (Id.)

For estimated construction-related CO2e emissions, the IS/MND estimates "that equipment related emissions associated with construction of the proposed 2.1-acre vineyard would be approximately 20.79 MT C02e (2.1-acres times 9.9 MT C02e) and on-going vehicular and equipment emissions would be approximately 1.24 MT C02e per year (2.1-acres times 0.59 MT C02e)." (Id.)

The IS/MND acknowledges that:

> Napa County is currently updating and revising a GHG emissions inventory and "Climate Action Framework" prepared by the Napa County Transportation and Planning Agency (NCTPA) to better account for agricultural emissions. It is expected that the updated Climate Action Plan will be a "qualified" plan meeting criteria established by the BMOMD, and will contain specific measures to reduce emissions from vineyard development and operations which the project applicant has proposed to incorporate into the current ECP. For vineyard operations, measures include use of a cover crop, mulching canes on site, and keeping farm equipment in good repair. For vineyard development, measures include avoiding and preserving areas of vegetation on site, burying or mulching a percentage of vegetation removed, and keeping construction equipment in good repair.

(IS/MND, p. 10.) While acknowledging the project's increased emissions of CO2e, the IS/MND states:

2.2 continued

> Some of these "new" emissions would be offset by the proposed vineyard which would likely act as a net sink for atmospheric C02, depending on the longevity of grapevine roots and the quantity of carbon stored in deep roots. In addition to vines, the sequestration of atmospheric carbon is also achieved by the soil between vinerows through cover-cropping and from the breakdown of leaves and vine pruning material.

(IS/MND, p. 11.) Yet, the County admits, "specific information on the grapevine and cover-crop sequestration is lacking." (Id.)

Although the IS/MND's evaluation concludes that the project's incremental contribution to greenhouse gas generation either through the generation of greenhouse gases or the loss of vegetation that sequesters CO_2 is not significant, the IS/MND's analysis of the project's cumulative impacts does not satisfy CEQA's requirements. The IS/MND compares the size of the project to the larger 12,500 acres of projected vineyard development in the County and concludes:

> [T]he proposed project would constitute less than 0.02% percent of the total. For these reasons, the County does not consider one-time GHG emissions from the 2.1-acre vineyard development to be a "considerable" contribution to the significant unavoidable impact identified in the General Plan EIR.

2.2 continued

The Court of Appeal has rejected this type of ratio theory analysis in determining whether a project may have a cumulatively considerable impact on the environment. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 718-722 "Under GWF's 'ratio' theory, the greater the overall problem, the less significance a project has in a cumulative impacts analysis.")

The State of California has established a statewide policy to reduce greenhouse gas levels to 1990 levels. This project along with the other foreseeable vineyard development projects forecast in the County's General Plan will increase rather than decrease greenhouse gases, thus frustrating attainment of the state's greenhouse reduction goal. The Initial Study references the 2008 Napa County General Plan Update. However, when the County adopted the general plan update the County did not adopt an overall plan to address the environmental consequences of developing 12,500 acres of vineyards, which results in the loss of oak woodlands and other native vegetation that sequester CO_2. Instead County determined the impact was significant and unavoidable, leaving it to individual projects to address the indirect, direct, and cumulative effects of vineyard development on the issue of greenhouse gas generation.

Although the Initial Study refers to the General Plan EIR mitigation measures calling for a GHG emissions inventory and emission reduction plan, the Initial Study does not require the project to comply with any provision of an approved emission reduction plan for Napa County. According to section 15064(h)(3) of the CEQA Guidelines,

> A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to, water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, ***plans or regulations for the reduction of greenhouse gas emissions***) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. When relying on a plan, regulation or program, the lead agency should explain how implementing the particular requirements in the plan, regulation or program ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable.

Napa County has not cited to any County plan or regulation that requires the reduction of greenhouse gas emissions. Moreover, even if one exists, the Initial Study for this project has failed to explain how implementing the particular requirements of the County plan will ensure the project's incremental contribution to the cumulative effect of converting over 12,500 acres of natural land to vineyards will not have a cumulative considerable effect in generating increased greenhouse gas emissions above 1990 levels.

Since the General Plan has determined that the development of 12,500 acres of vineyards will have a significant unavoidable effect on greenhouse gas emission, it is inappropriate for the County to approve this project based upon a mitigated negative declaration that fails to acknowledge the project's cumulative considerable effect in generating greenhouse gas emissions and fails to mitigate these effects pursuant to some ill-defined or still-to-be-developed county plan for the reduction of greenhouse gas emissions.

On behalf of Napa County Sierra Club we urge the County to prepare an environmental impact report on the proposed project, so that the County can develop the required greenhouse gas emission reduction plan forecast by the General Plan.

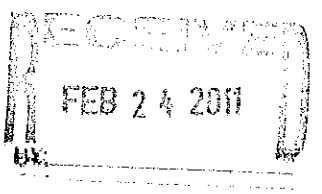
2.2 continued

2.3

Sincerely,

Bill Yeates

cc: Tyler York, Napa County Sierra Club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Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards, as well as appreciate Napa County's effort to develop a comprehensive Climate Action Plan (CAP). As a vineyard owner, the success of my business relies upon the protection of Napa Valley's environmental resources, and as such, I am a committed partner in working toward targeted reductions of GHGs to the benefit of the community at large as well as to the agricultural industry.

On a daily basis, my farming operation, which includes twelve acres in Napa County, employs many best management practices (BMPs) in an effort to sequester carbon, including but not limited to:

- Low carbon farming
- Low impact farming including minimizing tractor passes
- No-till practices
- Cover cropping strategies
- Low nitrogen usage
- Low water usage
- Re-use of organic matter, as in the case of composting
- Use of modernized, fuel efficient equipment that is compliant with EPA Tier 4 standards

Furthermore, I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers and request further clarification on the efficacy and costliness of proposed CAP measures. I believe that the County should recognize and take credit for the environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve (AP). Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place in other Bay Area jurisdictions since 1990.

Thank you for the opportunity to comment.

Sincerely,

Amy Whiteford for L

Amy Whiteford

Viticulturist and Member, Warnock Vineyards, LLC

PPI ENGINEERING
VINEYARD DESIGN
EROSION CONTROL
WATER DEVELOPMENT
DRAINAGE
PERMITTING
GPS/GIS

2931 Solano Avenue
Napa, California 94558
707-253-1806
Fax 707-253-1604

March 10, 2017

Mr. Jason Hade

Via E-mail: jason.hade@countyofnapa.org

Dear Mr. Hade,

We appreciate the opportunity to provide comments on Napa County's draft Climate Action Plan (CAP) dated January 2017. The County has been working to prepare a CAP for numerous years, and we believe that having a clear, concise CAP will assist residents, businesses, and agricultural owners and operators in ensuring compliance and consistency with the climate goals of the County. To that end, we commend the County for its efforts to prepare this CAP, and these comments are provided based on our opinion that further updates are necessary for the CAP to fully achieve its goals of meeting the statewide greenhouse gas (GHG) reduction targets while allowing successful agricultural operation in this County.

Specifically, we will focus our comments on the measures that relate to existing vineyard operations and to new vineyard development. The CAP GHG Inventory lists agriculture as comprising 10% of the County's GHG emissions, well below the GHG emissions of buildings (31%), on-road vehicles (26%), and solid waste (17%).

Our primary concern is that each measure relevant to vineyard operations (summarized in Table 5-1 "Napa County CAP Implementation Assumptions for GHG Reduction and Adaptation Measures") is listed as "mandatory". These measures are AG-1, AG-2, AG-3, and AG-4. It is unclear if this applies to only future vineyards or if the County intends to apply these measures to existing, permitted vineyards. If the County intends to apply measures retroactively to existing, permitted vineyards, it must state the mechanism by which it will require and enforce these standards. As it stands, the County does not have discretion to enforce these measures regulating farming practices on established vineyards, particularly those under 5 percent slope for which no other County approval process is required. Some of these measures are infeasible at this time, particularly those related to electric farming equipment and electric pumps where the equipment or electrical connections may not be available on remote lands. We do recognize the intent behind Measures AG-1, AG-2, AG-3, and AG-4, and would support these measures if they were listed as "voluntary" or "encouraged" rather than "mandatory".

Land use measures LU-1 and LU-3 would be applicable to future land use conversion projects, including those vineyard development projects that are discretionary actions under the California Environmental Quality Act (CEQA) and already receive thorough environmental review under the County's Track I Erosion Control Plan (ECP) process.

Measure LU-1 states that the County will require each project applicant to replace any trees that are cut at a 2:1 ratio prioritizing onsite tree replanting, and claims this is consistent with the Napa County General Plan Policy CON-24. It should be noted that General Plan Policy CON-24 (c) states that "…replacement of lost *oak woodlands* or preservation of like *habitat* at a 2:1 ratio when retention of existing vegetation is found to be infeasible" shall be required (emphasis added). Policy CON-24 applies to oak woodland habitats, not to individual trees. This is important because oak woodlands have specific species' densities and distribution that provide benefits for wildlife habitat, slope stabilization, and water quality; these benefits are due to the habitat type and not the individual trees themselves. Requiring 2:1 onsite replacement would have a long-term carbon sequestration benefit, but it would result in artificially dense stands of oak trees that do not have the habitat benefits discussed above. As such, Measure LU-1 is not consistent with General Plan Policy CON-24. Furthermore, climate change is a global phenomenon; a tree planted many miles away would sequester the same amount of carbon as a tree planted on the property in question. Therefore, there is no scientific basis as to why the tree replanting must occur on the subject property, and Measure LU-1 should be revised to say that either on- or off-site replanting is acceptable to prevent the overcrowding issues mentioned above.

Measure LU-1 also states that it will "target a minimum preservation rate of 30 percent of existing on-site trees." There are scenarios in which retaining 30 percent of those trees may not be feasible, for instance when a property has very few trees to begin with due to habitat type or soils, or when the only trees on the property are located on the only farmable areas. Adding language to Measure LU-1 to allow replanting or preservation of off-site trees at a 2:1 ratio if retention of 30 percent of the trees is infeasible would allow more landowner flexibility and would still meet the carbon sequestration goals of this measure.

Measure LU-3 states that the County will develop a program to require repurposing of usable lumber from trees and burying or chipping of non-usable lumber. Retaining wood in the form of lumber would ensure that the carbon is not released into the atmosphere; for that reason, we support the intent of Measure LU-3, although there are some significant gaps in this measure that must be addressed before it is adopted. The measure states that "Repurposed wood may be used in construction or sold to local woodworking businesses or collectives with proceeds funding the administration of this measure. A minimum of 80 percent of the total removed weight of trees shall be repurposed, buried, chipped, or otherwise prevented from burning." First, the County cannot mandate that the sale of wood or lumber from a private property be given to the County to fund this measure. Timber is a private asset and the sale of any logs or lumber coming off of a property as a result of a land conversion project belongs to the property owner. Although logging is not a main industry in the County, it is an authorized land use in certain zoning designations and there are several active timber harvest plans in the County under the jurisdiction of the California Department of Forestry and Fire Prevention.

Second, there is an important consequence of Measure LU-3 that has not been identified in the CAP, which is the use of logging trucks to transport the 80 percent of wood that must be retained

as lumber. Logging trucks cause more wear-and-tear on local roadways than regular vehicles or construction trucks, have safety concerns due to their large size and turning radius, and it may require numerous trips to remove logs from a property. The majority of the land use projects that would be subject to Measure LU-3 already receive environmental review under CEQA, which often includes sections for air quality, traffic, and hazards. If a property owner is forced by the County via Measure LU-3 to use logging trucks, they should not be penalized or required to mitigate for secondary impacts that may occur to air quality, traffic, and hazards.

Finally, we are concerned that Appendix D has not been provided with this public review draft. Appendix D states that it is a "Consistency Checklist for CEQA Projects". If future vineyard development (and all development) projects will be required to follow the conditions laid out in the Appendix D Checklist, this checklist must be made available for public review prior to adoption of the CAP. The slip-sheet provided online in place of Appendix D states that "The CAP Consistency Checklist will be developed and inserted into Appendix D prior to final adoption of the CAP." The CAP Consistency Checklist must be developed and circulated for public review during the public review process.

Thank you for the opportunity to provide comments on the CAP. We look forward to reviewing and commenting on the next iteration of the CAP, which we hope includes the Appendix D checklist.

Regards,

James Bushey, President
jbushey@ppiengineering.com

Annalee Sanborn, Project Manager
asanborn@ppiengineering.com

Rachel LeRoy, Vice President
rleroy@ppiengineering.com

Matthew S. Bueno, Project Engineer
mbueno@ppiengineering.com

Napa County Draft Climate Action Plan (CAP)
Public Comments

Submitted: March 10, 2017

From: Steven and Sandra Booth
P.O. Box 6063
Napa, CA 94581

To: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210
Napa, CA 94559
T. 707.259.8757
E. jason.hade@countyofnapa.org
W. http://www.countyofnapa.org/CAP/

Introduction: Why An Effective CAP Is Needed Immediately In Napa Valley

On the one hand, 66 million years ago an impact event occurred that changed the earth's climate resulting in the extinction of 75% of all species, including the dinosaurs. This climate-changing event, this mass extinction, was not manmade; it was the result of the impact of an uncontrollable external object.

On the other hand, our present climate change predicament is human induced; it is man-made. Unlike the impact from an external object, human induced climate change is controllable if we choose to take timely corrective action.

As a human initiative, a CAP has two primary purposes: (1) To reduce or eliminate existing harmful environmental effects from pollution and, (2) to prevent future potentially harmful environmental effects from pollution from occurring.

The real but often unspoken reason to design and implement an effective CAP is for the protection and survival of the human species and other life forms; our incentive to act is for self-preservation. Locally, nationally, and worldwide, the implementation of effective CAPs is an imperative.

Ok. So here's the deal. Human induced global climate change is the result of the irresponsible and misguided decision-making that has been governing human activity worldwide.

Over the years, too many decision-makers have acted and continue to act irresponsibly, clinging to the irrational belief that allowing an incremental increase in pollution, locally,

is unavoidable and less than significant when compared to the existing cumulative pollution, regionally and globally.

Irresponsibly, decision-makers have permitted global climate change to occur and, therefore, decision-makers shall be held responsible for correcting climate change by denying permits for any project that would incrementally increase environmental pollution.

In truth, to stop and reverse human induced global climate change, decision-makers shall be prevented by municipal code and state and federal statute from permitting incremental environmental pollution to increase, not anytime, not anywhere.

Comments: The Big CAP Issues To Address Immediately

1. Guidelines, laws, and requirements governing decision makers:

a. Change County and City Codes and pass statutory laws (local, state, national, international) governing decision-making that shall guarantee no project shall be approved nor permitted unless it can demonstrate a continuous and measurable net decrease in harmful environmental effects, annually. The burden of proof shall be on the project applicant not public officials or citizens. Annual measurable net improvements shall be mandatory for all new permit approvals. These changes in codes and statutory law shall apply retroactively to existing approved permits.

b. Prior to assuming their position, planning commissioners, supervisors, city council members, and all other public officials responsible for decision-making shall demonstrate their competency for the position after completing requisite education, training, certification, licensing, and internship equivalent to other professionals in positions of special public trust, i.e., doctors, lawyers, ministers, professors, police officers, firemen.

c. In an open public hearing, all governmental decision-making shall be tested and scored for social equality and environmental justice by those opposed to the project prior to approval. Those projects that fail shall not be approved unless corrected. Guidelines shall be developed for this critical public oversight protection.

2. Reduced Traffic/Roadway Congestion:

a. To reduce traffic congestion and vehicle emissions in Napa Valley, plan and launch a shared government and business advertising campaign, regionally and worldwide.

Issue vouchers and discounts for wine, related products, tastings, accommodations, dining, and events for those who use public transportation and multi-person shuttles for those visiting, traveling, or working in Napa Valley.

This will increase the number of visitors for all businesses while decreasing the number of vehicles and emissions throughout the Valley.

b. Measure vehicle entrance and exit traffic by vehicle type for all wineries from Napa to Calistoga along Hwy. 29, Silverado Trail, and the crossroads. Mandate an annual reduction in single-person vehicles entering and exiting all wineries while mandating the use of multi-person shuttles/vehicles. For residents and agriculture, it is imperative to reduce both traffic congestion and vehicle emissions.

c. Discontinue all planning and design of highway widening from Napa to Calistoga. That's the wrong way to go. Discontinue the Wine Train and replace its roadway with a two-way human powered and/or small electric vehicle tourist/commuter/worker transportation system running north and south from the Vallejo Ferry Terminal to Calistoga with connections to the existing Smart train running from Sacramento to San Rafael. The Wine Train is outdated and is taking up space needed for a more versatile and ecological form of public transportation.

d. Make a train museum with restaurant in south Napa. Utilize existing technology to simulate the experience of the restaurant train cars traveling up and down the valley while people dine.

e. Mandate that wineries ship their products and supplies at night.

3. Vehicle emission reduction strategies:

a. Make it a mandatory requirement that all City and County owned on road diesel trucks shall use the highest-level verified diesel emission control strategy (VDECS) for PM and NOx. Also, make this requirement mandatory for all private owned diesel trucks under contract with the City and County.

b. Make it a mandatory requirement that all off road diesel trucks and equipment in Napa County shall be Tier 4 or better and shall use the highest level verified diesel emission control strategy (VDECS) for PM and NOx.

c. Make it a mandatory requirement that all existing stationary industrial equipment (asphalt plants, rock crushers and separators, etc) shall be brought up to date within 5 years and use best available control technology (BACT) for PM and GHGs. As an incentive, tax credits shall be given for more rapid equipment upgrades or replacements. Use and operating permits will be revoked for non-compliance. All stationary equipment shall be kept up to date with BACT, annually.

d. Make it an immediate mandatory requirement that all diesel locomotives shall use the highest-level verified diesel emission control strategy (VDECS) for PM and NOx.

4. Community Models: Advancing new ideas and retrofit conversions for what exists: Every community in Napa Valley shall sponsor the creation of scale models incorporating new products and living practices that demonstrate a measurable net reduction in environmental impacts (effects).

This will be an annual group demonstration project directed toward the positive improvement of human habitation and activity in the most direct and expedient way possible involving research, design, innovation, and full-scale application. Citizens of all ages and experience will be invited to participate from all sectors of society. Both public and private funding sources will be used.

Conclusion:

With responsible and rational public and private sector decision-making and with the widespread implementation of effective CAPs, human induced climate change shall be reduced and reversed to the benefit of all.

Mr.David Morrison
Director, PBES
County of Napa

March 10, 2017

Dear Mr.Morrison:

Thanks for requesting comments on the Count's draft Climate Action Plan. Here are a few points that I believe deserve further review or that were not considered in the draft.

1) The county should assist all entities subject to the CARB refrigeration management plan to enroll and comply, and should extend the plan to HVAV systems with more than 300lbs of refrigerant charge.
2) The County should work with the City of Napa to complete its green waste -to-biogas plant, as much of the green waste and pomace accepted by Napa Recycling originates in the County. In addition, the County should work with Napa Recycling to speed the adoption of hydraulic hybrid Class Six waste hauling trucks.
3) The County should work with the Cities of Napa and AMerican Canyon to promote installation of PV systems on the hundreds of thousands of square feet of flat warehouse roof area in the South County. Some of the electricity generated could offset electricity consumed by building HVAC systems; the rest could be sold to MCE under Feed-In Tariff rules.
4) The County should work with the Ag Commissioner, UC Davis and the Napa RCD on trials of enhanced soil carbon sequestration in vineyards. This will eliminate the need for open burning of vines, and accompanying black carbon emissions and other air pollution.
5) Some existing winery process wastewater systems are designed to use a stratified anaerobic-aerobic pond design. The anaerobic layer generates methane which is outgassed.This should be captured or the system design changed.
6) The County should ask the Flood Control Agency to measure their the carbon content of all the potable water purveyed by each of its City members, in order to properly capture the externalities of GHG emissions in the course of acquiring conveying and treating potable water.
7) The County should convene the leaders of the hospitality industry to create Napa Green Lodging, modeled on best green business practices.

Sincerely,

David W. Graves

L38

March 10,2017

Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards, as well as appreciate Napa County's effort to develop a comprehensive Climate Action Plan (CAP). As an all-estate operation, the success of my family's business relies upon the protection of Napa Valley's environmental resources, and as such, we are committed in working toward targeted reductions of GHGs to the benefit of the community at large as well as to the agricultural industry.

On a daily basis, our farming operation, which includes 500 acres in Napa County, employs many best management practices (BMPs) in an effort to sequester carbon, including but not limited to:

- Low carbon farming
- Low impact farming including minimizing tractor passes
- Low or no-till practices
- Cover cropping strategies
- Low nitrogen usage
- Low water usage
- Re-use of organic matter, as in the case of composting
- Use of modernized, fuel efficient equipment that is compliant with EPA Tier 4 standards

Furthermore, I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers and request further clarification on the efficacy and costliness of proposed CAP measures. I believe that the County should recognize and take credit for the environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve (AP). Our AP/AWOS zoning sets Napa County apart from other counties in California, and I am proud to be a part of a forward thinking community. I applaud all the work that has been done thus far from the establishment of the Ag Preserve to the development of the Napa Green certification program. To keep m moving forward however, we need to make sure that there are financially viable options in place. This is crucial to the future of Napa.

Thank you for the opportunity to comment.

Sincerely,

Hailey Trefethen

Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards, as well as appreciate Napa County's effort to develop a comprehensive Climate Action Plan (CAP). As a vineyard manager, the success of my business relies upon the protection of Napa Valley's environmental resources, and as such, I am a committed partner in working toward targeted reductions of GHGs to the benefit of the community at large as well as to the agricultural industry.

On a daily basis, my farming operation, which includes approximately 200 acres in Napa County, employs many best management practices (BMPs) in an effort to sequester carbon, including but not limited to:

- Low carbon farming
- Low impact farming including minimizing tractor passes
- Low or no-till practices
- Cover cropping strategies
- Low nitrogen usage
- Low water usage
- Re-use of organic matter, as in the case of composting
- Use of modernized, fuel efficient equipment that is compliant with EPA Tier 4 standards

Furthermore, I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers and request further clarification on the efficacy and costliness of proposed CAP measures. I believe that the County should recognize and take credit for the environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve (AP). Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place in other Bay Area jurisdictions since 1990.

Thank you for the opportunity to comment.

Sincerely,

Mario Bazán

Member, Bazán Vineyard Management LLC

From: Kathleen Rogers
To: Hade, Jason
Subject: Napa County Climate Action Plan
Date: Friday, March 10, 2017 2:37:37 PM

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards. As a grower, the success of my business relies upon the protection of Napa Valley's environmental resources.

I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers and request further clarification on the efficacy and costliness of the proposed CAP measures. These measures have huge, concrete,negative economic consequences which will be very real to those on the receiving end for results that can only be "modeled" or estimated and which will be measured in hundredths of a percentage point and possibly not for 100 years or more or at all. To think that Napa County can winnow out from all the human and natural carbon"events" in Napa County and apportion responsibility for GHGs to various sectors of the economy stretches ones credibility.

I realize that this legislation is not of your making and that the state of California in all its wisdom has required a climate action plan for every county in the state. One can only stand in awe of the legislature that could require counties to spend millions of dollars on climate change when our schools are failing, our dams are failing, our roads are failing and our water system is failing...but I digress.

Grape growers throughout the valley have voluntarily adopted many best management practices in an effort to sequester carbon, among them: low carbon farming, low or no – till practices, low nitrogen usage, low water usage and the use of fuel efficient equipment that is compliant with EPA Tier 4 standards.

I believe that the county should recognize and take credit for the very real environmental benefits that have been achieved through its commitment to agriculture, specifically through the creation of the Agricultural Preserve. Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place in other bay area jurisdictions since 1990.

However, no one can take this zoning for granted. The increasing pressures on agriculture as a result of compounding regulation from Napa County, the Bay Area Water Resources Control Board and local environmental groups may sound the death knell for growers as agriculture becomes less and less economically viable.

I hope that you will take these comments into consideration. They are not exclusively mine, but echo those of many of my fellow growers.

Sincerely,
Kathleen Rogers
St. Helena
Napa Valley Grapegrower since 1984

Sent from my iPad

General Comment

After including new member communities outside of Marin County beginning in 2013, Marin Clean Energy rebranded to MCE. All customer communications and marketing in Napa County has been through MCE. While we are proud of our beginnings in Marin County, we also want to be inclusive of the communities who have since joined our Community Choice program. Therefore, please change all mentions of "Marin Clean Energy" to "MCE" in the climate action plan.

Input on forecasting of future emissions

The climate action plan doesn't currently take into consideration MCE Light Green customers in unincorporated Napa County. While investor owned utilities have an RPS goal of 33% by 2020 and 50% by 2030, MCE's Light Green service is already 52% renewable and will achieve our goal of being 80% renewable and 100% carbon-free by 2025. One consideration for the climate action plan may be to adjust the 2020 and 2030 forecasting to include MCE's renewable and carbon-free goals. This new goal, stated in MCE's 2017 Integrated Resource Plan, will reduce electricity emissions at a much faster pace.

MCE service in Unincorporated Napa County began in early 2015. Currently 89% of all Napa County electricity customers are enrolled with MCE. Assuming enrollment rates stay the same in 2020 and assuming MCE's Light Green emission factor decreases, electricity emissions in the residential and commercial sector will see a significant decrease naturally due to the cleaner electricity purchased through MCE.

The top 5 measures in the CAP that will achieve the most local GHG emissions reductions include:

The climate action plan indicates that if some number of residents and businesses opt up to MCE's Deep Green 100% renewable energy service, then the County would see a reduction of 4,003 $MTCO_2e$ by 2020. It's important to include the analysis so the audience can understand how to achieve this potential impact and how many residents or businesses would be necessary to meet this measure. This, compared with other actions set forth by the CAP, would have the 5^{th} greatest impact toward the County's 2020 goal. Is there a reason that this option wasn't included as one of the top five measures in the Executive Summary of the draft CAP?

Section 3.3.1: Building Energy

The current sector emissions data is broken down broadly as residential versus commercial. In order to be more specific and accurate in GHG inventories, it would be very helpful to see the breakdown between natural gas emissions and electricity emissions within each sector since the proportional impact of either source can produce significant differences in prioritizing household or commercial use of natural gas versus electricity.

Measure BE-5: Increase participation in Marin Clean Energy's (MCE) Deep Green (100 percent renewable) option

MCE would be happy to collaborate with Napa County to help figure out the best incentives and opportunities to make this a reality. MCE has partnered with other member communities to help achieve similar goals.

Measure MS-1: Work with other local jurisdictions within the County to develop a unified Climate Action Plan

Regional collaboration has the potential of creating cross-sector synergies and collective opportunities for mutual benefit, while also reducing greenhouse gas emissions, sharing best practices, and streamlining policy making. Currently, Marin County has a similar partnership called the Marin Climate and Energy Partnership (MCEP) which could be a useful model to investigate.

Section 4.3: Adaptation Strategies and Measures

While the adaptation strategies and measures outlined here focus on the shocks and stresses that Napa County faces, it is also important to outline energy resilience strategies through storage (battery or otherwise) and the deployment of more local renewable energy development in order to encourage local resilience as well as grid flexibility.

Appendix

It would be helpful to include a breakdown of the community-scale GHG inventory by individual components (i.e. activity data within each sector). This would allow the climate action plan to be more transparent and complete for the public. Ultimately, this level of transparency would allow the climate action plan to be a more robust resource for more strategic action.

Attention: Jason R. Hade, AICP, Planner III
Napa County Planning, Building & Environmental Services Department
1195 Third Street, Suite 210, Napa, California
(707) 259-8757
jason.hade@countyofnapa.org

Dear Mr. Hade,

As a member of the Napa Valley Grapegrowers, I value our mission to preserve and promote Napa Valley's world class vineyards, as well as appreciate Napa County's effort to develop a comprehensive Climate Action Plan (CAP). As a grower and vineyard manager , the success of my business relies upon the protection of Napa Valley's environmental resources, and as such, I am a committed partner in working toward targeted reductions of GHGs to the benefit of the community at large as well as to the agricultural industry.

On a daily basis, my farming operation, which includes six hundred acres in Napa County, employs many best management practices (BMPs) in an effort to sequester carbon, including but not limited to:

- Low carbon farming
- Low impact farming including minimizing tractor passes
- Low or no-till practices
- Cover cropping strategies
- Low nitrogen usage
- Low water usage
- Re-use of organic matter, as in the case of composting
- Use of modernized, fuel efficient equipment that is compliant with EPA Tier 3 and upgrading to tier 4 standards

Furthermore, I share the concerns and questions raised by the comment letter submitted by the Napa Valley Grapegrowers and request further clarification on the efficacy and costliness of proposed CAP measures. Please analyze your recommendations through our eyes prior to sending out mandates that will be impossible to implement. If possible , offer reasonable alternatives to what will be these mandates. Our AP/AWOS zoning sets Napa County apart from other counties in California, as having been instrumental in preventing the urbanization that has taken place in other Bay Area jurisdictions since 1990.

Thank you for the opportunity to comment.

Sincerely,

Larry Bettinelli

Larry Bettinelli

Owner: Cortina Vineyard Management

From: Hade, Jason [mailto:Jason.Hade@countyofnapa.org]
Sent: Wednesday, March 22, 2017 3:03 PM
To: Erik de Kok <erik.dekok@ascentenvironmental.com>
Cc: Morrison, David <David.Morrison@countyofnapa.org>
Subject: FW: Climate Action Plan

Hi Erik,

Let's just remove this sentence as Vicki has suggested.

Thanks.

Jason

From: Vicki Kretsinger [mailto:vkretsinger@lsce.com]
Sent: Wednesday, March 22, 2017 2:36 PM
To: Hade, Jason; Lederer, Steven
Cc: Morrison, David; Erik de Kok; Nick Watterson; Lowe, Rone Patrick
Subject: RE: Climate Action Plan

Hi Jason:

Thanks for following up on the highlighted sentence. The Milliken, Sarco, Tulucay area should not be referred to as a "basin". It is not a California Department of Water Resources designated groundwater basin, so it should not be referred to loosely in that manner. In prior USGS studies, the USGS has referred to it an as "area". Tulucay is spelled with a "u" (instead of Tulocay). We are unaware of any subsidence occurring in Napa County (see other info below), and we are particularly unaware of subsidence in the MST area, which is largely consolidated rock and not susceptible to subsidence. Other land surface movements may have occurred in response to faulting or earthquake activity, but if that is what is meant in the sentence, then this should be clarified. Because there seems to be no context for this sentence, it seems like the simplest approach would be to remove this sentence altogether. The front end of the sentence, which starts "The County recently adopted a Sustainable Groundwater Management Plan…." Is also in error. The County Board of Supervisors approved of and authorized submittal to DWR the report titled, "Napa Valley Groundwater Sustainability: A Basin analysis Report."

Hopefully, the above helps. Let us know if you have any questions.

Thanks,
Vicki

****

The USGS, on its web site, has posted a report prepared for the California Water Foundation that investigated historical to current land subsidence state wide (LSCE, Borchers, and Carpenter, 2014) http://ca.water.usgs.gov/land_subsidence/land-subsidence-groundwater-use-california.pdf. As part of that work, a Subsidence Resources Group was assembled (page 3 of the pdf); there were 22 members of the Group, including many USGS researchers in California and also outside California to receive their input on references, monitoring efforts and research needs. Michelle Sneed, USGS expert on subsidence and located in the Sacramento USGS office, was instrumental in her comments/suggestions for the report, as were several other of the USGS Group members. DWR also included this report as an Appendix in the California Water Plan Update 2013. The USGS has a map of subsidence locations in California located here: https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html ; the map does not include the Napa Valley Subbasin or other parts of Napa County.

From: Hade, Jason [mailto:Jason.Hade@countyofnapa.org]
Sent: Wednesday, March 22, 2017 1:35 PM
To: Vicki Kretsinger <vkretsinger@lsce.com>; Lederer, Steven <Steven.Lederer@countyofnapa.org>
Cc: Morrison, David <David.Morrison@countyofnapa.org>; Erik de Kok <erik.dekok@ascentenvironmental.com>
Subject: FW: Climate Action Plan

Thanks for the comments Vicki. I'm following up to see if you or Steve can clarify your specific concerns regarding the highlighted sentence below? Just want to make sure we address your concerns.

Jason R. Hade, AICP
Planner III
County of Napa Planning, Building, & Environmental Services
Planning Division
1195 Third Street, Suite 210
Napa, CA 94559

Email:jason.hade@countyofnapa.org
Phone: 707.259.8757

From: Vicki Kretsinger [mailto:vkretsinger@lsce.com]
Sent: Wednesday, March 08, 2017 5:00 PM

While we have not read the CAP in detail, it is focused on greenhouse gases and potential "what if" scenarios and potential vulnerabilities associated with those scenarios. The CAP provides useful planning information that can be considered and integrated with overall water resources management planning and management. [The draft CAP misstates the name of the Basin Analysis Report (i.e., it is referred to as the "Sustainable Groundwater Management Plan"). The CAP also says that this Plan "continues policies that have arrested further subsidence from the Milliken, Sarco, and Tulocay (MST) basin. This last sentence is fraught with errors that should be corrected in the CAP, both in the main report and Appendix C.]

Thanks,
Vicki

L43

NAPA VISION 2050

Mission: To Promote the Health, Welfare and Safety of our Community by Advocating for Responsible Planning to Insure Sustainability of the Finite Resources of Napa County

March 10, 2017

David Morrison, Director
Planning, Building & Environmental Services Department
1195 Third Street, Suite 210
Napa, CA 94558

Re: Draft Climate Action Plan

Dear Director Morrison,

Thank you for your overview of the Draft CAP on February 23, and for the opportunity to comment. With California's goal to slash emissions 40% below 1990 levels by 2030, we have an awesome task before us.

In its current form, Napa County's draft Climate Action Plan is a half-way measure typical of incremental, "balanced approach" measures. It is effectively a denial of the immediate grave danger of accelerating climate disruption.

Some context for your consideration:

A half-way CAP is not acceptable because we have now entered a non-linear period of global warming. Global mean temperatures have risen gradually since the start of the industrial revolution, but beginning in 2013, the GMT anomaly has risen sharply from 0.8°C to 1.2°C.

World leaders are goofing off. Key local leaders are averting their gaze and that's really dangerous. In democracy power is not only at the top but has the ability of bursting out below from the hearts of people. Everyone who has the truth must speak the truth. There is nothing more powerful.

That's why 21 children have filed a constitutional climate lawsuit against the federal government. Their complaint asserts that, by the government's affirmative

actions in causing climate change, it has violated the youngest generation's constitutional rights to life, liberty and property, as well as failed to protect essential public trust resources.

Rising radiative forcing levels are driving the increases in the global temperature. In 2016, the global mean temperature anomaly rose to 1.2°C. Today's 2.4 W/m^2 is sufficient excess heat to push global temperature over 1.85°C. The heat is locked in. 2.6 W/m^2 is expected within this decade, enough to push past the irreversible climate tipping point of 2.0°C, the Paris Agreement's upper goal.

Thus the delay between the rise in radiative forcing (RF) levels and rise in global temperature gives a false sense of security that we still have decades to deal with climate change. The intractable carbon dioxide problem is one that money can't fix. Everyone is focused on emissions reduction which isn't heat reduction.

Napa County's CAP, more specifically:

There are ways we in Napa County can help postpone further devastating climate tipping points by focusing on short lived climate pollutants. In September, 2016, Governor Brown signed into law SB 1383 which provides for immediate protections with drop dead dates for accomplishing them in the near term. These protections are not adequately addressed in the CAP's draft form.

Ascent's gap analysis finds that assuming the forecast legislative-adjusted GHG reductions are met, additional reductions will be needed to achieve the recommended GHG reduction targets for 2020, 2030, and 2050. "The County can effectively reduce emissions in some sectors where the County has jurisdictional control." While the County is taking steps to reduce biogenic GHG emissions and, importantly, recognizes the array of co-benefits that flow from local ecosystem protections, it's not nearly ambitious enough for what we need: a land use policy that is sustainable with respect to climate, one that holds the line on sequestration loss and that rapidly increases the planting of trees to increase those climate services.

A land use climate policy that encourages voluntary tree planting while simultaneously permitting clear-cutting of oak woodlands is clearly a half-way measure. The CAP needs to enforce policies to achieve zero sequestration loss in the LU sector. Practically speaking, replacing or preserving trees at 2:1 (or 20:1!) to mitigate for lost climate services during the acknowledged foreshortened time horizon is absurd. Preserving forests reduces carbon emissions and stabilizes climate; cutting them adds to carbon emissions and destabilizes climate.

The attached Draft CAP comments prepared by Quercus Group are designed to objectively and fully present the GHG emissions associated with the unincorporated Napa County. To summarize the Draft Climate Action Plan deficiencies detailed in this analysis:

CAP fails to provide feasible forest conversion mitigation.
CAP fails to account for any wetlands and soil conversion GHG emissions.
CAP fails to fully account for winery and vineyard operations GHG emissions.
CAP fails to fully account for visitation GHG emissions.
CAP fails to provide adaptive management monitoring standards as required by CEQA.
CAP fails to comply with Senate Bill 1383 methane, black carbon and hydrofluorocarbon emission reduction standards.
CAP fails to comply with the Bay Area Air Quality Management District GHG emissions accounting standards.

Napa Vision 2050 respectfully requests that these deficiencies be addressed and all questions be answered regarding specific emissions reductions in accordance with applicable reduction deadlines.

Napa Vision 2050 understands that how we set the table for climate protection today will have a strong bearing on the quality of life for generations to come. Indeed, not only our sweet spot of a wine growing region is at stake, a livable climate is at stake. This is particularly true as we have entered a period of non-linear temperature rise. Our CAP needs to confront this head-on, where economic development stores carbon not releases it, enhances biodiversity not destroys it and purifies waters and soils not pollutes them.

We believe that Napa County, renowned for its quality wines and sustainable farming practices, has a powerful global voice for meaningful climate protections. With our new state laws and with up-to-date climate stabilization accounting methods available to us, Napa County's CAP can support projects and technologies that are available now, scalable, and effective at reducing radiative forcing. Our children are depending on us.

Sincerely,

Jim Wilson
Director, Napa Vision 2050

Quercus Group

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March 7, 2017

Jason R. Hade, Planner III
Planning, Building & Environmental Services Department
1195 Third Street, Suite 210
Napa, CA 94559

Re: Draft Climate Action Plan

Planner Hade:

The Quercus Group appreciates the opportunity to submit draft Climate Action Plan (CAP) comments on behalf of Napa Vision 2050. Napa Vision 2050 looks forward to actively participating in the evolving development of Napa County's CAP.

Review of the CAP finds that the project fails to comprehensively analyze or feasibly mitigate anthropogenic and biogenic direct/indirect greenhouse gas (GHG) emissions pursuant to CEQA requirements. Specifically, the failure to fully account for the foreseeable carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), black carbon and hydrofluorocarbon emission effects associated with land use change/wine industry operations.

Governor Brown
"We must also reduce the relentless release of methane, black carbon and other potent pollutants across industries. And we must manage farm and rangelands, forests and wetlands so they can store carbon." January 2015 inaugural address regarding the state's greenhouse gas reduction goals for the next 15 years.

Natural Lands[1] Conversion Emissions
The 2008 California Air Resources Board (ARB) AB 32 Scoping Plan recognized the significant contribution that natural lands carbon sequestration will make in meeting the state's GHG emission reduction goals: "This plan also acknowledges the important role of terrestrial sequestration in our forests, rangelands, wetlands, and other land resources." When these natural lands are impacted due to land use change potentially five GHGs are directly or indirectly released into the atmosphere.

The limitations of the Intergovernmental Panel on Climate Change (IPCC) land use change general default standards are clearly displayed (IPCC 2006a, etc.) in the CAP. These generic IPCC default standards are applied indiscriminately worldwide. This one size fits all approach doesn't reflect California's diverse natural lands and fails to account for CEQA site-specific requirements or other pertinent state GHG policies/laws. In fact the only IPCC general default standards applicable to California natural lands are the international GHG global warming potential (GWP) values established by the 2013 IPCC Fifth Assessment Report. Napa County is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) which has adopted the 2013 IPCC GWP factors.[2] See Attachment A for detailed regulatory and GWP values comment.

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[1] "Natural lands" as defined by Public Resources Code Section 9001.5 (2016).

[2] BAAQMD May 26, 2016 letter from Jack P. Broadbent, Executive Officer/APCO to Richard Corey, Executive Officer, California Air Resources Board regarding ARB Short-Lived Climate Pollutants Strategy, p. 2.

- Please provide the following project information:

1. Justify CAP use of the 2007 IPCC Fourth Assessment Report GWP values in lieu of the current BAAQMD GWP standards for calculating CH_4, N_2O, black carbon and hydrofluorocarbon emissions.

CEQA § 15364.5 states that "Greenhouse gas" or "greenhouse gases" includes but is not limited to: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. In 2016 Senate Bill 1383 designated methane, black carbon and hydrofluorocarbon short-lived climate pollutants. Neither the 2009 CEQA GHG amendments nor the enabling legislation Senate Bill 97 mention the term "carbon sequestration." CEQA's focus is "*the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions*." Further, the CAP must explain how the GHG mitigation proposals result in less than significant GHG emissions consistent with state 2020, 2030 and 2050 GHG reduction targets.

Upon the disposal of impacted vegetation, the decomposition of biomass does in all cases result in CO_2 and CH_4 biogenic emissions and the combustion of biomass does in all cases result in CO_2, CH_4, N_2O and black carbon biogenic emissions (Attachment B). CEQA doesn't differentiate between anthropogenic and biogenic GHG emissions. The following 2009 Natural Resources Agency response to the California Wastewater Climate Change Group proves the point:

Response 95-1: "Regarding the comment that the Guidelines should distinguish between anthropogenic and biogenic carbon dioxide emissions, the Natural Resources Agency notes that SB 97 did not distinguish between the sources of greenhouse gas emissions. Thus, it would not be appropriate for the Natural Resources Agency to treat the different categories of emissions differently absent a legislative intent that the Guidelines do so. Neither AB 32 nor the Air Resources Board's Scoping Plan distinguishes between biogenic and anthropogenic sources of greenhouse gas emissions. On the contrary, the Scoping Plan identifies methane from, among other sources, organic wastes decomposing in landfills as a source of emissions that should be controlled. (Scoping Plan, at pp. 62-63)."

CAP Carbon Stocks and Sequestration Rates

Table 16 - Presents the per-acre carbon sequestration and storage factors that were derived for region-specific tree densities and species and collected from various sources .... Changes in land use patterns do not immediately change soil carbon levels. Instead, changes to soil carbon may be gradual, while change in land use patterns would have immediate impacts on aboveground and some belowground biomass. As such, soil carbon is not included in this analysis (CAP Tech Memo #1, pp. 21, 22).

Comment 1: The memo Table 16 terrestrial carbon figures are incorrect. See Attachment C for the true Table 16 per-acre carbon stocking and annual net sequestration rates for unincorporated Napa County. Soil organic carbon (SOC) is a measure of the carbon contained within soil organic matter. Typically, the SOC stocking profile extends to a depth of one and a half meters.[3] According to the latest literature, ground disturbing activities generally release 25-30 percent of the SOC stocks into the atmosphere.

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[3] USDA Natural Resources Conservation Service. 2016. *Gridded Soil Survey Geographic (gSSURGO) Database*. Version 2.2. USDA-NRCS Soil Science Division. https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=NRCS142P2_053628.

Forest Land Emissions

LU-1 - Establish targets and enhanced programs for oak woodland and coniferous forest preservation and mandatory replanting .... The measure was revised to prioritize tree preservation along with mandatory tree replanting. The revised measure targets a 30 percent preservation rate for all development projects. Replanting would then be required based on the County's current 2:1 replacement ratio stated in General Plan policy CON-24, with the assumed rate of replacement being up to 2,500 trees per year due limited County resources, staffing, and available land for replanting.

Comment 2: These proposed measures are incoherent. Napa County has no authority over coniferous timberland. The number of oak woodland mitigation trees planted is dependent on the total GHG biogenic emissions associated with the impacted woodland. Thus mitigation replacements ratios can't be predetermined. County staffing and resources aren't relevant to the applicant's responsibility to feasibly and proportionally mitigate project GHG biogenic emissions. Also, there is plenty of land in Napa County available to plant trees off-site if necessary.

The appropriate means to feasibly and proportionally mitigate forest land conversion GHG biogenic emissions is by planting/maintaining the requisite number of native woodland trees in Napa County to reduce forest conversion emissions 80 percent by 2050. Further, planted native trees would improve soil carbon stocking over time and provide wildlife habitat.

To accurately and fully account for forest land conversion GHG biogenic emissions the total biomass weight[4] of the impacted overstory/understory vegetation must be known, the means of biomass disposal identified and the soil organic carbon emissions calculated. The Forest Service, Forest Inventory Data Online (FIDO)[5] 2011-2015 dataset estimates Napa County oak woodlands stocking to be ±70 trees per acre ≥3 inches diameter at breast height. Three inches dbh is the tree size standard established by the state's Climate Action Reserve Forest Project Protocol to measure countable tree carbon stocks.

- Please provide the following forest land conversion information:

1. What is the estimated total biomass weight of the impacted overstory and understory vegetation by 2020, 2030 and 2050?

2. What are the estimated biomass decomposition CO_2 and CH_4 emissions by 2020, 2030 and 2050?

3. What are the estimated biomass combustion CO_2, CH_4, N_2O and black carbon emissions by 2020, 2030 and 2050?

4. Due to the transport of disposed biomass off-site, what are the estimated CO_2, CH_4, N_2O, black carbon and hydrofluorocarbon emissions by 2020, 2030 and 2050?[6]

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[4] EPA/USDA FS, 2015. Forest Biomass Components: https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=86.

[5] FIDO 2011-2015 dataset: https://apps.fs.fed.us/fia/fido/index.html.

[6] SB 1383 requires: (1) a 50 percent statewide reduction in black carbon emissions and a 40 percent reduction in methane/hydrofluorocarbon emissions from 2013 levels by 2030; (2) a 50 percent reduction in the level of the statewide disposal of organic waste in landfills from the 2014 level by 2020 and a 75 percent reduction from the 2014 level by 2025. The 2016 ARB Short-Lived Climate Pollutants Strategy lists on-road brake/tire (2%), on-road gasoline (2%) and on-road diesel (18%) as transportation sources of black carbon emissions. http://www.arb.ca.gov/cc/shortlived/meetings/04112016/appendixa.pdf.

5. Explain how the proposed mitigation is consistent with SB 1383 2030 reduction requirements regarding methane, black carbon, hydrofluorocarbon emissions and landfill organic waste disposal.

6. By soil series, what are the estimated SOC CO_2 biogenic emissions associated with ground disturbing activities by 2020, 2030 and 2050?

Other Natural Lands Emissions

Comment 3: Other natural lands vegetation types within the CAP geographical area, include California annual grassland, scrub chaparral, chamise chaparral, riparian woodland, etc.

- Please provide the following non-forest land vegetation type and soil series conversion information:

1. By vegetation type, what is the total biomass weight of the impacted vegetation by 2020, 2030 and 2050?

2. By vegetation type, what are the estimated biomass decomposition CO_2 and CH_4 biogenic emissions by 2020, 2030 and 2050?

3. By vegetation type, what are the estimated biomass combustion CO_2, CH_4, N_2O and black carbon biogenic emissions by 2020, 2030 and 2050?

4. Due to the transport of disposed biomass off-site, what are the estimated CO_2, CH_4, N_2O, black carbon and hydrofluorocarbon emissions by 2020, 2030 and 2050?

5. Explain how the proposed mitigation is consistent with SB 1383 2030 reduction requirements regarding methane, black carbon, hydrofluorocarbon emissions and landfill organic waste disposal.

6. By soil series, what are the estimated SOC CO_2 biogenic emissions associated with ground disturbing activities by 2020, 2030 and 2050?

Wetland Emissions

Table 17 - "Other" refers to wetlands and non-vegetative land uses such as developed areas and rock outcrops ... Carbon sequestrations and storage potential of wetlands vary greatly depending on location, ecosystem, and other factors. Factors for wetlands unique to Napa County are not available and were assumed to be zero (CAP Tech Memo #1, p. 23).

Comment 4: Napa County wetlands are major carbon sinks (Attachment C). Impacted wetlands carbon sequestration rates can take decades or longer to replicate through replacement mitigation. In general, Ambrose et al. (2007) found that the primary state and federal wetland protection programs have been generating more wetlands of lower quality than the wetlands they allowed to be destroyed. CEQA GHG biogenic emissions analysis applies to *all* California wetlands, not just those wetlands designated waters of the United States and including wetlands on <5 percent grade.

- Please provide the following wetlands conversion information:

1. By wetland type, what are the estimated vegetation CO_2,CH_4 and N_2O and black carbon biogenic emissions associated with impacts to all project area wetlands by 2020, 2030 and 2050?

2. By wetland type, what are the estimated soil CO_2 biogenic emissions associated with impacts to all project area wetlands by 2020, 2030 and 2050?

3. By wetland type, what are the estimated carbon sequestration rates (i.e. metric tonnes carbon per acre per year) for the replacement mitigation by 2020, 2030 and 2050? Please provide regional data to support the findings.

4. Due to the transport of disposed biomass off-site, what are the estimated CO_2, CH_4, N_2O, black carbon and hydrofluorocarbon emissions by 2020, 2030 and 2050?

5. Explain how the proposed mitigation is consistent with SB 1383 2030 reduction requirements regarding methane, black carbon, hydrofluorocarbon emissions and landfill organic waste disposal.

Wine Industry GHG Emissions

Significant winemaking GHG biogenic emissions during the fermentation process[7] and from the disposal of grape pomace (skins, pulp, seeds, stems and other winemaking residue). In general, grapes consist of clear juice (80%), skins (8%), seeds (4.5%), pulp (4.5%) and stems (3%).[8] The annual vineyard vine clippings that are open burned generate substantial GHG emissions. Vineyard deep ripping releases soil CO_2 emissions and replanting results in significant biomass decomposition and combustion GHG biogenic emissions.

Winery Emissions

In 2014 Napa County vineyards produced 174,000 tons of grapes. Additionally, Napa County wineries import large quantities of wine grapes. The subsequent winemaking processes result in significant GHG biogenic emissions that have not been fully accounted for by the CAP. Beyond the CAP 2014 inventory data in 2015, 2016 and thus far in 2017 Napa County has approved many winery applications for new or increased wine production. Many more such applications are listed on the Planning Department current projects page.

Fermentation Emissions

Comment 5: When the sugar in grapes is fermented, it converts into almost equal quantities of ethanol and carbon dioxide.

- Please provide the following winery fermentation biogenic emissions information:

1. Including 2015, 2016 and 2017 approved winery production increases, what are the estimated winery fermentation CO_2 biogenic emissions by 2020, 2030 and 2050?

Grape Pomace

Comment 6: Processing 174,000 tons of local grapes, plus imported grapes, results in a large quantity of grape pomace, with disposal an important environmental consideration due to high-methane emissions.

- Please provide the following grape pomace disposal biogenic emissions information:

1. What are the estimated winery grape pomace disposal CO_2 and CH_4 biogenic emissions by 2020, 2030 and 2050?

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[7] Winegrape fermentation siphons off approximately 20% of grape biomass carbon.

[8] New Zealand Institute of Chemistry. 2015. *The Chemistry in Winemaking.* nzic.org.nz/ChemProcesses/food/6B.pdf.

2. Due to the transport of disposed grape pomace off-site, what are the estimated CO_2, CH_4, N_2O, black carbon and hydrofluorocarbon emissions by 2020, 2030 and 2050?

3. Explain how the proposed mitigation is consistent with SB 1383 2030 reduction requirements regarding methane, black carbon, hydrofluorocarbon emissions and landfill organic waste disposal.

Visitation Emissions

Already high-visitor numbers are expected to steadily increase in the future.

- Please provide the following visitation transportation emissions information:

1. Including 2015, 2016, 2017 event center approvals and potential helicopter air taxi services, what are the estimated visitation CO_2, CH_4, N_2O, black carbon and hydrofluorocarbon emissions by 2020, 2030 and 2050?

2. Explain how the proposed mitigation is consistent with SB 1383 2030 reduction requirements regarding methane, black carbon and hydrofluorocarbon emissions.

Wastewater

Table 6 - Estimates only account for winery wastewater sent to off-site treatment facilities and assumes those facilities use aerobic systems. On-site treatment of wastewater is not accounted for here because it is generally aerobically treated on-site and would not generate significant CH_4 emissions (Tech Memo #1, p. 10).

Comment 7: Napa Valley Register - "With hundreds of wineries in Napa County producing millions of gallons of dense water that is too thin to be processed with fat and grease waste and too thick to be sent down the drain without incurring high fees, the problem has led to more than 12,000 truckloads of wastewater being driven to Oakland's sewage treatment plant each year ... Each year, more than 74 million gallons of winery wastewater leaves the city in trucks and is driven some 40 miles south to East Bay MUD, a facility that is glad to accept the untreated waste because it can turn it into energy, statistics show" (Attachment D).

Napa County has approved significant winery production capacity since 2014 and these increases are likely to continue into the future. Under current circumstances so will the annual number of truckloads of winery wastewater being driven to Oakland. Napa County does not own or operate any wastewater treatment plants. This fact demonstrates that the county has no authority to directly reduce winery wastewater GHG biogenic emissions now or in the future. If winery wastewater GHG reductions are not possible then Napa County must gain greater reductions from other GHG emission sources located within the unincorporated county such as winemaking, visitation and natural lands conversion.

The assumption equating the state of the art capabilities of the EBMUD wastewater treatment facility to Napa Sanitation or on-site wastewater treatment hasn't been proven by the CAP. Although EBMUD wastewater generated electricity is classified as renewable energy that does not mean it is GHG emissions free. Moreover, roughly half of atmospheric black carbon comes from fossil fuel combustion and the other half from biomass/biofuel burning.[9]

[9] Biofuels are fuels produced directly or indirectly from organic material.

- Please provide the following winery wastewater biogenic/transportation emissions information:

1. Due to the 84-mile round trip transporting Napa County winery wastewater to Oakland, how many metric tonnes of CO_2, CH_4, N_2O, black carbon and hydrofluorocarbon emissions are projected by 2020, 2030 and 2050?

2. Explain how the proposed mitigation is consistent with SB 1383 2030 reduction requirements regarding methane, black carbon and hydrofluorocarbon emissions.

3. Provide measured data documentation that EBMUD treatment of Napa County winery wastewater results in no significant direct or indirect GHG emissions, including from electricity generation.

4. Provide measured data documentation that Napa Sanitation treatment of winery wastewater, including effluent fields, results in no significant direct or indirect GHG emissions.

5. Provide measured data documentation that on-site treatment of winery wastewater, including effluent fields, results in no significant direct or indirect GHG emissions.

Vineyard Emissions

Science Magazine - "They interviewed [wine grape] growers and modeled 240 different production scenarios based on the variations. On average, they found that—per unit weight—wine grapes cultivated in Napa Valley require roughly twice as much energy and water as those in Lodi, while producing twice the carbon emissions. They attribute Napa's higher environmental burden in part to its ... common practice of reducing the number of grapes on each vine to control sugar content and boost flavor."[10]

Comment 8: Napa County vineyards commonly implement heavy fruit thinning to remove 30 to 50 percent of the grape clusters annually for quality purposes. Based on a 174,000 ton harvest this annual biomass thinning rate would yield significant CO_2 and CH_4 biogenic emissions.

- Please provide the following annual vineyard grape cluster thinning biogenic emissions information:

1. Due to annual vineyard grape cluster thinning, how many metric tonnes of CO_2 and CH_4 biogenic emissions are estimated by 2020, 2030 and 2050?

Replanting Emissions

Comment 9: Napa County vineyards are replanted every 25 to 30 years resulting in substantial biomass removal and soil disturbance. Until recently vineyard replanting has been in the range of 900 to 1,600 vines per acre. New vineyards with sufficient financial and water resources are currently planting up to 2,900 vines per acre, indicating future replanting GHG biogenic emissions would be much higher than those of the past.

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[10] *Life cycle greenhouse gas, energy, and water assessment of wine grape production in California*. The International Journal of Life Cycle Assessment, September 2015, Volume 20, Issue 9, pp. 1243-1253.

- Please provide the following vineyard replanting biogenic emissions information:

1. Factoring high-density vineyard replanting practices, how many metric tonnes of CO_2, CH_4 and black carbon biogenic emissions are estimated by 2020, 2030 and 2050?

2. Due to the transport of disposed biomass off-site, what are the estimated CO_2, CH_4, N_2O, black carbon and hydrofluorocarbon emissions by 2020, 2030 and 2050?

3. Explain how the proposed mitigation is consistent with SB 1383 2030 reduction requirements regarding methane, black carbon, hydrofluorocarbon emissions and landfill organic waste disposal.

Open Burning Emissions

LU-3 - Repurpose or otherwise prevent burning of removed trees and other woody material from land use conversions of oak woodlands and coniferous forests .... Under this measure, the County would require a minimum of 80 percent of total removed weight of trees to be repurposed, buried, chipped, or otherwise prevented from burning.

In Napa County, over 102,000 cubic yards, or 82 percent, of material openly burned in Napa County consisted of discarded grapevines (Reed pers. comm., 2016)" (Memo #1, p. 19) .... AG 1 - Requires collaboration with BAAQMD. County does not have direct jurisdiction over open burning activities related to agriculture, but may have some jurisdiction over burning of flood control and forest debris.

Comment 10: While acknowledging that over 102,000 cubic yards of vineyard residue are burned annually, Table 13 (p. 18) erroneously claims that only 533 $MTCO_2$/yr, 10 $MTCH_4$/yr, 1 MTN_2O/yr and no black carbon biogenic emissions will result. Quercus Group estimates 102,000 cubic yards of vineyard residue produces 19,500 MT of carbon stocks burned per year (102,000 yd3 = 78,000 m3 = 38,992 tons = 19,496 t/C).

Whether Napa County or the BAAQMD have direct jurisdiction over agriculture open burning isn't relevant concerning the requirement for the CAP to fully estimate and feasibly mitigate foreseeable vineyard CO_2, CH_4, N_2O and black carbon biogenic emissions. According to the ARB agricultural burning releases more black carbon into the atmosphere than on-road gasoline black carbon emissions.[11] Open burning produces five to ten percent CH_4.[12] The high nitrogen and water contents of many crop residues mean that the burning of such material can produce a relatively high percentage (around 1 percent) emitted as nitrous oxide.[13] Open burning black carbon emissions are substantial.

A comprehensive GHG biogenic emissions analysis regarding agricultural open burning must be accompanied by specific, timely and feasible mitigation actions on the part of Napa County, in collaboration with the wine industry, to lessen vineyard combustion GHG biogenic emissions consistent with the state 2020, 2030 and 2050 GHG reduction targets. If agriculture open burning GHG reductions are not possible then Napa County must gain greater reductions from other GHG emission sources located within the unincorporated county such as winemaking, visitation and natural lands conversion.

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[11] ARB Short-Lived Climate Pollutants Strategy. 2016.

[12] Macpherson Energy Corporation. 2014. http://macphersonenergy.com/mt-poso-conversion.html.

[13] GreenHouse Gas Online. 2016. http://www.ghgonline.org/nitrousbioburn.htm.

- Please provide the following open burning biogenic emissions information:

1. By open burning source, how many metric tonnes of CO_2, CH_4, N_2O and black carbon biogenic emissions are estimated by 2020, 2030 and 2050?

2. Explain how the mitigation is consistent with SB 1383 2030 reduction requirements regarding methane and black carbon emissions.

Municipal Solid Waste Emissions

SW-1 - This measure was reworked to focus on the GHG reduction potential of expanding composting programs in the County. Composted organics typically involve aerobic decomposition which emits less methane emissions than the same amount of organics anaerobically decomposing in an enclosed landfill.

Comment 11: The CAP assertion that composting methane emissions are less than those from Napa County controlled landfills is specious (Attachment B). In fact composting methane emissions are very high. Nevertheless California landfills are the second largest source of methane emissions, accounting for 20 percent of statewide emissions (ARB 2016). Notably, the 2010 California Air Pollution Control Officers Association (CAPCOA) 73 percent minimum default reduction in emissions standard greatly overstates actual landfill methane (LFG) capture rates in California. The best available science has set a far lower LFG capture rate than CAPCOA: "A study of landfills in California compared predicted and actual gas generation across 35 landfills (Themelis and Ulloa, (2007)). Efficiency (actual gas collected/predicted gas produced) ranged from 6 to 100 percent with an average efficiency of 35 percent."[14] The IPCC generic default landfill gas collection baseline efficiency range is only 40-50 percent.

Themelis and Ulloa noted that, "it can be assumed that, under the right conditions, at least 50% of the 'latent' methane in MSW can be generated within one year of residence time in a landfill, while the landfilled area is not capped and rainfall can penetrate into the landfilled mass." A straightforward way to avoid this CAP LFG uncertainty is to focus the GHG biogenic analysis on the period of the landfill cell where no gas collection systems are in operation. This restricts the GHG analysis to highly putrescible materials and reduces uncertainty on gas collection efficiency.

Confirming the 2007 Themelis and Ulloa findings, a 2017 Berkeley Labs study found that methane emissions are about 1.8 times what the Bay Area Air Quality Management District has estimated.[15] The study results had a 95 percent confidence level that methane emissions are 1.3 to 2.3 times the inventory. Approximately 82 percent of the increase is from biological sources, most likely from landfills and 17 percent from fossil fuel sources. The results were obtained by combining measurements of air samples from six towers in and around the Bay Area with calculations based on atmospheric transport models.

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[14] Climate Action Reserve. 2009. *Issue Paper: Methane Avoidance from Composing*, p. 40. http://www.climateactionreserve.org/how/future-protocol-development/issue-papers/.

[15] Seongeun Jeong et al. 2017. *Estimating methane emissions from biological and fossil-fuel sources in the San Francisco Bay Area*. Lawrence Berkeley National Laboratory, for the California Energy Commission. http://newscenter.lbl.gov/2017/01/17/bay-area-methane-emissions-may-double-thought/.

- Please provide the following American Canyon/Clover Flat landfill biogenic emissions information:

1. Based on the best available science, what are the estimated CO_2 and CH_4 biogenic emissions associated with expanding composting operations by 2020, 2030 and 2050?

2. Based on the best available science, how many metric tonnes of CO_2 and CH_4 biogenic emissions associated with the American Canyon and Clover Flat landfill operations are estimated by 2020, 2030 and 2050?

3. Explain how the proposed mitigation is consistent with SB 1383 2030 reduction requirements regarding methane emissions and landfill organic waste disposal.

Sincerely,

Ron Cowan

Ron Cowan, Principal
Quercus Group

attachments (4)

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Attachment A

Regulatory Framework

Executive Order S-3-05
Signed by Governor Schwarzenegger on June 1, 2005. Executive Order S-3-05 established a California GHG reduction target of 80 percent below the 1990 level by 2050.

Assembly Bill 32
AB 32 defines carbon dioxide equivalent (CO_2e) to mean, "... the amount of carbon dioxide by weight that would produce the same global warming impact as a given weight of another greenhouse gas, based on the best available science, including from the Intergovernmental Panel on Climate Change [IPCC]."

Bay Area Air Quality Management District
"The IPCC released its Fifth Assessment Report (AR5) in 2013, including scientific research and conclusions regarding current GHG global warming potential (GWP) values for determining CO_2e. The IPCC recommends using the AR5 GWP values, as they reflect the best information on global warming potentials. The Air District is using the GWP values from AR5, which include a GWP for methane (including all feedback effects) of 34. We recommend that ARB also use GWPs from AR5 in the Strategy." Consistent with the AB 32 carbon dioxide equivalent definition, the Bay Area Air Quality Management District applies the GWP values from AR5.

Senate Bill 97
Signed by Governor Schwarzenegger on August 24, 2007. This statute required that the Office of Planning and Research prepare CEQA guidelines for evaluating the effects of GHG emissions and for mitigating such effects. The Natural Resources Agency adopted these guidelines on December 31, 2009.

Senate Bill 32
Signed by Governor Brown on September 8, 2016. This statute requires that statewide greenhouse gas emissions be reduced to 40% below the 1990 level by 2030.

Senate Bill 1383
Signed by Governor Brown on September 19, 2016. This statute requires: (1) a 50 percent statewide reduction in black carbon emissions and a 40 percent reduction in methane and hydrofluorocarbon emissions from 2013 levels by 2030; (2) a 50 percent reduction in the level of the statewide disposal of organic waste in landfills from the 2014 level by 2020 and a 75 percent reduction from the 2014 level by 2025.[1]

Senate Bill 1386
Signed by Governor Brown on September 23, 2016. This statute states that the protection and management of natural lands, as defined, is an important strategy in meeting the state's GHG reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural lands.

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[1] See Gov. Brown's SB 1383 signing comments at https://www.gov.ca.gov/news.php?id=19549.

California Air Resources Board

"California is committed to reducing emissions of CO_2, which is the most abundant greenhouse gas and drives long-term climate change. However, short-lived climate pollutants [methane, black carbon, etc.] have been shown to account for 30-40 percent of global warming experienced to date. Immediate and significant reduction of both CO_2 and short-lived climate pollutants is needed to stabilize global warming and avoid catastrophic climate change" (Reducing Short-Lived Climate Pollutants in California, 2014).

Methane

"Methane is emitted from a wide range of fugitive sources and biological processes, and is the second largest source of GHG emissions globally. Methane emissions are growing globally as a result of human activities related to agriculture, waste handling and treatment, and oil and gas production. Agriculture represents the largest methane source in California, accounting for nearly 60 percent of methane emissions (Figure 6). Landfills are the next largest source of methane, accounting for a fifth of statewide methane emissions. Pipeline leaks, oil and gas extraction, wastewater, and other industrial and miscellaneous sources make up the remainder of emissions" (Short-Lived Climate Pollutants Strategy, p. 58).

Black Carbon

"Black carbon (BC, also referred to as black soot, black carbon aerosols, black carbon particles) refers to a solid particle emitted during incomplete combustion. All particle emissions from a combustion source are broadly referred to as particulate matter (PM) and usually delineated by sizes less than 10 micrometers (PM10) or less than 2.5 micrometers (PM2.5). Black carbon is the solid fraction of PM2.5 that strongly absorbs light and converts that energy to heat. When emitted into the atmosphere and deposited on ice or snow, black carbon causes global temperature change, melting of snow and ice, and changes in precipitation patterns. Roughly half of atmospheric BC comes from fossil fuel combustion, and the other half from biomass and biofuel burning. While BC is short-lived in the atmosphere (1-4 weeks), it is linked to strong regional climate effects and a large share (~30%) of recently observed warming in the Arctic."
http://www.unep.org/transport/gfei/autotool/understandingtheproblem/Black%20Carbon.pdf.

Stanford Engineering

"Biomass burning also includes the combustion of agricultural and lumber waste for energy production. Such power generation often is promoted as a 'sustainable' alternative to burning fossil fuels. And that's partly true as far as it goes. It is sustainable, in the sense that the fuel can be grown, processed and converted to energy on a cyclic basis. But the thermal and pollution effects of its combustion - in any form - can't be discounted, [Mark] Jacobson said.

"The bottom line is that biomass burning is neither clean nor climate-neutral," he said. "If you're serious about addressing global warming, you have to deal with biomass burning as well."

https://engineering.stanford.edu/news/stanford-engineers-study-shows-effects-biomass-burning-climate-health. Jacobson, M. Z. 2014. *Effects of biomass burning on climate, accounting for heat and moisture fluxes, black and brown carbon, and cloud absorption effects.*

UC Irvine Engineering

"Generation of electricity from biomass is unique among the potential technologies for meeting RPS [renewable portfolio standards] goals in that it is associated with the generation of substantial amounts of GHGs and pollutants at generation sites during operation. This feature elucidates the importance in assessing GHG and air quality impacts from biopower." Sospedra, M. and Dabdub, D. 2015. *Assessment of the Emissions and Energy Impacts of Biomass and Biogas Use in California.*

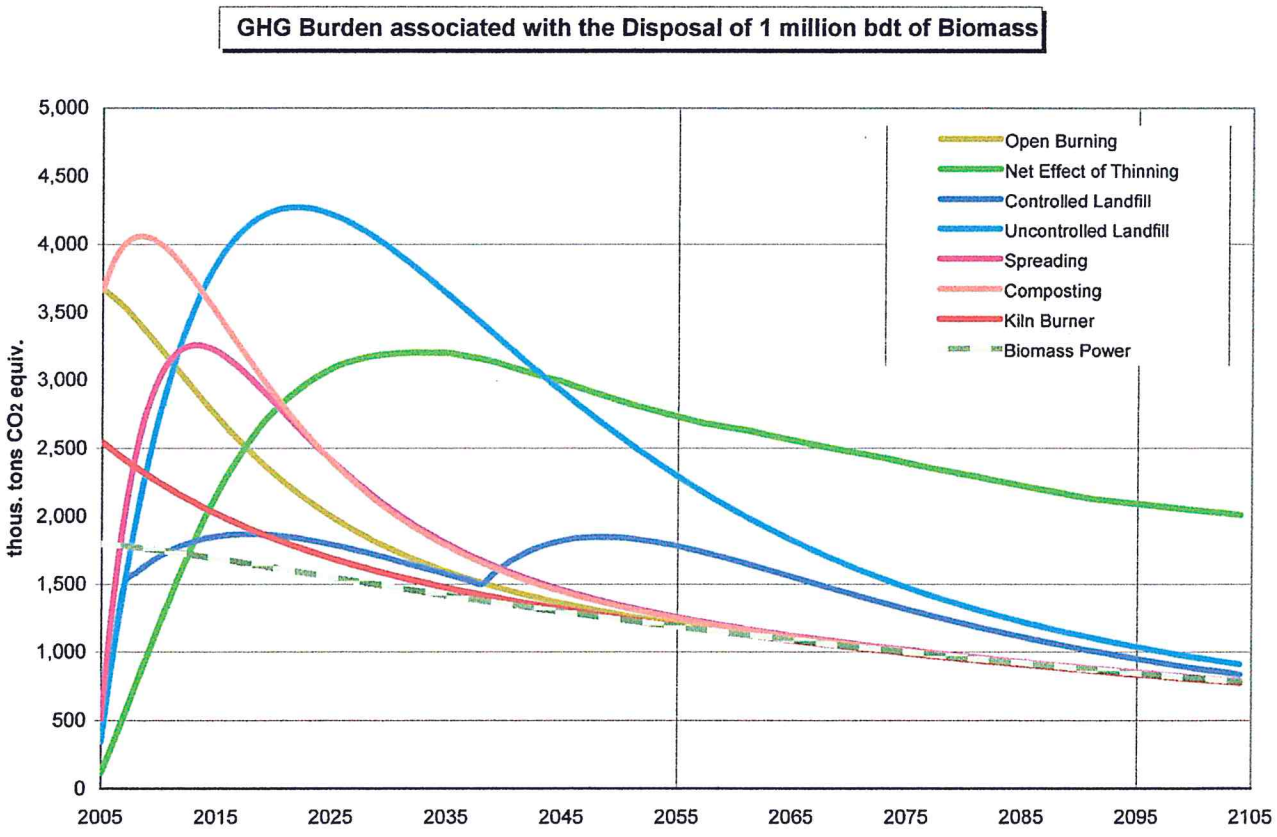
Attachment B

Biomass Disposal Greenhouse Gas Emissions

The following chart illustrates the relative GHG indirect biogenic emission effects from common methods of vegetation (biomass) disposal.[1] **The biomass combustion GHG emission values do not include black carbon emissions.**

Uncontrolled landfill disposal produces the greatest biomass GHG biogenic emissions followed by composting, open burning, mulching, forest thinning, kiln burner, controlled landfill and biomass power. The chart demonstrates that peak GHG emissions vary substantially depending on the means of biomass disposal, with the higher peaks reflecting increased amounts of methane and/or nitrous oxide emissions.

Terminology: Net effect of thinning emissions apply to forest thinning emissions and spreading emissions are equivalent to mulching emissions.



Graphic: Gregory Morris, PhD. *Bioenergy and Greenhouse Gases.* Published by Pacific Institute (2008).

[1] One bone dry ton (bdt) is a volume of wood chips (or other bulk material) that would weigh one ton (2000 pounds, or 0.9072 metric tons) if all the moisture content was removed.

Biogenic carbon cycling across lowland and upland terrains in Northern California north coast and interior ranges vegetation and wildlife habitat regions in the northern San Francisco Bay Area: 2017 overview of published research and professional (technical) literature on above- and below-ground carbon stocks and sequestration in woody plant biomass[1] and soil organic matter[2] within natural and agricultural-development vegetation communities in mesic and dry-mesic (maritime and interior) climatic zones of Central California Foothills and Coastal Mountains ecoregions.

Land Cover Plant Vegetation Community (all geologic and topographic terrains)	Long-term Carbon Storage (Stocks)		Annual Net Carbon Sequestration	
	Unit-area Carbon Stock typical value range and [estimated average] (Mt C/acre) ▪ Woody Plant Biomass Carbon (WPB-C) ▪ Soil Organic Matter Carbon (SOM-C)	Sources	Unit-area Carbon Sequestration typical value range and [estimated average] (Mt C/acre•year^{-1}) ▪ Woody Plant Biomass Carbon (WPB-C) ▪ Soil Organic Matter Carbon (SOM-C)	Sources
Oak Savanna, Woodland & Forest (upland)	WPB-C: 15–75 [40] SOM-C: 10–60 [35] *Total: 25–135 [75]*	Footnote no. 3	WPB-C: 0.2–1.4 [0.4] SOM-C: 0.1–0.4 [0.2] *Total: 0.3–1.8 [0.6]*	Footnote no. 3
Conifer Forest & Woodland (upland)	WPB-C: 25–190 [60] SOM-C: 25–100 [50] *Total: 50–290 [110]*	Footnote no. 4	WPB-C: 0.6–1.6 [0.8] SOM-C: 0.15–0.4 [0.2] *Total: 0.8–2.0 [1.0]*	Footnote no. 4
Riparian Woodland & Forest (lowland)	WPB-C: 15–800 [90] SOM-C: 45–200 [90] *Total: 60–1,000 [180]*	Footnote no. 5	WPB-C: 1.0–3.65 [1.5] SOM-C: 0.15–1.05 [0.7] *Total: 1.15–4.7 [2.2]*	Footnote no. 5
California Perennial/Annual Grassland (upland, lowland, or meadow)	WPB-C: 0.5–20 [20] SOM-C: 20–100 [50] *Total: 20.5–120 [70]*	Footnote no. 6	WPB-C: 0–2 [<<0.1] SOM-C: -0.9–0.4 [0.15 where perennial, -0.15 where annual] *Total: -0.9–0.4 [0]*	Footnote no. 6
Shrubland (upland)	WPB-C: 3–22 [20] SOM-C: 1–72 [15] *Total: 4–94 [35]*	Footnote no. 7	WPB-C: 0.1–1.7 [0.5] SOM-C: 0.1–0.3 [0.2] *Total: 0.2–2.0 [0.7]*	Footnote no. 7
Woody Wetland-Marsh (lowland)	WPB-C: 1–2 [1.5] SOM-C: 40–175 [110] *Total: 41–177 [111.5]*	Footnote no. 8	WPB-C: 0–5.5 [0.2] SOM-C: 0.2–5.5 [0.9] *Total: 0.2–11.0 [1.1]*	Footnote no. 8
Cropland (annual vegetables, nuts & non-winegrape fruit) (upland, lowland)	WPB-C: 0.5–15 [5] SOM-C: 5–65 [40] *Total: 5.5–80 [45]*	Footnote no. 9	WPB-C: 0.5–15 [5] SOM-C: -0.5–0.1 [-0.2] *Total: 0–15.1 [4.8]*	Footnote no. 9
Vineyard (perennial vine and annual winegrape) (upland, lowland)	WPB-C: 1–7 [5] SOM-C: 25–70 [50] *Total: 26–77 [55]*	Footnote no. 10	WPB-C: 1–2.2 [1.5] SOM-C: -0.5–0.4 [0.1] *Total: 0.5–2.6 [1.6]*	Footnote no. 10

[1] Woody plant biomass carbon stock and sequestration values originate from non old-growth, non-stocked, and non-plantation forests, woodlands, shrublands, and grasslands.

[2] Soil organic matter carbon stock and sequestration values originate from non old-growth, non-stocked, and non-plantation forests, woodlands, shrublands, and grasslands. Soil organic matter carbon stock values represent the total stocks over the entire 1.5-meter-deep soil profile.

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Attachment D

Napa Valley Register

Sanitation district to study winery wastewater disposal

September 06, 2014 3:30 pm • By Janelle Wetzstein

After hearing several wineries "implore" them to action, the Napa Sanitation District (NSD) agreed last week to find a more affordable way for wineries to dispose of their wastewater.

For David Graves, a Napa resident and co-founder of Saintsbury Winery in Carneros, plans to address the matter haven't come soon enough.

"I implore you to explore and embrace the possibility of a win-win solution and convene all concerned parties, with the best contemporary thinking on technical and financial solutions." he wrote in a letter to the NSD board of directors on Sept. 3. "Too much is at stake to act in haste and regret at leisure."

With hundreds of wineries in Napa County producing millions of gallons of dense water that is too thin to be processed with fat and grease waste and too thick to be sent down the drain without incurring high fees, the problem has led to more than 12,000 truckloads of wastewater being driven to Oakland's sewage treatment plant each year.

Graves, whose winery is typically capable of pre-treating wastewater and using it for irrigation on site, has been holding and hauling his wastewater to East Bay Municipal Utility District (MUD) for several weeks, since a glitch in his system caused the pre-treatment to fail. He estimated that Saintsbury would spend $40,000 during this year's harvest on trucking water to East Bay MUD.

Napa Sanitation officials said a fix to the current situation would not happen soon. "This is not something that has to be done quickly, as much as it has to be done properly," said Peter Mott, a board member and Napa city councilman. "I want our discussions to continue, but I want us to be cognizant of the fact that we are dealing with businesses that, for some, this is a pretty big surprise, cost and issue."

Wastewater treatment plants in cities with smaller populations that serve a large number of food and beverage producers are generally not designed to take the volume or density of wastewater generated by large-scale commercial producers.

Though wastewater generated by food and beverage producers typically isn't contaminated with toxins, it's mostly created when these businesses use water to clean grapes, brew beer, wash receptacles and create dairy products. Since it's a vast amount of the thick water, it's extremely expensive for smaller treatment plants to process.

Because of the added expense, treatment plants often don't accept such waste unless it has been pre-treated by the producer. Or, like Napa Sanitation, plants can accept the wastewater for extremely high fees, which makes it cheaper for producers to collect their wastewater and send it in trucks to a different plant. In the North Bay, the Oakland East Bay MUD facility is the plant of choice.

Each year, more than 74 million gallons of winery wastewater leaves the city in trucks and is driven some 40 miles south to East Bay MUD, a facility that is glad to accept the untreated waste because it can turn it into energy, statistics show. The massive plant that serves 650,000 residential customers and 88-square miles of city was built with extra capacity as well, making the winery wastewater easy and inexpensive to treat.

And so, this is the way one of the world's premiere wine locations has processed its industry waste for years - sending tens of thousands of truckloads out of the county each year or charging businesses exorbitant fees for a known cost of doing business.

Now, five years after becoming aware of the magnitude of the issue, the wineries and the Napa Sanitation board both want to find a solution. But when and what remain to be seen.

Graves asked the district not to relay on a 2009 study of this issue, saying the technology may have improved since then.

Tim Healy, Napa Sanitation's general manager, pointed out Friday that the purpose of the 2009 study wasn't necessarily to find a way to accommodate winery users, but to figure out what the county's winery wastewater situation truly was.

"Back in 2008, (the district) was experiencing operational issues at the plant that we thought could be attributed to winery wastewater," he said. "That document was really us, studying who was discharging to our system and who would potentially want to in the future."

Healy said that the district has budgeted an additional $100,000 this year to begin studying solutions to the winery wastewater issue.

According to Graves, vast technological innovations have occurred since 2011 in the wastewater industry. Rex Stults, governmental affairs director for the Napa Valley Vintners, said that innovation and collaboration are the hallmarks of the Napa Valley wine industry, and the area's community as a whole.

"Shouldn't we step back and ask `is this the best we can do'? David's (Graves') comments raised eyebrows when he questioned (the 2009) data. It seems there is a lot of opportunity for additional collaboration and innovation between the wineries and NSD."

While Stults and Graves remained optimistic about the meeting's outcome, district officials acknowledged that solutions could take time.

Healy said that the matter will come before the board again at the Oct. 15 meeting, but said that while money has been set aside to study the matter in this year's budget cycle, the district's four-year work plan has not dedicated any time for the issue. "Though this wasn't in our plan, we are trying to squeeze it in this year," he said. "We're doing some internal studies right now."

Mott said that how local wineries dispose of their wastewater is a significant matter that needs to be addressed sooner, rather than later, but agreed that it could take time. "Though we studied it in 2009, it just wasn't acted on fast enough," he said. "There are a lot of ways to handle this issue, but we haven't chosen to be a partner in the discussion and the industry hasn't done it on their own. So I see a real partnership possibility here."

Winery waste creates treatment hurdles
November 10, 2014 3:00 pm • By Howard Yune

NAPA - Every year, Napa County produces 11.3 million gallons of a liquid not nearly as cherished as its wines - and with no nearby place to dispose of it.

Local sanitation officials say nearly 43,000 gallons of wash water, wine lees, grape skins and other detritus from Napa-area wineries end up in tanker trucks, on average six or seven each working day. Bypassing the local wastewater treatment centers, the trucks make the 42-mile run to Oakland, where a single sewage plant processes the wastewater from winemakers across the Bay Area - and a broad swath of California extending to the North and Central coasts.

In a report published last month, the Napa Sanitation District has begun grappling with how it might begin handling winery byproducts at its own plant in south Napa - and deal with the higher costs officials admit nearly any alternative would pass on locally.

"If cost weren't an issue, you would want to reduce the environmental cost of trucking that waste," Jeff Tucker, the sanitation district's director of administrative services, told board members last Wednesday. "But cost is a factor, and we need the best solution that meets wineries' environmental and economic needs."

Since the early 2000s, the expedient path for wineries in Napa and much of Northern California has been to the Oakland treatment center, where the East Bay Municipal Utility District has long used excess capacity to soak up waste from wineries in the Bay Area and beyond. Much of the East Bay district's plant's capacity originally was built in the 1970s to handle wastewater from fruit and vegetable packers, only to fall into disuse with the Bay Area's increasing urbanization.

The wastewater produced by winemaking falls into an awkward middle ground of treatment. Too thin to be broken down alongside fats and oils, yet too dense to be mixed with ordinary wastewater, it does not easily fit the normal processes for removing or breaking down contaminants, officials say.

Any plan to treat winery waste within the county, Tucker said, must conquer the East Bay district's heretofore unbeatable price advantage. Customers hauling such waste to the Oakland plant -- which handles winery byproducts separately from other waste products -- pay fees totaling 12 cents per gallon, a price Napa Sanitation staff admits is nearly impossible for any local facility to match.

The Napa Sanitation report floats several options for processing local winery waste. Possibilities include setting up a pretreatment center to reduce its strength, building new digesters especially for winery byproducts, or channeling wastewater into its own plant's oxidation ponds (and adding more aerators) to speed processing.

However, district staff warned many of the alternatives would require multimillion-dollar upgrades, require land for new digesters or other additions, and require charging higher rates than the Oakland plant. Adding enough digester space for all Napa's winery wastewater, for example, could cost Napa Sanitation more than $25 million, the study suggested.

Moreover, too small an increase in local sewer capacity could leave the district struggling to process winery waste and serve other customers at the same time - especially during the fall crush season, when the volume of winery waste products can double.

"We cannot afford to take up a substantial amount of our own capacity just for our wineries, or else we'll need substantial space to build up capacity," board member Charles Gravett said at the Wednesday meeting.

In the report, district officials predicted wineries would need to make a long-term financial commitment to deliver their wastewater to Napa Sanitation for any upgrade plan to succeed - perhaps by creating a property assessment district to pay for debt service, in exchange for cheaper per-load fees.

The sanitation district may take up the issue again with local winery leaders present, but not before year's end, Tucker said after the meeting.

Regardless of the district's timetable, though, Jason Holley, the public works director of nearby American Canyon, said that city would offer it support for any proposal that can cut heavy-vehicle use on its main route.

"We have our own concerns in American Canyon: more trucks leaving the county with a product generated in the county, and all those trucks taking Highway 29," said Holley.

From: Pedroza, Alfredo
Sent: Thursday, March 23, 2017 11:01 AM
To: Morrison, David
Cc: Link, Leanne; Tran, Minh
Subject: FW: Draft CAP - fundamental error in emissions estimates

FYI.

From: Jim Wilson [mailto:jplaudatosi@gmail.com]
Sent: Thursday, March 23, 2017 10:54 AM
To: Pedroza, Alfredo; Wagenknecht, Brad; Dillon, Diane; Ramos, Belia; Gregory, Ryan
Subject: Draft CAP - fundamental error in emissions estimates

Please see my attached letter.
Thank you,
Jim

Mission: To Promote the Health, Welfare and Safety of our Community by Advocating for Responsible Planning to Insure Sustainability of the Finite Resources of Napa County

March 23, 2017

County of Napa Board of Supervisors
County Administration Building
1195 Third Street, Suite 310
Napa, CA 94559

Re: Draft Climate Action Plan

Dear Chairman Pedroza,

Yesterday, on behalf of Napa Vision 2050, I expressed to Supervisor Wagenknecht my concern that the current draft Climate Action Plan (CAP) is using the wrong global warming potential values (GWP) to estimate greenhouse gas emissions. If this is intentional, it needs to be explained. I conveyed my intent to raise this CAP GWP values error with the Bay Area Air Quality Management District, if necessary. However, I feel that as a courtesy alerting the full board to this key CAP issue first is appropriate. Does the board wish to pursue this?

As described by the Air Resources Board (ARB), "Each greenhouse gas (GHG) has a global warming potential value (GWP), which reflects the climate forcing of a kilogram of emissions relative to the same mass of carbon dioxide (CO2). This number is calculated by the Intergovernmental Panel on Climate Change (IPCC), based on the intensity of infrared absorption by each GHG and how long emissions remain in the atmosphere." As the following citations demonstrate the CAP is inappropriately using the 2007 IPCC GWP values in lieu of the the Air District use of the 2013 IPCC GWP values for estimating GHG emissions. Subsequently, the CAP GHG emissions estimates are invalid:

Draft Climate Action Plan
"CO2e measurement translates each GHG to an equivalent volume of CO2 by weighting it by its relative global warming potential (GWP). For example, per the Intergovernmental Panel on Climate Change (IPCC), CH4 and N2O are 25 and 298 times more potent, respectively, than CO2 in their ability to trap heat in the atmosphere (IPCC 2007). Converting these gases into “carbon dioxide

equivalents (CO2e)" allows us to consider all the gases in comparable terms and makes it easier to communicate how various sources and types of GHG emissions contribute to global warming" (January 2017, p. 2-6).

Bay Area Air Quality Management District
"The IPCC released its Fifth Assessment Report (AR5) in 2013, including scientific research and conclusions regarding current GHG global warming potential (GWP) values for determining CO2e. The IPCC recommends using the AR5 GWP values, as they reflect the best information on global warming potentials. The Air District is using the GWP values from AR5, which include a GWP for methane (including all feedback effects) of 34." (May 26, 2016 letter from Jack Broadbent, Executive Officer, BAAQMD, to Richard Corey, Executive Officer, CARB, p.2,). Notably, the IPCC 2007 GWP values do not account for black carbon emissions which are now subject to the GHG reduction requirements of Senate Bill 1383 (2016).

Vision 2050 looks forward to the Board's timely response in this matter.

Sincerely,
Jim Wilson
Director, Napa Vision 2050

Public Comments Received on Final Draft Climate Action Plan

Climate Action Plan
Planning Commission Hearing Date July 5, 2017

Quercus Group

Forest & Greenhouse Gas Consultants
a division of Horizon Forest Products
P.O. Box 5325 / Richmond, CA 94805
510/965-2274 / QuercusGrp@sbcglobal.net

June 19, 2017

Napa County Planning Commission
Planning, Building & Environmental Services Department
1195 Third Street, Suite 210
Napa, CA 94559

Re: Draft Climate Action Plan

Planning Commissioners:

The Quercus Group appreciates the opportunity to submit draft Climate Action Plan (CAP) comments on behalf of Napa Vision 2050 (V2050). We incorporate by reference herein our remarks of March 7, 2017. Review of the CAP responses to comments finds that the project continues to contain numerous errors of omission/commission concerning greenhouse gas (GHG) science, fact and law.

California Environmental Quality Act (CEQA) § 15183.5 requires that a good-faith effort, based to the extent possible on scientific and factual data, be made to identify all significant GHG emission sources within the chosen geographical area. Nowhere does this section state that the lack of jurisdiction means an identified significant GHG emissions source is exempt from being included in the total CAP emissions associated with the chosen geographical area.

Master Response 1: Inventory Issues
"However, BAAQMD does not have jurisdiction or approval authority over Napa County's CAP or the methods used in local CAPs in the region, nor does BAAQMD's decisions on GWP values supersede the GWP values used by CARB for statewide inventories or current efforts to update the Scoping Plan per SB 32. CARB is charged with achieving the SB 32 target. Similarly, the focus of the County is to show consistency with CARB's work and recommendations in implementing State requirements, rather than regional standards .... The County believes that the relative differences in GHG emissions estimates using the newer AR5 values would not be substantial enough to warrant the increased costs and delays."

Comment 1: The CAP issue here is not jurisdictional or approval authority but compliance with the specific language in the AB 32 global warming potential (GWP) values definition: *"based on the best available science, including from the Intergovernmental Panel on Climate Change."* CARB makes GHG policy, not GHG law. Moreover, the only place in GHG statutory law that the term "based on the best available science" appears is in the key GWP definition, which is then directly linked to the Intergovernmental Panel on Climate Change (IPCC) GWP standards. The BAAQMD is adhering to the GWP values mandated by AB 32. The meaning of the AB 32 GWP definition is crystal clear and CAP use of decade old IPCC GWP values does not represent the best available science.

The master response assertion that the use of the 2007 IPCC GWP values verus the 2013 GWP values "would not be substantial" is fallacious. The 2007 AR4 methane 100-year GWP value is 25: the 2013 AR5 methane 100-year GWP value is 34. That difference results in a huge increase when calculating 2017 methane emissions. Further the 2007 IPCC GWP values adopted by the CAP do not account for black carbon emissions, where California has established its own GWP and regulatory standards. The CAP black carbon omission occurs at the same time that CARB is concluding a four-year effort to develop a Short-Lived Carbon Pollutants (SLCP) policy. This policy aggressively seeks to significantly reduce methane (40 percent) and black carbon (50 percent) emissions by 2030 pursuant to SB 1383 requirements.

Rather than using the standard 100-year planning horizon GWP values, CARB's "SLCP strategy uses a 20-year GWP"[1] planning horizon for black carbon, which coincides with the CAP timeline. The seminal black carbon study, Bond 2013, has established a black carbon 20-year GWP value of 3,200 and a 100-year GWP of 900.[2] The state takes black carbon very seriously and so should Napa County.

Master Response 2: Short-Lived Climate Pollutants

"Appendix C to CARB's adopted SLCP Strategy (California SLCP Emissions) explains the difficulties with developing accurate black carbon estimates at the statewide level (see excerpt below, with emphases added in bold). While CARB did include an initial black carbon inventory estimate in the SLCP, the issues presented by CARB in Appendix C to the SLCP Strategy (see excerpt below) illustrate why the County has not included black carbon in the County's emissions inventory:"

Comment 2: CARB is tasked with developing raw black carbon emission estimations on a statewide scale. The CAP is tasked with measuring all potential GHG emissions, including black carbon, within the chosen geographical area. CEQA is project-specific and the short-lived climate pollutant emissions associated with the CAP chosen geographical area can be accurately estimated.

Response: ***"Elemental carbon is the "best available indicator" of black carbon, but is not a perfect proxy for warming effects, which depend on the physical and chemical properties of the particles.*** *Elemental Carbon is not a proxy for brown carbon, thus brown carbon is not included in the inventory."*

Comment 3: Elemental (organic) carbon is decidedly not a scientific proxy for black carbon emissions evaluation (attachment A). Attachment A also demonstrates that whether a GHG is state-listed or not all relevant GHGs must be analyzed under CEQA, including combustion brown carbon emissions. Basically the cooling effects of organic carbon are largely negated by the heating effects of brown carbon. If the CAP analysis is going to disingenuously factor combustion organic carbon emissions it must also factor combustion brown carbon emissions.

Response: ***"Black carbon emissions depend on a variety of factors including fuel, engine operating conditions, age, maintenance, emission control technology, load, and drive cycle. Variability in these factors and their impact on speciation profiles remains a large source of uncertainty in black carbon inventory development."***

Comment 4: Had Napa County made the effort to contact BAAQMD the air district could have provided local black carbon data/modeling information to assist the CAP analysis regarding both transportation and firewood/open burning black carbon emissions.

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[1] CARB: 2016 Edition California GHG Emission Inventory, p. 2.

[2] Bond et al. 2013. *Bounding the role of black carbon in the climate system: A scientific assessment.* CARB: California Black Carbon Control, February 2013.

Response:"*It explains that black carbon emissions are not quantified in the inventory because (1) it is difficult to develop accurate black carbon estimates, (2) reliable methods for estimation at the local level do not yet exist, and (3) CARB does not include black carbon in the most current statewide emissions inventory. The CAP explains that the State is already leading the way in reducing black carbon emissions and that State air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years.*"

Comment 5: This response asserts that transportation black carbon emissions will vanish statewide in the near future and local black carbon emissions are too difficult to measure, so they are not accounted for. The claimed demise of transportation black carbon emissions within a decade is speculative and the alleged black carbon accounting difficulty is easily addressed by simply hiring a qualified Ph.D.

Response:"*Black carbon emissions from biomass burning vary depending on fire conditions, such as the fuel type, moisture content, oxygen availability, and local meteorology. This variation leads to high uncertainty in speciation assumptions, and adequate speciation profiles to account for various fire conditions are not available. For these reasons, the wildfire emission estimate contains very high uncertainty, and should be understood to be an order-of-magnitude estimate of emissions for a typical year.*"

Comment 6: Wildfire black carbon emissions are not a CAP issue; firewood and open burning black carbon emissions are a significant CAP issue. CARB considers wildfire black carbon emissions (±67 percent) to be outside agency control. Thus state black carbon reduction efforts focus on the anthropogenic sources of black carbon combustion emissions, such as firewood and open burning. The "speciation profiles" for vegetation types burned within the CAP geographical area are well-known and certainly measurable.

This master response cherry-picks generic CARB SLCP policy statements from many thousands of pages. However, the CAP fails to reference CARB's specific scientific and factual information that guides compliance with the SB 1383 statewide black carbon reduction target by 2030. If the CAP is not measuring black carbon emissions, how can Napa County claim to be in compliance with the SB 1383 reduction goal?

Master Response 3: Wetlands and Soil Conservation/Sequestration/Storage

"*However, the CAP did not include GHG emissions associated with anticipated changes in wetland acreages, as shown in Table 17 of Appendix A, due to the lack of published Napa County-specific carbon sequestration and storage rates for wetlands and the high variability of these factors in literature ... A future study on the carbon storage and sequestration rates of wetlands in Napa County could provide more reliable carbon storage and sequestration factors that could be applied to the GHG inventory and forecast in a future update to the County CAP.*"

Comment 7: A reoccurring CAP theme is that until there are Napa County-specific scientific studies regarding local natural lands GHG biogenic emission sources (soil, wetlands) the county will defer addressing those emission issues to a future date. In fact in previous remarks excellent Napa County studies by Carlisle in 2004 and Suddick in 2013 focusing on vineyard/oak woodland soil carbon were cited. Local wetlands are not unique and scientific information from adjacent counties or other California mesic/dry-mesic climate zones are more than adequate if local data is unavailable. Napa County does not enjoy deferral options regarding soil and wetlands GHG biogenic emissions analysis or mitigation under CEQA.

Response: *"Regarding addressing this sector in the inventory and forecast, the CAP assumes that existing carbon concentrations in the soil remain unchanged after conversion to urban uses. However, regarding such conversions as rangeland to vineyards, where soil carbon could potentially increase, a detailed study would be needed to accurately characterize the soil carbon stocks across the County, which was not readily available .... To track the soil carbon stocks in the County, a detailed long-term study of samples from areas across all vineyard and land use types in the County would need to be conducted."*

Comment 8: Assumptions are not facts. Any significant soil disturbance results in carbon dioxide emissions. The significance of those emissions is determined by the depth of the grading, trenching, ripping, etc. Most new vineyards test for soil suitability by taking boring samples for laboratory testing. The lab tests include the soil organic matter (humus) percentage. This boring data is then used to stratify the humus to arrive at the soil carbon emissions based on the depth of soil disturbance So, most new vineyards have the necessary soil information readily available to estimate soil biogenic carbon dioxide emissions due to natural lands conversion.

In fact a coarse grain tool for measuring soil carbon stocks at the unincorporated county scale already exists, the USDA 2016 Gridded Soil Survey Geographic (gSSURGO) Database. In CEQA comments prepared for California Oaks recently Quercus Group included a gSSURGO soil map for the 12,000-acre Newhall Ranch project in Los Angeles County. A similar soil map for unincorporated Napa County would be around $20,000.

Master Response 4: Carbon Sequestration and Storage Quantification Methods and Land Use Change Measures (Oak Woodlands and Coniferous Forest)
"With respect to the methods and assumptions used to estimate emissions from changes in forests and oak woodlands, as well as other vegetation types, the County acknowledges and appreciates the suggested alternative methods for estimating carbon storage and sequestration rates .... For future CAP efforts, the County could consider working with subject experts, such as the Quercus Group, that have already invested research in County-specific analysis."

Comment 9: The CAP Table 16 carbon methodology grossly underestimates natural lands carbon stocking values and significantly overestimates forest land annual carbon sequestration rates. By diminishing the actual carbon storage values and overestimating the actual sequestration rates for mitigation forest, the CAP massively reduces GHG biogenic emissions before any project GHG checklist analysis even takes place. For example, the CAP riparian forest stocking figure of 57 metric tonnes is demonstrated to be absurdly low by a 2015 UC Extension study of 42 stream reaches across Napa, Sonoma and Marin Counties.[3] The CAP's manipulative approach undermines any hope of Napa County attaining the statewide 2030 or 2050 GHG emission reduction goals. See attachment B for a side-by-side Table 16 comparison. A major factor in the substantial difference between the natural lands carbon stocking estimations is that V2050 correctly accounts for soil carbon stocking values.

The CAP Table 16 lists the following as reference sources: *"IPCC 2006a, USDA 2005, CUFR 2009, Battles, et. al. 2014, Brown, et. al. 2004, Liang et. al. 2005, Proietti et. al. 2014, Napa County 2015, Kroodsma, et. al. 2006, Hade, pers. comm., 2015; data compiled by Ascent Environmental, 2016."*

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[3] Lewis et al. 2015. *Creek carbon: Mitigating greenhouse gas emissions through riparian restoration.* University of California Cooperative Extension in Marin County. Novato, California. 26 pgs.

The CAP Table 16 natural lands related reference sources are largely impertinent or outdated. These sources serve only to suppress actual GHG emissions by attempting to freeze the GHG scientific and factual discussion in the past. Neither the USDA 2005 nor IPCC 2006 generic GHG standards take into account the specific requirements of California GHG law, methane and black carbon emission regulations being prime examples. The Forest Service CUFR 2009 model is a urban tree model wholly inappropriate for analyzing Napa County timberland and oak woodland carbon stocking/sequestration rates. The pre-AB 32 Brown 2004 report was the first rudimentary step to quantify GHG emission sources statewide and its due date is long past. In contrast, the V2050 alternative Table 16 presented was based to the extent possible on the latest relevant scientific and factual data.

The use of scientifically outdated information under CEQA may have legal ramifications (*See Berkeley Keep Jets Over the Bay Com. v. Board of Port Cmrs.* (2001) 91 Cal.App.4th 1344, 1367 ("By using scientifically outdated information derived from the 1991 profile, we conclude the EIR was not a reasoned and good-faith effort to inform decisionmakers and the public about the increase in TAC emissions that will occur as a consequence of the Airport expansion.").)

Additional CAP Defects

1. Wastewater Emissions - The CAP states that, *"Estimates only account for winery wastewater sent to off-site treatment facilities and assumes those facilities use aerobic systems."* Again, assumptions are not facts. In fact the Napa County pulp-heavy wastewater delivered to EBMUD, Oakland is treated in giant *anaerobic* digesters, not an aerobic system. This case of mistaken identity represents a significant GHG analytical error.

The CAP fails to address the significant GHG emissions associated with transporting winery wastewater to Oakland. In 2014 12,000 truckloads delivered 74 million gallons of Napa County wastewater to EBMUD. Those trips resulted in one-million miles of transportation GHG emissions. Each year since has yielded more delivery trips and these yearly wastewater transportation GHG emission increases will continue into the foreseeable future.

2. Winery Emissions - The CAP fails to address the significant GHG emissions associated with fermentation processes and the disposal of very large quantities of grape pomace.

3. Visitation Emissions - The CAP fails to address the significant transportation GHG emissions associated with current visitation numbers or the very large visitor increases that will occur by 2030.

4. Vineyard Emissions - The CAP fails to address the significant GHG emissions associated with heavy-fruit thinning and vineyard replanting.

5. Solid Municipal Waste - The CAP fails to use the latest and most relevant scientific data to analyze the American Canyon and Clover Flat landfill operations methane emissions and their compliance with SB 1383 2020 and 2025 landfill organic waste disposal reduction targets.

Summary

The CAP EIR is an exercise in GHG emissions analysis deflection and dissembling. The constant among court decisions regarding GHG analysis is that project emissions must be fully rendered in a CEQA document. This CAP is designed to obfuscate and minimize project GHG emissions, rather than a bona fide attempt to comply with CEQA's focus of ascertaining "the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions."

Substantial evidence has been presented that project GHG emissions will result in potentially significant environmental effects that have not been sufficiently analyzed or feasibly mitigated. The project has not made "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" (CEQA Guidelines § 15064.4(a)). Therefore the EIR is deficient as an informational document, in that it fails to apprise decision-makers/public of the full range and intensity of the adverse GHG emission effects on the environment that may reasonably be expected if the project is approved.

Sincerely,

Ron Cowan

Ron Cowan, Principal

cc: Board of Supervisors

attachments (2)