

## **Comment 1 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Greg

Last Name: Suba

Email Address: gsuba@cnps.org

Affiliation: California Native Plant Society

Subject: Compost onto grazed grasslands: Biodiversity concerns

Comment:

Please accept and consider the attached statement of concerns from the California Native Plant Society (CNPS) regarding the proposed practice of applying compost to grazed grasslands to increase carbon sequestration by California's rangelands. CNPS has specific recommendations on how best to design pilot studies to investigate potential impacts to native grassland biodiversity, and we would be glad to discuss this in a collaborative manner.

Attachment: [www.arb.ca.gov/lists/com-attach/1-pillarsnatworklds-ws-VT0AYwBgVmlQIgdv.pdf](http://www.arb.ca.gov/lists/com-attach/1-pillarsnatworklds-ws-VT0AYwBgVmlQIgdv.pdf)

Original File Name: HealthySoils\_compost\_grasslands\_research\_needs.pdf

Date and Time Comment Was Submitted: 2015-08-07 15:52:28

No Duplicates.

## **Comment 2 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

This comment was posted then deleted because it was unrelated to the Workshop item or it was a duplicate.

### **Comment 3 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Zachary

Last Name: Kay

Email Address: zkay@srcity.org

Affiliation:

Subject: Biosolids

Comment:

Are Biosolids being considered for use on fire ravaged lands and range land restoration?

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-11 14:02:16

No Duplicates.

## **Comment 4 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Julia

Last Name: Kim

Email Address: jkim@lgc.org

Affiliation: Local Government Commission

Subject: Comments re: Joint Agency Symposium on Climate Goals and Natural and Working Lands  
Comment:

August 17, 2015

Chairman Mary D. Nichols and Executive Officer Richard Corey  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Dear Chairman Nichols and Executive Officer Corey:

The Alliance of Regional Collaboratives for Climate Adaptation (ARCCA) welcomes the opportunity to provide comments on the Joint Agency Symposium on Climate Goals and Natural and Working Lands.

ARCCA is a network comprised of existing regional collaboratives from across California. ARCCA's members represent leading regional collaboratives that are already coordinating and supporting climate adaptation efforts in their own regions in order to enhance public health, protect natural systems, build economies, and improve quality of life. Through ARCCA, member regional collaboratives have come together to amplify and solidify their individual efforts, as well as to give a stronger voice to regionalism at the state and federal levels. ARCCA members share information among regions on best practices and lessons learned; identify each region's most innovative and successful strategies; and then determine how these strategies could be adapted to another region's particular needs. As a result, ARCCA bolsters the efforts of member regional collaboratives and empowers those interested in forging new regional partnerships.

California has been tremendously successful in developing and executing mitigation strategies to respond to the challenge of climate change. In recent months, the urgency and opportunity of addressing climate change through accelerated mitigation and adaptation activities have become even more clear, as Governor Brown outlined in his recent Executive Order (B-30-15).

We are grateful to see the administration's key principles and concepts reflected in the current draft, especially those related to climate impacts and resiliency. We are also very appreciative that the guidelines recognize the importance of coordination with local governments, as well as with rural communities. As we look to accelerate our greenhouse gas reductions across the state, we know you are aware of the challenges that managing farm and rangelands, forests, and wetlands to store carbon can present. To realize success, we encourage continued efforts from the State to engage and empower local communities, particularly in California's rural areas, to take action and implement investments that strengthen the state's overall economic, environmental, and social resilience. Additionally, taking a regional approach to climate adaptation to support greenhouse gas reduction goals is critical to protecting and managing land to minimize greenhouse gas emissions, increase carbon sequestration, and build resilience. Within these contexts,

we offer a few broad comments that might strengthen the State's management of natural resources to address climate change and achieve California's climate goals.

It is clear that the State recognizes the critical role that rural communities play to help advance climate mitigation efforts. However, climate change impacts—including decreased snowpack, continued droughts, and more numerous and damaging wildfires—grow in severity while investments in important land and water resources to address those impacts, especially in the forested headwaters of the Sierra, declines. The well-being of all Californians is inextricably tied to the goods and services, such as clean water, clean air, carbon storage, and recreation, that are provided by resource-rich, rural areas; thus protecting California's rural communities and regions is equally important to meeting long-term urban sustainability goals. Investment in the upper watershed is also critical to urban adaptation strategy to ensure reliability of water, energy, recreation, and other resources urban areas rely upon. Through ARCCA, both urban and rural areas are working together to begin changing how funds get allocated in annual budget discussions, future investment plans, and ongoing agency grant programs to ensure that more funding is available for rural projects that have statewide benefits.

Reducing our risks and increasing our capacity to respond and become more resilient to the changing climate will require a new and unprecedented degree of collaborative action throughout California. Climate change mitigation and adaptation conversations must occur at scales above city and county footprints to be relevant and most effective as an integrated, landscape-scale approach is required to properly manage the State's natural and working lands to achieve California's climate goals. Communities are already bound together at a regional scale by shared geography and mutual reliance on resources that span across jurisdictions, such as watersheds, forests, agricultural lands, rangelands, and grasslands, and regional adaptation efforts are more likely to have shared priorities and common goals with greater potential to have a more holistic impact that address the region's needs. Adopting a regional approach that engages key stakeholders from all sectors—urban and rural, public and private, decision-makers and implementers—will be critical to respond to climate change quickly, effectively, and equitably.

Because adapting to climate change will require significant resource investments, great changes to the status quo, and engagement of people from all sectors of society, it is important to prioritize those actions that yield the greatest collective benefits. Managing natural and working lands to increase carbon sequestration presents a great opportunity to employ strategies that will yield co-benefits to California's environment, economy, and public health, such as investing in urban greening to enhance carbon sequestration, increase energy efficiency, and improve air quality. We encourage the State to employ strategies that yield the greatest collective benefits by adopting landscape or watershed scale analyses, focusing on natural system function and services, and establishing a preference for green or nature-based responses to the maximum extent feasible.

We hope these comments are helpful to your efforts, and welcome the opportunity to provide additional clarification or support development of specific language as desired.

Sincerely,

Krista Kline  
ARCCA Chair  
The Los Angeles Regional Collaborative for Climate Action & Sustainability

Larry Greene

ARCCA Vice-Chair  
Capital Region Climate Readiness Collaborative

Cody Hooven  
The San Diego Regional Climate Collaborative

Allison Brooks  
Bay Area Regional Collaborative and the Alliance for Climate  
Resilience

Kerri Timmer  
Sierra Climate Adaptation & Mitigation Partnership

Attachment: [www.arb.ca.gov/lists/com-attach/4-pillarsnetworklds-ws-UDFXI1Q2U2NSNQBf.docx](http://www.arb.ca.gov/lists/com-attach/4-pillarsnetworklds-ws-UDFXI1Q2U2NSNQBf.docx)

Original File Name: ARCCA Joint Agency Symposium Comments.docx

Date and Time Comment Was Submitted: 2015-08-17 12:28:44

No Duplicates.

## **Comment 5 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Niles

Last Name: Brinton

Email Address: niles@charborn.com

Affiliation: Charborn Biochar

Subject: Take Biochar in to Consideration

Comment:

Three main points:

1) Increased focus on carbon sequestration in forest lands is not helpful unless we can get ahead of the growing trend of stand-replacing fires in CA. These fires represent carbon liabilities as well as significant sources of particulate air pollution.

2) When good carbon accounting is applied to forest management, working forests can be used to sequester large amounts of carbon indefinitely, with sequestration in the form of various wood products.

3) Biochar is a wood product that can a)provide a much-needed revenue source for fuels reduction projects and carbon-neutral biomass energy generation; b)provide climate change mitigation by sequestering measurable amounts of carbon in agricultural working lands when used as a soil amendment; c)provide climate change adaptation as a soil amendment that improves efficiency of water and nutrient use and drought resistance in agricultural operations.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-21 10:12:00

No Duplicates.

## Comment 6 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.

First Name: Raymond

Last Name: Baltar

Email Address: raymond.baltar@gmail.com

Affiliation: Sonoma Biochar Initiative

Subject: Biochar use in agriculture as a drought mitigation strategy

Comment:

My name is Raymond Baltar and I am the Director of the Sonoma Biochar Initiative, a project of the Sonoma Ecology Center. Thank you for providing this opportunity to bring our voice to this important discussion at this critical juncture.

Our organization, in collaboration with many partners, has accomplished much over the last 5 years, including planning and hosting the US Biochar Conference in 2012 at Sonoma State University, training over 300 farmers and foresters on an effective conservation method which show producers how to manage traditional open burn piles in a much less polluting way that also produces biochar, and a CIG demonstration project where we are producing and testing biochar on local farms in Sonoma County. But I am here to focus on how and why biochar supports the Governor's 5th Pillar—managing natural and working lands to store carbon.

Biochar, is a form of charcoal suitable for use in agriculture.

The PRODUCTION of biochar:

- 1) Improves management of currently underutilized biomass waste streams
- 2) Produces a number of marketable co-products, including renewable energy in the form of syngas, bio-oils, and process heat.
- 3) Creates jobs in regenerative agriculture and community supported energy independence- two key areas of our state economy that need acceleration

A growing number of scientific studies indicate that the USE of biochar in agricultural:

- 1) CAN help farmers grow healthier soils that retain more moisture and more nutrients, reduce input costs and help mitigate the effects of our devastating drought while acting as a catalyst for the growth of soil organic carbon- critical to meeting the food security needs demanded of our great state.

And

- 2) Could be a significant and scalable strategy to help mitigate greenhouse gas emissions and climate change by sequestering carbon safely in the soil. This is where our interests as the leading biochar advocacy organization in the state align perfectly with the goals outlined in Gov. Brown's 5th Pillar. There are other synergies as well, such as with Pillars 1- 3 the goal of cleaner and more renewable energy production, and Pillar #4, reducing black carbon and methane.

In Europe, for example, a significant amount of biochar is first being used in animal agriculture (for bedding or nutrition) before it is used again to improve soil. One study found that cattle fed a small amount of biochar reduced enteric methane emissions by 22%, while also improving their weight.



We strongly believe that the production and use of biochar has so many potential benefits, and fits so well within the goals of the Governor's 5th pillar, that we feel large-scale, statewide field trials (for livestock husbandry and soil) should be a priority and funded by the State. We commend Secretary Ross and Secretary Laird and their staffs for the strides made to date. We have a growing network of scientists, University researchers, ag and forestry organizations, farmers and ranchers at-the-ready to participate in testing, and biochar-related businesses ready and willing to collaborate on these field trials, and we are committed to help build a coalition to get this research off the ground.

Thank you.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-25 15:22:31

No Duplicates.

## **Comment 7 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Chrisandra

Last Name: Flores

Email Address: cjoFlores@gmail.com

Affiliation:

Subject: Reestablish WAC subvention funding!

Comment:

"Protect: Minimizing conversion and managing to preserve the sequestration potential of forests, rangelands, farms, wetlands and riparian systems will be essential." - from ARB fact sheet

If the above statement is true, the Governor should seriously consider reestablishing the subvention funding, taken from counties, a few years ago, for Williamson Act Contracts. Some counties are no longer accepting new WACs and ranchers are feeling the pressure of development.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-25 16:32:20

No Duplicates.

## **Comment 8 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: John

Last Name: Walker

Email Address: CARDIFFCOVE@COX.NET

Affiliation:

Subject: "Climate Change"

Comment:

CO2 is not responsible for "climate change". It is only .0038% of the atmosphere. It is essential for ALL plant life on earth. No "greenhouse" change can occur unless it exceeds 25% of the atmosphere. Please stop publishing your lies and bogus "scientific" propaganda on the ignorant public. I totally support clean air and water but CO2 is NOT a pollutant. Please stop referring to it as such. We are carbon based lifeforms and what you are doing is squandering valuable resources on stupid ideas. You should be promoting nuclear clean energy and reprocessing spent fuel. We have thousands of years of radioactive material that will turn to lead regardless of whether we use it or not so we should put it to good use. We now have the technology to use it safely. More people die every year in the application of solar and wind harvesting than have been killed in the history of nuclear power.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-26 00:24:59

No Duplicates.

## **Comment 9 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Dan

Last Name: Morash

Email Address: dan.morash@calsafesoil.com

Affiliation: California Safe Soil, LLC

Subject: New technologies that sequester GHG's as organic matter in farmland soil

Comment:

California Safe Soil has a breakthrough new technology to recycle unsold food from supermarkets into fertilizer for farms. Instead of going to landfill and creating carbon dioxide and methane GHG's, our liquid fertilizer, called Harvest to Harvest (H2H), goes through the farmer's driplines or other irrigation equipment and into the root zone in the soil. H2H stimulates growth in soil organisms, which triggers increased plant root growth, flowering and fruiting. Plants need less water and fertilizer, and crop yields increase. Soil organic matter levels increase, sequestering carbon in the soil, while reducing waste and making California agriculture more sustainable. Our work has been affirmed by research at UC Davis and the UC Cooperative Extension offices. See our website, [www.calsafesoil.com](http://www.calsafesoil.com).

We can do a lot to help California achieve its GHG reduction goals, but we need recognition and we need help to get our business from pilot to commercial stage. Thereafter, our technology can stand on its own, with no further support. Either the CalRecycle organics recycling program or the CDFA Healthy Soils Program can help. We also need the ARB to fully recognize the extent to which our process is successful in sequestering GHG's.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-26 12:16:19

No Duplicates.

## **Comment 10 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Dan  
Last Name: Silver  
Email Address: dsilverla@me.com  
Affiliation: Endangered Habitats League

Subject: Natural Resources Section, Second Investment Plan concept paper  
Comment:

Gentlepersons:

Attached please find comments from Endangered Habitats League.  
These comments are only submitted electronically.

Please let me know if additional information would be helpful.

With best regards,  
Dan Silver  
Executive Director

Attachment: [www.arb.ca.gov/lists/com-attach/10-pillarsnatworklds-ws-AGVQPgZrUy0LfIM2.pdf](http://www.arb.ca.gov/lists/com-attach/10-pillarsnatworklds-ws-AGVQPgZrUy0LfIM2.pdf)

Original File Name: EHL-SecondInvestmentPlan-8.28.15.pdf

Date and Time Comment Was Submitted: 2015-08-28 11:22:28

No Duplicates.

## **Comment 11 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Carla

Last Name: Rosin

Email Address: crosart05@yahoo.com

Affiliation:

Subject: Restorative Agricultural practices

Comment:

I am a strong supporter of SB367 and it's support of sustainable land use practices. I would like to see legislation go beyond sustainable to support restorative and Regenerative practices in protecting Farm and Ranch land. Protecting and restoring our natural resources is essential. Looking at restorative and regenerative ag practices as practiced and taught by incredible educators such as Daren Dougherty of Reagrarians in Australia [www.reagrarians.org](http://www.reagrarians.org) and Mark Shepard, author of Restoration Agriculture, Farmer/Consultant in Wisconsin <http://www.newforestfarm.net>, is a way to promote landstewardship practices and farmers moving this direction. Restoring ecosystems through alternative farming practices and preserving diversity should be a priority.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-28 12:01:38

No Duplicates.

## **Comment 12 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Stephanie

Last Name: Bartron

Email Address: stephanieb@greengardensgroup.com

Affiliation: Green Gardens Group

Subject: Carbon Negative Cities? Yes!

Comment:

Our urban and suburban landscapes hold great potential for multiple-benefit CO<sub>2</sub> reduction and sequestration. Plants and soil are the carbon vacuums we have, and urban planning, renewal and resilience must all work together to make our cities beautiful, healthy, functional, sustainable carbon sinks. Think globally, sequester locally!

Restoring watersheds, carbon gardening, nutrient cycling, reducing urban heat island effect (and thus GHG/energy need) can all happen. Trees, plants, stable soil sequestration, urban wetlands, residential gardens, public spaces - so many ways to sequester. And as we transform our open reservoirs, fix our sidewalks/streets, transportation, storm water, and waste streams (all rivers in one way or another) we need to bring all hands on deck - city, county, state and federal players and departments working together with the common goal of making cities that reduce waste, recycle (absorb, reuse and replenish) water, and maximize carbon sequestration.

A truly green labor force is also needed - engineers, designers, planners, educators, laborers and caretakers - working together to break the concrete, plant the trees, tend the landscapes and put/keep the carbon back underground. Besides saving the world, we'll be left with beautiful, functional cities, vibrant economies and happy, healthy citizens.

Please - let the cities, and the urban people/plants/soil be part of the solution. We can help, we just need to work together.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-28 14:37:20

No Duplicates.

**Comment 13 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Julia

Last Name: Levin

Email Address: jlevin@bioenergyca.org

Affiliation: Bioenergy Association of California

Subject: Comments on Carbon Sequestration

Comment:

Attached please find BAC's Comments on Carbon Sequestration on Natural and Working Lands.

Attachment: [www.arb.ca.gov/lists/com-attach/14-pillarsnatworklds-ws-VTcBZlQ2WVULblU6.pdf](http://www.arb.ca.gov/lists/com-attach/14-pillarsnatworklds-ws-VTcBZlQ2WVULblU6.pdf)

Original File Name: BAC Comments on Carbon Sequestration Plan.pdf

Date and Time Comment Was Submitted: 2015-08-31 12:11:06

No Duplicates.



## **Comment 14 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: John

Last Name: Hopkins

Email Address: ieh@cal.net

Affiliation: Cal Habitat Conservation Planning Coalit

Subject: Need to incorporate this set of natural and working lands benefits

Comment:

In addressing the benefits of natural and working lands for addressing Greenhouse Gas emissions it is essential include the following items.

- \* Encompass all natural lands, including lands in southern California that are not utilized for livestock grazing. For example mature chaparral ecosystems in southern California can be a significant carbon sink (Luo et al, 2007).

- \* Recognize and assist major ongoing conservation. County-scale Natural Community Conservation Plans and regional Habitat Conservation Plans being prepared or implemented across the state will, when completed, provide permanent conservation of over 2 million acres. This includes significant acreage in addition to acres protected to mitigate for impacts of economic activities. Until protected, most of these lands are threatened by development. The conservation protects existing sequestered carbon, and provides opportunities for additional carbon sequestration. The requirement for management plans and adaptive management programs will, in many cases, provide opportunities for habitat-friendly management that increases carbon sequestration.

- \* Utilize both conservation easements and fee simple acquisition, as appropriate in individual situations, for the permanent protection of natural and working lands.

- \* Recognize the importance of soil carbon (Potter, 2010)

- \* Recognize that the loss of natural ecosystems is severe and ongoing. Liu et al (2012) projected that 17 percent of the grassland and shrubland areas in California's Mediterranean climate region will be lost to conversion between 2005 and 2050. The major causes are urban/suburban/rural development and conversion to orchards and vineyards. Essentially all of the remaining coastal sage scrub habitat in southern California that is not protected as conservation land (primarily through Natural Community Conservation Plans) will be lost to suburban and rural development. All of these conversions will result in substantial release of CO2 into the atmosphere. For example, conversion of natural ecosystems to agricultural land results in loss of 25 to 50 percent of the original organic carbon (Lal, 2001).

- \* When natural and working lands are converted to urban / suburban or rural development there are two carbon impacts. The first is loss of vegetation and soil carbon from land clearing and grading. The second is long term increased carbon emissions by vehicles and other uses in the developed areas. For example, a recent UC Davis study of Yolo County shows that the annual carbon emissions level of urban lands is 219-fold higher than rangelands and 70-fold higher than irrigated croplands (Jackson et al, 2012).

- \* Build on existing research and data for non-forest, non-wetland

ecosystems. There have been measurements of carbon fluxes at a few California rangeland locations; grasslands, oak savanna, and southern California chaparral. In dry years, rangelands are often a carbon sink, absorbing more carbon than is emitted into the atmosphere by respiration. In wetter years, particularly when there is some summer rainfall, increased respiration may result in a rangeland area being a carbon source. There is data showing that natural lands with woody vegetation, including oak woodlands and chaparral, are net carbon sinks. For example, Liu et. al. (2012) determine that grasslands and shrublands in Mediterranean climate California are a carbon sink ( -6.4 to +0.3 teragrams of carbon a year for the entire area). Silver (2009) and DeLonge et. al. (2014) state that California rangelands have the potential for considerable carbon sequestration in the soil. Baldocchi (2009) states that oak woodlands are carbon sinks ( - 92 +/- 43 gms carbon per square meter per year). A mature, 100 year old growth chamise chaparral stand was found to sequester 58 grams of carbon per square meter per year on average over a seven-year period). Walter Oechel and colleagues at San Diego State University have conducted broader studies on Southern California Chaparral and concluded that chaparral ecosystems are a significant carbon sink. (Oechel, 2013)

\* Recognize the full variety of co-benefits from the conservation of natural and working lands. These include protection and restoration of healthy watersheds, groundwater recharge, retention of floodwaters in natural and agricultural floodplains, protection and restoration of healthy ecosystems with their essential ecosystem function and processes, recreation and nature appreciation opportunities for urban dwellers, tourism, sustaining family ranches and farms and rural communities

#### References

Baldocchi D. (2009) Carbon and Water Exchange of an Oak-grass Savanna and Peatland Pasture Ecosystem. Berkeley Faculty Roundtable on Environmental Services in Rangeland Production systems. March 20 2009. University of California, Berkeley.

DeLonge MS, Owen JJ and Silver WL. (2014) Greenhouse Gas Mitigation Opportunities in California Agriculture: Review of California Rangeland Emissions and Mitigation Potential. Nicholas Institute GGMCA R 4. Durham, NC: Duke University

Jackson L. et.al. (2012) Adaptation Strategies for Agricultural Sustainability in Yolo County, California. California Energy Commission Publication number: CEC-500-2012-032.

Lal R. (2001) World Cropland Soils as a Source or Sink for Atmospheric Carbon, *Advances in Agronomy*. 71:145-191.

Liu S. et. al. (2012) Baseline and Projected Future Carbon Storage and Greenhouse-Gas Fluxes in Ecosystems of the Western United States. In Zhu S and Reed BC, eds. Baseline and Projected Future Carbon Storage and Greenhouse-Gas Fluxes in Ecosystems of the Western United States. Chapter 5. U.S. Geological Survey Professional Paper 1797. Reston VA.

Luo H. et.al. (2007) Mature Semiarid Chaparral Ecosystems can be a Significant Sink for Atmospheric Carbon Dioxide. *Global Change Biology*. 13:386-396.

Oechel W. (2013) The Effects of Climate Change: Elevated CO<sub>2</sub>, Climate Variability, and Fire, on the Functioning and Atmospheric Feedbacks of Chaparral of Southern California and the Desert of Baja California, Mexico. Powerpoint presentation. February 6 2013.  
[www.otmed.fr/IMG/pdf/Walter\\_Oechel\\_06\\_February\\_2013.pdf](http://www.otmed.fr/IMG/pdf/Walter_Oechel_06_February_2013.pdf)

Potter C (2010) The Carbon Budget of California. NASA Publications 81 <http://digitalcommons.unl.edu/nasapub/81>

Silver WL, Ryals R and Eviner V. (2010) Soil Carbon Pools in California's Annual Grassland Ecosystems. Rangeland Ecology and Management. 63:128-136.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-08-31 13:49:35

No Duplicates.

**Comment 15 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Kenny

Last Name: Key

Email Address: kenny@interraenergy.us

Affiliation: Interra Energy, Inc.

Subject: Comments from Interra Energy on August 5th Natural and Working Lands Symposium  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/16-pillarsnatworklds-ws-UjtUPFwpBDIAdFIg.pdf](http://www.arb.ca.gov/lists/com-attach/16-pillarsnatworklds-ws-UjtUPFwpBDIAdFIg.pdf)

Original File Name: Interra Energy - Comment Natural and Working Lands Symposium - 083115.pdf

Date and Time Comment Was Submitted: 2015-08-31 14:32:30

No Duplicates.

**Comment 16 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Lara

Last Name: Bryant

Email Address: lbryant@nrdc.org

Affiliation: Natural Resources Defense Council

Subject: Comment on Natural and Working Lands program goals

Comment:

Please see attached comments

Attachment: [www.arb.ca.gov/lists/com-attach/17-pillarsnatworklds-ws-BmhUIFM2BzcKUwdk.pdf](http://www.arb.ca.gov/lists/com-attach/17-pillarsnatworklds-ws-BmhUIFM2BzcKUwdk.pdf)

Original File Name: NRDC comments CA Working Lands program.pdf

Date and Time Comment Was Submitted: 2015-08-31 14:43:38

No Duplicates.

## **Comment 17 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Max

Last Name: DuBuisson

Email Address: max@climateactionreserve.org

Affiliation: Climate Action Reserve

Subject: Suggested adoption of compliance offsets protocol for grassland conservation

Comment:

The Climate Action Reserve applauds the efforts to collaborate on the important issue of climate change mitigation as it relates to California's natural and working lands. Please see the attached summary of the Reserve's standardized project protocol for avoided conversion of grassland to cropland. The Reserve believes that this protocol could easily serve as a model for the efficient development of a compliance offset protocol for this important tool for grassland ecosystem conservation.

Attachment: [www.arb.ca.gov/lists/com-attach/18-pillarsnatworklds-ws-UzAAZ1cJAj9VMgdz.pdf](http://www.arb.ca.gov/lists/com-attach/18-pillarsnatworklds-ws-UzAAZ1cJAj9VMgdz.pdf)

Original File Name: CA Natural and Working Lands Symposium\_Climate Action Reserve Comments 2015.pdf

Date and Time Comment Was Submitted: 2015-08-31 15:22:11

No Duplicates.

## **Comment 18 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Craig  
Last Name: Thomas  
Email Address: [craig@sierraforestlegacy.org](mailto:craig@sierraforestlegacy.org)  
Affiliation: Sierra Forest Legacy

Subject: PILLARSNATWORKLDS-WS.

Comment:

Please find attached our comment letter on the Climate Pillars Symposium on Natural and Working Landscapes.

Sierra Forest Legacy is a coalition of over 80 conservation organizations focused on science-based management of public lands in the Sierra Nevada. Of particular importance is the utilization of fire to enhance forest resilience, carbon stability and to minimize smoke impacts on public health by limiting emissions from large, uncharacteristic wildfire.

Sincerely,

Craig Thomas  
Conservation Director  
Sierra Forest Legacy

Attachment: [www.arb.ca.gov/lists/com-attach/19-pillarsnatworklds-ws-VDdQOI6UW8EY1Uh.pdf](http://www.arb.ca.gov/lists/com-attach/19-pillarsnatworklds-ws-VDdQOI6UW8EY1Uh.pdf)

Original File Name: Climate Change Pillars Symposium on Natural and Working Landscapes\_SFLComment Letter August 31, 2015.pdf

Date and Time Comment Was Submitted: 2015-08-31 15:23:59

No Duplicates.

**Comment 19 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Greg  
Last Name: Kester  
Email Address: gkester@casaweb.org  
Affiliation: California Assn of Sanitation Agencies

Subject: Carbon Sequestration  
Comment:

Please accept the attached comments from the California Association of Sanitation Agencies on the Climate Change Pillar on Natural and Working Lands.

Attachment: [www.arb.ca.gov/lists/com-attach/20-pillarsnatworklds-ws-ADhRegY0VDYAKwY3.pdf](http://www.arb.ca.gov/lists/com-attach/20-pillarsnatworklds-ws-ADhRegY0VDYAKwY3.pdf)

Original File Name: 8-31-15 CASA Comments Carbon Sequestration.pdf

Date and Time Comment Was Submitted: 2015-08-31 16:11:47

No Duplicates.



**Comment 20 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Joyce  
Last Name: Dillard  
Email Address: dillardjoyce@yahoo.com  
Affiliation:

Subject: Comments ARB Natural and Working Lands Symposium due 8.31.2015  
Comment:

Attached

Attachment: [www.arb.ca.gov/lists/com-attach/21-pillarsnatworklds-ws-VTYBaFA8UW8BYgRq.pdf](http://www.arb.ca.gov/lists/com-attach/21-pillarsnatworklds-ws-VTYBaFA8UW8BYgRq.pdf)

Original File Name: Comments ARB Natural and Working Lands Symposium due 8.31.2015.pdf

Date and Time Comment Was Submitted: 2015-08-31 16:35:47

No Duplicates.

**Comment 21 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: George

Last Name: Lange

Email Address: glange@crpd.org

Affiliation: Mtn. Recreation & Conservation Authority

Subject: Comments on Climate Change Pillar Symposium on Natural and Working Lands

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/22-pillarsnatworklds-ws-BmsFcQZkUGILUghk.pdf](http://www.arb.ca.gov/lists/com-attach/22-pillarsnatworklds-ws-BmsFcQZkUGILUghk.pdf)

Original File Name: MRCA Letter 2.pdf

Date and Time Comment Was Submitted: 2015-08-31 16:30:00

No Duplicates.

**Comment 22 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: JOSEPH

Last Name: EDMISTON

Email Address: edmiston@smmc.ca.gov

Affiliation: Santa Monica Mountains Conservancy

Subject: Comments on Climate Change Pillar Symposium on Natural and Working Lands

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/23-pillarsnatworklds-ws-VSZXPFI+UmIEXQhk.pdf](http://www.arb.ca.gov/lists/com-attach/23-pillarsnatworklds-ws-VSZXPFI+UmIEXQhk.pdf)

Original File Name: SMMC Letter 2.pdf

Date and Time Comment Was Submitted: 2015-08-31 16:30:00

No Duplicates.

**Comment 23 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Bill

Last Name: Stewart

Email Address: billstewart@berkeley.edu

Affiliation: University of California Berkeley

Subject: Reducing forest mortality and ensuring efficient product use

Comment:

Letter is attached

Attachment: [www.arb.ca.gov/lists/com-attach/24-pillarsnatworklds-ws-WwRUPAZwVmlQCQVk.pdf](http://www.arb.ca.gov/lists/com-attach/24-pillarsnatworklds-ws-WwRUPAZwVmlQCQVk.pdf)

Original File Name: NWL Aug 31 comment letter from WCStewart.pdf

Date and Time Comment Was Submitted: 2015-08-31 17:12:59

No Duplicates.

**Comment 24 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Greg

Last Name: Kester

Email Address: gkester@casaweb.org

Affiliation: California Association of Sanitation Age

Subject: Comment letter on Climate Change Pillar on Carbon Sequestration

Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/25-pillarsnatworklds-ws-UGhTeFVnWTsGLVdm.pdf](http://www.arb.ca.gov/lists/com-attach/25-pillarsnatworklds-ws-UGhTeFVnWTsGLVdm.pdf)

Original File Name: 8-31-15 CASA Comments Carbon Sequestration.pdf

Date and Time Comment Was Submitted: 2015-09-01 10:27:26

No Duplicates.

**Comment 25 for Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) - 1st Workshop.**

First Name: Steven

Last Name: Love

Email Address: slove@californiawildlifefoundation.org

Affiliation:

Subject: Greenhouse Gas Emissions Comments

Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/26-pillarsnatworklds-ws-AXFXOFE8AzwLbANx.zip](http://www.arb.ca.gov/lists/com-attach/26-pillarsnatworklds-ws-AXFXOFE8AzwLbANx.zip)

Original File Name: pillar.zip

Date and Time Comment Was Submitted: 2015-09-03 09:33:21

No Duplicates.

**There are no comments posted to Governor's Pillars: Natural Working Lands (pillarsnatworklds-ws) that were presented during the Workshop at this time.**