

## **Comment 1 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Shane  
Last Name: Coffield  
Email Address: scoffiel@uci.edu  
Affiliation: UC Irvine; NASA GSFC

Subject: Additionality concerns  
Comment:

Thank you for organizing this workshop. It's great to see how CARB is thinking about updating the protocol based on new science and data opportunities.

I'm glad there was a lot of discussion of remote sensing data. As an ecosystem ecologist I'm supportive of these products to be used in addition to ground-based data. The remote sensing data continue to improve and can provide more comprehensive views in space and time, as well as adding transparency and lowering barriers to entry for small landowners.

In September we published a paper in Global Change Biology (<https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.16380>) which I think has already been on your radar and may have been partly addressed in the workshop. There are a couple points I would like to emphasize and clarify regarding the study:

More than a critique of any specific methods embedded in the current protocol, the study was designed to look for RESULTS from the ~10 years the compliance program has existed. Of course this is a limited record and only a small piece of the total 100+ year lifetime of projects, but we at least have a window now to look back for some detectable signature of carbon offsets on the landscape. For example, forest offsets are often discussed as an important financial incentive for landowners to harvest less than they otherwise would have. Can we see that reflected in harvest rates yet?

It should be concerning to CARB staff, policymakers, and the public that we can not yet detect a harvest reduction in carbon offset projects compared to pre-project levels or compared to other similar private forests ("similar" defined 3 different ways in the study).

CARB seems very defensive of the current baseline system as reasonable and conservative, with multiple safeguards built in. However our study should raise a red flag, indicating that tracking carbon relative to current baselines alone might not be enough to ensure a net climate benefit. Large timber companies in particular appear to be meeting baseline requirements without actually doing anything differently to sequester or protect carbon.

CARB also seems highly confident that there are safeguards against selection bias of project areas. However, we have concrete examples particularly in northwestern California and for one large timber company where project boundaries are intricately drawn and quite distinct from the rest of the property or regional average in terms of species composition.

It doesn't make sense for CARB to respond to these observations by reiterating how the carbon is additional according to the protocol or by pointing to different safeguards. Our findings are simply

observations of carbon and harvest indicating how projects aren't behaving differently from non-projects so far.

Our goal here is not criticism for its own sake, but to be constructive in the context of CARB's willingness to update the protocol. Our study was a demonstration of how remote sensing products can be used to look for signatures of forest management and track carbon across the landscape. At the simplest level, one idea would be require large landowners not just to maintain carbon stocks above baseline, but also to show direct evidence of improved management (e.g., extending harvesting rotation lengths, etc) that they are pledging in their initial documentation.

Our study also discusses the current limitations and biases of remote sensing products, while demonstrating that they are still useful for comparisons over space and time. The data we used for harvest come from the from the Wang et al., 2022 paper (<https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2021AV000654>) for California but could be expanded to the rest of the US.

Please don't hesitate to reach out if you'd like to discuss any of this or if we can help make our science useful to the State going forward.

Shane Coffield

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2022-12-01 20:44:14

No Duplicates.

**Comment 2 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Sarah  
Last Name: Wescott  
Email Address: sarah.wescott@finitecarbon.com  
Affiliation: Finite Carbon

Subject: US FCOP workshop - Finite Carbon public comments  
Comment:

Please see the attached file.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/3-forest\\_offset\\_pro-ws-VTZdOIUmWWgEXQRz.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/3-forest_offset_pro-ws-VTZdOIUmWWgEXQRz.pdf)

Original File Name: CARB workshop - Finite Carbon public comment.pdf

Date and Time Comment Was Submitted: 2022-12-08 09:02:45

No Duplicates.

## **Comment 3 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Jared  
Last Name: Stapp  
Email Address: jaredstapp@berkeley.edu  
Affiliation: UC Berkeley

Subject: U.S. Forest Projects Compliance Offset Protocol  
Comment:

Dear California Air Resources Board,

My name is Jared Stapp, and I recently completed my doctorate at UC Berkeley in the Department of Environmental Science, Policy, & Management. My primary dissertation work was an analysis of the U.S. Forest Projects Compliance Offset Protocol, and I would like to share the abstract and summary of that work, which has been submitted for publication and is still in the review process. I hope the board will consider our findings.

Thank you,  
Jared Stapp

### **ABSTRACT:**

"Carbon offsets are widely promoted as a strategy to lower the cost of emission reductions, but recent findings suggest that offsets may not reduce emissions by the amount claimed. In a compliance market, offsets increase net emissions if they do not reflect real emission reductions beyond the baseline scenario. Few studies have examined the additionality of forest carbon offsets within California's U.S. Forest Projects compliance offset protocol, one of the largest forest offset programs in the world. Here we examine additionality in California's offset protocol. Since 2012, most of California's offset credits (84%) have been awarded to improved forest management (IFM) projects. Using a novel database of IFM project characteristics, locations, and remotely sensed forest disturbance data indicative of forest management activity, we find that IFM projects have been primarily allocated to forests with high carbon stocks (127% higher than regional averages) and low historical disturbance (28% less disturbance than regional averages since 1985). Quasi-experimental analysis suggests limited additionality, as forest offset projects creation did not significantly lower forest disturbance rates 3 and 5 years after project implementation relative to similar non-project lands. These results indicate that California's forest offset protocol may contribute to an increasingly large carbon debt."

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2022-12-11 09:12:44

No Duplicates.

## **Comment 4 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Claudia

Last Name: Herbert

Email Address: claudiaherbert@berkeley.edu

Affiliation:

Subject: IFM projects in California are failing to address fire risk

Comment:

Previous research has found that the buffer pool is undercapitalized for expected forest risks (Badgley et al. 2022). We found that the carbon management occurring on IFM projects in California's compliance market are generally not removing biomass in ways consistent with fuel management. Given the importance of forest fuel management for managing durable above ground carbon, CARB should investigate why the current policies are failing to encourage fuel management and offer corrective action. See the attached file, we recommended some policy changes in the discussion section.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/5-forest\\_offset\\_pro-ws-UTxUMwdoUWMBYFU8.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/5-forest_offset_pro-ws-UTxUMwdoUWMBYFU8.pdf)

Original File Name: Managing nature-based solutions in fire-prone ecosystems- Competing management objectives in California forests evaluated at a landscape scale\_20221212.pdf

Date and Time Comment Was Submitted: 2022-12-12 04:11:36

No Duplicates.

**Comment 5 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Jon  
Last Name: Costantino  
Email Address: jon@tradesmanadvisors.com  
Affiliation: VERA

Subject: VERA Comments  
Comment:

Please see attached comments.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/6-forest\\_offset\\_pro-ws-UyVUN1UmUWMAWVQy.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/6-forest_offset_pro-ws-UyVUN1UmUWMAWVQy.pdf)

Original File Name: VERA Forestry Workshop comments 12-15-22.pdf

Date and Time Comment Was Submitted: 2022-12-13 13:23:11

No Duplicates.

**Comment 6 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Christa

Last Name: Lim

Email Address: christa.lim@shell.com

Affiliation: Shell Energy North America

Subject: Comments on Nov 30 Forest Offset Protocol Workshop

Comment:

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/7-forest\\_offset\\_pro-ws-VGUANFZ6BWcKOQgl.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/7-forest_offset_pro-ws-VGUANFZ6BWcKOQgl.pdf)

Original File Name: 12-15-2022 SENA Comment on CARB US Forestry Offsets FINAL.pdf

Date and Time Comment Was Submitted: 2022-12-15 09:47:13

No Duplicates.

**Comment 7 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Aram  
Last Name: Nadjarian  
Email Address: aram@mozaicmc.com  
Affiliation: Mozaic Media & Communications

Subject: Comment on Forest Projects Protocol  
Comment:

Attached, please find a public comment letter submitted on behalf of Alaska Native Corporations.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/8-forest\\_offset\\_pro-ws-UDEBaVQ2WFQGLVMM.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/8-forest_offset_pro-ws-UDEBaVQ2WFQGLVMM.pdf)

Original File Name: ANC - Workshop Statement & Letter.docx (2).pdf

Date and Time Comment Was Submitted: 2022-12-15 11:09:11

No Duplicates.



**Comment 8 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: John

Last Name: Nickerson

Email Address: dogwoodspringsforestry@gmail.com

Affiliation: Dogwood Springs Forestry

Subject: Comments to the US Forest Projects Compliance Offset Protocol Process

Comment:

Please see the attachment.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/9-forest\\_offset\\_pro-ws-U2FUYgc0WDkKPVRm.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/9-forest_offset_pro-ws-U2FUYgc0WDkKPVRm.pdf)

Original File Name: 20221215\_DogwoodSpringsForestryComments.pdf

Date and Time Comment Was Submitted: 2022-12-15 13:56:47

No Duplicates.

**Comment 9 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Eric

Last Name: Holst

Email Address: eholst@edf.org

Affiliation: Environmental Defense Fund

Subject: Comments from Environmental Defense Fund

Comment:

Thank you for the opportunity to comment on the CARB Forest Offset Protocol.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/10-forest\\_offset\\_pro-ws-Wj8CYFUyV1sEZFU6.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/10-forest_offset_pro-ws-Wj8CYFUyV1sEZFU6.pdf)

Original File Name: EDF Forest Protocol comment letter Dec 2022.pdf

Date and Time Comment Was Submitted: 2022-12-15 15:44:15

No Duplicates.

## **Comment 10 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: William

Last Name: Stewart

Email Address: billstewart@berkeley.edu

Affiliation: University of California, Berkeley

Subject: Empirical evidence suggest ARB IFM Forest Offset projects don't generate climate benefits

Comment:

Dear Chair Randolph,

As a UC Cooperative Extension Specialist focusing on forest management of western forests during my career I have followed the development of the ARB Forest Offsets as well as studied and published on what actually happens with all types of managed forests and the harvested products. While IFM forest offset projects have moved millions of dollars to forest landowners to maintain the high inventory status quo of their land, the estimates of additional climate benefits from IFM are often overstated according to many well publicized investigative research projects by ProPublica, Bloomberg, and others as well as an increasing number of peer reviewed journal articles. This is especially true in the West where ARB pays for high inventories of forest biomass - also known as fuel for future wildfires.

It is unquestionable that IFM projects have generated many environmental and environmental justice co-benefits, but revisions to the protocols to focus on reforestation projects, even if they do not have the large number of immediate offset credits, may be necessary if the ARB credits are to avoid being tagged as 'greenwashing'.

William Stewart

UC Cooperative Extension Specialist - Forestry (Emeriti)

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2022-12-15 16:14:56

No Duplicates.

**Comment 11 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Liz

Last Name: Lott

Email Address: llott@anewclimate.com

Affiliation: Anew Climate, LLC

Subject: Anew comments in response to Nov 30,2022 Forest Protocol Workshop

Comment:

Anew appreciates the opportunity to provide the California Air Resources Board with comment on the topics presented in the November 30, 2022 Public Workshop "Discussion of U.S. Forest Projects Compliance Offset Protocol and Relevant Science, Data, and Tools." Please find our comments attached.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/12-forest\\_offset\\_pro-ws-AWBUPFM3AiZRCFMw.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/12-forest_offset_pro-ws-AWBUPFM3AiZRCFMw.pdf)

Original File Name: Anew Comments on CARB Nov 30,2022 Forest Protocol Workshop.pdf

Date and Time Comment Was Submitted: 2022-12-15 16:34:10

No Duplicates.

**Comment 12 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Danny  
Last Name: Cullenward  
Email Address: danny@carbonplan.org  
Affiliation: CarbonPlan

Subject: CarbonPlan comments on November 2022 forest carbon offsets workshop  
Comment:

Please find CarbonPlan's comments attached. Thank you for the opportunity to submit comments.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/13-forest\\_offset\\_pro-ws-AGMFYlckBTRWfQhu.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/13-forest_offset_pro-ws-AGMFYlckBTRWfQhu.pdf)

Original File Name: CARB-Forest-Offsets-Workshop-Comment-Letter-12-15-2022.pdf

Date and Time Comment Was Submitted: 2022-12-15 16:50:50

No Duplicates.

## **Comment 13 for Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) - 1st Workshop.**

First Name: Barbara

Last Name: Haya

Email Address: bhaya@berkeley.edu

Affiliation: University of California, Berkeley

Subject: subject of comment

Comment:

Recommendation on amending ARB's US Forest Projects offsets  
protocol

Please find our comments attached.

Attachment: [https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/14-forest\\_offset\\_pro-ws-VzQCawNvAz1XNARq.pdf](https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/14-forest_offset_pro-ws-VzQCawNvAz1XNARq.pdf)

Original File Name: Comments to ARB on US Forest Offset Protocol.pdf

Date and Time Comment Was Submitted: 2023-01-19 13:12:37

No Duplicates.

**There are no comments posted to Public Workshop: Discussion of U.S. Forest Projects Compliance Offset Protocol (forest\_offset\_pro-ws) that were presented during the Workshop at this time.**