



CLIMATE
ACTION
RESERVE

Biochar Protocol v1.0

Workgroup Meeting 7
April 27, 2023

Housekeeping

- Workgroup members have the opportunity to actively participate throughout the meeting
 - Ask that you keep yourselves muted unless / until would like to speak
- We will ask and take questions throughout the session
- All other attendees/observers are in listen-only mode
- Observers are free to submit questions in the Zoom Q&A dialog
- We will follow up via email to answer any questions not addressed during the meeting
- The slides and a recording of the presentation will be posted online

To provide overview of draft protocol components and solicit workgroup feedback

Discussion topics

- Tuesday*
 - Project developer definition
 - Feedstock eligibility
 - Production technology eligibility
 - End use eligibility, including permanence
- Wednesday*
 - Crediting period, reporting periods, and verification cycle
 - Chain of custody tracking
 - Data collection
 - Sampling
- Thursday*
 - **Additionality**
 - Low volume projects
 - Revisit other topics

Reserve Staff:

- Jon Remucal, Associate Director of Nature-Based Solutions
 - Protocol development lead
- Holly Davison, Associate Director of Programs & Marissa Spence, Forestry Manager
 - Protocol development support

External drafting support:

- John Nickerson, Dogwood Springs Forestry

Workgroup Members

Name (alphabetical)	Organization	Name (alphabetical)	Organization
Akio Enders	International Biochar Initiative	Matt Ramlow	World Resources Institute
Allison Flynn	Global Green Energy Solutions Corporation	Melissa Leung	GECA Environment
Bruce Springsteen	Placer County Air Pollution Control District	Micah Elias	Blue Forest / UC - Berkeley
Daniel Sanchez	University of California – Berkeley / Carbon Direct	Nate Anderson	US Forest Service
David Morell	Sonoma Ecology Center	Patricio Ortiz	ACT Commodities
Hannes Etter	South Pole Carbon Asset	Phil Saksa	Blue Forest
Johannes Lehmann	Cornell University	Rachel Rubin	Woodwell Climate Research Center*
Jonah Levine	Biochar Solutions	Shawn McMahon	Aster Global
Josiah Hunt	Pacific Biochar	Tristan Brown	SUNY College of Environmental Science & Forestry
J.P. Bayangos	Shell	Xiaomei Li	Viresco Solutions
Kevin Fingerman	Cal Poly Humboldt		

Funding support



**U.S. Forest Service
Wood Innovations Program**



**CAL FIRE
Forest Health Grant**

Funding also supporting:

- Companion market analysis by Blue Forest Conservation (with additional funding support from the Doris Duke Charitable Foundation), **available on the Biochar Protocol webpage**
- Pilot projects to test protocol and demonstrate its viability and versatility



CLIMATE
ACTION
RESERVE

PROTOCOL DISCUSSION TOPICS

Ensuring only crediting for actions that go beyond what would occur in the absence of the project

Legal Requirement Test – Project activities must not be legally required

Performance standard

- Offset credits provide a financial incentive to produce biochar, though no specific test specifically required
- Waste and by-product feedstocks
 - Biochar production remains uncommon as a fate for eligible biomass sources
 - Eligible feedstocks list are accepted based on assumed baseline fate of feedstock—combustion or decomposition as waste/by-product material
 - Those assumptions will be reviewed regularly to ensure they are still valid
- Purpose-grown feedstocks
 - Grown on marginal croplands (i.e., non-prime farmland) or reclaimed mining sites

Should we also require a financial test or some other method to check for additionality?

Small Producer Concerns

Aggregation is specifically allowed under the protocol, but all protocol requirements must still be met, including sampling and lab analyses

Do we need special accommodations for small producers to improve feasibility?

Does variability in feedstock and operational conditions cause a problem?

What risks would accommodations pose to the integrity of any credits issued to an aggregated project?

How do changes in feedstock composition affect $H:C_{org}$ and other metrics relevant to quantification and environmental safeguards?

Risks:

- Being overly granular in defining what constitutes a change in feedstocks may lead to impractical MRV burden
- Being too general may not capture significant changes that would impact credit quantification or eligibility



CLIMATE
ACTION
RESERVE

NEXT STEPS

Next Steps

- *Workgroup 7 (Thursday) (tentative) – will email decision to workgroup and registrants later today*
 - Continue reviewing draft protocol
- Email us with any feedback on protocol, including topics discussed this week
- **Submit comments/feedback by Friday, May 5**
- Revisions to protocol by Reserve staff
- *Depending on revisions, may share another protocol draft with workgroup for written feedback only*

Key contacts

Protocol development lead:

Jon Remucal, Associate Director of Nature-Based Solutions

jremucal@climateactionreserve.org

General inquiries:

Policy@climateactionreserve.org