

# Alicia Klepfer

Carbon Project Leadership ▪ Carbon Strategy & Portfolio Diligence ▪ Voluntary Carbon Markets

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## SUMMARY

Carbon markets leader with 9+ years scaling credit programs from origination through issuance. Built the carbon function from scratch as the first carbon hire at a biochar carbon removal startup; managed a team of three carbon project specialists through 10 successful verifications at a previous multi-sector developer. Process and compliance infrastructure built across Isometric, Puro.earth, Verra VCS, CAR, ACR, Alberta AEOS, and Gold Standard. Scientist by training -- M.S. in greenhouse gas accounting, ISO 14064-1 and 14064-2 certified.

## PROFESSIONAL EXPERIENCE

### GRAIN Ecosystem

2022 – 2026

#### Director of Carbon

2025 – 2026

- Led carbon function strategy as the company scaled from project design into active credit issuance – owned cross-standard registry analysis across 4 biochar carbon removal standards (Puro.earth, Isometric, CAR, Rainbow), and advised the CEO on go/no-go decisions for new project opportunities and newly released methodologies
- Led Grain's product team (backend, frontend, and design leads) below the CEO – owned roadmap and sprint priorities, defined the roles & decision-rights framework, and shipped Release 1.5 and Dashboard Redesign in a two-month sequence while concurrently delivering carbon project work
- Served as internal pre-verification reviewer – stress-tested project documentation against methodology requirements before VVBs engaged, identifying compliance gaps and documentation deficiencies ahead of third-party audit
- Built training and onboarding playbook so team members across technical backgrounds – including an LCA provider learning VCM rules and a non-technical business lead – could interpret methodologies and execute verification preparation independently across 4 certification bodies
- Built profitability models (IRR / NPV) and credit issuance projections to support executive decision-making on project portfolio prioritization; designed KPIs and audit-ready documentation outputs for third-party review across 4 certification standards
- Served as the primary coordination point between the carbon function and commercial, customer success, and engineering teams – tracked cross-functional commitments and facilitated knowledge exchange between domain specialists and non-technical stakeholders

### Carbon Project Development Expert

2022 – 2025

- First and sole carbon hire at a biochar carbon removal startup; built the entire carbon function from scratch – eligibility frameworks, MRV requirements, registry strategy, monitoring plan templates with 138 applicability conditions, and audit-ready documentation across Puro.earth, Verra VCS, CAR, and Isometric
- Coordinated end-to-end carbon credit workflows across engineering, commercial, and non-technical site teams; built monitoring hierarchy design docs, production batch definition guides, and inventory labeling specs that operating sites could execute against without methodology specialist input
- Created project developer-facing guidance, decision frameworks, and data collection protocols translating methodology requirements into actionable steps for biochar facilities moving from project design into operations
- Evaluated project viability across international biochar projects (Kenya, Costa Rica, Colombia, France, India, Ghana, Indonesia) – accounted for country-level credit pricing, infrastructure, and transport logistics; reviewed offtake contracts for business and project risk; built profitability models with IRR and NPV outputs
- Authored a grouped PDD under VCS VM0044 for Earth Foundries, an aggregated biochar project with historical activity – draft not submitted after cross-standard analysis determined the newly released CAR biochar methodology was the stronger fit
- Conducted 20+ site visits across biochar production facilities, equipment manufacturers, industrial sites, and farms over the course of carbon project work – including travel-intensive due diligence and verification cycles

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## Blue Ocean Barns

2021 – 2022

### Carbon Accreditation Lead

- Developed the startup's carbon market strategy, assessing industry risks, customer requirements from major beef and dairy brands, and SBTi target alignment
- Listed the company's first carbon credit project on the VCS registry; led RFP and VVB selection; completed pre-validation assessment of the first demonstration project
- Created the company's carbon project template to certify reductions under Verra VCS VM0041; facilitated the first demonstration project to enable credit development and scaling
- Engaged corporate sustainability teams at major food and dairy brands – including Ben & Jerry's and Clover Sonoma – advising them on incorporating enteric methane reduction projects into their corporate sustainability programs and Scope 3 strategies

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## Radicle (formerly Climate Smart Group)

2018 – 2021

### Manager, Carbon Offset Project Design

2020 – 2021

- Managed a team of three carbon project specialists designing and implementing offset projects across multiple sectors, markets, and methodologies; hired one team member; mentored junior analysts through methodology interpretation and verification preparation until they could work requirements independently
- Created business processes to support rapid company growth and standardize project flow from conception through programmatic implementation
- Led due diligence on new project opportunities across the US, Canada, Australia, and the EU, developing risk mitigation strategies and go/no-go recommendations
- Led Ducks Unlimited Prairie Pothole avoided conversion project (ACR) through a 5-year reporting-period verification – rewrote the PDD from a prior university-led version with incomplete documentation, ran 5-year DayCent biogeochemical modeling with support from the model's authors at CSU, ran uncertainty analysis and confidence intervals on inputs and outputs, completed verification, and shepherded the project to successful credit issuance (2021)

### Technical Analyst, Project Development

2018 – 2020

- Served as primary VVB point of contact through full verification cycles under Alberta AEOS, CAR, and ACR – managed site visits, responded to verifier findings (CARs, CLs, FARs), and shepherded projects from validation through credit issuance across 10 successful verifications in 2019–2020
- Identified data and evidence requirements to meet program and protocol-level requirements for six energy and agricultural project types
- Ran a USDA-NRCS Conservation Innovation Grant nitrogen-management project (ACR methodology) end-to-end solo – grower outreach, tradeshow representation, grouped-project program design, evidence collection, and VVB facilitation through credit issuance

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## Viresco Solutions

2017 – 2018

### Sustainability Specialist

- Facilitated and authored the first draft of CAR's Canadian Grassland Protocol, coordinating with stakeholders and working groups
- Drafted the Carbon Insetting Framework and supporting technical documents for client use
- Designed soil carbon sampling plans and field measurement strategies for the Bayer / Soil Health Partnership Conservation Innovation Grant project, developing a scalable framework for quantifying on-farm GHG reductions; contributed to permanence assessment design for the same project

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## Colorado State University – Dr. Stephen Ogle

2014 – 2016

### Data Analyst & Research Assistant, Natural Resource Ecology Laboratory

- Soil carbon modeling in global agricultural systems – ran the simplified CENTURY biogeochemical model to estimate soil carbon stock changes for cropland and grassland over 10-year periods; wrote R scripts for model calculations and Monte Carlo uncertainty analysis
- Conducted statistical analysis of scaling factors for the USDA method of estimating soil N<sub>2</sub>O emissions; updated literature review of global tillage studies to estimate effects on soil carbon pools

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## CONSULTING & ADVISORY

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### Short-Term Consultant – Unite To Light 2024 – 2025

- Consulted on a Gold Standard solar lamp distribution project in Tanzania whose validation had stalled; diagnosed documentation gaps against standard requirements, restructured the PDD, and the project completed validation – with no prior Gold Standard experience

### Strategy Advisor – Remora 2022

- Advised on carbon credit strategy and methodology pathway analysis for a semi-truck carbon capture startup

### Strategy Advisor – Light Manufacturing 2022

- Methodology review and carbon market feasibility assessment for solar-powered plastic rotomolding technology
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## INDUSTRY REPRESENTATION & EXTERNAL ENGAGEMENT

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### Working Group Member – Puro.earth Biochar Methodology v2025 2024 – 2025

- Contributed project developer expertise to the revision of Puro.earth's biochar carbon removal methodology

### Working Group Member – Verra Scope 3 Initiative 2022

- Participated in development of guidance on Scope 3 emissions accounting and crediting frameworks

### Methodology Consultation – CAR Biochar Protocol & Rainbow Standard 2023 – 2026

- Submitted formal public consultation responses on the first release of the CAR Biochar Protocol (v1.0) and on the Rainbow Standard open-kiln and closed-kiln biochar methodologies

### Co-Author – CAR Canadian Grassland Protocol 2017 – 2018

- Facilitated and authored the first draft of the Climate Action Reserve's Canadian Grassland Protocol; coordinated with stakeholders and working groups during methodology development
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## SKILLS & EXPERTISE

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Project management & process design ▪ Team leadership & cross-functional coordination ▪ Carbon credit lifecycle (origination through issuance) ▪ Registry coordination (Isometric, Puro.earth, Verra VCS, CAR, ACR, Gold Standard, Alberta AEOS, Rainbow) ▪ MRV design & implementation ▪ Methodology interpretation & compliance ▪ VVB coordination & verification ▪ Carbon project economics (IRR, NPV) ▪ ISO 14064-1 & 14064-2

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## TOOLS & PLATFORMS

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Biogeochemical modeling: DayCent, DNDC, simplified CENTURY ▪ Statistical & data: R, Monte Carlo uncertainty analysis ▪ Carbon accounting & inventory: Cool Farm Tool, COMET-Farm, ISO 14064-1/2 frameworks ▪ Geospatial: QGIS, Web Soil Survey ▪ Product & project: Jira, Azure DevOps, Camunda Modeler, BPMN ▪ Data & technical: SQLite, JSON, Markdown ▪ AI tooling: Claude, custom AI agent configuration for document analysis

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## EDUCATION

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### M.S. Greenhouse Gas Management & Accounting 2015 – 2017

Colorado State University

### B.S. Environmental Science · General Honors 2010 – 2014

University of Chicago

Summer Field Research – Woods Hole Research Center 2014

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## CERTIFICATIONS

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ISO 14064-1 & 14064-2: GHG Inventory & Project Quantification – University of Toronto 2017

Project Management Basics – ECO Canada 2018

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## VOLUNTEER

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### Secretary, Board of Directors 2025 – Present

Pink Paws Rescue – 501(c)(3)

- Board member of a nonprofit cat rescue focused on TNR programs in the Columbia River Gorge; manage operations including foster coordination, medical oversight, and adoptions