



CLIMATE
ACTION
RESERVE

Forest Project Protocol v5.0 Public Webinar

November 20, 2019

Agenda

Protocol Background



Overview of major changes



Summary of minor revisions



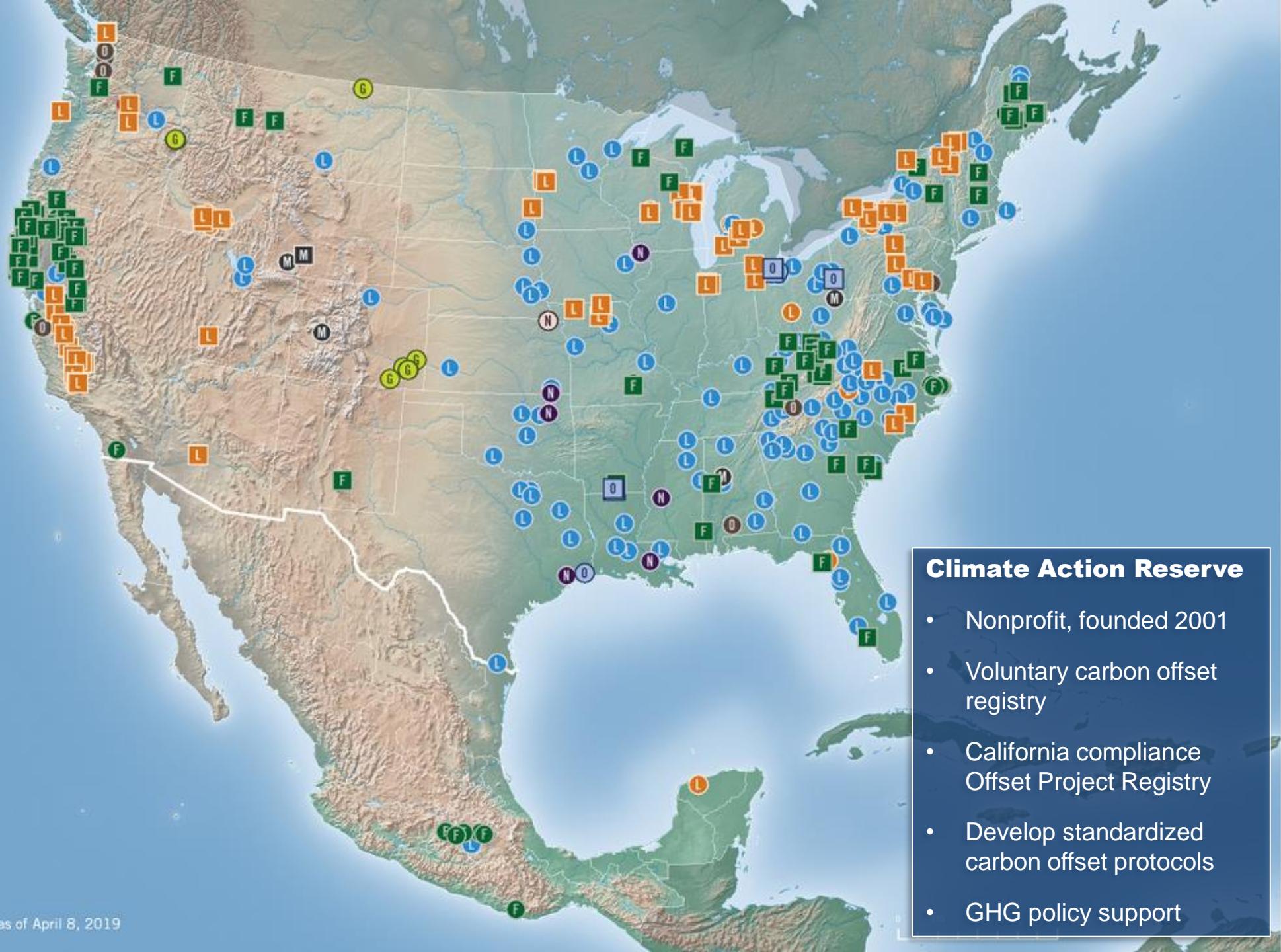
Q&A



CLIMATE
ACTION
RESERVE

- F Forest (ARB)
- L Livestock (ARB)
- M Mine Methane (ARB)
- O Ozone Depleting Substances (ARB)
- D Composting
- F Forest
- G Grassland
- L Landfill
- L Livestock
- M Mine Methane
- N Nitric Acid Plants
- N Nitrogen Management
- O Organic Waste Digestion
- O Ozone Depleting Substances

Listed, Registered, Transitioned, & Completed Projects as of April 8, 2019



Climate Action Reserve

- Nonprofit, founded 2001
- Voluntary carbon offset registry
- California compliance Offset Project Registry
- Develop standardized carbon offset protocols
- GHG policy support

How Are Offsets Generated?

The Reserve develops standardized offset protocols (methodologies)

- Include government, industry, academia, and technical stakeholders, plus public comment



| Land use | Agriculture | Industrial sources | Organic waste |
|----------------|-------------------------|--------------------------------|-----------------------|
| • Forest * | • Livestock manure * | • Mine methane | • Landfill gas * |
| • Urban forest | • Fertilizer management | • Boiler efficiency ^ | • Composting |
| • Grassland | • Rice cultivation | • Ozone depleting substances + | • Anaerobic digestion |

Our Registry Services

Registries provide structure, rigor, and transparency to build confidence in the carbon market through objective policy development and program implementation

Voluntary Offset Project Registry

- Develop standards and methodologies
- Provide guidance on protocols
- Provide trainings
- Issue voluntary credits for sale

Both

- List projects
- Manage verifiers
- Assess potential conflict of interest
- Review verification documents
- Audit projects
- Develop tools

Compliance Offset Project Registry

- Work with project team and Air Resources Board to resolve issues
- Provide guidance on regulation
- Issue compliance credits for conversion to ARB

The Forest Project Protocol in Context



A BRIEF HISTORY OF THE PROTOCOL

- 2003 - development work began
- 2005 – Version 1.0 adopted
- 2007 – Version 2.1 had the first verified projects
- 2009 – Version 3.0 introduced new project types (originally just conservation-based forest management)
- 2011 – CA Air Resources Board introduced the first compliance protocol, based on version 3.2 of the FPP
- 2017 – Version 4.0 adopted

FOREST PROJECT TYPES

- Improved forest management = implement any management practices that increase sequestration
- Reforestation = tree planting
- Avoided Conversion = protecting at-risk forest land through an easement or transfer to public ownership

Rationale for Revision

Promoting voluntary projects

Reducing the cost of project implementation

Making the protocol more accessible to smaller landowners

Providing an example of potential policy revisions for ARB to consider in future COP updates

Addressing errata from FPP v4.0 and updating for new research and feedback

Forest Project Protocol v5.0 milestones

| Version 5.0 Milestone | Dates |
|-----------------------------------|--------------------------------------|
| Public comment period #1 | November 1, 2018 – December 14, 2018 |
| Public comment webinar | November 14, 2018 |
| Public comment period #2 | June 5, 2019 – July 12, 2019 |
| Protocol adopted by Reserve Board | October 16, 2019 |

Overview of Changes

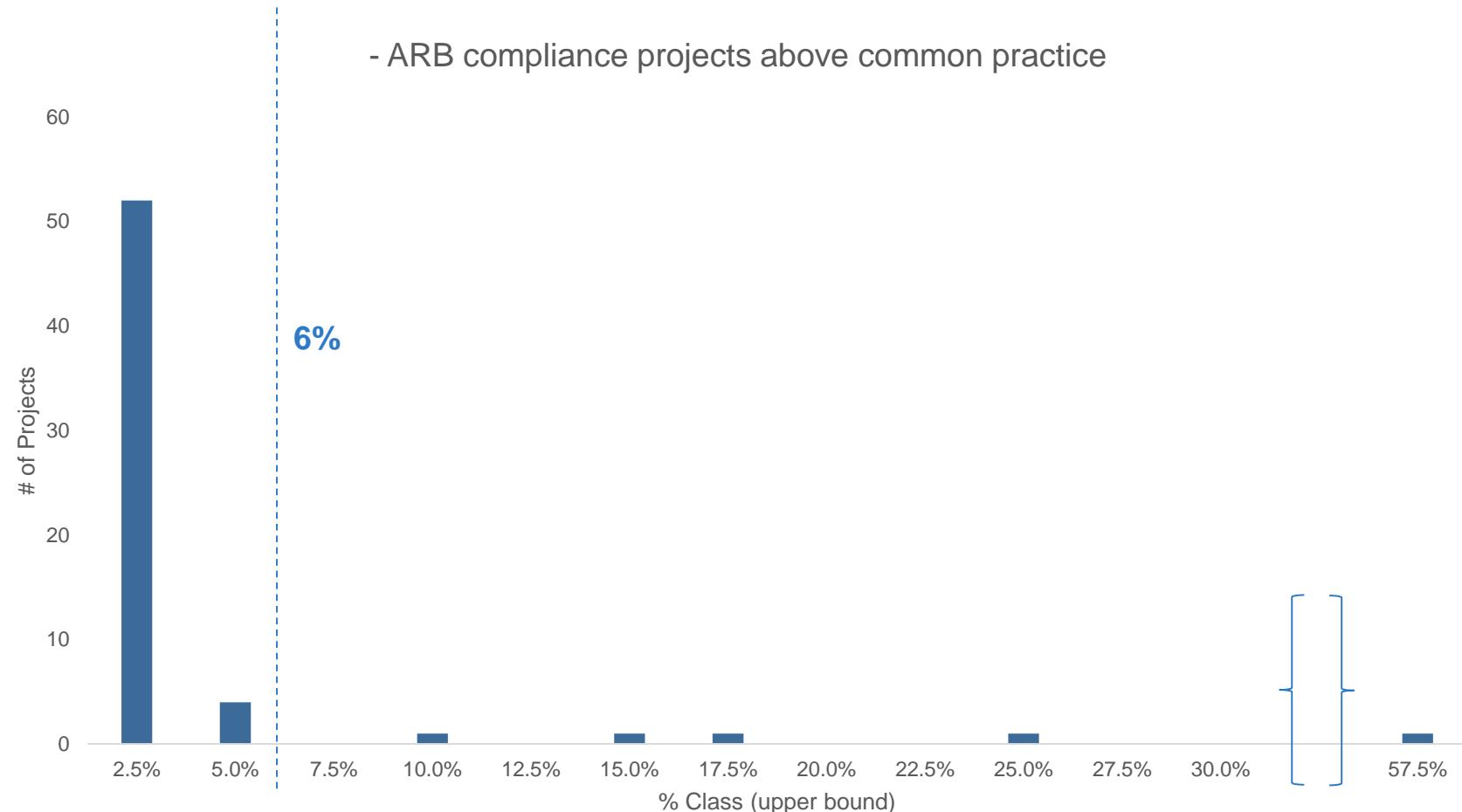
- **Major revisions**
 - New Default Baseline Methodology for IFM projects
 - Updated IFM Secondary Effects calculation
 - Reduced verification frequency for small projects, and project not seeking CRTs
 - Improved flexibility for Avoided Conversion projects
 - Separation of Reforestation project type
 - Publication of the Climate Action Reserve Inventory Tool (CARIT)
- **Minor updates and corrections**

New IFM Baseline Methodology

- Created a methodology that would eliminate the cost of modeling for eligible IFM projects
 - Instead of the traditional methodology, where projects have to model a 100-year baseline with legal and financial constraints, we are providing a conservative default option (see next bullet)
- Projects must pass a screening test to show they could easily reach common practice values (i.e., our existing performance standard metric of “business as usual”)
 - If so, then the default approach conservatively increases common practice by 6%, and allows them to use that as the baseline
 - Assumptions were developed based on an analysis of current projects in ARB’s compliance program, which showed that most projects were able to model to within 2.5% of common practice with very few outliers

New IFM Baseline Methodology

Baseline Aboveground Live Carbon in excess of Common Practice as % of Common Practice



New IFM Baseline Methodology

- New steps are:
 - Determine eligibility to use the standardized approach
 - Cannot have deeded encumbrances preventing timber management, and must pass a screening test
 - Establish initial baseline (either Common Practice or initial carbon stocks)
 - Initial baseline is increased by 6% to conservatively account for legal and financial constraints
 - Harvest volume and carbon delivered to mill is estimated based on trends we've observed in existing carbon projects
 - Below ground carbon is estimated in the baseline in proportion to the initial inventory
- All projects still have the option to model the baseline

IFM Secondary Effects (Leakage)

- The percentage of credits set aside for leakage has gone back to 20%, as was used in our protocol through FPP v3.3, and as is currently used in ARB's compliance protocol
- Language has been added throughout the protocol to emphasize the 100-year timescale used in project quantification (including accounting for leakage), and to emphasize the protocol's long-term approach to additionality

Verification Schedule

Smaller project verifications

- All Forest Projects receiving under 4,000 CRTs/year
- Changes the site visit frequency from every 6 years to every 12 years
- 4,000 CRTs are on average; site visit is triggered if 48,000 unverified CRTs have accumulated

Project entering a monitoring phase

- Any Forest Project not seeking CRTs by the time a site visit is required
- In such cases, they will need to have previously submitted monitoring reports verified as a desk review
- Decline in canopy cover of more than 5% triggers a site visit
- Canopy cover now required to be submitted in project documents

Improved Flexibility for Avoided Conversion Projects



- New flexibility has been added to the commencement date for Avoided Conversion projects
 - Where recordation of a conservation easement is used to signal the project start date, multiple conservation easements may be used to cover a single Project Area.
 - Where transfer of the Project Area to public ownership is used to signal the project start date, multiple transfers may be used to cover a single Project Area.
- The project must have one fee owner (for conservation easements), or must be transferred to a single public entity
- All easements must be recorded within the span of 12 months; all transfers must take place within the span of 12 months
- The whole project area must have the same alternative non-forest land use, must use the default rate of conversion, and must apply the same Conversion Risk Adjustment Factor

Reforestation

- Reforestation has been removed from the protocol, pending future policy updates
 - Existing projects can continue to use the v4.0 methodology
- Planning to reintroduce Reforestation as a standalone protocol in the next year or so, which will include a linkage to the upcoming Climate Forward Reforestation Methodology

Climate Action Reserve Inventory Tool (CARIT)

- CARIT is a Microsoft Access-based inventory management tool developed to lower costs
 - Developed with funding support from a Conservation Innovation Grant provided by the USDA NRCS
- Allows foresters and others with technical knowledge to manage their carbon inventories in-house
 - The tool is verified, and doesn't require the expertise of a professional project developer, which helps projects save \$



Climate Action Reserve Inventory Tool (CARIT)



- The tool was developed last year, in conjunction with our Standardized Inventory Methodology
 - Over the past year, the tool has been in a “beta” version, being tested by internal staff and external stakeholders
 - It was verified by one of our accredited forest verification bodies, and is compatible with ARB’s protocol
- The tool is free, available by request by emailing reserve@climateactionreserve.org)
 - We will be hosting a CARIT demo webinar on December 10, 2019 – register on our website

Additional Highlights

- Clarified compensation requirements for Avoidable Reversals, and added category of “Computational Reversal”
- Clarified reversal risk rating for tribal land (including Alaska Native Corporations and Hawaiian home lands), which receive the same risk rating as public lands
- Combined the wildfire, disease, and insect outbreak reversal risk categories
- Reserve staff authors:
 - Sarah Wescott, John Nickerson, Jon Remucal, Amy Kessler

Questions?

Sarah Wescott

- Senior Forest Program Manager
- swescott@climateactionreserve.org

Jon Remucal

- Senior Forest Policy Manager
- jremucal@climateactionreserve.org

Requesting CARIT?

- Email reserve@climateactionreserve.org