

# Update on Climate Action Reserve Agriculture Protocol Development



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C-AGG Meeting  
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# Background on the Climate Action Reserve



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- Chartered by California state legislation in 2001
  - Mission is to encourage early actions to reduce emissions and to have such emissions reductions recognized
    - Initially focused on emission reporting and reductions by member organizations in California
- Now a North American program focused on emission reduction projects generating offsets
- Balances business, government, academic, and environmental interests



# What We Do

- Develop High Quality Standards
  - Convene stakeholders and lead development of standardized protocols for carbon offset projects
- Manage Independent Third Party Verification
  - Training and oversight of independent verification bodies
- Operate a Transparent Registry System
  - Maintain registry of approved projects
  - Issue and track serialized credits



# Protocol Development Goals

- Develop a standardized approach for quantifying, monitoring and verifying GHG reductions
  - Research industry trends in adoption of GHG reducing practices
  - Set criteria and reference points based on industry trends
  - Provide specific tools for quantifying emissions
  - Detailed and specific monitoring requirements
  - Train verifiers with a consistent set of protocol-specific standards
- Maintain consistency with or improve upon existing methodologies
- Balance accuracy, conservativeness, and practicality



# Protocol Development Process

1. Internal research and scoping
2. Public scoping meeting(s)
3. Multi-stakeholder workgroup formation
4. The Reserve drafts a preliminary protocol
5. Draft protocol considered by workgroup
  - Provides technical expertise and practitioner experience
  - Period meetings and individual consultation when needed
6. Revised draft protocol released for public comment
7. Public workshop(s)
8. Final version adoption by Reserve board in public session



# Agriculture Protocol Scoping

- Conducted internal scoping research (throughout 2010)
- Developed and published three issue briefs Oct 2010
  - Options for Determining Additionality of Agriculture Projects
  - Quantification Options for Agriculture Protocols
  - Options for Managing CO<sub>2</sub> Reversals
- Held three public scoping meetings in Oct 2010
  - Chicago, IL, Modesto, CA, Washington, DC
- Decided to move forward with developing three new agriculture protocols



# New Agriculture Protocols

- Rice Cultivation Project Protocol: CH<sub>4</sub> reduction
  - Changes in water management, e.g., winter flooding, mid-season draining, and/or drill-seeding
  - Changes in residue management, e.g., baling or incorporation
- Cropland Management Project Protocol: CO<sub>2</sub> reduction
  - Change in management, e.g., use of continuous no-till, cover crops, fallow management...
  - Conversion of cropland to a new use (grassland or pasture)
- Nutrient Management Project Protocol: N<sub>2</sub>O reduction
  - Changes in rate, type, timing, and/or placement of fertilizer

# Rice Cultivation Project Protocol (RCPP)



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- Workgroup established December 2010
- Kick-off meeting held February 7, 2011
- Background papers
  - Performance Standard Research (**April**)
  - DNDC Uncertainty Analysis and Modeling Guidelines (**May**)
- Next workgroup meeting: TBD
- Final protocol completed this winter (2011)



# Cropland Management Project Protocol (CMPP)



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- Workgroup established December 2010
- Kick-off meeting held February 9, 2011
- Background papers
  - Cropland Soil Carbon Offset Methodology Synthesis (**completed**)
  - Performance Standard Research (**draft available soon**)
  - Analysis of GHG Accounting Boundary and Leakage (**May**)
  - Analysis of the Application of Process Models (**May**)
- Next workgroup meeting: April 7, 2011 at 10 am PST
- Protocol completed early next spring (2012)

# Nutrient Management Project Protocol (NMPP)



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- Workgroup established December 2010
- Kick-off meeting will be held in late April/early May
- Background papers
  - Nutrient Management Methodology Synthesis (**completed**)
  - Protocol Development Research (**June**)
    - Performance Standard Research
    - Analysis of GHG Accounting Boundary and Leakage
    - Analysis of Quantification Approaches
- Protocol completed early next spring (2012)



# Open Development Process

- Transparency is an important principle
- Significant interest in agriculture workgroup involvement
- We are striving for completely open development process:
  - Each agriculture protocol has a website with meeting logistics
  - Background papers , slides, agendas, & other materials posted
  - Workgroup meetings open to the public in real time (listen-only)
  - After the meetings a video recording of webinars is posted (if technically feasible)

# Agriculture Protocol Development Websites



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- Agriculture Protocols Overview
  - <http://www.climateactionreserve.org/how/protocols/in-progress/agriculture/>
- Rice Cultivation Project Protocol
  - <http://www.climateactionreserve.org/how/protocols/in-progress/rice-cultivation-project-protocol/>
- Cropland Management Project Protocol
  - <http://www.climateactionreserve.org/how/protocols/in-progress/cropland-management-project-protocol/>
- Nutrient Management Project Protocol
  - <http://www.climateactionreserve.org/how/protocols/in-progress/nutrient-management-project-protocol/>



# Science Advisory Committees

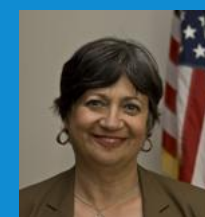
- Purpose: direct scientific review and input in the practical application of current science in the Reserve's agriculture protocols
- Two Science Advisory Committees (SAC)
  - CMPP and NMPP
- Each SAC will advise Reserve staff on:
  - Interpretation of research
  - Evaluation of the technical and scientific merits of offset protocol assumptions
  - Evaluation of quantification methodologies



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# Navigating the American Carbon World

- North America's largest carbon event, taking place April 13-15 in Los Angeles
- Speakers include:
  - Governor Arnold Schwarzenegger
  - Governor Gray Davis
  - CalEPA Secretary Linda Adams
  - CDFA Secretary Karen Ross
  - ARB Chair Mary Nichols
  - US EPA Assistant Administrator Gina McCarthy
  - Chair CEQ Nancy Sutley
- Breakout session: **The Role of Agriculture**
  - 1:30pm – 3:00pm Thursday, April 14



Navigating  
the **American**  
Carbon World

# Contact Information



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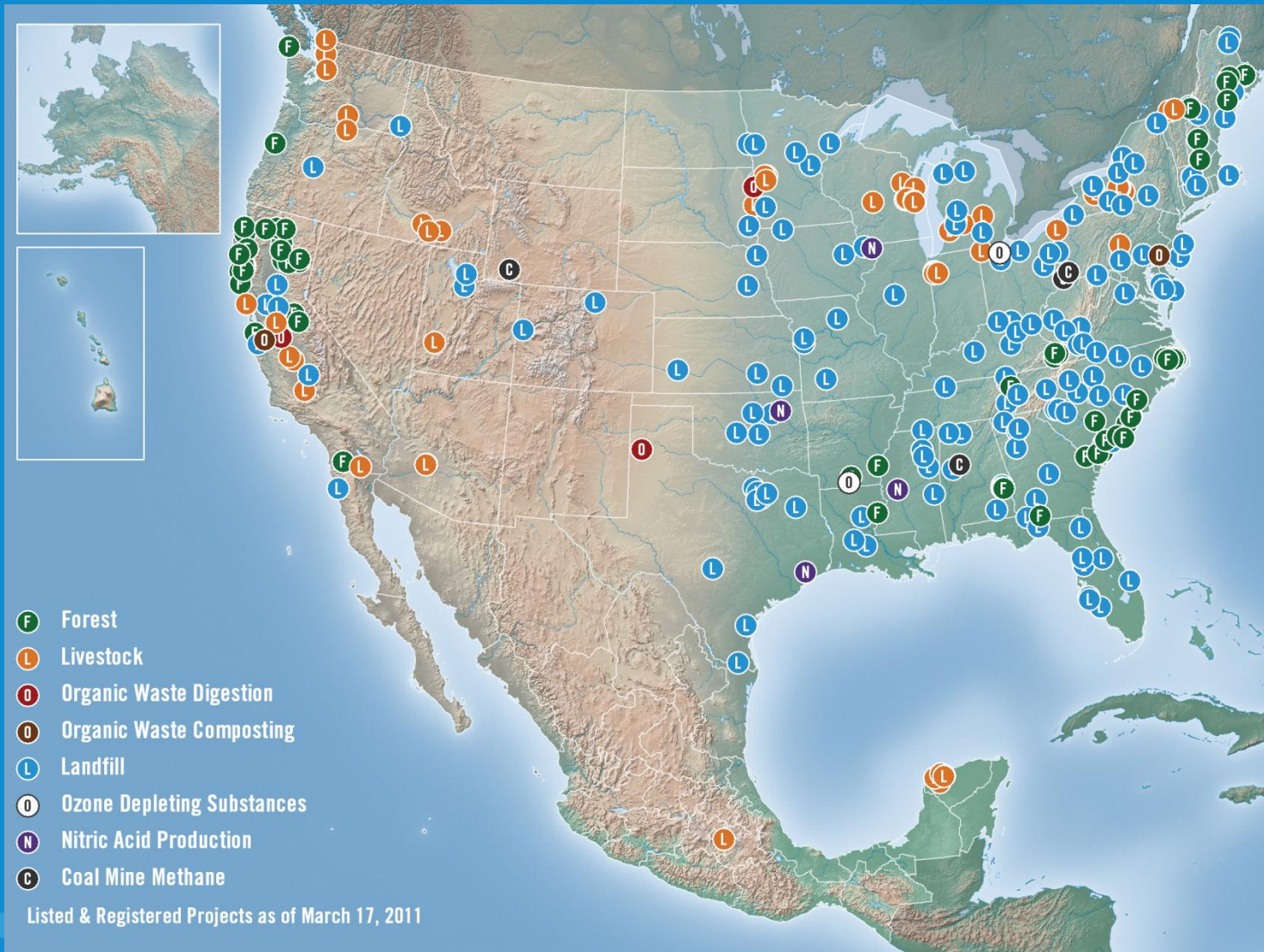
[www.climateactionreserve.org](http://www.climateactionreserve.org)

523 W. 6th Street, Ste. 428  
Los Angeles, CA 90014  
(213) 891-1444





# Listed and Registered Projects







# Reserve Stats

- **Over 11.5 million CRTs** registered
  - CRT = “Climate Reserve Ton” = 1 metric ton
- **396 Projects** in the system
  - Projects listed: **201**
  - Projects registered: **85**
  - New projects (not shown on map): **110**



# Existing Protocols

- Forestry
  - Improved Forest Management
  - Reforestation
  - Avoided Conversion
- Urban forestry
- Landfill gas capture (US & Mexico)
- Livestock methane capture (US & Mexico)
- Organic waste digestion
- Organic waste composting
- Coal mine methane
- Nitric acid production
- Ozone depleting substances (US & Article 5 sources)