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Overview Webinar

Grassland Project Protocol V2.0

February 24, 2017

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Agenda



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1. Background
2. Presentation of v2.0 updates
3. Registry software updates
4. Audience questions



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Section 1

BACKGROUND

Climate Action Reserve



- 501(c)3 nonprofit, founded in 2001
- Voluntary offset registry, and approved Offset Project Registry for CARB
- Adopted 18 offset project protocols in the US and Mexico
- More than 87M credits issued to voluntary and compliance offset projects

Background

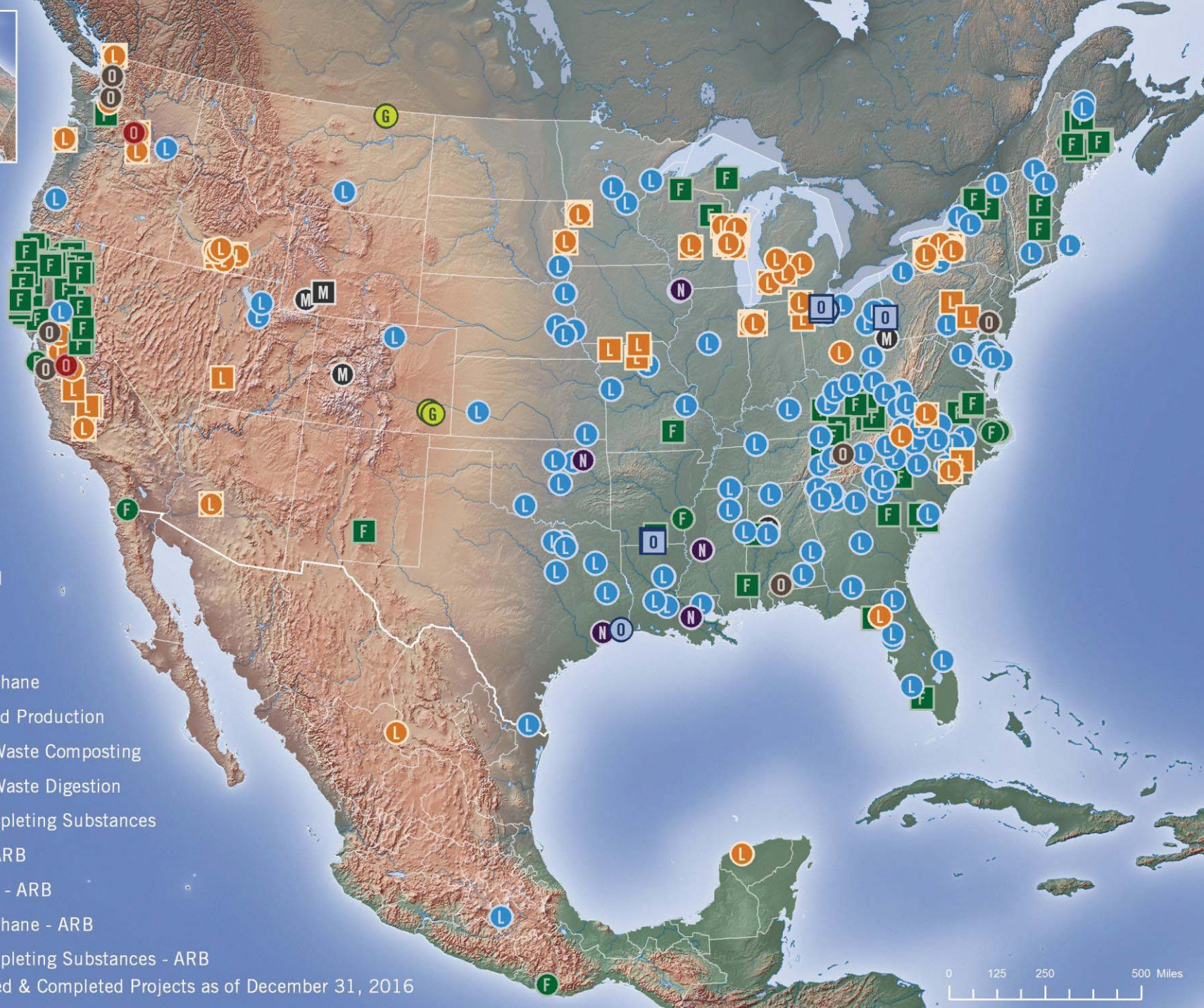
- **July 22, 2015:** GPP v1.0 adopted
- **September 2015:** Awarded USDA NRCS Conservation Innovation Grant for outreach, implementation, pilot projects, **and protocol update**
- **Spring 2016:** Released Project Development Handbook, conducted stakeholder outreach
- **July 2016:** Listed 2 pilot projects in Colorado
- **September 2016:** Initiated protocol update
- **January 2017:** GPP v2.0 Adopted by Reserve Board



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- Forest
- Grassland
- Landfill
- Livestock
- Mine Methane
- Nitric Acid Production
- Organic Waste Composting
- Organic Waste Digestion
- Ozone Depleting Substances
- Forest - ARB
- Livestock - ARB
- Mine Methane - ARB
- Ozone Depleting Substances - ARB

Listed, Registered & Completed Projects as of December 31, 2016



GPP overview

- **Avoided conversion of grassland to cropland**
- Eligibility:
 - Financial threshold as proxy for conversion pressure
 - Suitability threshold to limit projects to arable land
- Quantification:
 - Baseline avoided loss of soil C, as well as emissions from cultivation
 - Project emissions from grazing, compost, fuels, etc.
 - Calculation tool is provided by the Reserve

GPP overview (con't)

- Permanence ensured through conservation easement, or transfer to federal ownership
- Project area must be grassland for at least 10 years prior to the project
- Verification can be conducted remotely
- Multiple projects can be managed together as a “Cooperative”
- Flexible verification schedules
- Crediting period is up to 50 years



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Section 2

UPDATES FROM V1.0 TO V2.0

GPP v2.0 highlights

Major changes in bold

- Allow for irrigation of project area
- **New start date option**
- **New options for suitability threshold**
- **New ecosystem health assessments**
- Removed accounting for shrubs
- Reduced buffer pool contribution for accredited land trusts
- Updated soil texture class names
- Minor language improvements

Terminology change

“Project Developer” is now “Project Owner”

- GPP v1.0 used “Project Developer” as a legal term, referring to the entity with ownership of the GHG emission reductions
- v1.0 usage caused confusion among users
- “Project Owner” has the same definition

Irrigation allowed in project

Irrigation now allowed during project

- GPP v1.0 prohibits irrigation of the project area
- Stakeholders suggested that moderate irrigation can improve rangeland health without significant drawbacks
- v2.0 allows for irrigation
 - Any increases in electricity emissions related to pumping must be accounted for
 - Also need to account for N₂O emissions from leaching, volatilization, and run-off

New start date option

New option allows project submittal to define start date

- Very common approach for forestry
- Project is “submitted” when the form is uploaded and the “submit” button is clicked in the registry software
- Only applicable before the project easement is recorded
- Easement must still be in place prior to completion of initial verification
- Simplifies cooperative management
 - Submit all cooperative projects at once and they will all have the same start date

Suitability threshold options updated

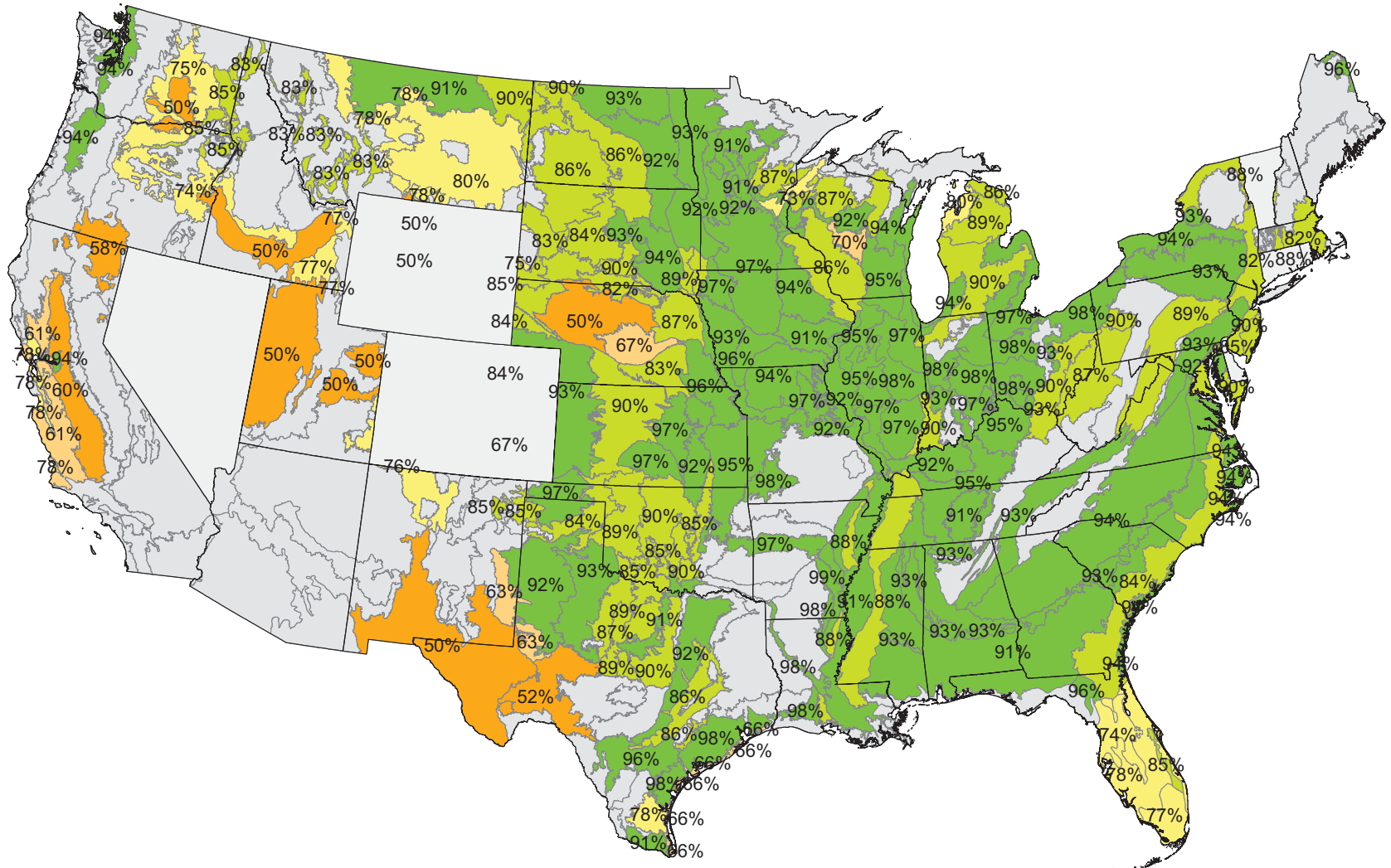
Replaced national default with two options:

- **Option 1: Default value by Major Land Resource Area**
- **Option 2: Local assessment**
- Stakeholder feedback that national default was too restrictive for some areas
- Staff analysis concluded that national default was too low for some areas and too high for others
- Staff conducted GIS analysis of the Land Capability Classification of existing cropland, controlling for irrigation
- Non-irrigated threshold by default
- Irrigated threshold available if project can prove access to irrigation in the baseline

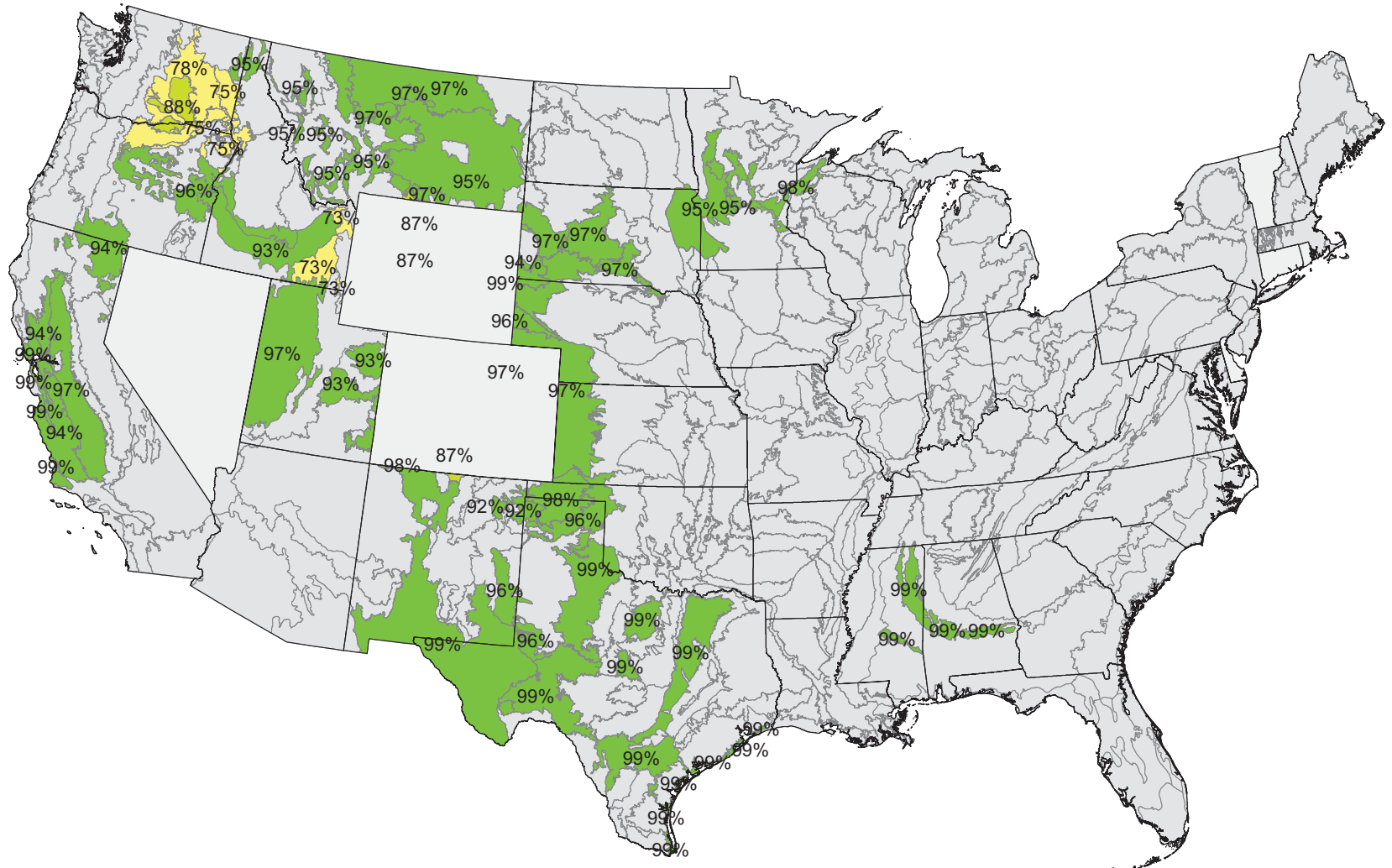
Non-irrigated results



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Ecosystem health assessments

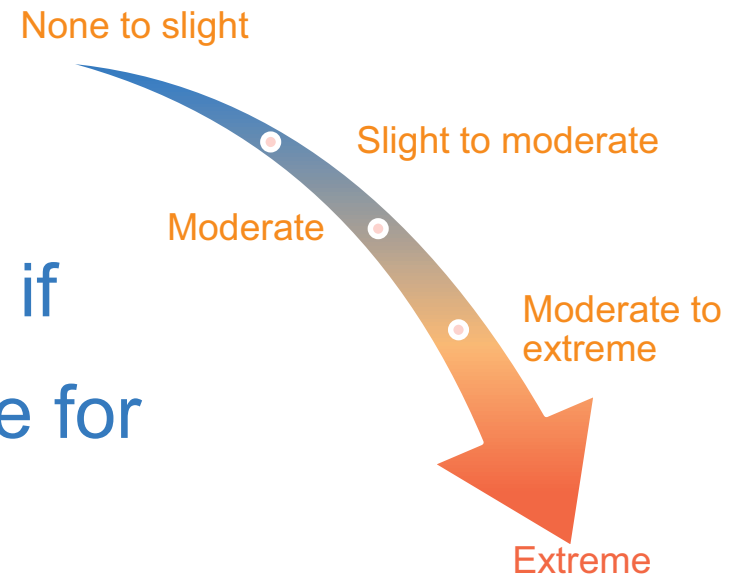
Periodic ecosystem health assessments now required for eligibility

- Follow the BLM Rangeland Health Assessment protocol
- Assessments at least every 6 years
- Seriously degraded lands must show improvement
- Allows for a long-term view of the health of the project area, ensuring stability of belowground carbon pools
- Can help identify non-event-related reversals
- Assessment can be completed with minimal training and only a few hours of site activity

<https://jornada.nmsu.edu/monit-assess/manuals/assessment>

Rangeland Health Assessment protocol

- Ecological Site Description for reference conditions for 17 different metrics
- Assess each metric on a scale of deviation
- Adaptive management to improve degraded areas
- Ineligible for reporting period if condition worsened over time for avoidable reasons



<https://jornada.nmsu.edu/monit-assess/manuals/assessment>

Accounting for shrubs removed

Woody shrubs removed from v2.0 quantification

- Optional pool in GPP v1.0
- GPP v1.0 does not properly account for shrubs in the context of fire and reversals
- Over two years of outreach, zero stakeholders have expressed interest in accounting for shrubs
- Adds significant effort and complexity to quantification and verification
- Could be re-worked and added back in the future

Risk of financial failure updated

Buffer pool contribution updated: $\text{Risk}_{\text{FF}} = 0\%$
where the Project Owner is *accredited* land trust

- V1.0 applies 10% Risk_{FF} for projects without the Recorded PIA, subordination clause Type I
- Land Trust Accreditation Commission requires proof of financial resources to support the easement into the future, including legal costs
- Accredited land trusts can, categorically, be viewed as a stable counterparties for the PIA
- V2.0 applies 0% risk to these organizations

Soil texture class names updated

Renamed the three soil texture classes

- V1.0 names can be confusing with the various qualifiers used in the soil survey
 - E.g., “Sandy loam” = “Sand”
- Recommended by contractors

GPP v1.0		GPP v2.0	
Sand	=	Coarse	
Loam	=	Medium	
Clay	=	Fine	



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Section 3

REGISTRY SOFTWARE UPDATES

Registry software updates

- New account type: “Project Owner” (PO)
 - Used by Cooperative participants who are the “Project Owner” as defined in the protocol
 - Reduced fee
 - Limited functionality
 - Cooperative Developers use “Project Developer” account type
- Cooperative developer submits and manages projects
 - Cooperative ID assigned by the Reserve Administrator
 - Selects a PO for each project
 - CRTs will be issued to the PO by automatic forward transfer
- Common buffer pool among project types



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Section 4

AUDIENCE QUESTIONS

Thank you!

Join us at the following events:

Event	Location	Date
Navigating the American Carbon World	San Francisco, CA	April 19-21
Northwest Grazing Conference	Pendleton, OR	May 10-11
Montana Grassland Workshop	TBD, MT	TBD (summer)

Contact: max@climateactionreserve.org (213) 785-1233