Public Comments

To: **CALIFORNIA AIR RESOURCES BOARD**
Date: August 31, 2015
Re: Natural and Working Lands Symposium

To Whom It May Concern:

The Climate Action Reserve is pleased to submit these comments in response to the joint agency Natural and Working Lands Symposium, held August 5, 2015. The Reserve applauds the efforts of agencies within the State of California to collaborate on this crucial area of climate policy. Management decisions regarding California's natural and working lands have the opportunity to both increase and decrease greenhouse gas (GHG) emissions, and intelligent collaboration is critical to addressing this complex topic in a way that supports the State's climate change goals. One specific step that California can take to reduce GHG emissions related to land use change is to adopt a compliance offset protocol (COP) for the avoided conversion of grassland to cropland. Not only does grassland conservation generate real, significant GHG benefits, but it provides a host of other benefits related to open grazing lands (avoiding the need for confined livestock operations), watershed health, wildlife habitat, and local air quality (avoided cultivation emissions). The Reserve has recently completed a multi-year, multi-stakeholder process to develop a highly standardized offset project protocol for avoided grassland conversion.

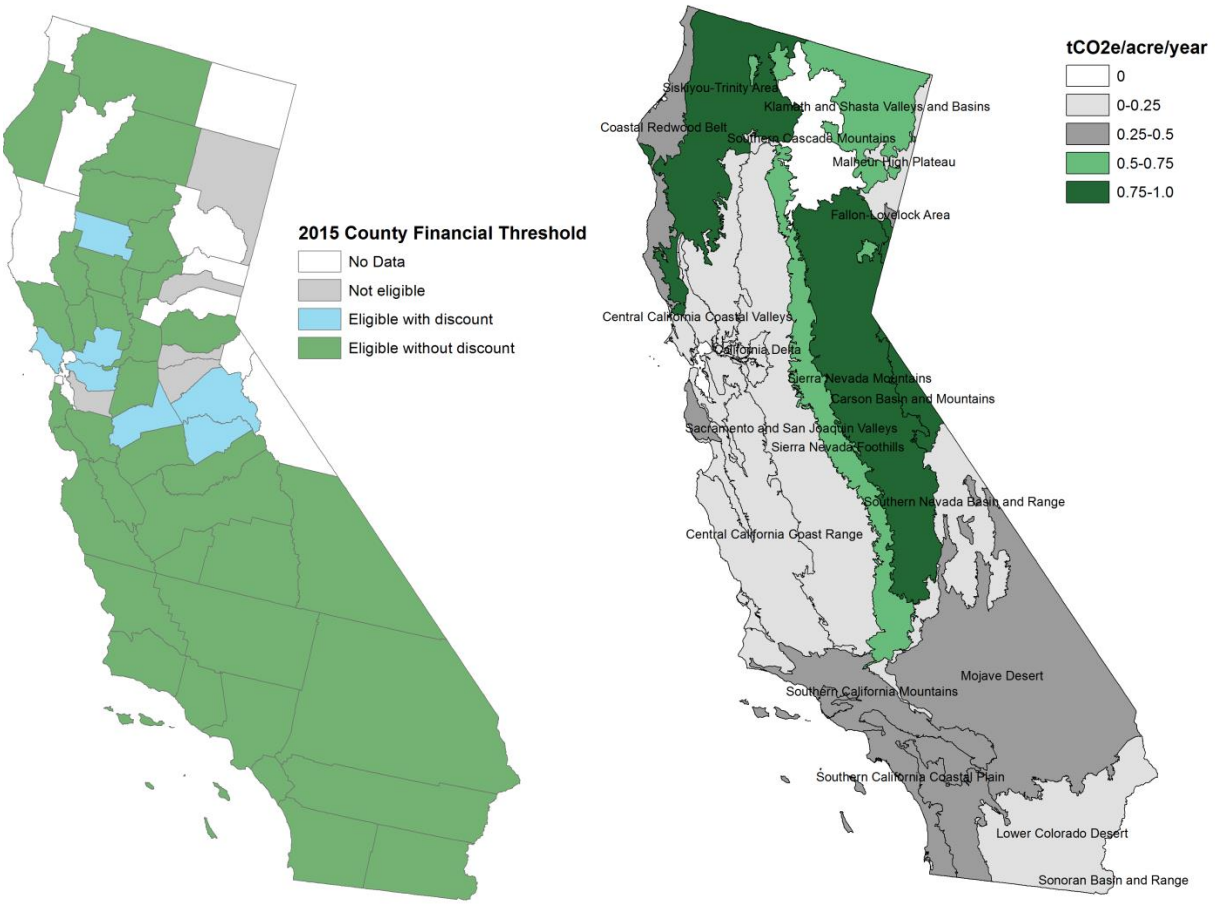
Protocol Summary
The Grassland Project Protocol v1.0 (adopted July 22, 2015) applies to projects in the conterminous United States, including tribal lands. The project is defined as the permanent conservation of existing grassland (at least 10 years of grassland cover) that would otherwise be converted to crop cultivation. The threat of conversion is established through two performance standard tests: a financial threshold based on county-level land rental rates, and a suitability threshold based on the Land Capability Classification (LCC) system. Due to the standardized nature of these tests, project proponents do not need to go through the uncertain process of asserting and documenting a project-specific counterfactual baseline scenario.

Activities on the project area are flexible as long as they do not change the land use from grassland, and do not incorporate synthetic fertilizer or irrigation. The Reserve expects that most projects will incorporate other activities, such as livestock grazing or recreation.

GHG quantification for the protocol includes credit for avoided loss of belowground organic carbon, avoided emissions from fertilizer use, and avoided emissions from fossil fuel use, and debit for project emissions from burning, livestock grazing, organic fertilizer use, fossil fuel use, and baseline leakage. This is an appropriate GHG assessment boundary, excluding additional sources, sinks, or reservoirs whose quantification is uncertain and whose exclusion is conservative. This GHG assessment boundary does not conflict with other emission reduction efforts under AB32.

Applicable California regions

The figure below, on the left, highlights the results of the county-level financial threshold (green and blue counties are eligible, 36 in total). The figure below, on the right, highlights the maximum baseline organic carbon emission factor for each Major Land Resource Area (MLRA), reported as tonnes of CO_2e per acre, per year. Although there are other sources of baseline and project emissions, depending upon the specific circumstances of each project, the organic carbon emission factor can serve as a very rough guide to the number of offsets a project can expect to earn. For example, a 1000 acre project with an emission factor of 0.8 might generate roughly 800 offsets per year.



These emission factors vary by soil texture and prior land use history. The prime areas for projects will be lands which can document more than 30 years of continuous grassland cover prior to the project commencement. These lands must also be suitable for crop cultivation by demonstrating that at least 75% of the project area is LCC I-IV, allowing for up to 25% as LCC V-VI. Recent studies have shown that a significant share of land conversion is occurring on lower-quality grasslands.

Monitoring, Reporting, and Verification (MRV)

In general, MRV for Grassland projects is straightforward and not burdensome. Project Developers must document land use, ownership, and quantification for each reporting period. They must monitor all livestock grazing, burning, organic fertilizer use, and fossil fuel use. Monitoring and reporting must occur at least annually, while verification may be delayed for up

to six years. Credits are only issued ex-post, following a successful verification. Projects may be managed as Cooperatives (similar to project aggregation in other programs) whereby the MRV efforts are combined. In these cases, costs may be reduced by conducting a single verification for multiple projects, resulting in a single verification report. However, each project is still separately listed in the registry and all offsets are traceable back to the original project and reporting period.

Differences with methodologies proposed during the symposium

The only related methodology discussed at the August 5 symposium was for compost additions to grazed lands. That methodology targets changes in soil carbon due to the addition of organic fertilizer in the form of compost. It focuses on enhanced sequestration, whereas the Reserve GPP focuses on avoided emissions. The compost methodology also allows for baseline crediting of the avoided landfill emissions from food waste, something that the ARB has stated that they are not interested in crediting with offsets. Lastly, that methodology has only been validated on two sites in Marin County, so a great deal of research is needed before it can be applied to projects elsewhere. It is not clear that compost additions will have such a significant benefit in other grassland ecosystems. The Reserve GPP is ready for application nationwide, including California. Because the baseline modeling has already been conducted and default emission factor tables have been developed, significant reductions in effort and uncertainty related to project implementation are achieved.

Additional information

The protocol document is available from the Reserve website.[1] The protocol includes references for the various scientific and industry sources which were used to support and develop the methodology. The website also contains a link to download the companion tables, an Excel spreadsheet containing the parameters by MLRA and county, which are necessary for the quantification of Grassland projects. The Reserve has also developed a calculation tool which is available for use by project developers. We are currently accepting submittals for projects and cooperatives which wish to use GPP v1.0. The Reserve would be happy to discuss this protocol further and answer any questions which agency staff may have.

Contact information:

Max DuBuisson
Senior Policy Manager
Climate Action Reserve
max@climateactionreserve.org
(213) 785-1233
601 W. 5th Street, Suite 650
Los Angeles, CA 90071

[1] http://www.climateactionreserve.org/how/protocols/grassland/