Offset Data Management Principles for Agriculture

Records, data management, and data management systems are essential components of obtaining verifiable proof of management improvements that qualify for greenhouse gas or carbon offsets. Although the agriculture industry has the capacity to generate offsets, the data management systems to support verification are generally lacking. The purpose of this report is to describe the principles and framework for data management as these apply to agricultural offsets. This work was initiated by Alberta Agriculture and Forestry and funding was provided by Agriculture and Agri-Food Canada though the Agriculture Flexibility fund, as part of Canada's Economic Action Plan.

Key concepts addressed in the report are:

- Differences between data management, data management systems, and data.
- Roles and responsibilities of the Government of Alberta, Project Developer, Farmer, and Professional Agrologist.
- Documentation of the data management system included the use of the data flow diagrams and control matrixes.
- How to design data management systems including the selection and placement of controls.
- Assessment of evidence and what constitutes strong evidence.

The report includes agricultural examples, based on the Conservation Cropping protocol and on the Reduced Days on Feed protocol for beef. Although the Reduced Days on Feed protocol was revised to streamline calculations and renamed the Fed Cattle protocol in February 2016, the example provides a helpful introduction to the revised version.

This report was prepared as information for Alberta Agriculture and Forestry. The views and opinions expressed in this report are those of le-ef.com Consulting Corp. Offset projects must comply with the most recent quantification protocols and program requirements published by Alberta Environment and Parks available at: <u>http://aep.alberta.ca/climate-change/guidelines-legislation/specified-gas-emitters-regulation/offset-credit-system-protocols.aspx</u>.

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