

**Nitrogen Management Project Protocol:   
Data Information Submittal & Evaluation Process   
for Protocol Expansion**

The Minimum Data Standard, as it appears in Appendix D of the Nitrogen Management Project Protocol (NMPP), serves as a framework for the Reserve to determine whether reference data are sufficiently robust to be used for developing or expanding upon a quantification methodology. The process below outlines how stakeholders may submit information on new reference data sets, and/or quantification methodologies based on these data sets, to be considered for inclusion in the protocol. The Reserve will review new data information submittals on an ongoing basis.

**Round 1: Submitting the Data Information Submittal Form:** Stakeholders seeking to submit original data sets to the Climate Action Reserve shall fill out the NMPP Data Information Submittal Form, and submit it via email to [policy@climateactionreserve.org](mailto:policy@climateactionreserve.org). The Reserve does not require submission of the data set at this point in the process. However, stakeholders should keep in mind that in order to subsequently submit any data, they must have the consent of the original researchers/developers of the data set. Data submitters will be notified if incomplete forms need to be resubmitted.

**Round 1 of Evaluation:** Upon receipt of completed NMPP Data Information Submittal Form, Reserve staff will review Part 1 of the form to assess whether the data set meets the minimum requirements of the [Minimum Data Standard](http://www.climateactionreserve.org/how/protocols/nitrogen-management/data-submittal/). Whenever possible, the Reserve encourages submissions that exceed one (or all) minimum requirements to highlight that the data set has done so, and similarly, the Reserve encourages submitters to highlight areas that do not meet those minimum requirements\*\*. Reserve staff may follow up with additional questions on areas where the data set does not meet the Minimum Data Standard. This preliminary round of evaluation will be performed by Reserve staff. While it will focus on ensuring completeness of forms, submissions that clearly fail to meet one or more of the requirements in the Minimum Data Standard may be notified of a negative determination as early as this stage.

*\*\* Please note, the Reserve expects that many robust data sets, which otherwise meet most criteria in the Minimum Data Standard, may still fail to meet the requirement that a study be replicated in other comparable geographies. We encourage submissions of these data sets in any case, as we will list them on our website as a proposed project activity in need of replication, with the hope that others may replicate the study.*

**Round 2: Providing Supplemental Information to Support the Additionality Assessment of the Proposed Practice:** For data information submittals that successfully pass Round 1, the Reserve will request the submitter provide the Reserve with additional supplemental information to perform a preliminary assessment that demonstrates additionality of the project type(s), as well as supports the Reserve’s assessment of emission reduction potential (i.e. technical potential) of the practice(s). Information provided in Round 2 need not be the result of primary research conducted by the data submitters. The Reserve will review this information to assess whether relevant practices associated with the data described in the Data Information Submittal Form would be additional from a carbon offset perspective and whether a standardized additionality assessment is possible. For more information about additionality, see section 1.2 of the [Reserve Program Manual](http://www.climateactionreserve.org/how/program/program-manual/).

Supplemental information to support assessments of additionality and technical potential of a practice could include: data and/or papers on adoption rates of activities, barriers to or incentives for adoption, economic and technical feasibility, legal requirements, etc.

**Round 2 of Evaluation:** Additionality is a critically important criterion for carbon offsets and the Reserve will not develop methodologies for project activities that are already being implemented regularly or at an increasingly regular rate under “business as usual” circumstances (i.e. in the absence of carbon offset program incentives) or if that project activity is required by law (federal, state, or local). As such, if the Reserve makes a determination that a proposed project activity is not additional for a given crop or region, the Reserve will not move forward with developing a quantification methodology, regardless of the data set’s quality. Project activities with good technical potential that are deemed feasible and additional in preliminary assessments by the Reserve, as well as meeting criteria of the Minimum Data Standard, will move on to Round 3 of evaluation.

**Round 3: Providing Supplemental Information on the Data Set:** At this point, data submitters will be asked to provide more detail about their data set to be reviewed by the Reserve’s panel of independent scientists. While data sets that have undergone peer review (i.e. the study was published in a peer-reviewed journal) are not required until after the Reserve determines that it will move forward with a protocol expansion, data sets that have *not* yet undergone peer review will need to be submitted at this time.

In addition, data submitters may be asked to provide discussion and analysis on the treatment of outliers, information on the freeze/thaw cycle, winter precipitation, and/or any crop damage that occurred and its anticipated impact on emissions. Studies that did not apply a pre-approved sample collection methodology will be asked to provide a copy of the sampling methodology implemented and a comparison of how it differs from the approved sampling protocols (see Data Information Submittal Form for pre-approved methodologies). Submitters will also be encouraged to propose and justify what a quantification methodology developed from the submitted reference data might look like and what an appropriate degree of extrapolation of the data to other sites within the region would be.

**Round 3 of Evaluation (Review by Independent Panel of Experts):** Upon receiving the above supplemental information, Reserve staff will send all information to a selected group of scientists with expertise in agricultural greenhouse gas accounting for their review. Once the Reserve’s panel of independent scientists recommends a data set(s) or methodology(ies) as appropriate for use in expanding the protocol, the Reserve will make every effort to move forward expediently to commence protocol expansion. Formally commencing a protocol expansion includes, but is not limited to, a review of the submittal’s actual data set, seeking and securing funding for protocol expansion, solicitation for a technical contractor, and convening the stakeholder workgroup.



**Data Information Submittal Form to Propose the Expansion of the Nitrogen Management Project Protocol**

**A. Information on Parties Submitting Data Information**

1. Name: First and Last Name
2. Title: Full Title
3. Organization: Organization Name
4. Phone: xxx-xxx-xxxx
5. Email: email@domain.org
6. Were you involved with developing the data set?  Yes  No
   1. If yes, how? Enter text here
   2. If no, please explain your relationship to the data and whether you have consent from the original researchers to submit their data to the Reserve. Enter text here
7. Other involved parties: Enter text here

**B. Basic Information on Data Set**

1. Where did the study take place? Please provide information on the location of each study site (city, state, county, MLRR or LRR, etc.).  
   Enter text here
2. When did the study take place?
   1. Years: e.g. YYYY - YYYY
   2. Were data collected year-round?  Yes  No
      1. If no, please describe time period over which data were collected in each year. e.g. MM/DD/YY – MM/DD/YY
3. Please describe the crop type and/or rotations, including *all* crops in the rotation, cover crops, and fallow years. Enter text here
4. Briefly describe the proposed project activity or practice change that the data set demonstrates will consistently result in N2O emission reductions, identifying in what sources, sinks, or reservoirs GHG reductions will occur, as well as whether this activity potentially impacts other GHG emission sources, sinks or reservoirs. Enter text here
5. Does the study and associated data set meet all criteria of the Minimum Data Standard?  Yes  No
   1. Does the study include measurements from both a representative common practice (baseline) scenario and the proposed project activity/practice change?   
       Yes  No  
      *(If this requirement is not met, the Reserve will not consider a data set.)*
   2. Has the study (or a comparable study) been performed at sites located in more than one county or other geographic location?  Yes  No  
      *(If this requirement is not met, the Reserve will not consider a data set at this time, but we encourage submissions of these data sets in any case, as high quality data sets may be listed on our website as a proposed project activity in need of replication.)*
   3. If not otherwise addressed in 5a and 5b above, please explain why the data set does not meet the requirements of the Minimum Data Standard. Enter text here
6. Are you submitting this data set for purposes of developing a new Tier 2 methodology, or are you proposing that this data set be used to validate an existing Tier 2 or Tier 3 methodology? Please explain. Enter text here
7. Please provide complete citations for any publications (peer-reviewed journals, other publications, university websites, etc.) where the data set being submitted has been published. Enter text here

**C. Management Descriptors**

Please describe the following for each treatment evaluated (both “baseline” and each potential “project activity”):

* 1. Tillage practices (conventional till, reduced till, strip till, conservation till, no till, etc.). Enter text here
  2. Rate (amount) and types of nitrogen applied (please include all types, denoting organic and inorganic sources). Enter text here
  3. Where and how nitrogen was applied (banded, broadcast, injected, etc.). Enter text here
  4. Timing and frequency of nitrogen application. Enter text here
  5. Irrigation type, application frequency, and amount. Enter text here
  6. Residue handling (left on field, removed from field, including percent remaining incorporated into field, etc.). Enter text here
  7. Other inputs used (e.g. starter fertilizer, phosphorus, etc.). Enter text here
  8. Impact on yields. Please describe what impact, if any, the proposed project activity had on yields when compared to the baseline treatment. If yield was negatively affected, was any other agronomic event potentially responsible for external impacts on yields over the course of the study? Enter text here

**D. Study Design Spatial and Temporal Sampling**

1. Please provide a brief description of the spatial design for each study site, including number and size of replicate plots and number of samples taken per plot. Enter text here
2. Please use the drop-down menu to select which sampling methodology was implemented for the data set.

USDA ARS GRACEnet Chamber-based Trace Gas Flux Measurement Protocol

If **alternative sampling** **methodology**: provide name and brief description here

1. Please provide a brief description of methods of data collection, including chamber design, sample collection and handling, and gas analysis. Enter text here
2. Please provide a brief description of the temporal frequency of measurements taken at each study site, including at what time of day and how many times per week flux measurements were taken, noting any increased frequencies due to agronomic events. Enter text here

**E. Location Descriptors**

1. Please describe the soil characteristics of each study site, including soil texture or series, soil organic matter content, etc. Enter text here
2. Is this soil typical of the region?  Yes  No
3. If no, what soil is typical of the region? Enter text here
4. Please describe the weather for each study site during the years of the study. Please discuss whether the weather during the study years represented “typical” weather for the region. Enter text here
5. Is the study site located in a region that experiences freeze/thaw cycles?   
    Yes  No  
     
   If yes, does the data set include at least one full year of flux measurement data?  
    Yes  No
6. Is the study site located in a region that experiences non-growing season precipitation (and lacks freeze/thaw cycles)?  Yes  No  
     
   If yes, does the data set include at least one full year of flux measurement data?  
    Yes  No
7. Describe any notable environmental and/or agronomic events that occurred during the experiment and indicate if they have influenced GHG emissions or resulted in crop damage. Enter text here

**F. Treatment of Outliers**

Please describe how outliers were treated at each stage of data collection and analysis in the study. Enter text here

**G. Technical Potential of Proposed Practice**

*The following questions are related less to the primary data set and underlying field study, but rather requires the examination of USDA or other national- or state-level data, as needed. These responses assist the Reserve in performing an initial assessment of the technical potential of proposed practices, and we ask that you answer the questions as completely as you can. Please cite data sources.*

1. What is the total acreage for the cropping system in question in the U.S.? Enter text here  
   In the proposed region? Enter text here
2. Please provide the average application rate intensity and a description of management practices considered “business as usual” for the cropping system in question in the proposed region. Enter text here
3. What are the emission reductions per acre expected from this practice? Please state any assumptions. Enter text here
4. Based on responses to questions 1-3 above and stating any additional assumptions, what is the estimated technical potential (e.g. emission reductions per acre x total eligible acres) for the proposed region? Enter text here

**H. Additional Information about Data Set**

Please use this section to provide any additional information about the data set that you are submitting.