Nitrogen Management Project Protocol
Summary of Changes from Version 1.1 to Version 2.0
October 17, 2017

The Nitrogen Management Project Protocol Version 2.0 incorporates the following significant changes from Version 1.1.

Section 2  The GHG Reduction Project

- Approved 2 new eligible practices, 8 new eligible crops, and 22 new eligible states for a total of 3 eligible practices, 10 eligible crops and 34 eligible states (Section 2.2)
- Introduced multiple new flexible aggregation mechanisms (Section 2.4):
  - Expanded to allow for in-project aggregation: multiple farmers, fields, crops, and regions can now come together under a single project
  - Introduced cooperative structure used in the Reserve’s Grassland Project Protocol (GPP) V2.0
  - Introduced methods to facilitate movement of fields in and out of projects, and projects in and out of cooperatives
  - Removed Field Size Limits

Section 3  Eligibility Rules

- Start date / submittal requirements distinguish between project and fields (Section 3.2):
  - Project must be submitted within 12 months of start date of projects first field
  - Additional fields must be submitted within 24 months of each field start date
- Updated guidance to incorporate the variability between field and project reporting periods
- Introduced flexibility to allow projects to not seek CRTs on field basis, for given reporting period (Section 3.3)
- Expanded crediting period from five years to ten reporting periods, with option to renew crediting period once, for total maximum 20 reporting periods (Section 3.3, Section 3.4)
- Significant updates to PST to simplify, expand temporally and fixate spatially:
  - Simplified Nitrogen Use Efficiency (NUE) metric from the Removed to Applied (RTA) ratio to Partial Factor Productivity (PFP) (i.e., yield divided by N rate) (Section 3.5.1.1)
  - Created multi-year county- and crop-specific average N rates and PFP values to serve as benchmarks for common practice assessment; expanded from annual State- and crop-specific average N rates and RTAs (Section 3.5.1.1, Appendix B)
- Updated Legal Requirement Test guidance such that only where regulation imposes quantitative limits on N rate applications will the fields in question be ineligible, except for reductions in excess of such requirements (Section 3.5.2)
• Developed user-friendly tool in Microsoft Excel – Nitrogen Management Project Eligibility Lookup Tool – to assess eligibility of select activity-crop-region scenarios and provide county- and crop-specific benchmark N rates and PFP values

Section 5 Quantifying GHG Emission Reductions
• Added new quantification methodology and developed new user-friendly quantification tool in Microsoft Excel – NMQuanTool – to calculate (direct and LVRO) N₂O emission reductions, pre-adjusted for uncertainty, from the implementation of eligible project activities (Section 5.1)
• Added equation to calculate percentage reduction in synthetic N rate from baseline to project for use in NMQuanTool (Section 5.1)
• Shortened baseline look-back period from 5 to 3 years (Section 5.1.2)
• Introduced 2 hierarchical flexible approaches for determining baseline N rates for use only in the absence of historical records (Section 5.1.2.1)
• Expanded project N rate equation to include potential increases in N from previous cultivation years and leakage (Section 5.1.3)
• Added new procedures to account for increases in synthetic and organic N rate applied during cultivation years in which CRTs are not earned (Section 5.1.3.1, Section 5.1.4.4.1)
• Modified leakage procedures to proportionately increase project N rate (Section 5.1.3.2)
• Modified and added new equations to account for increases in N₂O emissions from increases in organic N rate in all eligible regions (Section 5.1.4)
• Updated to direct that CO₂ emissions from the use of cultivation equipment in the project will be excluded if changes are reasonably assured to be de minimis relative to baseline use (Section 5.2)

Section 6 Project Monitoring
• Consolidated multiple sections from previous version into single abbreviated section & modified field and project data monitoring requirements to reflect updated eligibility criteria and quantification methodology (Sections 6.1, 6.3 and Table 6.1)
• Added new guidance on monitoring requirements for the new cooperative management structure (Section 6.2)
• Removed Corn Stalk Nitrate Test (CSNT) requirements

Section 7 Reporting and Record Keeping
• Updated project monitoring report guidelines to streamline guidance, clarify requirements, introduce guidance for new cooperative structure (Section 7.2)
• Consolidated verification cycle options to reflect updated reporting period requirements (Section 7.4)

Section 8 Verification Guidance
• Updated to reflect updated monitoring and reporting options and to further streamline verification guidance (Section 8.2)