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## Applying the Accuracy Deduction for Structural Uncertainty in the Rice Cultivation Project Protocol, Version 1.0

The Rice Cultivation Project Protocol (RCPP), version 1.0 uses the DNDC biogeochemical process model to quantify emission reductions achieved through the application of approved rice cultivation project activities in California. Inherent in biogeochemical models, like DNDC, are uncertainties due to imperfect science in the models, known as the model's structural uncertainty. To ensure conservativeness in estimates of project emission reductions, the RCPP requires that all projects account for structural uncertainty by applying an "accuracy deduction for model structural uncertainty" ( $\mu_{struct}$ ). As the number of project fields using DNDC to quantify their emission reductions increases, the structural uncertainty for emission reduction estimates *per field* decreases. For this reason, the Reserve quantifies structural uncertainty at the program level, meaning that the accuracy deduction for structural uncertainty applied to any one field will depend on the total number of rice fields enrolled in active RCPP projects registered with the Reserve. Each year, once the total number of California rice fields implementing projects during that year has been confirmed, the Reserve will publish the accuracy deduction ( $\mu_{struct}$ ) to be applied for that reporting year. All rice project fields reporting to the Reserve must use the accuracy deduction published by the Reserve at the time of verification.

The table below shows the range of accuracy deductions for structural uncertainty associated with as few as one project field and as many as 1000. It is provided as a reference for project developers to allow for preliminary quantification estimates until the year's accuracy deduction has been published. This table of structural uncertainty factors is based on validation of the DNDC model (version 9.3), which took place in December 2011, and is subject to change as new data for California rice becomes available and the model undergoes further validation. The most up-to-date factors will be sent to account holders and provided on the Reserve website as soon as they are available.

Number of fields (at the Reserve-program level)	$u_{struct}$ (kgCO <sub>2</sub> e/acre)
1	174.0
2	123.1
3	100.5
4	87.0
5	77.8
6	71.0
7	65.8
8	61.5
9	58.0
10	55.0
15	44.9
25	34.8
50	24.6
100	17.4
1000	5.50