

## Supplementary material for

### Soil carbon market-based instrument pilot – the sequestration of soil organic carbon for the purpose of obtaining carbon credits

Warwick Badgery<sup>A,G</sup>, Brian Murphy<sup>B</sup>, Annette Cowie<sup>C</sup>, Susan Orgill<sup>D</sup>, Andrew Rawson<sup>F</sup>, Aaron Simmons<sup>A,E</sup>, and Jason Crean<sup>A</sup>

<sup>A</sup>NSW Department of Primary Industries, Orange Agricultural Institute, 1447 Forest Road, Orange, NSW 2800, Australia.

<sup>B</sup>NSW Department of Planning, Industry and Environment, Ground Floor, 11 Farrer Place, Queanbeyan NSW 2620, Australia.

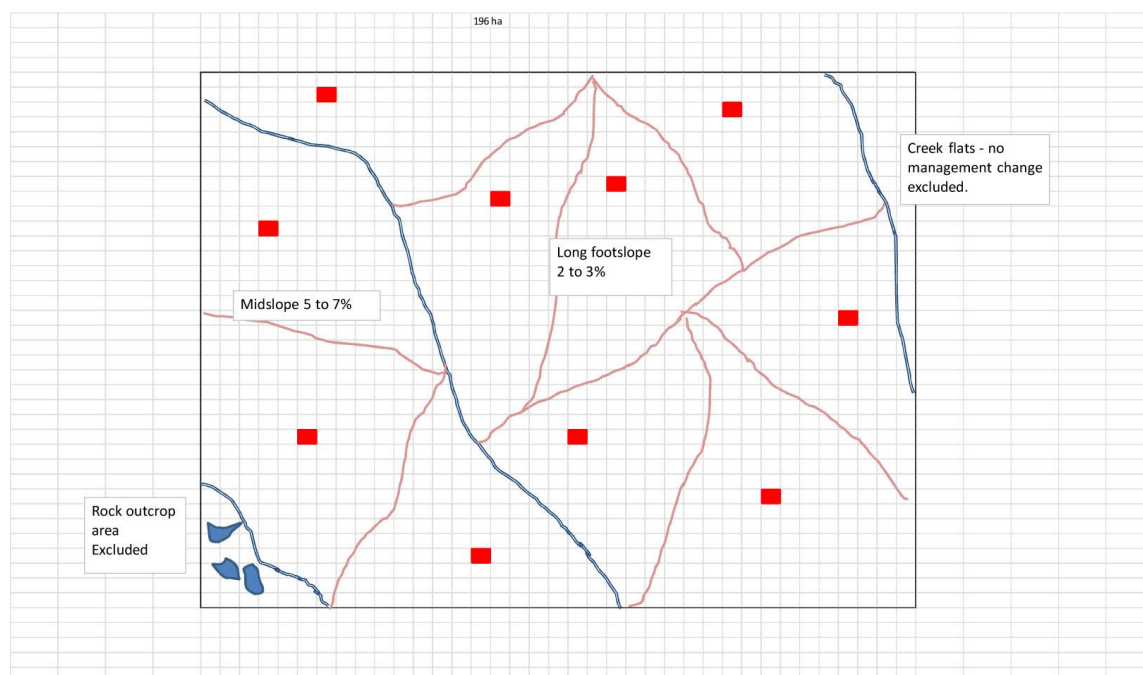
<sup>C</sup>NSW Department of Primary Industries Livestock Industries Centre/University of New England, Trevenna Road, Armidale, NSW 2351, Australia.

<sup>D</sup>NSW Department of Primary Industries, Wagga Wagga Agricultural Institute, Pine Gully Road, Wagga Wagga, NSW 2650, Australia.

<sup>E</sup>98 Victoria St, Taree, NSW 2430, Australia.

<sup>F</sup>Charles Sturt University, Leeds Parade, Orange, NSW 2800, Australia.

<sup>G</sup>Corresponding author. Email: [warwick.badgery@dpi.nsw.gov.au](mailto:warwick.badgery@dpi.nsw.gov.au)



**Figure S1.** An example of a sample design for a paddock that is 100 ha with two separate areas (Midslope and Long footslope). Areas of rock outcrop and creek flat were excluded. The Midslope Unit was divided into three equal strata and three sampling quadrats were chosen at random from within each area. The Long footslope Unit was divided into seven equal strata and three sampling quadrats were chosen at random from within each area (Murphy *et al.* 2013).

**Table S.1.** Description of standard actions in Actions-based contracts in the soil carbon pilot.

<b>Standard Actions</b>	<b>Description</b>
Conservation tillage (CR1)	<ol style="list-style-type: none"><li>1. Retain stubble</li><li>2. Achieve less than 20% surface disturbance pre and during sowing</li><li>3. May include a pasture phase</li></ol>
Permanent Pasture – Tactical Grazing (P1)	<ol style="list-style-type: none"><li>1. Sow perennial grass based pasture.</li><li>2. Attain &gt;70% ground cover in March/ April.</li><li>3. Attain &gt;30% perennials in September /October.</li></ol>
Environmental plantings (W) <sup>A</sup>	<ol style="list-style-type: none"><li>1. Establish permanent environmental (mixed native species) forest greater than 1ha.</li><li>2. Have 20% canopy cover at 5 years.</li><li>3. Have litter cover on the ground surface in Years 2 to 5</li></ol>

<sup>A</sup>There were no successful environmental plantings projects in the pilot.