**Appendix S1 – Abbreviated guidelines for visual assessment of land-use change**

**Validation Data:** Farm Service Agency (FSA) National Agricultural Imagery Program (NAIP) aerial photography

**Data requirements:** Need at least 2 clear images—one from 2006-2008 and one from 2012-2014. Images used should be the nearest available to conversion time period 2008-2012.

**Conversion requirements:** In order to qualify as a confirmed conversion, parcel needs to be identifiable as non-cropland (native prairie) during time 1 and conclusively cropped during time 2.

**Adjacency:** (Y/N) Indicates whether or not a field that was converted is directly adjacent to or connected to another cropland area, such as an extension of an existing crop field.

**Example characteristics for identifying cropland, non-cropland, and delineating alfalfa hay:**

|  |  |
| --- | --- |
| **Cropland** | **Non-Cropland** |
| Rows, row crops  Evidence of tillage, exposed soil  Harvesting  Uniformity  Permanent crops like grape vineyards are also considered cropland | Grazing paths  Watering holes  Patchy vegetation  Variation. Non-uniformity  Driveways, houses, lawn, and small patches of woody vegetation within prairie parcels are considered non-cropland |
| **Hay**  Bales  Multiple harvests and re-growth per year  Windrows of cut/mowed hayed, left out to dry before baling  Tractor tracks to pick up large round/square bales in field | |
| **Alfalfa Hay**  Planted. Often in visible or row-like patterns  Different color/intensity from surrounding area. Often darker than surrounding grass/veg when growing, and much lighter (b/c of more exposed soil) after harvested.  High uniformity  High density of bales, higher yields | **Mowed or Hayed Prairie**  Not planted  Similar to surrounding vegetation  Variation in vegetation, species, color  Low uniformity  Lower density of bales, Lower yields, Often lower frequency of harvest throughout the year. |