

Rangeland Carbon Farm Planning Steps:

Pre-Writing Planning (*suggested best plan writing practices*):

1. Set aside a solid month for the lead writer and the mapper (two people) to write a Carbon Farm Plan (CFP).
 - a. CFP mapping is done from scratch. Examples are available.
2. Schedule to write the CFP when the landowner, lessee and ranch manager (all necessary parties on the agricultural operation) are available to participate in the plan.
3. Schedule two entire days back to back for the writer and the mapper to hold the initial site visit on day 1 and to map on day 2 what was discussed at the initial site visit.
4. Initial meeting with the landowner/lessee/manager:
 - a. Prepare to bring with you:
 - i. Information sheet of “What Is Carbon Farm Planning?”
 - ii. Bring a CFP Table of Contents and review “What Does a CFP Look Like?”
 - iii. Review landowner/lessee/manager level of commitment
 - iv. Liability waiver form—committing the farm to the CFP
 - v. Review (1) aerial photo and (2) soils map of ranch

Writing Process:

1. Ranch Goals with Landowner

- *Ranch operations/description/goals/history (goals should be established during the application process or the process that led you to select this farm for a CFP)*

2. Identification of General Factors (Mapping)

- ✓ Ecological Sites:
 - **Soils** map *and* interpretations (Web Soil Survey [WSS])
 - **Slope:** will be within the Soils Layer on WSS or provide separate map
 - **Aspect:** can be difficult to do within GIS; easier just to describe (NE, SW, etc.)
 - **Elevation**
- ✓ Annual Forage Production (WSS)
 - Soil Data Explorer Suitabilities and Limitations for Use Vegetative Productivity—Range Production (3 options)
- ✓ Soil Organic Matter (WSS)
 - Soil Data Explorer Soil Properties and Qualities Soil Physical Properties
- ✓ Existing Veg Cover
- ✓ Existing Land Use
- ✓ CNDDDB Habitats: Ask the landowner if he or she wants it (important info to have if available).

3. Identification of Potential Carbon Farming Practices: overall inventory of natural resources conditions on farm. Focus on identification of opportunities for reduction in GHGs and enhanced carbon capture and storage by plants and soils.

- On-site inventory of natural resource conditions/concerns/issues and carbon opportunities (Remember the principle resource of concern is *carbon!*)

- Ranch Management: tillage, agrichemicals, pasture cover, RDM
 - Vegetation management, current and new/proposed
 - Veg assessment around waterways, current/proposed
 - Use of windbreaks, hedgerows, shelterbelts, current/proposed
 - Baseline Soil sampling for organic matter
 - Grazing Plan/Management
 - Goals: increase forage production, reduce/repair soil erosion, reduce bare soil, reduce trailing?, vegetation rest between grazing
 - Carrying capacity (from producer information and forage assessment)
 - Forage production (from map)
 - RDM (from reference material)
 - Pasture Management: how pastures are divided, temp vs. permanent fencing, frequency of use (how many days cattle are out on pastures), irrigation by fresh or waste water (if any), improved wastewater distribution irrigation, practices: intensification of grazing management- longer rest periods, more management-intensive grazing, replacing silage production with permanent pasture, and increasing perennial vs. annual grass cover. Describe existing grazing system and potential for enhancement, if any (be careful around writing any grazing prescriptions). Potential compost application on grazed sites and/or croplands.
4. **Quantification** of potential carbon benefits through USDA GHG model (gives interesting comparisons for reference/fun), COMET-Planner (created for CFPs), use local models if available (e.g., oak woodland models, Marin riparian planting data) or similar tool for each potential practice, eg California's COMPOST Planner for compost application.

Post-Writing Process:

5. Final Meeting with Landowner:

- a. **Practice Prioritization** of Potential practices with the landowner. Take into account:
- #1: Landowner interest/priority (qualifier: priority practices with funding or without funding)
 - #2: Financial considerations and funding mechanisms
 - #3: Carbon benefit

Can create a document (map or list) of the landowner's initial decisions and locations of proposed first-tier practices

b. **What's next?** Landowners will likely ask:

1. What are the types of funding available? And where do I apply?
2. Can you explain cap and trade and how it would benefit me?
 - a. What is the current state?
 - b. What is the cost per ton?
3. Are there alternative markets for mitigation? B-Corp?
 - a. How would one get involved?

6. Project Implementation

- Tracking Implementation of Practices

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- 7. Monitoring:** Set up tables for applicable monitoring (soil carbon, vegetation).