



Proposed Amendments Relative to Baseline Determination Forest Project Protocol Version 3.1

June 24, 2010

The following proposed clarifications and amendments would be incorporated in Version 3.2 of the Forest Project Protocol (FPP). The proposed clarification to Section 6.2.1.1 would also be issued as a formal clarification to Version 3.1 of the FPP.

The following clarification will be added to Section 6.2.1.1:

For forest projects located in California, the baseline must be modeled to reflect all silvicultural treatments associated with timber harvest plans (THPs) active within the Project Area at the time of the project's initiation. All legally enforceable silvicultural and operational provisions of a THP – including those operational provisions designed to meet California Forest Practice Rules requirements for achieving Maximum Sustained Production of High Quality Wood Products [14 CCR 913.11 (933.11, 953.11)] – are considered legal constraints and must be reflected in baseline modeling for as long as the THP will remain active. For portions of the Project Area not subject to THPs (or over time periods for which THPs will not be active), baseline carbon stocks must be modeled by taking into account any applicable requirements of the California Forest Practice Rules and all other applicable laws, regulations, and legally binding commitments that could affect onsite carbon stocks. On a case-by-case basis, the California Department of Forestry and Fire Protection (Cal FIRE) may assist Forest Owners in identifying minimum carbon stocking levels that would be effectively required under California Forest Practice Rules.

The following revisions and amendments will be made to Section 6.2.1.1:

Voluntary agreements that can be rescinded, such as ~~voluntary Habitat Conservation Plans (HCPs), Safe Harbor Agreements,~~ rental contracts, and forest certifications are not legal requirements ~~constraints~~. **Habitat Conservation Plans (HCPs) and Safe Harbor Agreements (SHAs) that are in place more than one year prior to the project's start date shall be modeled as legal constraints. HCPs and SHAs that are approved after the date one year prior to the project's start date are not considered legal constraints for the purpose of baseline modeling and may be disregarded.**

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Legal constraints include: ...

3. Other legally binding requirements affecting carbon stocks including, but not limited to, covenants, conditions and restrictions, and other title restrictions in place prior to or at the time of project initiation, including pre-existing conservation easements, **Habitat Conservation Plans, Safe Harbor Agreements,** and deed restrictions, excepting any such encumbrance that was put in place and/or recorded less than one year prior to the project start date, as defined in Section 3.6.

Section 6.2.1 will be amended to require baseline modeling for Improved Forest Management Projects to be conducted according the following additional requirements:

The following steps must be followed to estimate Above Ground (AG) baseline carbon stocks:

1. Look up the Common Practice level of AG standing live carbon stocks for the Assessment Area(s) where the Project Area is located.
2. Determine if the Project Area's Initial AG standing live carbon stocks are above or below Common Practice.
3. Estimate baseline for AG standing live carbon stocks, by averaging a 100-year scenario that takes into account financial and legal constraints on harvesting in the Project Area. In addition:
 - a. If initial AG standing live carbon stocks are above Common Practice, the baseline for AG standing live carbon stocks must not fall below *the greater of either*:
 - i. Common Practice (CP); or
 - ii. The Entity-Adjusted Common Practice (CP_a), where CP_a is determined as follows:

$$CP_a = \text{MIN} (\text{ICS}, \text{CP} + \text{ICS} - \text{WCS})$$

Where,

CP_a = Entity-Adjusted Common Practice

CP = Common Practice

ICS = Initial AG Standing Live Carbon Stocks

WCS = The Weighted Average AG Standing Live Carbon Stocks for All Entity Landholdings Within the Relevant Assessment Area

- b. If Initial AG Standing Live Carbon Stocks are below Common Practice, the baseline for AG standing live carbon stocks must not fall below *the greater of*:
 - i. The High Stocking Reference for the Project Area; or
 - ii. The Entity-Adjusted Common Practice (CP_a), where CP_a is determined as follows:

$$CP_a = \text{MIN} (\text{CP}, \text{WCS})$$

Where,

CP_a = Entity-Adjusted Common Practice

CP = Common Practice

WCS = The Weighted Average AG Standing Live Carbon Stocks for All Entity Landholdings Within the Relevant Assessment Area

4. Determine the baseline carbon stocks over 100 years for all required and optional carbon pools in the Project Area.

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6.2.1.x Determining the Weighted Average AG Standing Live Carbon Stocks for All Entity Landholdings within an Assessment Area

Forest Owners have two options for determining average AG standing live carbon stocks on entity landholdings within an Assessment Area:

1. Using existing inventory data
2. Using a stratified vegetation-type analysis

Using Inventory Data

The weighted average AG standing live carbon stocks on all actively managed Forest Owner landholdings within an Assessment Area may be determined as follows using a Forest Owner's existing inventory data:

$$WCS = \frac{ICS \cdot PA + ECS \cdot EA}{PA + EA}$$

Where,

WCS = The Weighted Average AG Standing Live Carbon Stocks for All Entity Landholdings Within the Relevant Assessment Area

ICS = Initial AG Standing Live Carbon Stocks

PA = Project Area (in Acres) within the Assessment Area

ECS = AG Standing Live Carbon Stocks on Entity Landholdings within the Assessment Area *but Excluding the Project Area* (EA), As Determined from Existing Inventory Data

EA = Area of Entity Landholdings within the Assessment Area *Excluding the Project Area* (in Acres)

Using Stratified Vegetation-Type Analysis

Forest Owners that do not have sufficient inventory data shall conduct a stratified vegetation-type analysis using the following methodology to estimate the average AG standing live carbon stocks on entity landholdings within an Assessment Area. To conduct this analysis, the Forest Owner landholdings must be divided into vegetation types and size class/canopy cover categories (Table 1, below), with a resolution for classification no greater than 40 acres. Each vegetation class has a carbon rating provided by the Reserve in Table 1.

Table 1. Vegetation Classes for Stratification

Forest Vegetation Description	Average Diameter (Breast Height)	Average Canopy Cover	Carbon Rating
Brush	0"	NA	0
Regeneration	3"	NA	0.5
Pole-sized trees	6" - 12"	< 33%	2
Pole-sized trees	6" - 12"	33% - 66%	4
Pole-sized trees	6" - 12"	>66%	6
Small Sawlogs	12" - 20"	< 33%	4
Small Sawlogs	12" - 20"	33% - 66%	8
Small Sawlogs	12" - 20"	>66%	12
Large Sawlogs	20" - 36"	< 33%	8
Large Sawlogs	20" - 36"	33% - 66%	16
Large Sawlogs	20" - 36"	>66%	24
Very Large Trees	>36"	< 33%	16
Very Large Trees	>36"	33% - 66%	32
Very Large Trees	>36"	>66%	48

The Project Area will be given an area-weighted score based on the composition of these categories and compared to the area-weighted score of the entity holdings within the same assessment area or areas. The weighted average AG standing live carbon stocks for all entity landholdings within the Assessment Area (WCS) is calculated as follows:

$$WCS = \frac{ICS \cdot PA + SWF \cdot ICS \cdot EA}{PA + EA}$$

Where,

WCS = The Weighted Average AG Standing Live Carbon Stocks for All Entity Landholdings Within the Relevant Assessment Area

ICS = Initial AG Standing Live Carbon Stocks

PA = Project Area (in Acres) within the Assessment Area

SWF = Entity Stratified Carbon Weighting Factor (Defined Below)

EA = Area of Entity Landholdings within the Assessment Area *Excluding the Project Area* (in Acres)

The Entity Stratified Carbon Weighting Factor (SWF) is defined as:

$$SWF = \frac{\sum_i (PA_i \cdot CR_i)}{\sum_i PA_i} \div \frac{\sum_i (EA_i \cdot CR_i)}{\sum_i EA_i}$$

Where,

PA_{*i*} = Project Area within the Assessment Area in Forest Vegetation Type *i* (Table 1)

EA_{*i*} = Entity Area within the Assessment Area *but Excluding the Project Area* Classified as Forest Vegetation Type *i* (Table 1)

CR_{*i*} = Carbon Rating for Forest Vegetation Type *i* (Table 1)

The following will be added to the Verification Appendix:

Where Forest Owner inventory data are used to determine average standing live carbon stocks on entity landholdings, verifiers may use desk-review methods, aerial photos, and spot checks of stands to assess the veracity of entity inventory data. Re-checking of plot measurements is not necessary for checking Forest Owner entity standing live carbon stocks outside the Project Area. Instead, verifiers must determine that inventory methods are sound and correspond to conditions on the ground.

Where a stratified vegetation type analysis is used to determine average standing live carbon stocks on entity landholdings, verifiers may assess the accuracy of the scoring and delineation through an examination of digital aerial photos and other supplemental vegetation data available for the property. Spot checking on the ground may also be used.