Proposed Extension of Credit Durations for Forestry Practices

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Requested Decision

- The Forestry Workgroup (FWG) is requesting that CBP **approve a 15-year credit duration for all forest and tree planting practices as was originally dictated by the FWG in the Forestry Verification Guidance. (With the understanding that this decision will need to be reevaluated following an accuracy assessment of the land cover data.)**
- The proposal was presented to the BMP Verification Ad-Hoc Action Team in July and received its support.
  - Concerns were expressed regarding the ability of the trees to be captured in the high-resolution land cover imagery.

What is credit duration?

- The **maximum amount of time** a practice can receive load reduction credit in the model without being reverified.
- A practice at the end of its credit duration will need an inspection date to remain in the model.

Originally the Source Sectors were instructed to consider the following when establishing credit durations:

- **Contract Duration** (Ex. CREP, EQIP)
- **Practice Lifespan** – Physical Lifespan; the length of time the practice is expected to persist
- **Design Lifespan** – Functional Lifespan

Which Practices?

- Forest Buffers
- Narrow Forest Buffers
- Tree Plantings

Proposed Changes

Forestry BMPs	Practice Life Span (time that a Practice is expected to persist; used primarily for cost-benefit calculations)		Credit Duration (time that a Practice is held in NEIEN before being needing reverification)	
	Current	Proposed	Current	Proposed
Ag Forest Buffer (w/o fencing- crop)	40 years	70 years	10 years	15 years*
Ag Forest Buffer (w/ fencing- pasture)	30 years	No change	10 years	15 years*
Urban Forest Buffer	40 years	No change	10 years	15 years*
Ag Tree Planting	40 years	No change	10 years	15 years, then modeled as Land Use
Narrow forest buffers (w/o fencing)	40 years	No change	10 years	15 years, then modeled as Land Use
Narrow forest buffers (w/ fencing)	25 years	No change	10 years	15 years, then modeled as Land Use
Urban tree planting	40 years	No change	10 years	15 years, then modeled as Land Use
Urban Forest Planting	28 years	40 years	15 years	No change
Forest Harvesting BMPs	3 years (period BMPs are needed before land use reverts to undisturbed forest)	No change	3 years then reverts to Forest Land Use	No change

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Background Information: Forest and Tree Establishment

- **Establishment**, or the point a forest is expected to grow indefinitely with little maintenance, is the key point of verification after planting.
  - **Establishment occurs from 2-5 years.**
  - The plantings implemented through a contract, will be visited by state. Federal and non-profit partners to verify establishment.
  - Contracts mandate that seedlings that do not survive be replanted.

Forest and Tree Planting survival depends **on site characteristics, quality of planting stock, species selected, early maintenance, and weather.**

  - Forests are naturally regenerative and are often overseen by foresters (through planting plans, pre-treatment, and maintenance)
  - Urban tree planting typically occurs on lawn and community space where site conditions are favorable.

- **Primary reason the practice life is not indefinite** is due to site management.

Key Rationale: Extension of Credit Duration to 15 years for Buffers

- Practice Life ranges from **25 to 70 years.**
- NRCS Practice Lifespan of Riparian Buffer 391 is **15 years.**
- Contract length (The great majority of **CREP forest buffers have a 15-year contract commitment** for annual rental payments, which includes required maintenance)
  - USDA rental payments
  - Landowner investment
  - Consultation with forester—forest plantings have a higher bar for planning, implementation and establishment and are therefore more likely to persist.
  - A forest established after 15 years is unlikely to be converted (compared to a grass buffer or single tree).
  - One reason is because it is difficult to remove these trees.
  - Multiple landowner surveys have shown that **80-88% of landowners intend to keep their new forest buffer indefinitely.**

Key Rationale: Extension of Credit Duration to 15 years for Tree Planting

- Practice life is **40 years.**
- Planted urban trees have a population half-life (average survivorship of planted trees where 50% of the trees will remain living) of **~13-18 years.**
  - Better than normal survivorship, the population half-life is 33-38 years.
  - **15-years has been chosen to remain conservative.**
- Urban and suburban plantings are often replaced or supplemented by **natural regeneration.**
- The **Backout year for Tree Plantings has been changed to 15 years after the planting.** The date of the most recent imagery is representative of the trees planted 15 years prior.
  - **Why?** *The FWG determined it will take approximately 15 years for trees to be captured in the land cover dataset. (The growth or decline of the tree canopy or forested land use).*
  - Backout applies to **only land use change practices** due to the assumptions that the land use change is captured by the land use model/high resolution land cover.

% Tree Canopy Captured after 10 and 14 years

TC in 2013 = 6%
Age 10

TC in 2017 = 98%
Age 14

Questions?

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