Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Incorporating Entity Guidelines into Project-level NEPA Analyses

USDA Forest Service

Office of Sustainability and Climate

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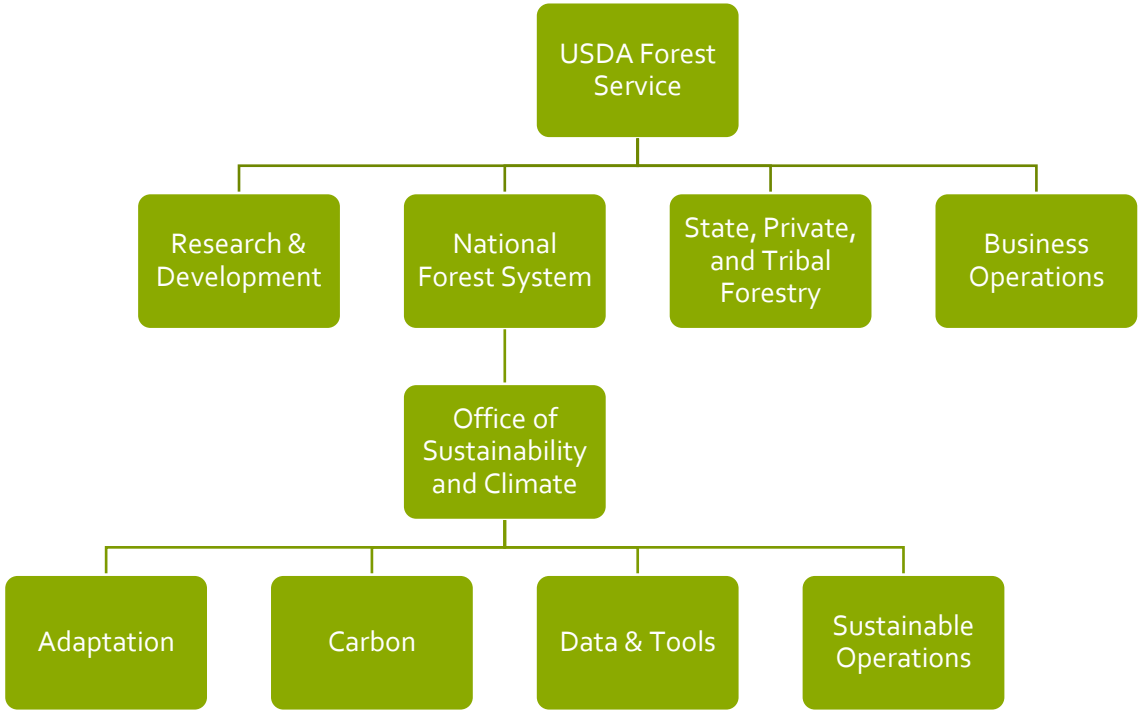
About the Office of Sustainability and Climate (OSC):

Provides **information and tools, technical assistance, and policy support** on climate change adaptation, carbon stewardship, and sustainable operations for the USDA Forest Service.

Serves **all deputy areas.**

About the OSC Carbon Team

Supports efficient and effective integration of carbon analysis into agency projects and planning, advancement of carbon-related partnerships and policy, and development of templates and tools to inform decision-making.



GHG Quantification Needs

- The Council on Environmental Quality (CEQ) published the National Environmental Policy Act (NEPA) – Guidance on GHG Emissions & Climate (2023); Phase 2 Rulemaking (2024)
  - Recommendations to quantify and contextualize GHG emissions and reductions
  - Analyze biogenic carbon stocks, recognizes "special considerations" of sinks
  - When feasible, requires quantification for projects which require a higher level of analysis (Environmental Impact Statement)
- Increasing public comments and interest on forest carbon
- Most projects have previously relied on qualitative analysis and information contained in their unit-level carbon analyses, referred to as the Carbon White Paper

Entity Guidelines Application

- Pilot use for Telephone Gap project in Green Mountain National Forest
- Led to full integration into our NEPA toolkit!
- Custom materials included:
  - Custom copy of the excel file with a NEPA tab
  - Instructional guide NEPA
  - Recorded demo
- Currently expanding to incorporate fire results!

*"Based on 100-year HWP storage, **the net atmospheric emissions** related to the proposed harvest alternatives range from **115,457 to 171,111 t CO_2eq**…Proposed harvests remove **less than 0.4% of aboveground Green Mountain National Forest (GMNF carbon)**, and less than 0.1% of total GMNF carbon."*

- Telephone Gap Carbon Analysis

Strengths of Using the Entity Guidelines

- **Contextualize** impact of project on national forest carbon accounting
- **Enabled estimation of carbon emissions,** rather than just carbon transferred by harvest
- **Customizable** with minimal data input
- Enhanced storytelling **on harvested wood products**
- **Easy** for units to use

Weaknesses of Using the Entity Guidelines

- Not well-suited to estimate post-harvest growth for harvest treatments other than clearcutting
- Default assumptions about fuelwood don't apply very well to national forests (e.g., many contacts require top or slash retainment on site, but some pulpwood is diverted as fuelwood)
- Due to short-term vs. long-term/lifecycle focus, tends to overestimate emissions (which is better than under-estimating, to be clear!) but requires contextualization

Full Integration

- Ecosystem projections which incorporate climate change or disturbance
- Integrate support for combining multiple results into a single output (and able to support the full suite of 2 wood types x 3 lumber types in a single workbook)
- Post-harvest projections for thinning or shelterwood

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