

Greenhouse Gas Inventory Methodology

RESOURCE MANAGEMENT SERVICE, LLC

REPORT VERSION 1.4, 2024



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VERSION CONTROL

VERSION	UPDATE
V1.4	Updated to incorporate feedback from 2022-2023 GHG emissions audit. This included recategorizing scope 3 category 9 emissions to scope 3 category 4 emissions, clarifying the exclusions list, moving Comfloresta mobile emissions to scope 3 category 1, and updating the sources of the emissions factors.
V1.3	Updated to include links to most recent emissions factors.
V1.2	Updated to incorporate feedback from 2021 GHG emissions audit. This included consolidation of scope 3 category 4 asset emissions into category 1 and corrections to downstream T&D methodologies. The significance threshold was also clarified to apply to the total of each scope.
V1.1	Methodology created.

TERM	DESCRIPTION
Activity data	Activity data is used to calculate emissions. It is data relating to the activity to emissions sources such as dollars spent, distance travelled, or volume purchased.
CO ₂ E	Carbon dioxide equivalent. A metric measure used to compare the emissions from various greenhouse gases based on their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.
Consolidation approach	The approach taken to determine the organizational boundary. In the Greenhouse Gas (GHG) Protocol, approaches include equity share, operational control, or financial control.
EEIO/EIO	Environmentally extended input output (EEIO)/extended input output (EIO) factors provide a simple method for evaluating the linkage between economic consumption and environmental impact. EEIO/EIO factors derived for greenhouse gas impact has been used where activity data is limited to financial data.
Emissions boundary	The complete set of emissions sources identified within the organizational and operational boundaries used by the reporting entity.
Emissions sources	The activities within a company's operational emissions boundary that generate greenhouse gas emissions.
Emissions factor (EF)	Emission factors (EF) are used to estimate the emissions associated with a product, activity, or service. An EF is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant.
GHG	Greenhouse gas. As described in the Kyoto Protocol, GHGs include carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), and F-gases (hydrofluorocarbons - HFCs and perfluorocarbons - PFCs) and sulfur hexafluoride (SF ₆). Each gas is weighted by its global warming potential and aggregated to give total greenhouse gas emissions in CO ₂ E.
GHG accounting	Process of developing a GHG emissions account by multiplying activity data by an appropriate emission factor to determine emissions across identified and relevant sources to give total GHG emissions in CO ₂ E.
GHG Protocol	Internationally agreed upon best practice GHG accounting standards developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBSCD).
Global warming potential (GWP)	GWP is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period, relative to the emissions of 1 ton of carbon dioxide (CO ₂). GWP was developed to allow comparisons of the global warming impacts of different gases.
kWh	Kilowatt hours. A unit of energy equal to one kilowatt of power sustained for an hour.
Relevancy testing	Process of applying the GHG protocol guidance to scope 3 emissions sources to determine what sources are relevant to a reporting organization.
Removal (carbon)	The process of removing GHG from the atmosphere to a land-based (e.g., forests and forest products), water-based, or geologic sink.
Scope 1, 2, & 3	Categorizations of sources of emissions and removals based on influence over those emission sources. Scope 1 includes direct sources like fuel burned onsite and carbon removed by the forest, scope 2 includes indirect sources from electricity generation, and scope 3 includes indirect sources that arise from the



	value chain such as employee commuting or carbon stored in harvested wood products.
Storage (carbon)	Carbon stored in long-lived harvested wood products.
Value chain	The full range of activities involved with producing goods and services, starting with raw materials, and ending with a delivered and useful product.

Introduction

I. PURPOSE OF THIS DOCUMENT

Resource Management Service (RMS) exists to advance the practice of forestry and appreciation for the societal importance of privately-owned forests. RMS’ forestry heritage provides a strong consciousness about sustainability and the importance of environmental, social, and governance (ESG) considerations in business and investment decisions. We continually advocate for the multidimensional benefits of working forests for clean air, clean water, conservation of biodiversity, and climate action.

This document describes Resource Management Service (RMS) LLC’s Greenhouse Gas (GHG) Accounting Methodology, which is aligned with the internationally accepted best practice of the World Resources Institute Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol)¹, The Scope 2 Guidance² and the Scope 3 Accounting and Reporting Standard and Technical Guidance³. The GHG Protocol is built on five generally accepted financial accounting and reporting principles: Relevance, Completeness, Consistency, Transparency, and Accuracy. As RMS is committed to integrity, transparency, and sustainability, this statement reflects our commitment to our stakeholders and society.

This statement builds upon RMS’ Carbon Stock Methodology and outlines our methodology to measure and report scope 1, 2, and 3 emissions and optional land and product-based removals from our corporate activities and assets under management. RMS’ GHG emissions accounting methodology was developed over the course of 2022 and its carbon stock accounting methodology was developed in 2017.

II. STRUCTURE OF THIS DOCUMENT

This statement outlines the accounting methodology used to prepare RMS’ GHG accounts. Section 1.3 accounts for emissions from corporate activities, section 1.4 accounts for emissions from asset activities, and section 2 separately accounts for optional categories including carbon storage and removals from the forested assets under management and products coming off the land. As RMS develops its emissions reduction strategy, more commentary will be given to describe RMS’ approach to decarbonization and target setting.

The GHG Protocol has been used to guide the structure of this document, whereby the explanation of RMS’ methodology has been broken down by scope 1, 2, and 3 emissions. The GHG Protocol breaks scope 3 emissions into 15 categories, which have been used to structure RMS’ accounts and this document. As the GHG Protocol Land Sector and Removals Guidance is finalized, RMS will appropriately update its accounting for emissions and removals associated with land-based impacts.

III. GHG ACCOUNTING STANDARDS, GUIDES, AND TOOLS

¹ See: <https://ghgprotocol.org/corporate-standard>

² See: https://ghgprotocol.org/sites/default/files/ghgp/standards/Scope%20%20Guidance_Final_0.pdf

³ See: https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf



RMS uses best practice GHG accounting standards and guidance for corporate and asset inventories, including:

- + Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol)⁴
- + Scope 2 Technical Guidance⁵
- + Scope 3 Accounting and Reporting Standard and Technical Guidance⁶

RMS uses tools developed by industry-leading scientific experts, including:

- + NCASI Scope 3 Greenhouse Gas Screening Tool⁷
- + NCASI GHG Calculation Tools for Wood Products Facilities, International Version 1.1⁸
- + Greenhouse Gas Protocol GHG Emission Calculation Tool⁹

IV. BOUNDARIES

Under the GHG Protocol, all scope 1 and 2 emissions should be included in a GHG account. Scope 3 emissions, while voluntary to disclose, can be included based on relevancy testing. For relevancy testing, RMS consulted NCASI’s Evaluation of Scope 3 GHG Emission Drivers by Product Category, version 1.0 and tailored their suggestions for relevant scope 3 categories based on knowledge of RMS’ operations. If any of the scope 3 categories are not included, it is because they did not pass the initial screen, or the associated emissions were de minimis (<5% of total emissions).

Emissions from corporate and asset activities are consolidated to develop RMS’s GHG inventory using the operational control approach for all managed timberlands that RMS has management authority for from cradle to gate. Gate in RMS’ context refers to the mill gate. This means that RMS is accounting for all activities it controls as a business (i.e., corporate activities) and activities it has full management authority for (i.e., asset activities). Carbon removals from assets under management and carbon stored in harvested wood products are reported separately, out of scopes.

1. Emissions

For clear and transparent reporting, RMS is dividing its inventory into two categories—corporate and asset activities. RMS’ corporate emissions occur from activities that RMS has direct control over and pays for. Emissions from asset activities are forest-related emissions that are contracted out. Table 1 presents corporate activity emissions sources, table 2 presents asset activity emissions sources and table 1 discloses the emissions from Scopes 1, 2, and 3 from corporate and asset activities.

Table 1. RMS corporate activity emissions sources

SCOPE 1	SCOPE 2	SCOPE 3
Direct emissions from owned stationary or mobile sources	Indirect emissions from purchased electricity and heat from all leased offices	Category 6. Business Travel <ul style="list-style-type: none"> + Flights + Ground transportation Category 7. Employee commuting <ul style="list-style-type: none"> + Staff commute to and from RMS offices

4 See: <https://ghgprotocol.org/corporate-standard>

5 See: https://ghgprotocol.org/sites/default/files/ghgp/standards/Scope%20%20Guidance_Final_0.pdf

6 See: https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf

7 Scope 3 GHG screening tool. See: <https://www.ncasi.org/resource/scope-3-greenhouse-gas-screening-tool/>

8 See: <https://www.ncasi.org/resource/ghg-calculation-tools-for-wood-products-facilities/>

9 See GHG Emission Calculation Tool (beta version): <https://ghgprotocol.org/calculation-tools>



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Table 2. RMS asset activity emissions sources

SCOPE 1	SCOPE 2	SCOPE 3
Direct land management emissions from fertilizer application	None	Category 1. Purchased goods and services <ul style="list-style-type: none"> + Production of chemicals and fertilizers + Non-road heavy machinery and equipment used in silviculture and harvest activities conducted by third-party contractors + Third-party contractor transit to RMS-managed property from home or office Category 4. Upstream transportation & distribution <ul style="list-style-type: none"> + Hauling forest products from properties to mills for delivered wood contracts

1.1 SCOPE 1 EMISSIONS – CORPORATE ACTIVITIES

Scope 1 emissions are emissions that occur as a direct result of the organization’s operations. Corporate emissions include fossil emissions from stationary and mobile sources.

- + **Stationary Sources:** RMS has a generator for its corporate, Birmingham office for cases of emergency and/or power outages. To estimate emissions, we estimate the gallons of diesel used by dividing the dollars spent on diesel in the reporting year by the annual average cost of diesel in that same year from the U.S. EIA¹⁰. We then convert the estimated gallons of diesel to Btu and finally multiply that by the respective emission factor for distillate fuel oil no. 4 from the U.S. EPA¹¹. For natural gas consumed for heating buildings, we collect the fuel consumed from the respective offices and multiply the total fuel consumed (Btu) by emissions factors from the EPA¹².
- + **Mobile Sources:** For RMS-owned vehicles in Brazil, we estimate the total fuel used by vehicles from invoices and fuel type and multiply that volume by the relevant emission factors from the IPCC using NCASI GHG Calculation Tools for Wood Products Facilities, International Version 1.1¹³.

1.2 SCOPE 2 EMISSIONS – CORPORATE ACTIVITIES

Scope 2 emissions are indirect emissions that come from electricity and other sources of energy purchased by local utilities that are not combusted on-site and are used at RMS offices. RMS only has emissions associated with corporate activity for Scope 2. Our Scope 2 emissions include:

- + Purchased electricity and heat for leased offices and seedling coolers in the United States (US) and Brazil (BR) from regional electrical power suppliers.

¹⁰ See: https://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_nus_a.htm

¹¹ EPA, "Emission Factors for Greenhouse Gas Inventories," Table 1 Stationary Combustion Emission Factors, September 12, 2023(<https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub>).

¹² EPA, "Emission Factors for Greenhouse Gas Inventories," Table 1 Stationary Combustion Emission Factors, September 12, 2023 (<https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub>).

¹³ See: <https://www.ncasi.org/resource/ghg-calculation-tools-for-wood-products-facilities/>



- + For US sources, we use the EPA's Emissions and Generation Resource Integrated Database (eGRID) emission factors for electricity¹⁴ for location-based emissions. For market-based US emissions, we use the EPA's Green Energy Residual Mix Emissions Rates¹⁵.
- + For Brazil sources, we use the Brazil Ministry of Science, Technology, and Innovations CO₂ Emission Factors for the generation of electricity in the National Interconnected System of Brazil, for inventories¹⁶ for electricity for location-based emissions. We do not have a carbon intensity factor for market-based emissions for Brazil, so we substitute the location-based emissions.
- + We do not currently have any Renewable Energy Credits (RECs) or Purchase Power Agreements (PPAs), so both location and market-based methods of calculating Scope 2 emissions result in a similar number of emissions. RMS chooses to track progress using the location-based methodology.

We multiply the quantity of purchased energy or the calculated average based on lease agreements by the appropriate emission factor to yield annual Scope 2 emissions.

1.3 SCOPE 3 EMISSIONS – CORPORATE ACTIVITIES

Scope 3, or value chain, emissions include all indirect emissions not included in Scope 2 corporate activities. The GHG Protocol breaks Scope 3 into 15 categories and we include 2 significant categories in our corporate inventory. We include the calculation method and a qualitative assessment of the data quality for each category.

1.3.2 CATEGORY 6: BUSINESS TRAVEL

Flights: RMS measures GHG emissions associated with flights taken by RMS employees during business-related travel. Activity data was collected from employees regarding flight details and distance was calculated using an online flight distance estimator to determine the total miles traveled by distance category (e.g., short-haul, medium-haul, long-haul)¹⁷. Emissions from flights are calculated by multiplying the flight activity data by the appropriate emissions factor from the U.S. EPA Emission Factors for Business Travel¹⁸ assuming all flights were economy.

Calculation Method: Distance-based method

Data quality: Good

Ground Transportation: RMS measures GHG emissions associated with employees driving for various business-related travel events. This includes many activities ranging from RMS employees driving to conferences, rental cars, RMS Forest Operations employees driving to and from timberland tracts, and remote employees' visits to RMS offices.

- + For US estimates, we use data regarding reimbursable miles driven from our Employee Vehicle Reimbursement program and our internal expense tracking system to calculate emissions from ground transportation. We multiply the reimbursable miles traveled by the appropriate emission factors from the U.S. EPA Emission Factors for Business Travel¹⁹.

Calculation Methods: Distance-based method (US)

¹⁴ EPA eGRID2021, February 2023 (Table 1. Subregion Output Emission Rates) <https://www.epa.gov/egrid/download-data>

¹⁵ 2023 Green-e® Residual Mix Emissions Rates (2021 Data) (<https://www.green-e.org/2023-residual-mix>)

¹⁶ Brazil Ministry of Science, Technology, and Innovations. Fator Médio Anual (tCO₂/MWh) ANO - 2023. See: <https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/sirene/dados-e-ferramentas/fatores-de-emissao>

¹⁷ See: <https://www.airmilescalculator.com/>

¹⁸ EPA, "Emission Factors for Greenhouse Gas Inventories," Table 10 Business Travel and Employee Commuting, September 12, 2023 (<https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub>).

¹⁹ EPA, "Emission Factors for Greenhouse Gas Inventories," Table 10 Business Travel and Employee Commuting, September 12, 2023 (<https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub>).



Data quality: Good (US)

1.3.3 CATEGORY 7: EMPLOYEE COMMUTING

RMS measures the GHG emissions associated with RMS employees commuting between the homes and offices by multiplying the activity data of annual distance commuted by vehicle type (i.e., light-duty truck, passenger car) by the appropriate emission factor from the U.S. EPA Emissions Factors for Employee Commuting²⁰. Activity data is estimated from a week of commuting provided by employees through a bi-annual survey. Activity data is extrapolated by the percent of respondents relative to the year's workforce to estimate the full workforce's annual activity.

Calculation Method: Distance-based method

Data quality: Good

1.4 SCOPE 1 EMISSIONS – ASSET ACTIVITIES

To account for the nitrous oxide emissions from the use of nitrogen-containing chemicals, we multiply the weight of the nitrogen-containing fertilizers used in the reporting year by the respective emission factors from the Forest Industry Carbon Assessment Tool (FICAT) developed by the National Council for Air and Stream Improvement (NCASI) based on the elemental weight (e.g., % N) of the fertilizer applied. The emission factor in this tool uses AR4 GWP, so we convert those to the AR5 GWP for N₂O.

1.5 SCOPE 3 EMISSIONS – ASSET ACTIVITIES

Scope 3, or value chain, emissions include all indirect emissions not included in Scope 2 corporate activities. The GHG Protocol breaks Scope 3 into 15 categories and we include 3 significant categories in our asset inventory. We include the calculation method and a qualitative assessment of the data quality for each category.

1.5.1 CATEGORY 1: PURCHASED GOODS AND SERVICES

For asset activities, we have three primary sources of category 1 emissions that comprise most of our emissions:

- + *Upstream emissions associated with the production of chemicals and fertilizers.* In high-intensity, industrial forestry, we utilize chemicals and fertilizers to minimize competition and risks and enhance productivity to achieve management objectives. We estimate the upstream emissions associated with the production of these materials using 2021 chemical volumes and weights multiplied by the respective emission factor the Forest Industry Carbon Assessment Tool (FICAT) developed by the National Council for Air and Stream Improvement (NCASI)²¹.
- + *Emissions from forestry operations by third-party contractors.* We contract out the silviculture and harvest work done on timberland assets. To compile activity data for the U.S., we use a standardized form to obtain data from our contractors regarding how much fuel they typically use per acre during various forestry activities (i.e., chemical site prep, reforestation) by fuel type (i.e., diesel, jet fuel). We average that data out across our regions to estimate gallons used per acre by silvicultural treatment and harvest activity, and we then multiply that by treated acres based on our internal Forest Inventory Management System (FMIS). Finally, we multiply the activity data (total gallons used by fuel type) by the relevant emission factors

²⁰ EPA, "Emission Factors for Greenhouse Gas Inventories," Table 10 Business Travel and Employee Commuting, September 12, 2023 (<https://www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub>).

²¹ See: <https://www.ncasi.org/resource/forest-industry-carbon-assessment-tool/>



from the IPCC referenced in the NCASI GHG Calculation Tools for Wood Products Facilities, International Version 1.1²² based on the higher heating value (HHV) of the fuel used. For Brazil, we estimate the emissions associated with the fuel used operations for harvest and silvicultural activities performed by contractors by applying an emissions factor based on the weight of the log sold from FICAT²³. We also gather the fuel usage from Brazil Accounting staff for Comfloresta employees' vehicles, a portfolio company managed by RMS.

- + *Emissions from contractor transportation to RMS-managed properties:* Operations teams have a good understanding of contractors' commuting trends. We estimate the total distance traveled by our main contractors by mobile source type (e.g., pickup truck, aircraft) and fuel type (e.g., diesel, jet fuel) using knowledge about the average distance our contractors travel to perform a service on an RMS-managed property. Factoring in fuel efficiency, we multiply that estimated distance by the number of contractors we use for a given activity (e.g., harvest, aerial chemical application, etc.) from internal records, and the average number of days worked in the reporting year to estimate the total fuel used. We then multiply the activity data (total distance traveled by vehicle type) by the relevant emission factors from the EPA for medium and heavy-duty trucks²⁴. We also leveraged responses from a survey we had our Forestry and Harvest Managers send to their contractors regarding their transportation from their home or office to RMS-managed lands. In the case of logging jobs and the upstream emissions from unladen log trucks' transportation, we estimate the emissions using the number of delivered wood trips (calculated in Scope 3, Category 4) multiplied by the average commuting distance for a logger based on internal knowledge. We will work more closely with our staff and contractors to obtain more precise data in the future.

We include fossil emissions associated with the fuel used in machinery and equipment for prescribed burning activities, but we do not include biogenic emissions from burned biomass from prescribed burns and burning of piles of woody debris nor do we include the non-biogenic emissions from methane and nitrous oxide. This is due to the complexity of estimating the amount of biomass burned in these events and the lack of primary data. We will review this in preparation of future inventories. Additionally, we attempted to gather data to estimate emissions from road and infrastructure maintenance, but due to poor data quality and a lack of a standardized methodology, we did not estimate these emissions.

Calculation method: Average-data method (1, 2), distance-based method (3)

Data quality: Fertilizers & chemicals (good), fuel used in forest operations (fair)

1.5.2 CATEGORY 4: UPSTREAM TRANSPORTATION AND DISTRIBUTION

Category 4 for asset activities includes emissions from the transportation of harvested forest products with delivered wood contracts to mills from RMS operations to the end consumer in vehicles not owned or controlled by RMS. Because stumpage sales involve us selling the timber on the stump to be cut and hauled by the buyer's logging crew (not associated with RMS), the emissions associated with the transportation of logs from stumpage sales were considered outside of RMS' operational control and were not included in this calculation.

²² See: <https://www.ncasi.org/resource/ghg-calculation-tools-for-wood-products-facilities/>

²³ See: FICAT

²⁴ EPA, "Emission Factors for Greenhouse Gas Inventories," Table 8, Scope 3 Category 4: Upstream Transportation, September 12, 2023 (https://www.epa.gov/system/files/documents/2023-03/ghg_emission_factors_hub.pdf)



- + For the US, RMS aggregates the number of trips from each property to the mill based on the total hauled volume divided by the average hauled load. We then multiply the number of trips by the haul distance from the property to the mill from load tickets to estimate the total hauled distance. We estimate the total diesel fuel used based on the average fuel efficiency of a logging truck, and we multiply that fuel volume by the relevant emission factors from the IPCC referenced in the NCASI GHG Calculation Tools for Wood Products Facilities, International Version 1.1²⁵.
- + For Brazil delivered wood sales, average haul distances from property mean centers to mills are calculated using ArcGIS Pro, aggregated, and then multiplied by the average fuel efficiency of a logging truck to estimate the total fuel used. That fuel volume is then multiplied by the relevant emission factors from the IPCC referenced in the NCASI GHG Calculation Tools for Wood Products Facilities, International Version 1.1²⁶.

Calculation Method: Fuel-based method

Data quality: Good (US), Fair (BR)

1.6 EXCLUSIONS

The statements below describe which categories were not included in RMS' GHG inventory and why.

- + *Purchased Goods and Services (Corporate Activities)*: Screening using EIO factors from Carnegie Mellon University's EIO-LCA model using factors from the 2007 Benchmark (USEEIO) model based on spend on relevant purchased goods and services categories (office machinery & equipment, office furniture & fixtures, computer supplies, and office supplies) resulted in an insignificant number of emissions (<150 tCO₂E) and was excluded. For in-woods emissions estimates, emissions from road construction & maintenance, prescribed fire, wildfire, and upstream emissions from the production and transportation of seedlings are also not included due to a lack of emissions factors. RMS will continue to work on improving its methodology to better account for these activities.
- + *Capital Goods*: This category includes all upstream emissions from the production of capital goods purchased by RMS in the reporting year. RMS does not own any capital goods; therefore, this is beyond the defined operational boundary and excluded..
- + *Fuel- and Energy-Related Emissions Not Included in Scope 1 or Scope 2*: This category includes emissions related to the production of fuels and energy purchased and consumed by RMS in 2021 that are not included in scope 1 or 2. For RMS, this includes the upstream emissions of purchased electricity associated with the extraction, production, and transportation of fuels consumed in the generation of electricity, steam, heating, and cooling that is used by RMS facilities. Due to accounting for an insignificant number of emissions, this category has been excluded from scope 3 emissions.
- + *Waste Generated in Operations*: This category includes emissions from third-party disposal and treatment of waste (solid waste and wastewater) that is generated in RMS' offices and operations. From preliminary waste audits, this is not a significant source of emissions (<50 tCO₂E) in RMS offices.

²⁵ See: <https://www.ncasi.org/resource/ghg-calculation-tools-for-wood-products-facilities/>

²⁶ See: <https://www.ncasi.org/resource/ghg-calculation-tools-for-wood-products-facilities/>



- + *Upstream Leased Assets:* This category includes emissions from the operation of assets leased by RMS that are not already included in RMS' scope 1 or 2 emissions. RMS has already included emissions from purchased electricity with leased assets in scope 1 and 2 categories. We also estimated our fugitive emissions associated with HVAC systems at leased office spaces to be insignificant. Therefore, this category is excluded.
- + *Processing of Sold Products:* This category includes emissions from the processing of sold intermediate products by third parties sold by RMS to mills. This is beyond the defined operational boundary and excluded.
- + *Use of Sold Products:* There are no emissions associated with the use of forest products. This category is excluded.
- + *End-of-Life Treatment of Sold Products:* This category includes emissions from the waste disposal and treatment of products sold by RMS in 2021 at the end of their life (e.g., landfill). This is beyond the defined operational boundary and excluded.
- + *Downstream Transportation and Distribution:* This category includes emissions from the transportation of products from mills to other customers as well as the transportation of logs to mills from stumpage sales. These are excluded because the emissions are outside of our operational control.
- + *Downstream Leased Assets:* This category includes emissions from the operation of assets that are controlled by RMS and leased to other entities. RMS does have some hunting and solar leases, but we do not consider that to be a relevant source of emissions given our operational boundary.
- + *Franchises:* This category is not applicable to RMS' business.
- + *Investments:* RMS co-invests in RMS-managed timberland with some of its investors. Emissions from these co-investments are already accounted for in the other 3 categories for asset activities, so this category is excluded to avoid double counting.

2. Optional: Removals

Removals are the transfer of carbon dioxide from the atmosphere to storage within a pool, countering emissions' warming effect by removing them from the atmosphere and storing the sequestered carbon in biological or geological sinks. Avoiding, reducing, and removing emissions is crucial in mitigating the catastrophic effects of climate change. Sustainable forest management and forest products significantly contribute to removing substantial amounts of greenhouse gases from the atmosphere and storing them in land and product-based carbon pools.

Since the Greenhouse Gas Land Sector and Removals Guidance is still in development, we expect we will need to update some of our quantifications or restate them as it evolves. This explanation describes how RMS accounts for changes in carbon stored within the forests under our direct control in the U.S. and Brazil and the method for estimating removals associated with storage in long-lived harvested wood products associated with assets under management in the U.S.

2.1 LAND-BASED CARBON REMOVALS

As part of a commitment to responsible investment principles, RMS calculates the carbon stock of forests under management and subsequent removals. Removals associated with land-based pools are calculated based on a net-stock change approach over a consistent spatial footprint following RMS' Carbon Stock Methodology and include above and belowground biomass for U.S. stands. Each



year, RMS gathers additional data points to track carbon storage over time. Doing so also affords opportunities to refine methodologies. The carbon stock is the measure of the carbon held with the merchantable and per-merchantable trees and the related branches, roots, and leaves, and is based on our existing forest inventory, utilizing accepted calculations for converting measured green tons to CO₂ equivalents as supported by peer-reviewed academic literature. RMS's methodology excludes soil carbon, deadwood, and carbon stored in understory and groundstory vegetation. RMS inventory policies designated all stands under the age of 13 as pre-merchantable. As is standard practice in the industry, RMS systems are calibrated and configured to calculate tree volume beginning at age 13. As a result, the RMS carbon stock estimation methodology utilizes the average volume in age 13 stands for a given forest asset to interpolate the tree volume with pre-merchantable stands. This causes the estimation of carbon stock in young stands to be highly sensitive to year-to-year variation in the volume of the age 13 stands. The RMS Inventory and Forest Sustainability teams have collaborated to improve the methodology of volume estimation in pre-merchantable stands. This new methodology includes the projected volumes from 8-year old or older U.S. Southeast stands by property and forest type to have a more consistent average across years.

The calculation of carbon stocks at a single point in time is sensitive to a variety of factors beyond wood volume. These factors include forest type, harvest dynamics, and the distribution of different timber stand ages within a broader forest. Depending on market conditions and the biological needs of the forests under our management, it is reasonable to expect both positive and negative year-to-year changes in future carbon stocks. Carbon stocks will also fluctuate in stands that have higher conservation value, such as streamside management zones (SMZs) that protect water quality, as RMS works to remove merchantable pine and hardwood from those stands per Best Management Practices and transition some SMZs from mixed pine hardwood to hardwood stands.

While RMS calculates the carbon stock in Brazil plantation stands according to the RMS Brazil Carbon Stock Methodology, we are still working on developing a methodology to calculate and report removals associated with Brazil forests under management.

Data quality: Good

2.2 PRODUCT-BASED CARBON REMOVALS

RMS' methodology for the carbon stored in harvested wood products is based on the California Air Resource Board's (CA ARB) Harvested Wood Products (100-Year Averages) Methodology. The inputs for the process are harvest volumes broken down by species, product flow (i.e., the proportion of the harvest used for different products, such as paper, sawn wood, etc.), and location. The tool then uses regional data for mill efficiencies from CA ARB, estimates on product end use, product service lives (i.e., the half-life), and radiative forcing to calculate the long-term carbon storage associated with the harvested wood products. We are working to create similar estimates from wood harvested from Brazil properties.

Data quality: Good

