

KPMG LLP Suite 2000 303 Peachtree Street, N.E. Atlanta, GA 30308-3210

Independent Accountants' Review Report

The Board of Directors

Norfolk Southern Corporation:

We have reviewed the accompanying Statement of Greenhouse Gas Emissions and the related notes (the Statement of GHG Emissions) of Norfolk Southern Corporation for the year ended December 31, 2022. Norfolk Southern Corporation's management is responsible for preparing and presenting the Statement of GHG Emissions in accordance with the World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition and the WRI/WBCSD Greenhouse Gas Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard (collectively, the "GHG Protocol"). Our responsibility is to express a conclusion on the Statement of GHG Emissions based on our review.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants in AT-C section 105, *Concepts Common to All Attestation Engagements*, and AT-C section 210, *Review Engagements*. Those standards require that we plan and perform the review to obtain limited assurance about whether any material modifications should be made to the Statement of GHG Emissions in order for it to be in accordance with the criteria. The procedures performed in a review vary in nature and timing from and are substantially less in extent than, an examination, the objective of which is to obtain reasonable assurance about whether the Statement of GHG Emissions is in accordance with the criteria, in all material respects, in order to express an opinion. Accordingly, we do not express such an opinion. Because of the limited nature of the engagement, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an examination been performed. We believe that the review evidence obtained is sufficient and appropriate to provide a reasonable basis for our conclusion.

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements related to the engagement.

The procedures we performed were based on our professional judgment and consisted primarily of inquiries of management to obtain an understanding of the methodologies applied, evaluation of management's application of the stated methodologies for deriving the greenhouse gas emissions, recalculation of a selection of the greenhouse gas emissions and performance of analytical procedures.

As described in note 1, environmental and energy use data are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection by management of different but acceptable measurement techniques could have resulted in materially different measurements. The precision of different measurement techniques may also vary.



Based on our review, we are not aware of any material modifications that should be made to the Statement of GHG Emissions of Norfolk Southern Corporation for the year ended December 31, 2022 in order for it to be in accordance with the GHG Protocol.

KPMG LLP

Atlanta, Georgia June 30, 2023

Norfolk Southern Corporation

Statement of Greenhouse Gas Emissions Year ended December 31, 2022

Operational Boundary	Emissions (in metric tons CO2e)
Scope 1	4,127,658
Scope 2 (Market Based)	152,460
Scope 2 (Location Based)	150,491
Scope 1 + 2 (Location Based) Emissions	4,278,149
Scope 3	2,793,527
SBTi Target	Emissions Intensity (in metric tons CO2e / MGTM)
Scope 1 + 2 (Location Based) Emissions Intensity	12.61

The above Scope 1 emissions exclude 31,488 tons of direct CO2 emissions from the use of biofuels. Intensity metrics are reported in metric tons of CO2 equivalents per Million Gross Ton-Miles (MT CO2e / MGTM).

The accompanying notes are an integral part of the Statement of Greenhouse Gas Emissions.

Notes to the Statement of Greenhouse Gas Emissions

Year ended December 31, 2022

Note 1: The Company

Basis of Presentation

Norfolk Southern Corporation (the Company) has prepared its 2022 Statement of Greenhouse Gas Emissions (GHG) on a calendar reporting year that is the same as our financial reporting period. The Company established 2019 as its base year, in alignment with our target to achieve a 42% reduction in Scope 1 and Scope 2 greenhouse gas emissions intensity by 2034 that was validated by Science-Based Target Initiative (SBTi). Base year GHG emissions were:

Operational Boundary	Emissions (in metric tons CO2e)
Scope 1	4,784,047
Scope 2 (Location Based)	201,474
SBTi Target	Emissions Intensity (in metric tons CO2e / MGTM)
Scope 1 + 2 (Location Based) Emissions Intensity	13.38

The Company did not establish base year GHG emissions for Scope 3 emissions.

- Scope 1 and Scope 3 GHG Emissions information have been prepared in accordance with the World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard Revised.
- Scope 2 GHG Emissions information has been prepared in accordance with the WRI/WBCSD GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard.

Collectively, the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition and the GHG Protocol Scope 2 Guidance: An amendment to the GHG Corporate Standard are referred to as the "GHG Protocol" in this document.

Our policy is to restate our base year if any changes in GHG emission methodology, emission factors, organizational boundary conditions (financial control), would change base year data by more than 5%. For any acquisitions, base year data for the acquired business is added to the total base year data. For any divestitures, the base year data for the divested business is subtracted from total base year emissions. No recalculations or adjustments have been made to base year emissions.

The Company's statement of GHG Emissions includes all direct (Scope 1) and indirect (Scope 2) GHG emissions generated from all company-owned locations, which are all located in the United States as defined under the financial control which includes GHG emissions from stationary sources related to fuel oil, kerosene, natural gas, propane and non-vehicle diesel, purchased electricity and mobile sources including locomotive diesel, fleet and non-fleet vehicle fuel and jet fuel method and indirect GHG emissions (Scope 3) from the following categories:

- Scope 3 Category 1: Purchased goods and services,
- Scope 3 Category 2: Capital goods,
- Scope 3 Category 3: Fuel-and-energy-related activities (not included in scope 1 and 2),
- Scope 3 Category 4: Upstream transportation and distribution,
- Scope 3 Category 5: Waste generated in operations,
- Scope 3 Category 6: Business travel (commercial air business travel, rental car usage, personal car use for business purpose)
- Scope 3 Category 7: Employee commuting, and
- Scope 3 Category 8: Upstream leased assets.

Estimation Uncertainties

Environmental and energy use data included in the Statement of GHG Emissions are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Note 2: GHG Reporting

Greenhouse Gases

The GHG Protocol covers the accounting and reporting of seven greenhouse gases covered by the Kyoto Protocol – Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF6), and Nitrogen Trifluoride (NF3).

Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF6), and Nitrogen Trifluoride (NF3) emissions have been omitted from our reporting as they are not material sources of greenhouse gases for the Company.

GHG Emission Factors

GHG Emission Source	Emission Factor Source	Data Sources and Calculation Methodologies
Scope 1 Heating	US EPA Center for Corporate Climate Leadership Emission Factor Hub	Fuel consumption/Fuel- based method
Scope 1 Transport Fuel	US EPA Center for Corporate Climate Leadership Emission Factor Hub	Fuel consumption/ Fuel- based method
Scope 2 and Scope 3 Grid Electricity	US Environmental Protection Agency eGRID2021	Utility Management/Electricity Consumption
Scope 2 Market-Based Electricity	2022 Green-e Energy Residual Emission Rates (2020 Data)	Utility Management/ Electricity Consumption
Scope 3 Category 1: Purchased Goods and Services	USA EPA Center for Corporate Climate Leadership Emission Factor Hub	Supplier-Specific Emissions Data/Hybrid Method
Scope 3 Category 2: Capital Goods	World Input-Output Database (WIOD) Emission Factor	Average Spend-Based Method/GHG Protocol Quantis Tool
Scope 3 Category 3: Fuel- and-Energy-Related Activities	2022 DEFRA GHG Reporting Conversion Factors	Fuel consumption/ Average-data method
Scope 3 Category 4: Upstream Transportation and Distribution	US EPA Center for Corporate Climate Leadership Emission Factor Hub	Distance-based method
Scope 3 Category 5: Waste Generated in Operations	US EPA Center for Corporate Climate Leadership Emission Factor Hub	Logistics supplier/Waste-type- specific method
Scope 3 Category 6: Business Travel	US EPA Center for Corporate Climate Leadership Emission Factor Hub	Travel Agency/Distance- based method
Scope 3 Category 7: Employee Commuting	US EPA Center for Corporate Climate Leadership Emission Factor Hub	Human Resources/Average-data method

Scope 3 Categories 6 and 7: Transport Fuel	US EPA Center for Corporate Climate Leadership Emission Factor Hub	Logistics supplier/Distance-based method
Scope 3 Category 8: Upstream Leased Assets	US EPA Center for Corporate Climate Leadership Emission Factor Hub	Real Estate Department/Average- data method

Emissions from the following categories are not relevant to Norfolk Southern's business:

- Scope 3 Category 9: Downstream Transportation and Distribution,
- Scope 3 Category 10: Processing of Sold Products,
- Scope 3 Category 11: Use of Sold Products,
- Scope 3 Category 12: End-of-Life Treatment of Sold Products,
- Scope 3 Category 13: Downstream Leased Assets,
- Scope 3 Category 14: Franchises, and
- Scope 3 Category 15: Investments

Global Warming Potentials

The GHG Inventory was calculated using the Global Warming Potentials (GWP) from the International Panel on Climate Change (IPCC) Fourth Assessment Report and the country appropriate emissions factors listed above. All GHG emissions are calculated in metric tons (mT) of pollutant (CO2, CH4, N2O) and converted to mT of CO2 equivalents (or "CO2-e") using the global warming potentials (GWPs). GWPs for the Company's inventory are taken from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) 2007 using 100-year values.

Scope 1, 2, and 3 GHG Inventory by Type

The following tables present the Company's GHG Inventory by scope and GHG type for the year ended December 31, 2022.

GHG Type	Emissions (in metric tons CO₂e) (Location- Based)	Emissions (in metric tons CO₂e) (Market- Based)
Scope 1***		
CO ₂	4,089,403	
CH ₄	8,393	
N_2O	29,862	
Total Scope 1	4,127,658	N/A
Scope 2		
CO ₂	149,672	152,460**
CH ₄	306	
N_2O	513	
Total Scope 2	150,491	152,460**
Scope 3		
CO ₂	90,941	
CH ₄	59	
N_2O	618	
CO₂e	2,701,909*	
Total Scope 3	2,793,527	N/A

*55,125 metric tons CO_2 e are emissions related to waste generated in operations. The total CO_2 , CH_4 , and N_2O emissions breakdown for this category is not available because emissions for waste constitute only methane emissions and emission factors for waste are not broken down per GHG type. 956,554 metric tons CO_2 e are emissions related to the well to tank (upstream) portion of scope 1 fuel use and a breakdown for this category is not available because emission factors are provided in kg of CO_2 e per liter and therefore a breakdown per GHG type is unavailable. 400,830 metric tons CO_2 e are related to purchased goods and services emissions allocated by top 30% supplier spend in 2022. 1,289,401 metric tons CO_2 e are related to capital goods emissions. Constituent gas breakdowns for purchased goods and services and capital goods are not available due to spend-based emissions factors being used in kg CO_2 e/USD.

^{**152,460} metric tons CO_2e are scope 2 market-based emissions calculated using the Green-e Residual Mix emission factors. Green-e emission factors are provided in pounds of CO_2e per MWh and therefore a breakdown per GHG type is unavailable.

^{***} The above Scope 1 emissions exclude 31,488 tons of direct CO₂e emissions from the use of biofuels.

Subsequent Events

The Company has evaluated subsequent events through the date of the report noting that on February 3, 2023, a train the Company operated derailed in East Palestine, Ohio. The derailed equipment included 38 railcars, 11 of which were non-Companyowned tank cars containing hazardous materials. Fires associated with the derailment threatened certain of the tank cars. There was concern about the risk that the content of five of the tank cars carrying vinyl chloride might polymerize, which would have posed the risk of a catastrophic explosion. As a consequence, on February 6, 2023, the local incident commander—in consultation with the incident command that included, among others, federal, state and local officials and Norfolk Southern—opted to conduct a controlled vent and burn of five derailed tank cars, all of which contained vinyl chloride. This procedure involved creating holes in the five tank cars to drain the vinyl chloride into adjacent trenches that had been dug into the ground where such vinyl chloride was then burned, with any material remaining after burning of the vinyl chloride being remediated. The February 3rd derailment, the associated fire, and the resulting vent and burn of the tank cars containing vinyl chloride on February 6th is hereinafter referred to as the "Incident."

In response to the Incident, the Company has worked to clean the site safely and thoroughly, with respect to potentially impacted air, soil and water and to monitor for any impact on public health and the environment. The Company is working with federal, state, and local officials to mitigate impacts from the Incident, including, among other efforts, conducting environmental monitoring and clean-up activities, and establishing a family assistance center to provide financial support to affected members of the East Palestine and surrounding communities.

The Company is evaluating the Incident's impact on the 2023 Statement of Greenhouse Gas Emissions.