

## Biodiversity Risk Assessment

August 2024

American Airlines recognizes the importance of biodiversity for the well-being of the ecosystems and nature services on which people, the economy and our business depend. We also acknowledge that our operations can impact biodiversity in both positive and adverse ways, and we are working to minimize adverse impacts. This document summarizes our ongoing work to identify, assess and mitigate risks and impacts related to biodiversity. Our analysis focuses on:

1. Dependency-related risks, defined as risks related to the nature, biodiversity and ecosystem contributions and services on which our business relies
2. Impacts, defined as the potential direct and indirect impacts of our operations on nature, biodiversity and ecosystems

We completed this assessment using a range of tools and frameworks, including [UNEP's ENCORE](#) tool, [WWF's Biodiversity Guide](#) and [TNFD's LEAP Approach](#).

### **Dependency-Related Biodiversity Risks**

American faces a range of direct and indirect dependency-related biodiversity risks, including the following that we identified as part of our assessment:

- *Extreme weather events:* American faces risks associated with extreme weather events that have the potential to impact our operations and facilities. Biodiversity helps maintain balance in ecosystems, stabilize climate systems and mitigate events such as flooding, erosion and storms. Similarly, biodiversity helps regulate water systems and cycling, as well as increase fire resistance. A reduction in biodiversity may increase the prevalence of extreme weather events and the potential for related physical risks to our operations. For instance, flooding can lead to flight cancellations and disruptions to our network, which could affect our operations, infrastructure and financial results. Operational impacts, such as more frequent or widespread flight cancellations, could result in loss of revenue. Additionally, extreme weather events may lead to physical damage to the airports we serve and potential safety concerns for team members and customers.

The site-level, climate-related physical risks screening we conducted in 2022 has provided key insights to help us understand our dependency-related biodiversity risks (see our [2022 Sustainability Report](#) for more our physical risk assessment findings). For example, several of our airport hubs as well as key fuel suppliers in Texas may face risks

related to flooding and water stress, risks that may be exacerbated by biodiversity loss. See below for more details on our location-specific analysis of biodiversity risks.

- *Sustainable aviation fuel (SAF) production*: Purchasing and helping scale SAF production is a core part of American's climate strategy. Because much of the SAF available today relies on nature-based feedstocks, biodiversity loss may inhibit SAF production. Biodiversity is critical to aid in nutrient cycling and maintaining soil health, supporting plant growth and crop yields, and agricultural production directly benefits from pollination and disease protection. Biodiversity loss, therefore, could negatively impact our ability to procure SAF and achieve our decarbonization goals. This could then expose American to regulatory, market and reputational risks.

Through our existing enterprise-wide risk management process, American monitors and manages a broad range of strategic, financial and operational risks, including risks associated with climate change. As relevant, biodiversity-related risks are incorporated into our climate risk analysis.

### ***Location-Specific Analysis of Biodiversity Risks***

Using the [WWF Biodiversity Risk Filter](#) tool, we conducted an initial location-specific analysis of biodiversity risks for 12 strategically important sites for our company, which include hub airports that form the foundation of our network; our largest maintenance facility; our corporate headquarters, which is also home to our integrated operations center and primary training facility; and a key fuel supplier.

This analysis builds on the climate-related physical risks analysis we conducted in 2022 (see our [2022 Sustainability Report](#) for more detail), and provided insight into the ways in which biodiversity risks overlap with, or may contribute to, the climate-related physical risks we have identified. For example, we have identified water scarcity as a biodiversity and/or physical climate risk two of our hub airports, Los Angeles International Airport (LAX) and Phoenix Sky Harbor International Airport (PHX), and for our key fuel suppliers in Texas. Additionally, extreme heat – which is a consequence of climate change and adversely impacts biodiversity – is a risk at our airport hubs including Dallas Fort Worth International Airport, PHX and LAX, as well as our Tulsa, Oklahoma maintenance base. By folding biodiversity considerations into our existing climate risk management process, we believe that we are positioning ourselves to respond to potential risks and tailor our approach to specific locations.

### **Biodiversity Impacts**

American recognizes that our operations directly and indirectly impact biodiversity, and we are taking steps to minimize adverse impacts. Through our assessment, which was influenced by research prepared by [ICAO](#), we have identified six major areas of focus.

*Greenhouse gas (GHG) emissions:* GHG emissions contribute to climate change, which affects biodiversity in a variety of ways. More than 90% of American’s total carbon footprint is related to our use of petroleum jet fuel and associated GHG emissions. To reduce our carbon footprint – which will also reduce our impacts on biodiversity – we have set what we believe are ambitious climate goals, and in 2022 we became the first airline globally to set externally validated, science-based 2035 GHG reduction targets. Our strategy to reach these targets focuses on running an ever more fuel-efficient operation, primarily by operating more fuel-efficient aircraft that are increasingly powered by low-carbon fuel.

*Pollution and waste:* If not handled and disposed of properly, waste and substances used in our operations, such as fuel, paints and maintenance chemicals, can adversely impact biodiversity. As outlined in American’s [Environmental Policy Statement](#), we have implemented a robust environmental management system across our operations and recognize our responsibility to minimize, mitigate and, when necessary, restore or offset any identified adverse environmental impacts. We also aim to partner with suppliers who share our sustainability goals, including promoting biodiversity and eliminating deforestation, as outlined in our [Sustainable Supply Chain Policy](#).

*Noise and light pollution:* Airport operations as well as aircraft in flight can cause noise and light pollution, which can impact local wildlife, including changes to sleeping patterns, communication, and migratory routes that may alter animals’ ability to reproduce or leave them vulnerable to predators or disease. To help minimize these impacts, American has voluntarily retrofitted all pre-2014 Airbus A320 jets in our fleet with fuel vent vortex generators, which help reduce aircraft noise. We also meet or exceed International Civil Aviation Organization (ICAO) noise certification standards. ICAO standards currently specify that operators can fly Stage 3, Stage 4 or Stage 5 aircraft. All our mainline and regional fleet meet Stage 4 noise certification levels, and 20% meet Stage 5 noise certification levels.

*Direct land use change:* Constructing or renovating offices and other facilities to support our operations can impact biodiversity in that location, such as contributing to habitat loss or creating impermeable surfaces that may displace wildlife. American incorporates sustainability into our building practices, including implementing measures that support or protect biodiversity. For example, our Skyview corporate campus in Texas includes 3,000 newly planted trees and 90 acres of preserved woodlands.

*Indirect land use change (ILUC):* Purchasing and scaling SAF production is a core part of American’s climate strategy, and SAF production can impact biodiversity due to its reliance on feedstocks that come from agricultural production. This could potentially result in adverse impacts, for example if such land use harms ecosystems. However, when feedstocks are produced sustainably using processes such as regenerative agriculture, SAF production has the potential to positively impact biodiversity. In determining what SAF to source, American applies relevant standards for sustainability, including by analyzing the environmental and social impacts of SAF feedstocks, such as potential effects on food supply and land use. We also

consider achievement of sustainability certification or completion of our own due diligence when necessary, as outlined in our [SAF Sourcing Principles](#).

*Illegal wildlife trafficking:* Illegal wildlife trafficking threatens biodiversity, and airlines have a role to play in combating it. American signed the Buckingham Palace Declaration in 2022 when we joined United for Wildlife, an organization dedicated to ending the illegal smuggling of animals and related products. In signing the Declaration, we committed to help raise awareness of wildlife trafficking, provide training for team members, and work to establish systems that help us identify suspected trafficking. We worked with experts to conduct a risk assessment of our network, which identified key routes for us to target our preventative programs, and we made wildlife trafficking awareness training a requirement for frontline cargo team members and began the process of expanding training to other teams as well.