



Second Party Opinion

EXECUTIVE SUMMARY

ISSUER

Family Forest Impact Foundation

OPINION ON

Family Forest Impact Foundation, LLC Bond Series 2022A (Green Bonds)

GREEN STANDARD AND CATEGORY



- Environmentally Sustainable Management of Living Natural Resources

KEYWORDS

Forest management, forest carbon, greenhouse gas emissions, carbon credits, carbon sequestration, sustainable harvest, Central Appalachia, ecosystem services

EVALUATION DATE

June 24, 2022

SUMMARY

Kestrel Verifiers is of the opinion that the Family Forest Impact Foundation, LLC Bond Series 2022A (Green Bonds) ("Series 2022A Bond") conforms with the four core components of the Green Bond Principles 2021 as follows:

▪ Use of Proceeds

The Series 2022A Bond finances incentive payments to catalyze production of high-quality forest carbon credits by small landowners in Central Appalachia and associated program marketing costs. Incentive payments, which promote reduced timber harvests and growing mature forests, are expected to reduce forest CO₂ emissions by approximately 2.3 million metric tons over the 20-year contracts. All projects and carbon offsets generated as a result of the changes in management practices will be verified under an approved methodology and certified by Verra. The Series 2022A Bond aligns with the *Environmentally Sustainable Management of Living Natural Resources* eligible project category under the Green Bond Principles.

▪ Process for Project Evaluation and Selection

The Growing Mature Forests Practice is a science-based standard within the *Methodology for Improved Forest Management*. This guides the selection of eligible projects through established approaches for additionality, baseline measurement and accounting. Each improved forest management project is enrolled in the Family Forest Carbon Program and certified under the *Methodology for Improved Forest Management*.

▪ Management of Proceeds

Series 2022A Bond proceeds will be allocated solely to the Family Forest Carbon Program and overseen by the Family Forest Impact Foundation ("FFIF") management committee. FFIF will review allocation and use of the funds in an annual budget review which is rebalanced quarterly to ensure alignment with Program goals. Proceeds are expected to be spent within 18 to 24 months after closing. Funds will be held in a trustee account and in temporary permitted investments as defined by FFIF's investment policy.

▪ Reporting

The Family Forest Impact Foundation will report annually on the status of the Family Forest Carbon Program for the benefit of investors. These reports will include status of allocation of proceeds, third-party verified carbon credits, total enrolled acreage, number of enrolled landowners, improved forest resilience and health metrics, diversity of plant and animal species, and expansion of the Program into other regions. Reports will be publicly available on the Program's website.

- **Impact and Alignment with United Nations Sustainable Development Goals**

By financing incentives for improved forest management practices for small landowners, the Series 2022A Bond supports and advances multiple UN SDGs, including Goals 9: *Innovation, Industry and Infrastructure*, 12: *Responsible Consumption and Production*, 13: *Climate Action*, 15: *Life on Land* and 17: *Partnerships for the Goals*.



Second Party Opinion

Issuer:	Family Forest Impact Foundation
Issue Description:	Family Forest Impact Foundation, LLC Bond Series 2022A (Green Bonds)
Project:	Family Forest Carbon Program
Green Standard:	Green Bond Principles
Green Category:	Environmentally Sustainable Management of Living Natural Resources
Keywords:	Forest management, forest carbon, greenhouse gas emissions, carbon credits, carbon sequestration, sustainable harvest, Central Appalachia, ecosystem services
Par:	\$10,000,000
Evaluation Date:	June 24, 2022

GREEN BONDS DESIGNATION

Kestrel Verifiers, an Approved Verifier accredited by the Climate Bonds Initiative, conducted an independent external review of the Family Forest Impact Foundation, LLC Bond Series 2022A (Green Bonds) (“Series 2022A Bond”) to evaluate conformance with the Green Bond Principles (June 2021) established by the International Capital Market Association. Our team for this engagement included analysts with backgrounds in environmental science and forestry.

This Second Party Opinion reflects our review of the Series 2022A Bond and its conformance with the four core components of the Green Bond Principles. In our opinion, the Series 2022A Bond is aligned with the Green Bond Principles and qualifies for Green Bonds designation.

ABOUT THE ISSUER

The Family Forest Impact Foundation (“FFIF”), a subsidiary of the American Forest Foundation, exists to help family forest owners¹ expand stewardship of forested lands. Founded in 2019, the FFIF currently operates one large-scale program: the Family Forest Carbon Program, a voluntary carbon capture program which provides technical support and financial assistance directly to family forest owners to optimize their lands for carbon sequestration to mitigate climate change.

The parent organization, American Forest Foundation, is a national conservation organization chartered in 1981 to support the American Tree Farm System, a robust network that includes more than 18 million acres of American forests managed by 69,000 landowners.² American Forest Foundation works with family forest owners to implement meaningful forest stewardship activities including wildfire fuels reduction, wildlife habitat enhancement and preservation, watershed protection, land optimization for carbon sequestration,

¹ Family forest owners are those owning between 20 and 1,000 acres of forestland.

² The American Tree Farm System originated in 1940.

sustainable forestry, and support for rural communities. This assistance is delivered through several successful programs of the American Forest Foundation including:

- **The Sustainable Forestry and African American Land Retention** program supports African American forest owners, primarily in the Southeast, by increasing the value of their forests, ensuring land retention, promoting responsible forest management and improving access to markets. The program is delivered in collaboration with several Black-led, community-based organizations.
- **Collaborative Programs to Reduce Wildfire Risk** connect private landowners across the US to technical assistance and organized contracts to reduce hazardous fuel loads on forested lands. To date, programs such as My Sierra Woods (California), My Southwest Forest (Colorado) and My Blue Mountains Woodland (Oregon) have catalyzed work on over 25,000 forested acres to mitigate catastrophic wildfires.
- **Collaborative Programs to Improve Wildlife Habitat** aim to restore critical wildlife habitats on private and family-owned forestlands through regional collaborative partnerships which connect landowners with resources, technical assistance, and science-based solutions to enhance and restore forests. Through this program, the American Forest Foundation establishes agreements with private landowners to improve habitats for plants and animals that are threatened or in danger of extinction (“listed species”). The gopher tortoise is one iconic species that has been a major focus of the programs. More than 80 percent of the Southeastern longleaf pine forests where gopher tortoises live are privately owned. In 2019 alone, the American Forest Foundation played a notable role in helping family forest owners across the South contribute 23,000 acres of new or improved habitat for gopher tortoises.

Through the American Tree Farm program, the American Forest Foundation has met conservation goals on more than 355,000 acres of family-owned forests.

ALIGNMENT TO GREEN STANDARDS³

Use of Proceeds

The Series 2022A Bond will finance incentive payments to small landowners in Central Appalachia to support generation of forest carbon credits. A portion of proceeds will also fund marketing for the Program. The incentive payments will allow hundreds of small landowners to reduce the numbers of trees that they cut and thereby increase the amount of carbon stored in the forest. These management practices will create new voluntary carbon credits which can be sold within the international voluntary carbon market.⁴ All carbon credits generated through the Program will be verified under an approved methodology. The financed activities are eligible projects as defined by the Green Bond Principles in the project category of *Environmentally Sustainable Management of Living Natural Resources*.

Green Standard	
	The Green Bond Principles
Eligible Project Category:	
▪ Environmentally Sustainable Management of Living Natural Resources	

The American Family Forest Foundation and The Nature Conservancy created the Family Forest Carbon Program (“Program”) to help landowners steward their forests for multiple benefits, such as carbon storage and sequestration, wildlife habitat, timber value, and water quality. The organizations jointly developed a new methodology for measuring carbon sequestered by forests managed with the Growing Mature Forests Practice. The *Methodology for Improved Forest Management* (the “Methodology”) employs a broad monitoring and accounting framework to assess greenhouse gas impacts of forest management practices aimed at improving carbon sequestration and/or avoiding emissions from harvest or wildfire. Projects may apply a combination of practices implemented together in the same area. The Methodology has been approved by Verra, a nonprofit organization that oversees the Verified Carbon Standard, and the world’s leading voluntary program for certification of greenhouse gas emissions reduction projects.

³ Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance eligible Green Projects which are aligned with the four core components of ICMA’s Green Bond Principles.

⁴ Voluntary carbon credits may also be sold as forward offtake agreements and forward uptake mechanisms, through advanced market commitments.

The Methodology covers the Growing Mature Forests Practice, prescribed stewardship activities that improve long-term forest health and habitat for wildlife that rely on mature forests, while increasing the commercial and environmental value of the land. Forests managed with the Growing Mature Forests Practice will generate carbon credits.

In this way, the Family Forest Carbon Program will enable small landowners to access the carbon market, which was previously inaccessible for most. Enrolled landowners commit to implementing improved forest management practices for 20 years and receive annual incentive payments based on the board feet of timber on the property. The practices are laid out in two, ten-year forest management plans that are approved by a professional forester. Typically, payments are sufficient to cover property taxes and forest management. The generated carbon credits are assigned to the Family Forest Impact Foundation. Nearly 150 landowners have enrolled with the Family Forest Impact Foundation thus far, and a total of 526 landowners who together manage more than 92,000 acres of forest are expected to benefit from the Family Forest Carbon Program financed with the Series 2022A Bond.

Environmental Benefits of Improved Forest Management

Forests absorb and hold a significant amount of CO₂ each year, and forest management practices can have major effects on forest carbon dynamics and the potential to sequester carbon. Between 1990 and 2015, forests in the United States offset approximately 11% of all CO₂ emissions generated in the United States.⁵ The Family Forest Carbon Program aims to offset approximately 2.3 million metric tons of CO₂ equivalent with activities financed with the Series 2022A Bond.⁶

Series 2022A Bond proceeds support implementation of specific forest management practices by small landowners in Central Appalachia to increase forest carbon sequestration. Family forest owners control a relatively large proportion of total forestland in the US (approximately 39%)⁷ but contribute only about 1% of the active forest carbon projects. Since many private lands are actively managed for timber production, there is significant potential for climate mitigation through changes in land management techniques. In the Central Appalachians, the prevalence of cutting all the biggest and best trees, or high-grading, has dramatically affected the forest, and now there is a substantial lack of mature forest habitat on the landscape.

Reducing timber harvests, growing mature forests and implementing sustainable management practices will also conserve wildlife habitat, protect biodiversity, improve water quality, and mitigate fire risks. A majority of carbon projects will be located in the forests of Maryland, Pennsylvania and West Virginia—important reservoirs of biodiversity and corridors for a wide variety of species. As climate change impacts increase, migration corridors become even more critical.

Climate Risk and Transition Alignment⁸

Mitigation of transition risk requires planning for the necessary structural changes to address climate change and the transition to a low-carbon economy, with recognition of the risks associated with inaction. The Family Forest Carbon Program addresses climate transition risks by incentivizing forest owners to change their forest management practices to increase carbon sequestration and protect forest ecosystems.

The Series 2022A Bond also finances activities which align with the *just transition*, characterized by the equitable inclusion and accommodation of all individuals, with a special focus on disadvantaged groups who may be directly or indirectly affected by the structural changes necessary for the transition to a low-carbon economy. The Series 2022A Bond supports the just transition by enabling family forest landowners to access

⁵ "Fourth National Climate Assessment: Volume II: Impacts, Risks, and Adaptation in the United States," US Global Change Research Program, 2018, <https://nca2018.globalchange.gov/>.

⁶ The amount of predicted CO₂ sequestered is equivalent to the greenhouse gas emissions avoided by 625 wind turbines running for a year and or 38 million tree seedlings growing for 10 years. Greenhouse Gas Equivalencies Calculator, United States Environmental Protection Agency, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

⁷ "National Woodland Owner Survey," US Forest Service, 2018, <https://www.fia.fs.fed.us/nwos/>.

⁸ Climate change poses significant systemic risks to US financial systems and municipal issuers. These risks may broadly be divided into physical risk, transition risk and societal risk. Physical risk includes effects of climate change on physical assets, such as extreme weather events and sea level rise. Transition risk includes market and technology risks, reputational risks, policy risks and legal risks. Societal risk includes risk to stable democracies, risk to civil liberties and human rights, risk to labor supply, and risk to public health. Mitigation of transition risk requires planning for the necessary structural changes to address climate change and societal inequity with recognition of the risks associated with inaction. We refer to this as the just transition to a decarbonized economy, or the just transition.

powerful conservation finance tools and technical assistance to enable improved forest management. Landowners and surrounding communities both benefit from improved forest health and resilience. While the focus here is on mitigating climate change impacts, well-managed forests also provide essential ecosystem services that are accessible to all, such as: clean air; water supply; food; wood; soil formation; nutrient cycling; and beauty, inspiration and recreation that contribute to our spiritual welfare.

Process for Project Evaluation and Selection

The *Methodology for Improved Forest Management* and the Growing Mature Forests Practice are science-based standards that guide the selection of project sites through established approaches for additionality, baseline measurement and accounting.⁹ Each forest improvement project is enrolled in the Family Forest Carbon Program and undergoes certification against the *Methodology for Improved Forest Management*.

Site Selection

Eligible forested sites are in Maryland, West Virginia, and Pennsylvania and must have an approved management plan such as a Forest Stewardship Plan, certification under the Forest Stewardship Council, certification under the Sustainable Forestry Initiative, or membership in the American Tree Farm System. Eligible land has at least 30 acres of forest cover and must be harvestable in order to demonstrate conservation benefits.¹⁰ Landowners commit to (a) approved forest management practices to increase carbon storage, (b) transfer rights to carbon credits to be generated as a result of the management practices, and (c) site monitoring necessary to verify increased forest carbon.

Standard

All projects will be certified against the *Methodology for Improved Forest Management* standard. The methodology is expected to be approved by Verra, one of the international credit verification programs, no later than August 2022, and is designed to allow small landowners to benefit from conservation finance tools that have previously been inaccessible due to administrative costs of monitoring and verification. It establishes eligible improved forest management practices, documentation necessary to prove additionality, and greenhouse gas accounting methodologies, including determining baselines and plans for monitoring. Remote sensing is employed to monitor contract compliance. The American Forest Foundation contracts with a third-party to perform annual assessments and monitoring on enrolled sites.

Typical methodologies use coarse landscape-scale data to establish a baseline from which to compare and measure a change in forest carbon content and determine the amount of carbon sequestered or emissions avoided. Instead of relying on broad landscape models, the American Forest Foundation's method uses verified measurements from comparable sites (control plots)¹¹ to calculate the amount of change in forest carbon as a result of implemented forest management practices. Enrolled forest sites are assigned to a control plot that acts as a dynamic baseline and allows for more accurate measurement of changes in forest carbon. Sites are grouped based on a suite of multiple characteristics such as historical management practices and tree age.

Kestrel recognizes the limitations of some widely used carbon accounting methodologies and concerns related to additionality, leakage and permanence. By incorporating an innovative approach to a dynamic baseline and grouping sites based on meaningful ecological factors, the American Forest Foundation improves accuracy of carbon calculations and is increasing the supply of high-quality carbon credits for voluntary markets.

Management of Proceeds

Proceeds from the Series 2022A Bond will be allocated solely to the Family Forest Carbon Program. The proceeds will be dispersed to the American Forest Foundation and overseen by the Family Forest Impact Foundation ("FFIF") management committee. FFIF will review allocation and use of the funds in an annual

⁹ Kestrel's opinion is limited to the alignment of the Series 2022A Bond with the ICMA Green Bond Principles and is not an opinion or verification of the Improved Forest Management methodology or related assumptions. Additionality refers to whether the emission reductions would have occurred anyway, without interventions associated with generation of offsets. Baseline measurements and forest carbon accounting protocols are key aspects of a credible and accurate methodology.

¹⁰ For example, lands under conservation easement which are not legally harvestable would not be eligible for enrollment.

¹¹ Forest Inventory Analysis plots from the US Forest Service, <https://www.fia.fs.fed.us/>.

budget review which is rebalanced quarterly to ensure alignment with the program goals. Proceeds are expected to be spent within 18 to 24 months after closing. Funds will be held in a trustee account and in temporary permitted investments as defined by the FFIF's investment policy.

Reporting

The Family Forest Impact Foundation will report annually on the status of the Family Forest Carbon Program for the benefit of investors. These reports will include status of allocation of proceeds, third-party verified carbon credits, total enrolled acreage, number of enrolled landowners, improved forest resilience and health metrics, diversity of plant and animal species, and expansion of the Program into other regions. Reports will be made publicly available on the Program's website: <https://www.forestfoundation.org/what-we-do/increase-carbon-storage/family-forest-carbon-program/>.

Enrolled and verified projects, and associated offsets, will be reported on the Verra Registry System in approximately three years. All projects listed on the Registry System are required to document alignment with standards and methodological requirements.

IMPACT AND ALIGNMENT WITH UN SDGS

The Series 2022A Bond and the Family Forest Carbon Program help address UN SDGs 9, 12, 13, 15 and 17. The Program is an innovative and collaborative approach to forest stewardship. Grouping small projects allows small landowners to leverage the benefits of environmental finance instruments to improve forest health and access technical assistance, which advances Targets 9.4 and 17.17. The Series 2022A Bond also advances Targets 12.2 and 15.2 by accelerating adoption of sustainable forest management practices. By enhancing resilience of forest ecosystems and carbon sequestration potential of forests, the Series 2022A Bond also supports Target 13.1. Full text of the Targets for Goals 9, 12, 13, 15 and 17 is available in Appendix A, with additional information available on the United Nations website: www.un.org/sustainabledevelopment



	<p>Industry, Innovation and Infrastructure (Target 9.4)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none"> Third-party verified carbon credits
	<p>Responsible Consumption and Production (Target 12.2)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none"> Total enrolled acreage
	<p>Climate Action (Target 13.1)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none"> Improved forest resilience metrics Third-party verified carbon credits
	<p>Life on Land (Target 15.2)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none"> Improved forest health metrics Diversity of plant and animal species
	<p>Partnerships for the Goals (Target 17.17)</p> <p><u>Possible Indicators</u></p> <ul style="list-style-type: none"> Number of enrolled landowners Expansion of the Program into other regions

CONCLUSION

Based on our independent external review, the Family Forest Impact Foundation, LLC Bond Series 2022A (Green Bonds) conforms, in all material respects, with the Green Bond Principles (2021) and is in complete alignment with the *Environmentally Sustainable Management of Living Natural Resources* project category.

© 2022 Kestrel 360, Inc.

ABOUT KESTREL VERIFIERS



KESTREL
VERIFIERS™

For over 20 years Kestrel has been a trusted consultant in sustainable finance. Kestrel Verifiers, a division of Kestrel 360, Inc. is a Climate Bonds Initiative Approved Verifier qualified to verify transactions in all asset classes worldwide. Kestrel is a US-based certified Women's Business Enterprise. For more information, visit kestrelverifiers.com.

For inquiries about our green and social bond services, contact:

- **Melissa Winkler**, Senior Vice President
melissa.winkler@kestrelverifiers.com
+1 720-384-4791



Verification Team

- Monica Reid, CEO
- April Strid, Lead ESG Analyst
- Melissa Audrey, Senior ESG Analyst
- Jordynn Paz, ESG Analyst

DISCLAIMER

This Opinion aims to explain how and why the discussed financing meets the ICMA Green Bond Principles based on the information which was available to us during the time of this engagement (May-June 2022) only. By providing this Opinion, Kestrel Verifiers is not certifying the materiality of the projects financed by the Green Bonds. It was beyond Kestrel Verifiers' scope of work to review for regulatory compliance and no surveys or site visits were conducted. Furthermore, we are not responsible for surveillance on the project or use of proceeds. Kestrel Verifiers relied on information provided by the American Forest Foundation and publicly available information. The Opinion delivered by Kestrel Verifiers does not address financial performance of the Green Bonds or the effectiveness of allocation of its proceeds. This Opinion does not make any assessment of the creditworthiness of the American Forest Foundation, or its ability to pay principal and interest when due. This is not a recommendation to buy, sell or hold the Green Bonds. Kestrel Verifiers is not liable for consequences when third parties use this Opinion either to make investment decisions or to undertake any other business transactions. This Opinion may not be altered without the written consent of Kestrel Verifiers. Kestrel Verifiers reserves the right to revoke or withdraw this Opinion at any time. Kestrel Verifiers certifies that there is no affiliation, involvement, financial or non-financial interest in the American Forest Foundation or the projects discussed. We are 100% independent. Language in the offering disclosure supersedes any language included in this Second Party Opinion.

Use of the United Nations Sustainable Development Goal (SDG) logo and icons does not imply United Nations endorsement of the products, services or bond-financed activities. The logo and icons are not being used for promotion or financial gain. Rather, use of the logo and icons is primarily illustrative, to communicate SDG-related activities.

Appendix A.

UN SDG TARGET DEFINITIONS

Target 9.4

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

Target 12.2

By 2030, achieve the sustainable management and efficient use of natural resources

Target 13.1

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

Target 15.2

By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

Target 17.17

Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships