



Terra Alpha Newsletter

This newsletter addresses three climate/sustainability myths that linger in the investment community, provides an update on Terra Alpha's engagement work related to the environmental impacts from the rapid buildout of data centers, shares recent thought leadership publications and actions including the latest Terra Alpha Voices featuring Julie Broaddus, welcomes Chester White to our Advisory Board, and highlights our two 2024 summer interns.

Three Myths of Sustainable Investing

Myth #1: Considering climate change when investing is optional.

False. Climate Change has implications for every business, thereby every investment – today.

The expected success of any investment is predicated upon both current and future risks and opportunities. Physical impacts from climate change are already meaningfully affecting entire business sectors around the world, particularly real estate, insurance, electric utilities, travel, health care, banking, agriculture, shipping, and food and beverage production. Further, there is growing understanding that our ability to mitigate the worst impacts from climate change will require shifting our economy toward one that is much less fossil fuel reliant and water intensive, while also being more land and forest restorative. Lastly, we must develop technologies and resilient business practices that are able to adapt to further changes in our climate and to further physical changes. All of the above have implications for every business sector and company around the world. In short, climate change is a current and growing factor that exposes all investors to new risks and opportunities. Any investor or asset manager who decides to actively ignore these realities is at the very least taking on unnecessary risks and in the long run being imprudent.

Myth #2: Climate change can be solved simply by the expansion of clean tech (e.g. renewable power and/or carbon capture)

False. The reduction of absolute greenhouse gas (GHG) emissions is essential to address the worst impacts of climate change.

Despite the meaningful growth of renewable power production over the last decade, global GHG emissions have continued to grow each year. (According to the [International Energy Agency](#) (IEA), global GHG emissions grew 1.1% to 37.4 billion tonnes in 2023). Actual progress in mitigating the worst impacts of climate change begins with the actual reduction in emissions.

Over the past century, the accumulation of greenhouse gasses in our planet's atmosphere, currently 419.3 parts per million according to the [National Oceanic and Atmospheric Administration](#) (NOAA), will take decades to dissipate, even if we stopped using fossil fuels now. This means that the impacts of climate change are expected to grow and linger for decades ahead.

Additionally, many natural resource systems which absorb (sequester) atmospheric pollution continue to be degraded by economic forces. We must halt and then reverse the decline in essential ecosystems, including grasslands, forests, and healthy soil as part of the global efforts to limit the negative impacts of carbon emissions. According to the [World Resource Institute](#) (WRI), these existing ecosystems currently absorb approximately 30% of current annual GHG emissions, so their decline is making efforts to reduce net emissions all the harder.¹

While there are numerous pilot projects being developed, there are currently no proven and scalable carbon capture and permanent sequestration projects. This emphasizes the critical importance of lowering emissions of GHGs now.

On the positive side, we actually know how to make substantial progress in reducing GHG emissions using existing and affordable technologies, and we are seeing emissions decouple from economic growth. Meanwhile, we must also continue to invest in further innovations to offset the least abatable emissions.

Myth #3: We can rely on the power of the capital markets to drive our economy to an environmentally sustainable basis.

True, with a very important caveat: Not if we keep ignoring the global environmental impacts of our economy.

The power of the capital markets is quite evident and has been central to how our economy is structured today: good at maximizing company profits and investor returns. But it comes with flaws that have led to serious consequences. Most economists, finance professionals, and the capital markets have been trained or structured to ignore how our economy and companies use or impact global planetary natural resource systems and society at large. These two items are literally labeled as "externalities" which raises an obvious flaw to the premise: How can the same system (business-as-usual) achieve a different outcome?

Here then is the critical "fix": By demanding proper accounting for a company's actual costs of using and/or impacting natural resource systems (and their impacts on society) our capital markets can become a positive force in the efforts to transition to a sustainable planet. Thankfully, over the past decade many initiatives and innovations have been developed that are helping to address this issue (e.g. carbon pricing, water related risk assessments, GHG emissions, water, forest, and waste disclosures, carbon offset projects, the [Sustainability Accounting Standards Board](#) (SASB) – now part of the [International Sustainability Standards Board](#) (IFRS), the EU Taxonomy, proposed SEC climate

¹ <https://www.wri.org/insights/young-forests-capture-carbon-quicker-previously-thought>

disclosure rules, Science-based Targets for emissions and nature, and the [Task Force of Climate Related Financial Disclosure](#) (TCFD).

If broadly adopted, these efforts, and many more, would push companies and investors to both identify and account for the actual cost of their use and impacts of essential natural resource systems, such as clean air, freshwater, healthy soil, forests, oceans, and biodiversity. And then as the saying goes, “what gets measured gets managed”. This is the real power of the capital markets.



Tim Dunn, CFA
Co-Founder and CIO

Perspectives on the Supreme Court’s Chevron Decision

Several recent US Supreme Court rulings are likely to have far reaching impacts, perhaps none more so than the "Chevron decision" in regard to the enforcement of federal regulations.

Here we share the thoughts from the [Yale School of the Environment](#) on the ruling.

[Read “In the Wake of the Chevron Decision” Here](#)

Terra Alpha Impact

Data Center Engagement Update

The rapid growth in data center capacity is creating enormous sustainability challenges, as the aggregate energy demand from data centers far outpaces renewable energy supply in many grids, thereby creating additional demand for energy produced using fossil fuels. In recent months, hyperscalers Microsoft and Google both reported significant growth in their emissions due to expansion of their data center operations. Both companies are leaders in efficiency and renewable energy procurement; yet neither is doing enough to reach their decarbonization goals. These companies – and their hyperscale peers – must address these challenges with urgency, as data centers are on a course to massively increase their use of global electricity consumption from 2% to high single digits and beyond over the next decade.

Since our previous "Engagement on Data Center Expansion" note in our [4Q 2023 Newsletter](#), this section provides an update on Terra Alpha’s impact and engagement work surrounding our focus on addressing the environmental impacts of data center expansion.



DATA CLOUD ESG SUMMIT 2024

In April, Senior Investment Analyst, Nathaniel Schwartz, was an invited speaker and panelist at the Datacloud ESG Summit in Reykjavik, Iceland, where he delivered a [keynote presentation](#) covering an investor's perspective on the balance of growth and sustainability within the data center industry. He also learned from the other speakers and attendees about their experiences with renewable energy procurement, operational best practices, and industry disclosure.

Throughout 2024, with our Director of Corporate Engagement, Amy Dine, Nathaniel, and our Senior Investment Analyst and Director of Research, Julianna Brunini, have also sent letters and begun direct engagements with portfolio companies that have meaningful exposure to data center expansion. These letters and engagements requested more information on how each company plans to meet its own stated emissions goals despite the more rapid data center capacity growth, or on how they may be impacting natural resources and emissions through its products involved in data center expansion, and also outlined Terra Alpha's recommendations for enhancing their Environmental Productivity.

Our engagement efforts with portfolio companies and industry insiders have been focused on addressing this issue head on and asking them to invest in the most impactful solutions to reduce the industry's environmental footprint, while allowing it to grow and flourish. The top sustainability priority for operators must be to build data centers in locations where grid expansion is not required, or invest in local renewable energy projects, so that fossil fuel-based energy is not added to the grid. Additionally, efficiency improvements must be made, power usage effectiveness (PUE) must be reduced wherever possible, and operators must do more to optimize server utilization to reduce excess run time when it is not needed.

Thought Leadership

US SIF FORUM 2024 & Capitol Hill Day



In June, Director of Corporate Engagement, Amy Dine, and Manager of Business Development, Emily Hiltz, attended the US Sustainable Investment Forum (US SIF) [FORUM 2024](#) in Chicago, Illinois. Terra Alpha was a proud sponsor of the Forum, which is the largest gathering of sustainable investment professionals in the US. This annual gathering brings together diverse voices from across the

sustainability landscape to discuss the trends most relevant to those navigating risks and seeking opportunities in a sustainable economy.

In May, Amy also joined the US SIF Capitol Hill Day and members meeting. The lobby day focused on supporting the Inflation Reduction Act implementation and the importance of supporting the grid with renewable power supply, in particular.



[US SIF: The Sustainable Investment Forum](#) is a US based membership association that advances sustainable investing across all asset classes. Their mission is to rapidly shift investment practices toward sustainability, focusing on long-term investment and the generation of positive social and environmental impacts.

Wall Street Diversity Accelerator



Senior Investment Analyst, Nathaniel Schwartz, led a weeklong bootcamp that covered equity research basics and financial statement analysis for the [Wall Street Diversity Accelerator](#) (WSDA) in May.

The WSDA internship program aims to provide rising sophomores and juniors from underrepresented communities with an introduction to career possibilities in financial services. Internships can be a first step toward promoting diversity and can have an immediate and lasting impact on a student's career. This program is hosted by a collaborative group of fund managers and financial advisors who are passionate about sharing what we know about our professions with select students interested in financial services.

Accelerate 2050



Co-Founder and CIO, Tim Dunn, made a keynote presentation about Terra Alpha and moderated a panel on family offices + impact at [Accelerate 2050](#) in New York City.

Accelerate 2050 was a conference focused on accelerating the adoption of climate, ESG, and impact solutions held in Manhattan, New York from May 8-9, 2024. The conference featured 150 expert speakers from around the world.

Events & Engagements

- Terra Alpha hosted the leadership of the [National Audubon Society](#) (NAS) for a rooftop event for Terra Alpha investors and friends. NAS CEO [Dr. Elizabeth Gray](#) presented their new strategy (known as the “Flight Plan”) which puts climate change and biodiversity at the forefront of their work.
- Senior Investment Analyst and Director of Research, Julianna Brunini, and Senior Portfolio Manager, Dan Sanborn, were featured speakers on [Intentional Endowment Network’s](#) (IEN) Climate Solutions Series webinar.
- Tim Dunn was a panelist at a [Rockefeller Foundation](#) climate investing seminar in New York City.

Terra Alpha Voices | Julie Broaddus



Terra Alpha Voices highlights thought leaders who inform our investment process, our impact work, and our understanding of current global affairs. This series, created in partnership with author and photographer [KK Ottesen](#), seeks to shed light on the subjects’ diverse perspectives rather than their illustrious careers.

In our latest installment, KK sat down with Julie Broaddus, owner and operator of the independent, environmentally-focused [Old Bust Head Brewing Company](#) in Vint Hill, Virginia. Julie reflects on the legacy of her daughter, Finley Broaddus, whose commitment to help the planet even as she battled a rare and ultimately lethal cancer during her senior year of high school challenged and inspired those around her, including Terra Alpha’s co-founder, Tim Dunn, to take meaningful action to save the planet.

“Finley was kind of a force of nature. She was just a jubilant person who, at the same time, had this incredibly serious concern about climate change. She was committed to doing everything that she personally could. So, no plastic straws, unplug your computer, every possible thing. She was just a beautiful and uplifting person to help guide you towards doing the right stuff.” – Julie Broaddus

[Read the full Terra Alpha Voices here.](#)

EP Insight | Vestas: Low-Emission Steel



In May, Terra Alpha highlighted how Danish turbine manufacturer [Vestas](#) is addressing decarbonization challenges in their supply chain related to steel sourcing.

Vestas has partnered with [ArcelorMittal](#) to launch a low-emission steel offering that will significantly reduce the embodied emissions in its wind turbine towers. Compared to conventional steelmaking, these low-emissions changes to the steel production

supply chain can achieve a 66% decrease in emission intensity per kilogram of steel produced.²

Read the full EP Insight [here](#).

EP Insight | adidas: Recycled Polyester



In our latest EP Insight, Terra Alpha highlighted [adidas](#)' leadership in sustainable sportswear by replacing virgin polyester with recycled polyester in their products, significantly reducing energy use, CO2 emissions, and water consumption.

Recycled polyester removes plastic from landfills and oceans, and by repurposing non-biodegradable waste, adidas is setting a new standard in

environmental stewardship and responsible manufacturing methods within the industry.

Read the full EP Insight [here](#).

² <https://www.vestas.com/en/media/company-news/2024/vestas-introduces-low-emission-steel-offering-for-wind-c3909530>

Firm Updates

Terra Alpha Welcomes Justin “Chester” White to the Advisory Board



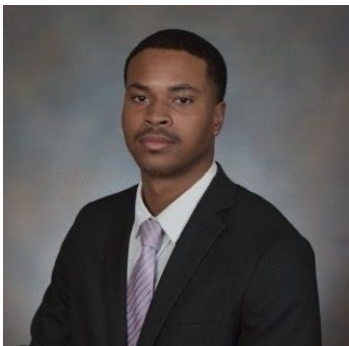
Terra Alpha is delighted to welcome **Justin “Chester” White** to our Advisory Board. Chester brings several valuable perspectives to the board, including work experience at a global multinational, a focus on social/labor issues, and a more youthful viewpoint. Terra Alpha co-founder Tim Dunn noted, “Chester will enhance our firm’s understanding of the challenges facing companies in their efforts to transition to sustainable business practices, particularly on social benefit and labor policies.” Chester joins an [advisory board](#) that has expertise in a diverse range of topics including planetary sciences, investments, corporate reporting, governance, climate adaptation, and policy. The board’s role is to help inform our investment process and engagement work.

Team Spotlight: Terra Alpha Summer Interns



Abigail Ore Isola

Ore is an international student from Lagos, Nigeria. She is majoring in Economics and Computational Analysis at the University of Alabama in Huntsville where she wears different hats – she is a tutor for business classes, a resident assistant, and a member of the operations team for Women In Tech, Huntsville. She enjoys reading, playing the violin, and watching movies in her free time. This summer, Ore’s research is focused on the data centers industry and its suppliers. She has identified a company with a key role to play in the industry and will present her research and investment recommendation to the team.



Neal Kinnard

Neal is from Fredericksburg, Virginia. He is a rising senior at Virginia Tech, studying Economics and Finance. In his free time he enjoys watching sports with friends and working out. This summer, Neal’s research will focus on how GLP-1s (Glucagon-like Peptide 1s) will impact the healthcare industry, specifically diabetes companies. He will also identify and present research on a healthcare company that is spearheading change and aligns with Terra Alpha’s investment strategy.

Team Updates



We are happy to note that our Associate Portfolio Manager, Consumer, Jacob Hampton, returned from paternity leave on May 16th. Jacob and his wife Shannon welcomed their third child, Kellan Evans Hampton, on February 21st, 2024. The whole family is doing well.

Baby Announcement!

On June 26th, Julianna Brunini and her husband Ben welcomed their first child, Isaac, to the world. We congratulate Julianna and her family on their exciting new addition and send them the best of wishes. Julianna is currently on maternity leave and will return in the fall.



About Terra Alpha

Terra Alpha Investments is a global public equity manager that is 100% committed to sustainable investing. We seek to allocate investor capital toward companies we expect to profitably lead the transition to a truly sustainable economy. We believe that our rigorous and proprietary Environmental Productivity and Enduring Business Model investment process and our corporate engagement strategy can generate financially competitive and superior environmental returns for our investors, while also driving impact. Both our diversified and our concentrated strategies are long-only, in highly liquid securities, and open to accredited and qualified investors.

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