A full-page background image of a mountain landscape. In the foreground, a dirt path winds through a grassy, rocky slope. Two hikers are visible on the path, one slightly ahead of the other, both wearing backpacks and using trekking poles. The middle ground shows a steep, rocky mountain slope with a small stream or dry riverbed. In the background, more mountain peaks are visible under a blue sky with large, white, fluffy clouds.

March 2022

2021 Impact Report



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About Terra Alpha

Terra Alpha Investments was founded in 2014 by highly experienced investment professionals to provide asset owners with a differentiated way to invest in our rapidly changing world. We utilize our proprietary Environmental Productivity and Enduring Business Model analytical frameworks to identify investment opportunities and to allocate investor capital into publicly traded companies that are profitably leading the transition to a truly sustainable economy. We are a signatory of the Net Zero Asset Managers initiative and 100% dedicated to sustainable investment strategies.

Washington, DC | Los Angeles, CA

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BY THE NUMBERS

Terra Alpha's Impact

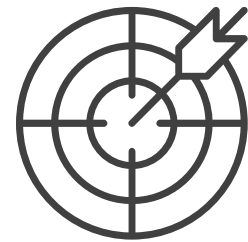


88%

less carbon intensive
portfolios versus the benchmark

1,049

proxy proposals voted by Terra
Alpha Investments



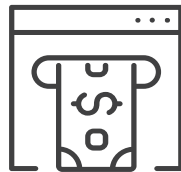
22

Newly formalized social and
governance metrics being tracked



100%

AUM we have committed to manage
in line with net zero emissions



12,335

cubic meters of water usage
avoided as compared to
\$1M invested in the index

1/3

of portfolio companies offered to
have a follow up conversation on
science-based targets



61%



science-based targets portfolio
coverage as of YE21

65%

of portfolio companies have
boards with more than one-third
female members



99%

of total firm emissions
come from our portfolio

13,027



Total views on publications
sent throughout the year



58%

less waste generated as compared
to \$1M invested in the index

II. Introduction from our CIO & Founder

Terra Alpha Investments was founded on the premise that our economic system can, and must, transition to one that is truly sustainable – one that provides for the real needs of society while operating within our planet’s regenerative natural resource limits. Our positive vision of a sustainable economy underlies every aspect of our work: how we invest, engage with companies, and advocate for broader change via our thought leadership work.

In our inaugural Impact Report, published in the fall of 2020, we reviewed the most important impact work from our first five years and concluded with the following commitment:

As a learning organization and a mission-driven team, we remain committed to pushing the envelope. In the years ahead, you can expect us to continuously evolve our investment and engagement processes as we raise our standards for ourselves, our industry, and the companies in which we invest.

In this 2021 year-end impact report we review the most significant actions we have taken and successes we have had; which demonstrate our commitment to raise our standards.

Over the course of the last year we:

- + Reviewed and reaffirmed that our highest priority sustainable outcomes remain:
 - + The reduction in global GHG emissions
 - + The reduction in the global use and impact on freshwater
 - + The global reduction in the creation of waste
 - + The improvement of corporate disclosure of material environmental performance data and information
- + *Acknowledged the need, and began the process to more formally integrate diversity, equity, and inclusion into all aspects of our firm, including our funds.*
- + Committed to a net zero GHG emissions portfolio and a science-based target for GHG emissions as a financial institution.
- + Increased our collaboration with NGOs and peer investment firms on our highest priority issues, including the effort to build science-based targets for global water management.
- + Elevated our corporate engagement work with the addition of Amy Dine as our new Director of Corporate Engagement and undertook numerous successful actions with portfolio companies.
- + Actively engaged on the policy front as a firm and in collaboration with networks.

We thank each and every one of our investors, NGO partners, peer investment firms, and other supporters for your shared commitment to the mission of building a sustainable economy.

III. Firm Initiative: Our Commitment to Net Zero

Terra Alpha believes that our economy must operate within Earth’s physical boundaries in order to sustain opportunity and prosperity for generations to come. We therefore support rapid decarbonization towards net zero emissions to avoid the worst impacts of climate change.

We explicitly signaled our support for the goals of the Paris Agreement – namely, working to limit global temperature rise to 1.5°C – by committing to the [Net Zero Asset Managers initiative](#) (NZAM) and the [Science Based Targets initiative](#) (SBTi) in 2021.

In the sections that follow, we summarize the emissions we need to reduce, the goals we have set ourselves in each category, and our progress to-date. Finally, we highlight our high-priority next steps for 2022.

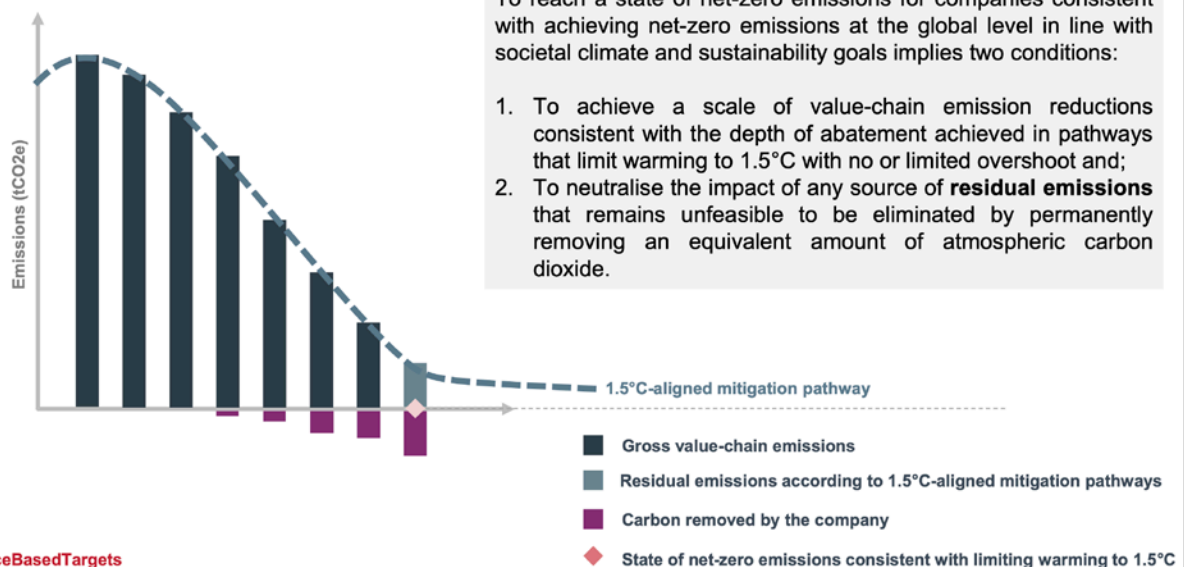
What do we mean by “net zero”?

Per the Intergovernmental Panel on Climate Change, net zero refers to the state of balanced anthropogenic greenhouse gas emissions and removals (see: [IPCC Special Report on Global Warming of 1.5°C](#)). Although there are many possible ways to achieve this, we at Terra Alpha advocate for pathways that:

- Reduce greenhouse gas emissions as far as possible, as rapidly as possible,
- Prioritize immediate emissions reductions over postponed action, and
- Minimize reliance on carbon removal technologies and carbon offsets.

What does it mean to reach net-zero emissions at the corporate level?

Understanding the destination



Source: [Foundations for science-based net-zero target setting in the corporate sector](#). The Science Based Targets initiative (Sept. 2020).

Emissions We Need to Reduce: Terra Alpha's Greenhouse Gas Inventory

Our annual greenhouse gas emissions inventory (Figure 1) makes it clear that the emissions we finance via our investing activities ("portfolio emissions") are the most significant driver of our footprint, accounting for nearly 99% of total emissions. Meanwhile, our firm's operational emissions (which, as a small team with one office, largely stem from our electricity usage) are relatively smaller in comparison.

We are committed to ambitious emissions reductions across both our investing activities and our firm's operations.

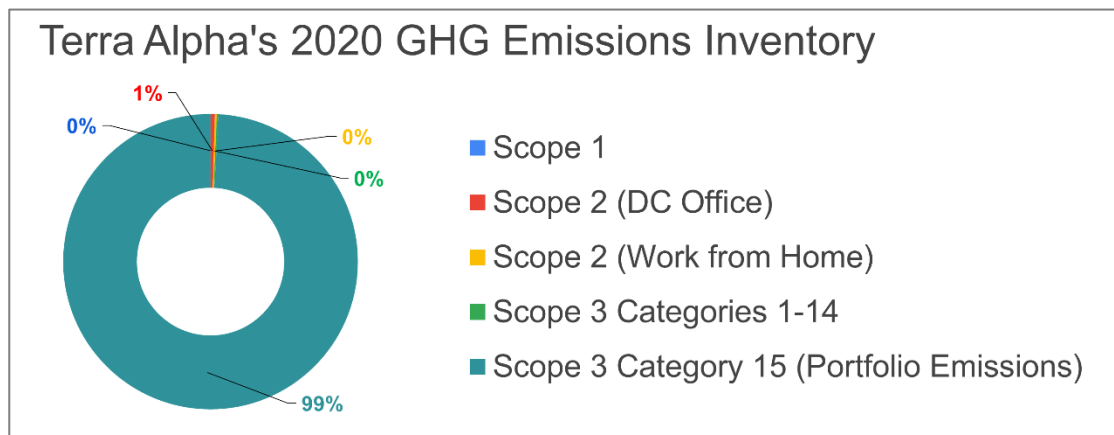


Figure 1. Terra Alpha's 2020 GHG Emissions Inventory. Source: emissions estimates by Terra Alpha based on the Greenhouse Gas Protocol Corporate Standard's scope categories.

Portfolio Emissions: Strategy, Targets, Progress, and Next Steps

Impact Strategy

Portfolio emissions (Scope 3) account for roughly 99% of the total emissions attributable to Terra Alpha. To understand our strategy for addressing these emissions, it is necessary to understand the nature of our investments.

We take long-only, minority ownership positions in publicly-traded multinational companies. Although we do not have direct control over our portfolio companies' emissions, we believe we can (i) exert influence over their decisions through direct corporate engagement, and (ii) support global decarbonization through our investment choices:

1. Direct engagement with portfolio companies

As long term-oriented investors, we see constructive engagement on climate-related topics as a stewardship responsibility. We expect each of our portfolio companies (across all sectors and industries) to: disclose a complete greenhouse gas emissions inventory, set science-based emissions reduction targets, articulate concrete action plans to deliver on their targets, and transparently disclose their progress at least annually. In 2021, we communicated these expectations to each company's leadership team via a portfolio-wide campaign. Our research analysts are responsible for monitoring companies' greenhouse gas emissions on an ongoing basis and, in collaboration with our Director of Corporate Engagement, providing specific feedback as to where we require them to improve.

→ Read more about Terra Alpha's engagement work (including our proxy voting and escalation policies) on page 17.

2. Investment decisions and portfolio construction

Our investment process endeavors not only to generate superior risk-adjusted, long-term returns for our investors, but also to help shift capital to companies that are working to reduce their emissions and, in many cases, scale climate change solutions. We consider each company's climate-related opportunities, risks, and management plans (amongst other factors) before investing. We believe these are important considerations for all companies over the course of our long-term investment horizon. We also believe that companies that take early action amid a global energy transition have opportunities to build competitive advantages.

→ Terra Alpha funds do not have industry/sector constraints, and we believe all companies need to prepare for a decarbonized world. However, Terra Alpha has never invested in a company whose principal business is extracting, processing, or refining coal, tar sands, oil, or natural gas. Read more about our fossil fuel policy on page 25.

Portfolio Targets

In 2021, as part of our commitment to NZAM, we set two ambitious targets based on the SBTi's [portfolio coverage](#) methodology for financial institutions. The simple logic underpinning this methodology is that our portfolio companies must themselves be working towards externally-validated, Paris-aligned emissions reduction goals for our investment in such companies to be considered Paris-aligned. Our targets – which the SBTi has validated – are to:

- + Achieve 75% science-based targets portfolio coverage by 2025, and
- + Achieve 95% science-based targets portfolio coverage by 2030, where
- + “Science-based targets portfolio coverage” refers to the percentage of invested AUM covered by emissions reduction targets that have been formally validated by the [SBTi](#).

These targets apply to 100% of our invested AUM.

While we could hypothetically achieve our portfolio coverage targets tomorrow simply by reallocating dollars from companies without verified science-based targets to those with verified science-based targets, this would be inconsistent with our investment process and miss the point. Instead, we are focused on company-specific research and engagement to nudge our current holdings towards ambitious emissions reduction trajectories.

Progress-To-Date

As of December 31, 2021, 61% of our invested AUM was in companies with emissions reduction targets approved by the SBTi. The key drivers of this 18-percentage point improvement versus our 2020 baseline were:

- + Ten portfolio companies in our diversified strategy successfully completing the Science Based Targets initiative's validation process,
- + The addition of three new portfolio companies that have SBTi-validated emissions reduction targets, and
- + The sale of one company that has an SBTi-validated emissions reduction target.

Portfolio Coverage Targets and Progress

Percentage of Invested AUM covered by SBTi-approved CO2e reduction targets

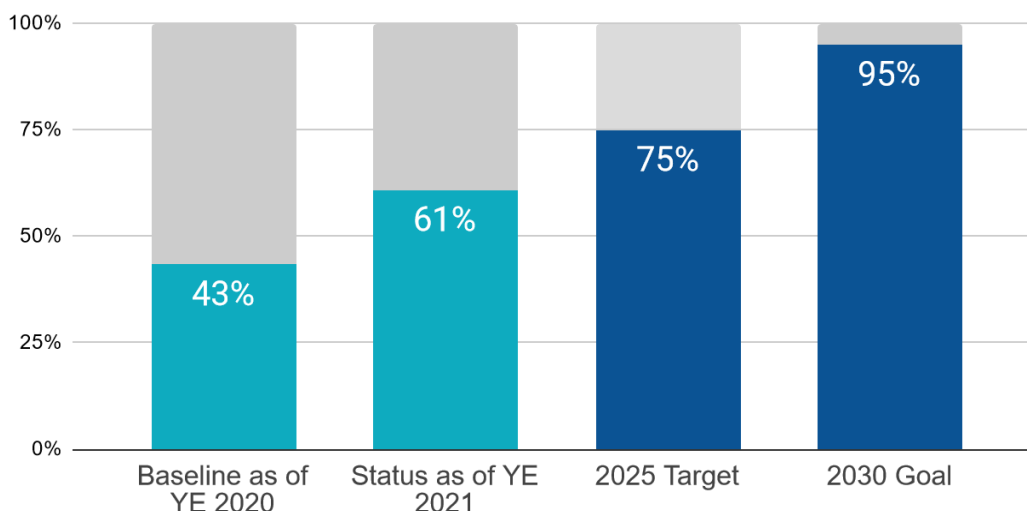


Figure 2. Terra Alpha's portfolio coverage targets and progress between 2020 and 2021.

2022 Priorities

We entered 2022 focused on two key priorities:

- + **Deeper dialogue** with companies that are not yet meeting our climate-related expectations:
 - + Setting 1.5°C-aligned emissions reduction targets and verifying their targets externally,
 - + Measuring and disclosing Scope 3 emissions,
 - + Developing (and ideally disclosing) an operational plan as to how they will achieve their emissions reduction targets, and/or,
 - + Transparently disclosing their progress and roadblocks, at least annually.
- + **Implementing updates** to our research team's Environmental Productivity rating process, to incorporate our updated climate-related expectations (amongst other factors); which raises the overall expectations for corporate environmental performance.

Addressing Terra Alpha's Operational Emissions

As mentioned in the preceding section, the largest portion of Terra Alpha's emissions come from our investing activities. While reducing our portfolio emissions will deliver the most impact, we are also committed to reducing our firm's operational emissions.

As an investment firm, the top two drivers of our firm's operational emissions are electricity consumption and business travel. We have identified electricity consumption (Scope 2 emissions) as our top priority for reduction and, in accordance with the SBTi's guidance, set a goal of reducing our absolute emissions 46% by 2030 versus 2019. We are also in the process of developing a strategy to address business travel (Scope 3). It is our intention to minimize travel-related emissions through thoughtful planning and to offset unavoidable emissions.

Please reference page 26 for more detailed information on Terra Alpha's plan to reduce operational emissions.

IV. Firm Initiative: Our Commitment to Diversity, Equity, and Inclusion

In 2021, we formed the Terra Alpha Diversity, Equity, and Inclusion (DE&I) Committee to formalize our approach to DE&I considerations within our firm and investment analysis. While we have always valued the benefits of diversity, we felt the strong need to declare our intentions and improve our formal processes surrounding such meaningful considerations. The more rigorous integration of DE&I factors within our investment analysis and firm operations is driven by the research that inclusive and diverse workplaces help build enduring businesses. Companies with diverse management teams and inclusive workplaces have been shown in studies to be more innovative, profitable and resilient ([BCG, 2018](#); [Deloitte, 2018](#)).

Our Approach

Terra Alpha's approach to DE&I is grounded in our aspiration to create a sustainable world for all people. Our public commitment to diversity, equity, and inclusion states:

Terra Alpha is founded in the belief that our global economic system must evolve to create a more sustainable, equitable, and inclusive planet for all. We strive to cultivate a workplace that welcomes individuals of every identity and lived experience. Our firm is dedicated to fostering a sense of belonging and being valued, and to empowering all people to utilize their diverse perspectives to help build an enduring business.

Our multi-pronged approach ensures that DE&I is considered through all levels of our operations and includes focused strategies around talent acquisition, internal operations, advocacy and education, and investment analysis.



Talent Acquisition

We have designed our internship and employment opportunities to be more accessible and inclusive as we seek to enhance our diversity of thought. We have developed processes to ensure we are not unintentionally excluding applicants from non-traditional backgrounds by altering our job descriptions and forming new relationships with NGOs and student organizations. We have already seen the benefits of close relationships with organizations that support young professionals and students from historically underrepresented groups in finance.

As a small firm that does not hire often, our student internship program can have the most immediate impact. The goals of the internship program are to expand our research capacity, educate the next generation of investors, and provide meaningful opportunities for underrepresented groups in finance.

Moving forward, we will continue to improve the inclusivity of our recruiting and hiring practices to cultivate a full-time team that has broader perspectives based on background and lived experience.

Belonging at Terra Alpha

Our internal operations pillar, Belonging at Terra Alpha, aims to foster a culture of inclusiveness and respect that celebrates diverse thinking. We have pursued various initiatives over 2021 to strengthen our culture and better understand our firm's strengths and areas for improvement.

In September of 2021, we held a two-day, firm-wide retreat during which the team participated in our first third-party-led DE&I training that set the bar for progress in the future. We are committed to utilizing certified, third-party facilitators and training on DE&I and unconscious bias.

Furthermore, we have reviewed our human-capital focused policies, are collecting team demographic data, and including questions about culture within our annual reviews. We are dedicated to building a culture that empowers and supports all people so that everyone feels valued for who they are and what they bring to the firm.

Advocacy & Education

The Advocacy & Education pillar encompasses stakeholder advocacy and broader educational opportunities. We have refined our proxy voting guidelines to provide clear parameters for shareholder actions related to DE&I. We have signed on to various investor letters advocating for greater corporate disclosure of workforce data, including As You Sow's Workplace Equity Disclosure Statement which was sent to Russell 1000 companies and an investor letter to the SEC requesting mandatory EEO-1 disclosure.

On the education front, several team members have spoken to student groups about Terra Alpha's approach to sustainable investing. We have also presented to students enrolled in the Black Venture Capital Consortium about the differences between investing in private and public equity and assisted with the financial modeling component of their curriculum. Terra Alpha continues to pursue partnerships and mentorship opportunities that aim to educate professionals and students on sustainable investing.

Investment Analysis

The Investment Analysis pillar strengthens our understanding of a company's human capital performance by evaluating material DE&I metrics. We have identify these metrics through extensive research on material factors and reporting frameworks, which has in turn been used to establish ideal disclosure

expectations for US and international companies. The disclosure expectations we have established inform the DE&I analysis framework currently being formally integrated into the operations and governance pillars of Terra Alpha's Enduring Business Model (EBM) assessment.

Our analysis investigates metrics such as turnover rates by identity groups, promotion data by identity groups, representation on the board and executive team, gender and race pay equity assessments, parental leave and wellness benefits, human capital policies, minimum and median hourly wages, employee satisfaction surveys, and more. Since jurisdictional factors may impact a company's performance, our team has collected data to provide country-specific context such as diversity quotas, disclosure limitations, paid family leave, union representation, and more in order to provide contextual framing for the DE&I assessment.

While Terra Alpha primarily focuses on companies that are profitably leading the transition to a sustainable economy, we believe that DE&I factors are critical indicators of a strong corporate culture. We are proud of the progress that has been made in 2021 and recognize we still have a long way to go. We look forward to providing more updates as we continue to evolve this program.

V. Firm Initiative: Reducing Global Water Use

A global reduction in the use of and negative impact on freshwater has been one of Terra Alpha's top sustainable outcome goals since our funding. In our 2016 white paper, [Navigating Rough Water](#), we highlighted the physical, reputational, and regulatory risks that nearly all companies face due to water risks and stress. We have therefore always advocated for improved risk assessments and their disclosure by corporates to improve their own resilience and better inform investors. We also incorporate material water usage and impacts in our analysis of every company we consider for our investment funds.

Since 2015, the disclosure of corporate water usage and impact has nearly tripled from under 768 to over 2304 companies globally; while water risk assessments have become best practice. For the companies in which we invest, 90% of the companies held in our funds are disclosing water use data. However, there has not been progress in lowering the gross demand for clean freshwater, while the accessible supply continues to decline.

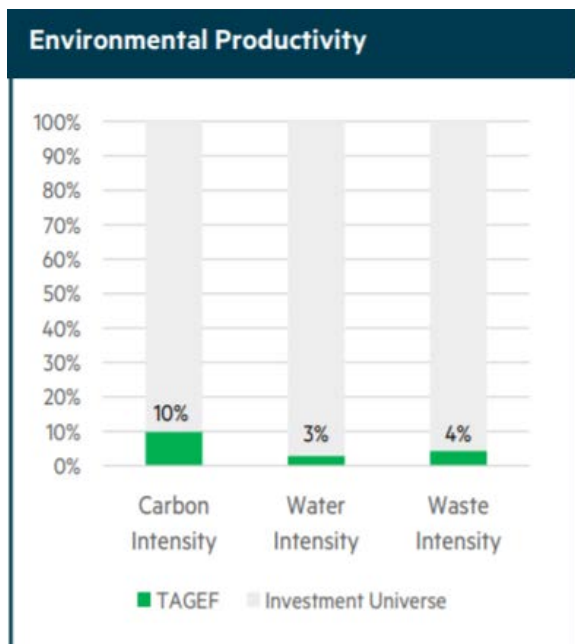
In 2021, we have elevated our work to both improve our understanding of portfolio company water usage and impact, and to support scalable work to drive improved water management by companies on a global scale. This work took two primary forms:

1. We joined the [CDP](#) Water Champions program that supports CDP's emerging tools for better assessing corporate water efficiency and risks. These tools could make it easier for all investors and asset owners to understand and manage their portfolio risks and opportunities in an increasingly water stressed world.
2. We were invited to be one of the early partners with [CERES](#)' Valuing Water Investor Working Group to serve as informal advisors in their work to develop science-based targets and methodologies on water for companies. As part of our work with CERES, we represented the working group on a panel at the OECD Roundtable on Financing Water.

We expect continued progress from both working groups in 2022.

VI. Portfolio Impact Reporting

Our portfolio, which currently is invested in companies which have a combined market capitalization of \$15.5 trillion and revenues of over \$3 trillion, is where we can have the biggest impact on behalf of our investors on the environment, in society, and across the capital markets. Our allocation of capital towards companies leading the transition to a sustainable economy and our active engagement with them helps catalyze faster change.



Portfolio Intensity Metrics

We provide transparent reporting to our investors by sharing holdings information, which includes each company's EP rating; EBM score; and carbon, water, and waste intensity measures (when available). The chart to the left is a snapshot of the portfolio's intensity measures as of year-end, as an example of the information we regularly provide to our investors.

Cumulative Portfolio Environmental Impact

We calculate our funds' carbon, water, and waste impacts (i.e., the resources our funds are "responsible" for via our investment in companies) on an annual basis. Below we show the cumulative impacts through 2021 of our global diversified fund as compared to a standard global index. Please note that due to data disclosure limitations, some portfolio footprint measurements include the use of estimated data where corporate-disclosed data is unavailable.

Carbon

Based on a \$1 million investment, our diversified strategy avoided 88.85 tonnes of CO₂e (Scope 1 and 2 emissions) in 2021, which is 86% less than the standard global index. Since the fund's launch in May 2015, based on a \$1 million investment, the strategy has avoided 734 tonnes of CO₂e, or 84% less than the standard global index.

Figure 3 shows the cumulative year-over-year greenhouse gas emissions (measured by CO₂e) avoidance from a \$1 million investment in the Terra Alpha diversified strategy vs. the same dollar amount invested in the iShares MSCI World ETF. Note: 88.85 tonnes of CO₂e is equivalent to 220 one-way flights from Washington, DC to Los Angeles, California.

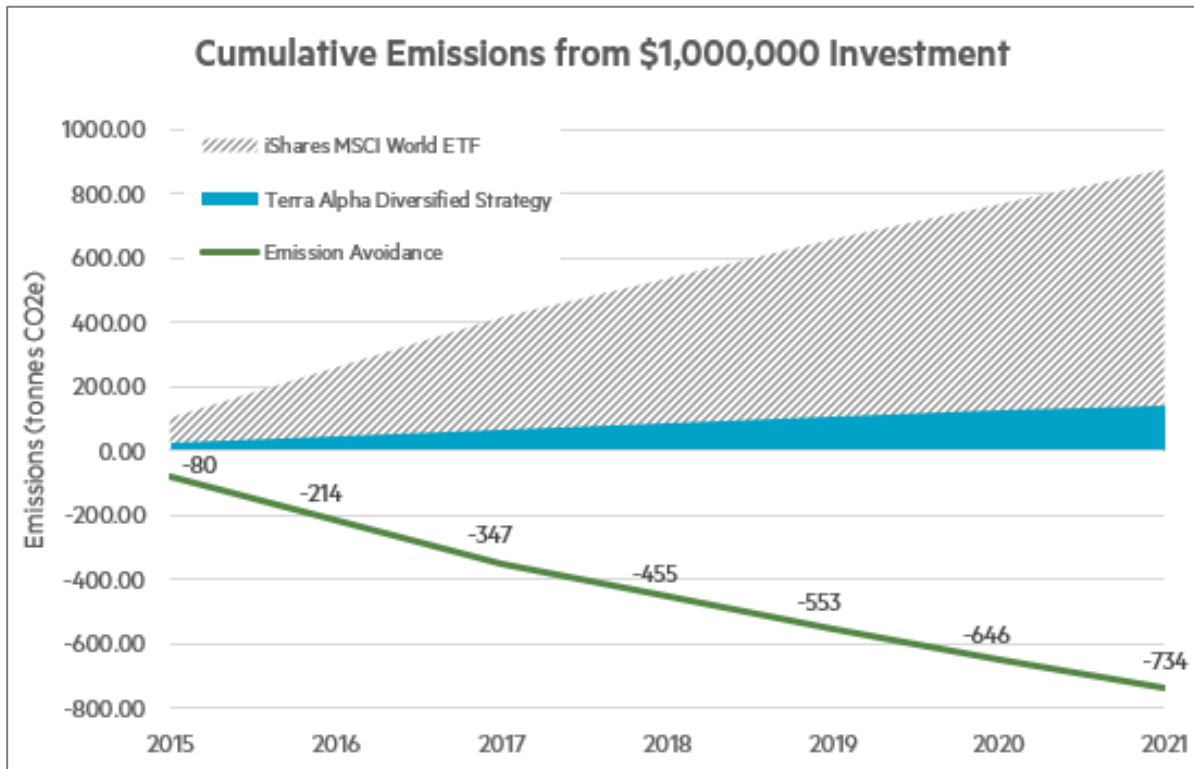


Figure 3. Source: Terra Alpha Investments.

Water

Based on a \$1 million investment, our diversified strategy avoided 12,335 cubic meters of water, which is 92% less than the standard global index. Since the fund's launch in May 2015, based on a \$1 million investment, the strategy has avoided 99,759 cubic meters of water usage, or 79% less than the standard global index.

Figure 4 compares the cumulative year-over-year water use (cubic meters) associated with a \$1 million investment in the Terra Alpha diversified strategy vs. the same dollar amount invested in the iShares MSCI World ETF.

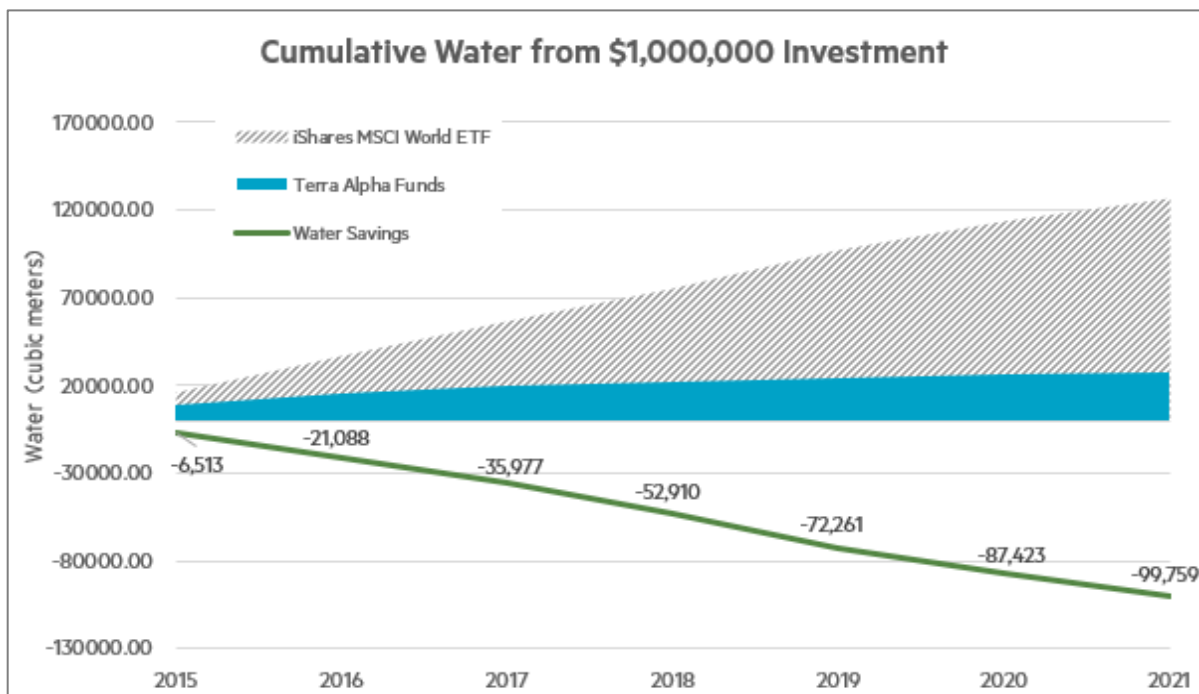


Figure 4. Source: Terra Alpha Investments.

Waste

Based on a \$1 million investment, our diversified strategy avoided 5.8 tonnes of waste, which is 58% less than the standard global index. Since the fund's launch in May 2015, based on a \$1 million investment, the strategy has avoided 28 tonnes, or 45% less than the standard global index.

Figure 5 shows the cumulative year-over-year waste (tonnes) avoidance from a \$1 million investment in the Terra Alpha diversified strategy vs. the same dollar amount invested in the iShares MSCI World ETF.

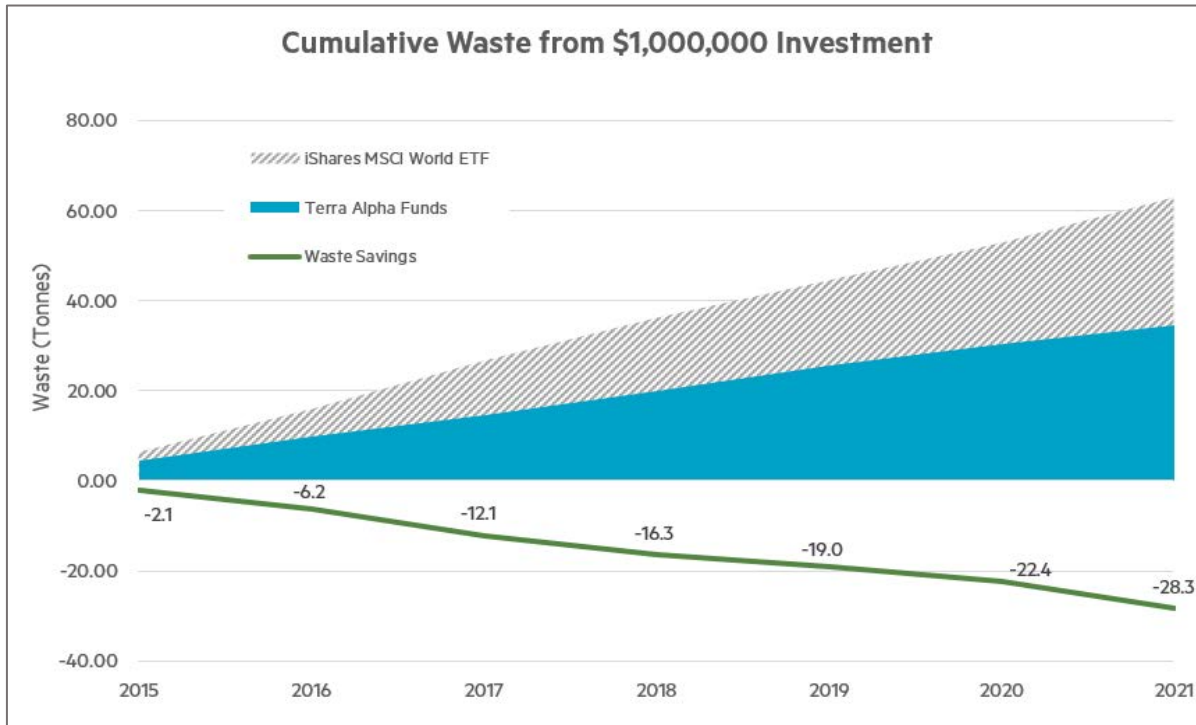


Figure 5. Source: Terra Alpha Investments.

Portfolio Reporting on Social & Governance Factors

One outcome of our diversity, equity, and inclusion commitment is a more formal approach to research on an array of social and governance metrics for our portfolio companies. By collecting key data on these factors, our team gains a portfolio-level perspective on how and what our companies are disclosing on workforce data, better understanding of representation across the portfolio, and identifies metrics we can track over time. Below is a sampling of the portfolio disclosure metrics we have begun to track for portfolio companies on a regular basis. We have begun to formally integrate these and other metrics into the Enduring Business Model analytical framework within our investment process.

Sampling of Portfolio Disclosure	
Disclosure Item	Yes (%)
Boards with >33% Female Members	64.6%
Conducts Global Gender Pay Equity Analysis	44.6%
Board with >75% Independent Directors	66.2%
EEO-1 Disclosure (US Companies Only)	62.5%

Figure 6. Terra Alpha's portfolio disclosure rates as of December 31, 2021.

VII. Corporate Engagement Strategy

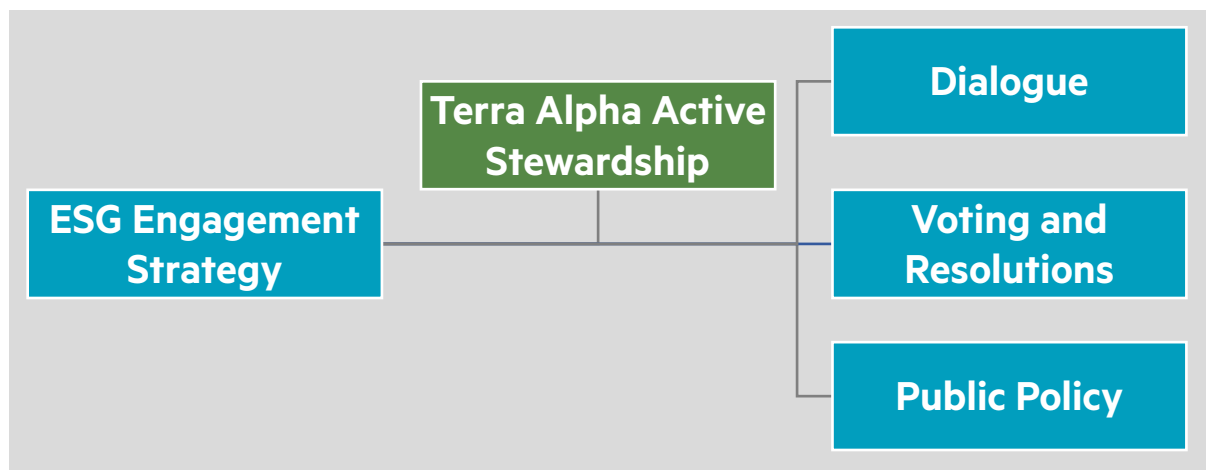
We accomplished notable milestones in our engagement work in 2021. This was a year of continued outward engagement with companies and in the public domain, and an inward review of our methodology criteria regarding environmental productivity and an enduring business model. We intensely evaluated and honed our understanding of seminal topics such as science-based targets setting and planning, conscientiously evaluating diversity, equity, and inclusion factors, as well as enhancing our own environmental productivity assessment, as this report has highlighted. Our engagement goals going forward are further informed by these efforts, and the comprehensive review contributed to a newly articulated Engagement Strategy, Engagement Escalation Policy, and a redrafted Proxy Voting Guidelines and Policy.

Approach to Engagement Strategy

Our engagement strategy was codified more clearly this year. Succinctly put, Terra Alpha's engagement strategy encompasses direct company dialogue, voting and considering resolutions, and public policy engagement and advocacy. Our engagement strategy takes a three-pillar approach:

- + We engage through direct one-on-one and collaborative communication with companies,
- + We actively vote proxies and will consider filing shareholder resolutions, and
- + We publicly share our views and support initiatives on policy issues.

This three-pillar engagement approach is an intentional piece of our investment management stewardship.



Our engagement strategy is led by our Director of Corporate Engagement, in collaboration with our Research Analysts, who are in direct contact with their coverage companies. This pairing is a key characteristic of our approach. Our engagement strategy, at its root, reflects our commitment to understanding companies and improving their positive performance as part of our active, though patient investment strategy. [Our engagement strategy and our proxy voting policy are available in their entirety on request.]

Dialogue

Direct dialogue continues to be our preferred method of engaging with companies. Engagement via direct dialogue may cover an issue specific to one company or could be a theme across the portfolio. We might engage one-on-one with companies, or in collaboration with other investors. As laid out in our engagement strategy, we use our proprietary Environmental Productivity and Enduring Business Model processes as frameworks for identifying material engagement topics.

The mechanisms we use to dialogue with a company are typically: phone calls, video meetings, and emails with investor relations and company executives; written correspondence to the CEO and perhaps the lead independent director on the board. One element we have articulated more clearly in our work this year, is how we may escalate our engagement if we do not receive a satisfactory interaction or response after efforts to engage (see Engagement Escalation section below).

Approach to Voting

From our start, Terra Alpha has viewed voting as one of our fiduciary responsibilities, and a mechanism of our engagement. We have had proxy voting guidelines in place from the firm's start, but we reviewed and revised our guidelines this year, providing greater detail and clarity to the guidance. There was no shift in our basic approach or intention. Our proxy voting policy now articulates more deliberately how Terra Alpha approaches voting on issues that tend to arise in shareholder resolutions. We will likely alert companies to some of these in the coming year and voting season. Unsurprisingly, our intense focus on and examination of science-based targets, and greater articulation of diversity, equity, and inclusion, moved our proxy policy to become more refined and robust in these topic areas. To reiterate, our voting record looking back will look similar; it is that we have codified our views more explicitly going forward.

Some excerpts from our voting policy:

- + We will generally vote for implementing science-based targets verified by the Science Based Targets initiative and for articulating plans to reach them.
- + We will generally vote in favor of resolutions that request implementing a reporting line into the C-suite for the lead Sustainability and DE&I role.
- + We will generally vote in favor of resolutions that request disclosure of impacts on forests, soil evaluation, land-use, biodiversity, ocean impacts, or other natural resources as well as resolutions that ask for efforts to create sustainable practices in these areas.
- + We will generally support resolutions asking for the EEO-1 report to be disclosed for US operations.
- + We will likely support resolutions that encourage reporting on and creating greater gender identity and racial diversity in senior management levels, and throughout an organization. [We recognize that it is not legal to collect this data in all countries.]

Public Policy Engagement

Over the course of the year, our engagement with public policy entities was primarily with the Securities and Exchange Commission, both in written communication and in video meetings. We shared our views about the importance of science-based targets and the SBTi in writing, during a meeting Commissioner Lee held with Terra Alpha, and in a group meeting SEC Chair Gensler.

Terra Alpha was a signatory to joint public letters to Congress and the Securities and Exchange Commission with other investors, as well: encouraging the disclosure of workplace equity transparency, encouraging paid parental leave, and on requiring public disclosure of the EEO-1 statement.

Engagement Escalation Strategy

One of the important components of our engagement work this year was to articulate more clearly our policy on escalating engagement if our efforts at dialogue are not giving us assurance that the company is moving in the right direction. How we escalate an issue or concern relies on the specifics of the situation with that company, and how the disclosed information we know assures or concerns us.

- + Engagement always begins with a letter to the company's CEO regarding our investment approach and expectations regarding best practices and disclosures. The initial engagement is followed by contact by the Terra Alpha analyst who covers the company, often with the Director of Corporate Engagement, reaching out to speak via the Investor Relations team.
- + If needed, we may escalate our engagement by writing to the CEO and/or the lead independent director on the board – documenting and articulating our concerns and interest. Correspondence would include the Terra Alpha Chief Investment Officer and could include them in the dialogue.
- + We may collaborate with other investors and/or networks to amplify our message. As a last resort, we will consider initiating and filing a shareholder resolution as a mechanism to engage with a company. We reach a decision to file a resolution only when we are met with unsatisfactory communication on an important topic.

Ultimately, while we strive to be patient, long-term investors, we do maintain the ability to sell our investments in a company if the engagement escalation fails to engender an appropriate response to our engagement goals.

2021 Engagement Examples

Science Based Targets – Campaign Example

In late 2021, we undertook a portfolio-wide campaign to encourage companies to set science-based targets, articulate plans to reduce emissions, and specifically, to use the Science Based Targets initiative framework to validate their emissions reduction plan. Initiating this campaign this year tied into our firm's 2021 commitment to the Net Zero Asset Manager initiative, discussed on page 6 of this report.



This campaign began with a letter to each portfolio holdings' CEO, outlining our case for the importance of science-based targets and plans. Our portfolio tends to hold leaders in climate considerations, so it is important to note that many of our holdings had already committed to the SBTi.

The results indicate an effective campaign. We have had substantive responses from 45% of the portfolio. We received signed letters or personal emails from 6% of the CEOs. As noted in an earlier section of this report NZAM and SBTi, we began the year with 43% of the portfolio committed to SBTi and ended with 61% of our portfolio committed to science-based targets and the initiative. One third of the portfolio companies offered to have follow up conversations. We have begun these follow-up engagements and will make our way through the portfolio in the first half of 2022.

One-on-One Dialogue with a Company

A medical device company was engaged on product quality control concerns. In numerous emails and in two direct phone conversations, our analyst pushed on transparency and vocalized our concerns. The next quarter, the company scheduled and held their first ESG Analyst Day, which focused primarily on product quality. At the end of the event, they announced new targets and linked compensation to product quality targets. The company noted that our voice, along with other investors, helped push the company to clearer disclosure and action.

Co-Filing of a Shareholder Resolution

We took our inaugural step into the realm of shareholder resolution filing this year. We were a co-filer, along with As You Sow and Proxy Impact, to a shareholder resolution calling for the target company to set a Science-Based Target for its GHG emissions in the upcoming 2022 proxy season. We escalated our engagement with this company because our prior efforts to engage directly had been met with silence. The resolution as filed was approved by the Securities and Exchange Commission to appear on the company annual shareholder meeting's ballot. As a result of the filing, the company met with us, As You Sow, and Proxy Impact, and subsequently committed to: measure and report their Scope 3 emissions by year-end 2022, commit to Paris-aligned emissions targets and plans to achieve net zero, gave a commitment that offsets will be used as a very last resort, and committed to share these in their sustainability report published in the summer of 2022. Therefore, the resolution was withdrawn. This was a successful foray into filing shareholder resolutions, and we are encouraged by the target company's commitments for progress.

Collaborating With Peer Organizations – FAIRR Sustainable Aquaculture Initiative



Sustainable aquaculture is one of several thematic areas that Terra Alpha utilizes to identify investment opportunities. We believe that this industry has the potential to generate strong growth while solving a variety of planetary challenges.

As the global population grows and demand for protein increases, the need to shift away from more environmentally harmful proteins (e.g., ruminants like beef) will persist, as [24% of global emissions](#) are coming from the agricultural sector. Alternatively, proteins such as farmed Atlantic salmon have

one of the lowest carbon and water footprints. Terra Alpha is currently an investor in two leading Norwegian aquaculture companies and in early 2021 signed on to join FAIRR's sustainable aquaculture engagement campaign.

The initiative was designed to address one of the long-term challenges of the aquaculture sector: how to increase production sustainably. More specifically, the initiative aimed to evolve the current feed supply chain to minimize its negative impacts. The FAIRR campaign built a collaborative effort with shareholders of leading salmon companies to encourage them to invest research into new methods of feed and innovations in their feed supply chains.

The first stage of the campaign was direct engagement between FAIRR, with the support of asset managers (including Terra Alpha), and eight salmon producers. The second stage of the initiative is expected to begin in 2022 and expands the engagement effort to include a wider list of asset managers and owners.

2021 Proxy Voting Record

Acting on our Proxy Voting Policy via casting votes at all possible company meetings is a fiduciary duty we have taken seriously since the beginning of our firm and is an important component of our engagement strategy. We utilize Glass Lewis as an administrator to execute our votes, though we retain final say on all votes placed. From January 1 to December 31, 2021, Terra Alpha participated in 1,049 votes. We voted with management 781 times, against management 59 times, took no action 193 times, and had 15 votes that were mixed. On proxy items related to Social issues we voted against management 48% of the time and on Governance issues 35% of the time. Our votes aligned with Glass Lewis' recommendations 822 times, against Glass Lewis' recommendations 19 times, took no action 193 times, and had 15 votes that were mixed.

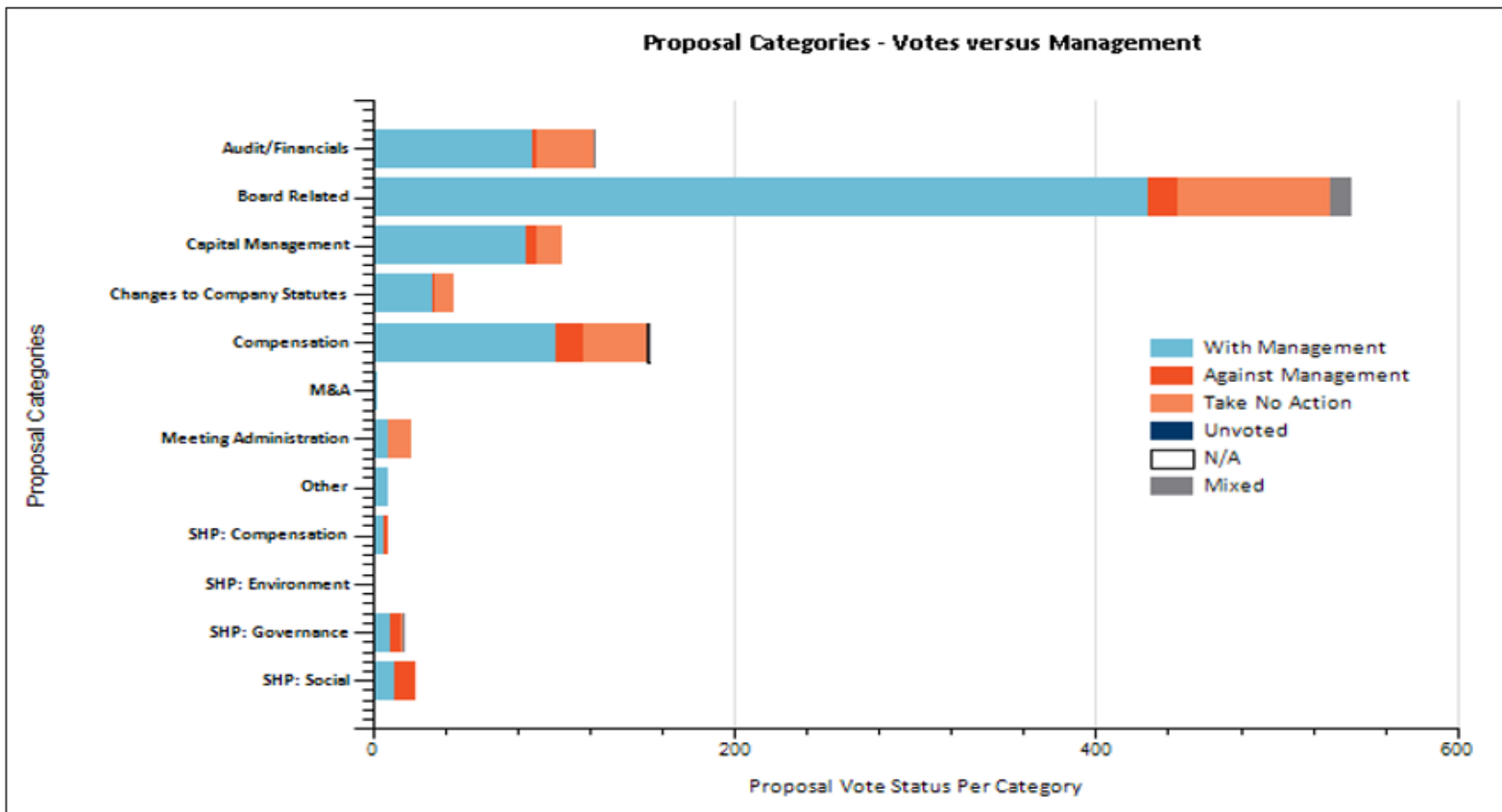


Figure 7. Terra Alpha's 2021 proxy voting record as compared to management.

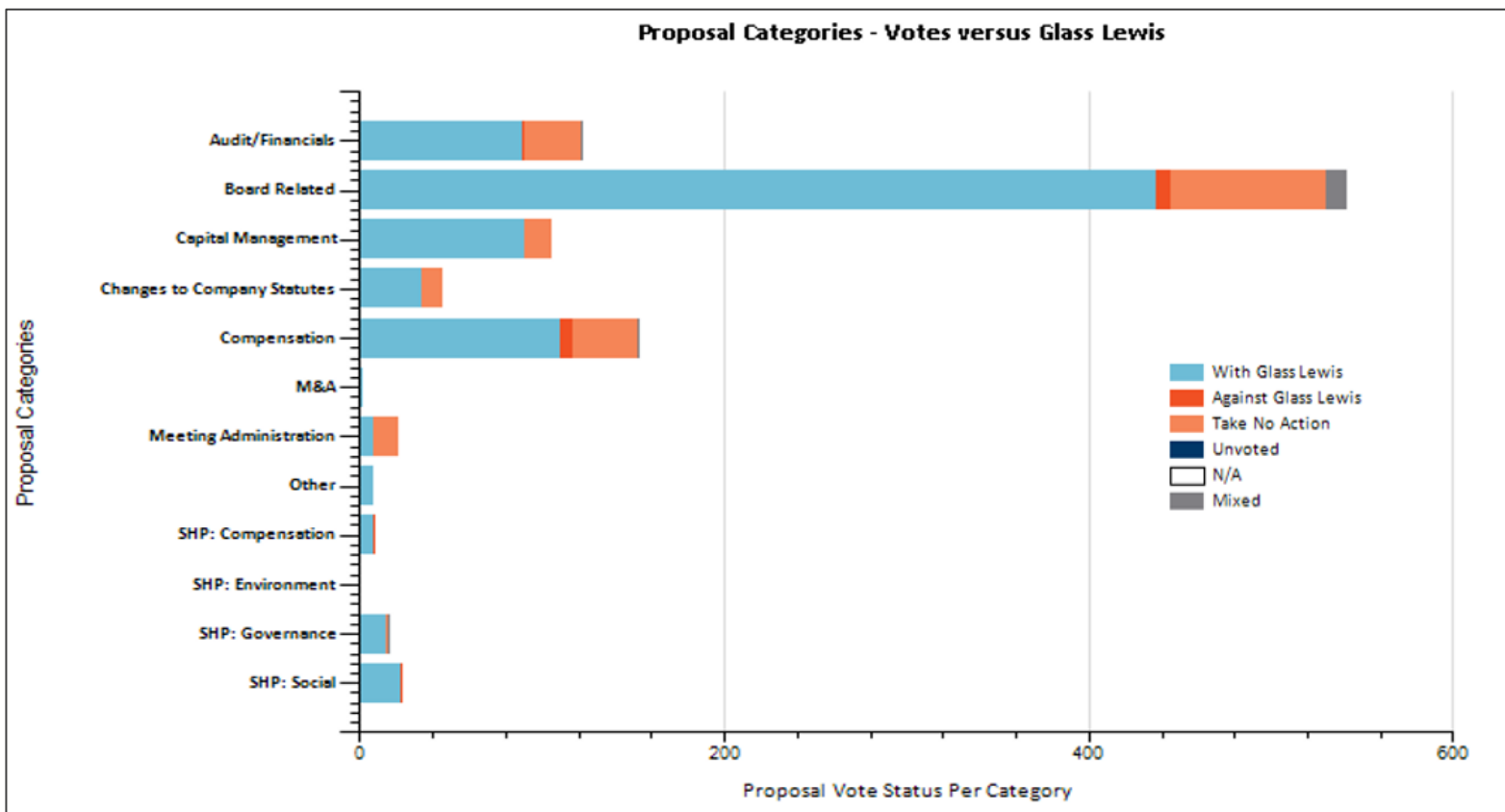


Figure 8. Terra Alpha's 2021 proxy voting record as compared to Glass Lewis.

VIII. Thought Leadership

Publications Throughout the Year

EP Insights

In our EP Insights, we identify meaningful actions companies are taking to lead the transition to a truly sustainable economy. The companies we highlight help to inform our readers about business practices that enhance Environmental Productivity (EP) and encourage industry peers to act.

In 2021, we published the following EP Insights:



EP Insight, March 2021 | Philips: A Circularity Champion



EP Insight, October 2021 | VINCI: Low-Carbon Concrete Solutions



EP Insight, June 2021 | Unilever: Revamping Recyclables



EP Insight, December 2021 | General Mills: Sustainability-Linked Bonds in

Terra Alpha Voices

In November 2020, we launched Terra Alpha Voices, a series of interviews created in partnership with author and photographer KK Ottesen. The purpose of Voices is to share differentiated perspectives about the big issues that are shaping our lives.

In 2021, we published the following Terra Alpha Voices, featuring true thought leaders:



Terra Alpha Voices | Frank Loy



Terra Alpha Voices | Amy Dine



Terra Alpha Voices | Margot Lee Shetterly



Terra Alpha Voices | Kathryn Murdoch



Terra Alpha Voices | Roger Sant



Terra Alpha Voices | Tim Dunn



Terra Alpha White Papers & Reports

In 2021, we published a comprehensive report on our commitment to a net zero emissions portfolio, [available here](#). For complete details, please refer to page 7.

We openly provide this and other reports on our website and actively share them with business leaders and portfolio companies.

Collaboration with Affiliated Organizations

We have partnered with several peer-to-peer learning organizations to facilitate conversations and collaboration across a wide breadth of sustainability initiatives. Through these partnerships, we have formed meaningful connections to like-minded professionals, shared our expertise with a broader audience, and signed on to shared commitments

that align with our mission and amplify our voice. We enter each partnership with intentionality, as we hold ourselves and these networks to the high standards necessary to create a better world.

Terra Alpha was fortunate to actively contribute to several working groups throughout the year, including:

- + Ceres Investor Network's Policy Working Group and Paris Aligned Working Group
- + FAIRR Sustainable Aquaculture Initiative

- + CDP Water Champions Initiative
- + 2021 Global Investor Statement to Governments on the Climate Crisis
- + CERES Investor Network Valuing Water Investor Working Group

Education

Our team has also actively contributed as thought leaders at many events in 2021. Those events include:

- + Research Analyst Hayley McCurdy guest lectured at a University of Denver sustainability class.
- + Chief Investment Officer Tim Dunn was interviewed for [Callaway Climate Insights](#).
- + Tim Dunn guest lectured for Virginia Wesleyan University on business and sustainability.
- + Tim Dunn facilitated a CERES webinar session aimed at promoting corporate engagement on water risks.
- + Research Analyst Nathaniel Schwartz and Associate Director of Research Julianna Brunini guest lectured for an undergraduate seminar at Georgetown University.
- + Tim Dunn spoke at Brandeis University's Trends in Asset Management conference on the Environmental Investing panel.
- + Tim Dunn and Julianna Brunini led a CERES Paris Working Group session on net zero investing.
- + Tim Dunn joined the [OECD Roundtable](#) on valuing water.
- + Nathaniel Schwartz led a session with the Black Venture Capital Consortium comparing private and public equity markets.
- + [Confluence Philanthropy](#) interviewed Tim Dunn for their Trailblazers Series.
- + Tim Dunn spoke on a webinar for [Traditional Fund Intelligence](#) on the impacts of ESG on investment compliance.
- + Tim Dunn was interviewed by Advisory Board Member Kathy Sullivan for her podcast series, [Kathy Sullivan Explores](#).

IX. Conclusion: Initiatives Taken on Over the Year

In 2021, Terra Alpha delivered on our commitments to both drive positive impact and implement deliberate organizational changes to allow us to accelerate our impact in the years ahead. Our portfolios, corporate engagement, and thought leadership all showed measurable benefits (e.g. lower portfolio carbon emissions, more companies committed to sustainable business practices, increased corporate disclosures, and broader acceptance of the value of sustainable investing). At the same time, our commitment to the Net Zero Asset Manager initiative and a science-based target as a financial institution will increase our ability to drive the corporate sector towards alignment with a 1.5°C global temperature target. We also formalized firm-wide initiatives regarding diversity, equity, and inclusion to reflect our long-held recognition in the value of human capital.

We are committed to deliver on our sustainable outcome goals alongside superior long-term, risk-adjusted financial outcomes for our investors. We greatly appreciate the trust our investors have placed in us as a firm and the collaborative support we have received from NGOs, academics, and peer investments firms as we progress towards the common goal of a more sustainable future.



X. Appendix

Terra Alpha Portfolio Companies Environmental Performance Data

TAI Portfolio Impact: Key Performance Indicators					
GHG Emissions	2018	2019	2020	2021	Commentary
Percent of invested AUM in companies with SBTi-validated emissions reduction targets (all investment strategies)			43%	61%	On track to achieve our targets (75% by 2025, 95% by 2030)
CO2e emissions from a \$1 million investment in Terra Alpha's diversified strategy (tonnes)	18.5	21.4	18.3	14.5	Change driven by changes in portfolio composition and changes in portfolio companies' emissions; two-year data lag on average
YOY Change	4%	16%	-15%	-20%	
Water	2018	2019	2020	2021	Commentary
Water usage from a \$1 million investment in Terra Alpha's diversified strategy (cubic meters)	2,306	2,015	1,639	1,133	Change driven by changes in portfolio composition and changes in portfolio companies' water usage; two-year data lag on average
Waste	2018	2019	2020	2021	Commentary
Waste generation from a \$1 million investment in Terra Alpha's diversified strategy (tonnes)	5.4	5.8	4.9	4.2	Change driven by changes in portfolio composition and changes in portfolio companies' waste generation; two-year data lag on average

Figure 9. Note: due to data disclosure limitations, some portfolio footprint measurements include the use of estimated data where corporate-disclosed data is unavailable.

Terra Alpha's Statement on Fossil Fuel Investing

Terra Alpha Investments supports a rapid transition to a low-carbon economy. Our firm is a signatory of the Net Zero Asset Managers initiative, through which we have committed to manage 100% of our assets under management in line with a 1.5°C temperature rise limit, based on a Science Based Targets initiative methodology. We have further committed to set firm-wide science-based targets for greenhouse gas emissions aligned with 1.5°C trajectories.

Terra Alpha has never invested in a company whose principal business is extracting, processing, or refining coal, tar sands, oil, or natural gas, because we believe such businesses will face considerable challenges in the transition to a low-carbon economy. We will not invest in companies that are expanding thermal coal production. We have and will consider investing in companies with legacy fossil fuel-dependent businesses, if they have a credible, time-bound plan to decarbonize their operations and products in line with 1.5°C pathways. Our investment strategies actively seek to identify companies across the broader economy that are working to significantly reduce their dependence on fossil fuels and/or enabling the low-carbon transition, amongst other factors.

Environmental Performance Data: Terra Alpha Investments LLC Operations

TAI LLC: Operational Impacts

GHG Emissions (tonnes CO2e)	2019	2020	Commentary
Scope 1	0	0	<i>Terra Alpha's Scope 1 emissions are negligible</i>
Scope 2 (DC Office)	9.7	7.6	<i>-22% decline driven by COVID-19 impacts</i>
Scope 2 (Work from Home)	0.3	3.6	<i>>1000% increase driven by COVID-19 impacts</i>
Sub-total: Scope 1&2	10.0	11.2	<i>Net 12% increase YOY. Committed to a science-based to reduce our absolute Scope 1&2 emissions -46% by 2030 versus 2019.</i>
Scope 3 Categories 1-14	20.2	2.8	<i>-86% decline driven by COVID-19 impacts</i>
Total	30	14	<i>Net -86% decrease YOY</i>

Water (cubic meters)	2019	2020	Commentary
Water consumption (DC Office)	183	166	<i>-9% decline driven by COVID-19 impacts</i>

Waste (tonnes)	2019	2020	Commentary
Waste generation (DC Office)	2.4	2.0	<i>-14% decline driven by COVID-19 impacts</i>

Figure 10. Source: Terra Alpha estimates.

Terra Alpha's Operational Emissions Reduction Plan

Impact Strategy

The largest portion of Terra Alpha's emissions come from our investing activities. While reducing our portfolio emissions is our top priority, it is still necessary to account for and reduce emissions that allow Terra Alpha to effectively function as an investment firm – otherwise known as operational emissions.

Terra Alpha's operational emissions are broken down into four main categories:

- + Scope 1: Direct emissions from owned or controlled sources (Source: GHG Protocol).
 - + Since Terra Alpha leases office space from a highly-efficient and fully electric building, our Scope 1 emissions are diminutive.
- + Scope 2 Office: Indirect emissions from the generation of purchased energy (Source: GHG Protocol).
 - + This includes emissions from the generation of purchased energy at Terra Alpha's office in Washington, DC.
- + Scope 2 Work From Home: Indirect emissions from the generation of purchased energy (Source: GHG Protocol).
 - + This includes emissions from the generation of purchased energy from employees' Work From Home arrangements.

- + Scope 3 Non-Portfolio Emissions (Categories 1-14): Indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions (Source: GHG Protocol).
 - + The main Scope 3 non-portfolio emissions for Terra Alpha include business travel and employee commuting.

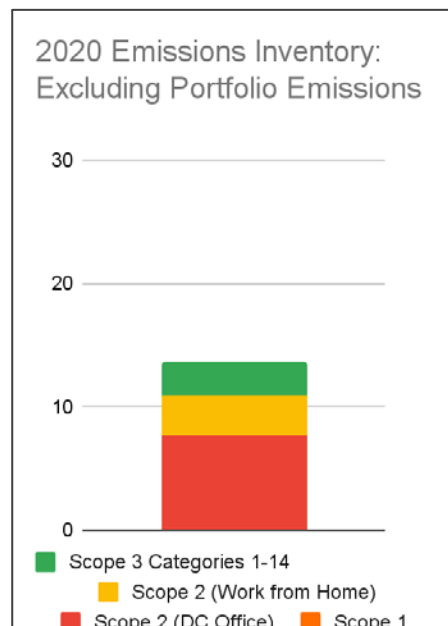
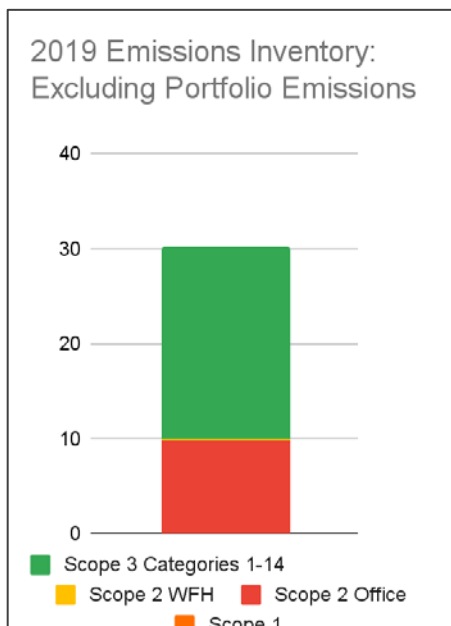


Figure 11: TAI LLC Operational GHG Inventory. Includes Scope 1, Scope 2, and 3 emissions excluding portfolio emissions (Categories 1-14). Note: 2021 data not yet available from our office building.

Clearly, the top two drivers of our firm's operational emissions are electricity consumption (DC office and working from home) and our business travel.

We have identified electricity consumption (Scope 2 emissions) as our top priority for reduction and, in accordance with the Science Based Targets initiative's guidance, set a goal of reducing our absolute emissions 46% by 2030 versus 2019.

We are in the process of developing a strategy to address business travel. It is our intention to minimize travel-related emissions through thoughtful planning and to offset unavoidable emissions.

Progress to-date

During 2021 we completed the following milestones:

1. Established processes to annually measure **Terra Alpha's operational emissions**.
2. Submitted **Scope 1 and 2 targets** to the Science Based Targets initiative for validation.
 - i. In 2021 we committed to a science-based target that requires Terra Alpha to reduce absolute Scope 1 and 2 GHG emissions by 46% by 2030 from a 2019 base year.
3. Launched the **Terra Alpha Green Team**.

In 2022, we will focus on:

- + Exploring renewable power procurement opportunities and other strategies to reduce Scope 2 electricity-related emissions,
- + Utilizing our Green Team to explore strategic avenues for reducing Scope 3 non-portfolio emissions, with a particular emphasis on business travel, and
- + Completing our annual operational emissions inventory.