WATER AND ESG: RHETORIC, REALITY, AND OPPORTUNITIES

A Report from the 2023 Aspen-Nicholas Water Forum





For all inquiries, please contact:

Energy & Environment Program

The Aspen Institute 2300 N Street NW Suite 700 Washington, DC 20037 Phone: 202.736.2933 energyandenvironment@aspeninstitute.org

Nicholas Institute for Energy, Environment & Sustainability

P.O. Box 90467 Duke University Durham, NC 27708 Phone: 919.613.1305 nicholasinstitute@duke.edu

Copyright © 2024 by The Aspen Institute

The Aspen Institute 2300 N Street NW Suite 700 Washington, DC 20037

Published in the United States of America in 2024 by the Aspen Institute and the Nicholas Institute for Energy, Environment & Sustainability

All rights reserved

Printed in the United States of America

Water and ESG: Rhetoric, Realities, and Opportunities: A Report from the 2023 Aspen-Nicholas Water Forum. 2023. Martin Doyle, Director of the Water Policy Program, Nicholas Institute for Energy, Environment & Sustainability at Duke University; Newsha Ajami, Chief Strategy and Development Officer for Research, Lawrence Berkeley National Laboratory, and Greg Gershuny, Vice President, The Aspen Institute.

WATER AND ESG: RHETORIC, REALITY, AND OPPORTUNITIES

A Report from the 2023 Aspen-Nicholas Water Forum





The Aspen Institute is an educational and policy studies organization based in Washington, D.C. Its mission is to foster leadership based on enduring values and to provide a nonpartisan venue for dealing with critical issues. The Institute has campuses in Aspen, Colorado, and on the Wye River on Maryland's Eastern Shore. It also maintains offices in New York City and has an international network of partners.

The Aspen Institute **Energy and Environment Program** provides nonpartisan leadership and a neutral forum for improving energy and environmental policymaking through values-based dialogue. The Program convenes strategic groups of experts from government, business, academia, and nonprofit organizations in dialogue structured and moderated for discussion, exploration, and consensus building. *https://aspeninstitute.org/ee*

The Nicholas Institute for Energy, Environment & Sustainability at Duke University

accelerates solutions to critical energy and environmental challenges, advancing a more just, resilient, and sustainable world. The Nicholas Institute conducts and supports actionable research and undertakes sustained engagement with policymakers, businesses, and communities—in addition to delivering transformative educational experiences to empower future leaders. The Nicholas Institute's work is aligned with the Duke Climate Commitment, which unites the university's education, research, operations, and external engagement missions to address the climate crisis. http://nicholasinstitute.duke.edu

The 2023 Aspen-Nicholas Water Forum is the twelfth water forum in the Aspen Institute and Nicholas Institute partnership. The first, in 2005, on water, sanitation, and hygiene in the developing world, produced A Silent Tsunami, which made a material contribution in advancing priorities in U.S. foreign assistance for basic water services. The report ultimately helped spur passage of the Paul Simon Water for the Poor Act. The third forum, in 2015, on water and big data, catalyzed a dialogue series that led to the 2017 report: Internet of Water: Sharing and Integrating Water Data for Sustainability whose recommendations are currently being implemented by the Internet of Water project at the Nicholas Institute. The 2020 and 2021 forums on water affordability led to a dialogue series culminating in the 2022 report: Toward a National Water Affordability Strategy. The success of these endeavors provided the impetus for additional forums focused on water concerns in the United States. https://www.aspeninstitute. org/programs/energy-and-environment-program/aspennicholaswaterforum

Table of Contents

Introduction	2
Definition and Scope of Water In ESG	3
What is ESG?	3
Benefits of ESG	4
Challenges of ESG	4
Water In ESG	6
Past Challenges With Water In ESG	6
Why Is Water Not More Prominent In ESG Data?	6
How the Water Sector and Community Can Engage with ESG Processes	7
How the Water Sector and Community Can Engage with ESG Processes	7
How the Water Sector and Community Can Engage with ESG Processes	7 8 9
How the Water Sector and Community Can Engage with ESG Processes Government Programs And ESG Looking to a Future of Water and ESG Potential Near Term Futures For Water And ESG.	7 8 9 9
How the Water Sector and Community Can Engage with ESG Processes Government Programs And ESG Looking to a Future of Water and ESG Potential Near Term Futures For Water And ESG Long-Term Challenges	7 8 9 9 9
How the Water Sector and Community Can Engage with ESG Processes	7 8 9 9 9 9

Introduction: Water & ESG

September 2023

In 2004, the United Nations released a report that introduced the concept of linking investment markets and sustainability goals. The proposal aimed to improve the integration of social, environmental, and governance (ESG) requirements and objectives into financial decision-making across different scales to better inform asset management, securities brokerage services and associated research functions. Today, ESG has evolved into a catch-all phrase, wielded to represent the intersection of financial considerations with broader, non-financial objectives. It has been envisioned as a way to either inform financial decisions with a greater breadth of considerations or alternatively, to shape the deployment of capital in more positive and targeted ways. These goals are quite different, and their differences have impacted the effectiveness of ESG standards in achieving their lofty goals.

In the development of these standards, effectiveness not-withstanding, water has not been well represented. Despite the centrality of water to the environment, as well as to communities and society broadly, water has simply been overlooked in ESG goal-setting processes, analyses, or frameworks.

The objective of the forum was to explore why this has been the case, and what might be the opportunities, or risks, of greater inclusion of water into ESG generally. Further, participants discussed how ESG does, and does not intersect with water, and what the challenges or opportunities might be.

Definition and Scope of Water in ESG

What is ESG?

While the forum was focused on water, specifically, there was considerable discussion about ESG more broadly. The continued return to this wider discussion reflected the substantial uncertainty about what ESG actually is, and what it is not, regardless of its intersection with water. ESG in some ways is the next step in bringing additional, non-financial considerations into 'business as usual.' It follows behind a number of efforts to bring environmental concerns (specifically related to water) and social priorities into the private sector and in some ways gives the private sector a chance to mitigate its social, environmental, and governance impacts. Initially, this was done via regulatory compliance, which remains the most ubiquitous and durable mechanism for ensuring environmental and social goals are met in the private sector. Thus, the public sector played a significant role in shaping how water was managed by the private sector. Environmental impact statements were also part of the evolution of the environment-business intersection, as was environmental stewardship as a risk management strategy, whether to ensure stable supply chains for critical resources or to manage reputational risk ie., how to manage multiple types of risk and thus have the social license to operate). There have been other efforts to blend public good with private interests as well, such as corporate sustainability strategies and socially responsible investing among others.

As the risks and impacts of climate change have notably increased in the past decade and the role of the private sector in affecting emission levels has become increasingly clear, ESG strategies have focused even more on climate mitigation strategies, delving into renewable energy development, emissions reduction, and carbon management, often sidelining the critical aspect of climate adaptation where water-related challenges frequently arise.

From these different histories and societal trajectories, ESG has been conflated and adapted to mean multiple things to different audiences and has been characterized by a lack of proper criteria and a benchmarking framework. The forum participants noted two realms in particular that were often conflictingly claiming the ESG moniker: ESG as data and information for risk evaluation, and ESG as a mechanism to steer investment toward social and environmental change. Or more directly, ESG for data to evaluate risk exposure, or ESG for impact investing.

There was a sense at the forum that the ESG discussion should be steered away from impact investing and should instead stay fully in the sphere of bringing broader data to corporate and financial decisions. Indeed, participants who were actively engaged in ESG in various sectors were fairly consistent in stating often that "ESG is just data."

Whether this is data about climate (e.g., precipitation, groundwater levels), the community (water affordability, equity of access), or regulations and policies (e.g., PFAS regulation), ESG provides data. From this point, there are many different goals, philosophies, etc. that can be applied to the data, or lenses through which to view the data, and this variety of uses of data creates additional confusion especially when there are no standard targets towards which the data is collected. For instance, there are specific funds, financial products, and portfolios that advertise or claim to have some type of additional environmental or social good related to water; that is, funds are used proactively to drive change such that water is more sustainability managed in the future. This would be similar to socially responsible investment or values-based investment, but using water as the centralizing theme. Alternatively, funds (or businesses) may advertise that they use greater amounts of, or specific types of data to understand how changes create risks that would be underappreciated otherwise.

While these types of investment strategies or products exist, forum participants focused on how ESG information allows for more fully informed investing or corporate management decisions. The value of ESG data then is that if consistently collected and analyzed, it can be used to design a benchmark from which to monitor the progress of a particular company toward its goals, or a benchmark for comparing different companies, locations, or portfolios. Such benchmarks, if and when set, can then be used to prioritize the allocation of resources.

ESG as a means of reporting and reflection was thought by participants to be a generally positive development in corporate America. Even if the data and interpretations are not made public, the fact that investors, asset managers, and private corporations are collecting and distilling ESG data, could lead to a better appreciation of the non-financial considerations of decisions and how sustainability may affect long-term financial returns.

One of the more notable signs of ESG becoming a part of broader sources of information is that the primary credit rating agencies (e.g., S&P, Moody's, Fitch) have developed or are developing ESG measures for a range of different types of credit issuers including states, municipalities (e.g., cities, counties, public utilities) and private corporations. Rating agencies play a critical role in informing how capital is allocated in the U.S., and so the inclusion of ESG factors in rating public debt is an important signal of its rising importance generally. When credit rating agencies evaluate ESG risk, they consider concrete actions by bond issuers (including water utilities) to address ESG-related risks. In this context, the purpose of the ESG information is to inform investors on the various risks related to that credit issuance.

Benefits of ESG

Despite its shortcomings, participants generally saw the rising attention to and use of ESG as a positive development and that this was particularly true for water in ESG. Pragmatically, ESG frameworks have caused a broad range of analysts to structure water-related data and information in a way that is less nebulous or qualitative than past efforts.

Investments related to water often have a strong correlation with infrastructure. Debt markets related to infrastructure are dependent on fixed assets. The bond markets assume assets and liabilities indicate a certain level of sustainability. Incorporating a better understanding of the impact of climate change on these fixed assets, and how social dynamics are affecting communities that rely on (an pay for) such fixed assets provides a far more realistic lens to view the economy and financial decisions. That is, considering ESG provides highly useful information on what are now, and will increasingly be, material risks.

Forum participants had the sense that in its current form, ESG has been successful in encouraging investors and the private sector to think about a broader suite of issues, including water. While the private sector may not be succeeding yet, as described below, many across the private sector are now at least trying. More data, more attention, and more resources will eventually increase insight, and at a minimum, more informed people into greater awareness of water across sectors. What is still missing, though, is better and more clear benchmarks to utilize the current data and inform decision-making around water.

Challenges of ESG

ESG has faced a series of challenges, some perennial and some unexpected. Most notably of these enduring challenges, has been transforming data into actual information and knowledge in a way that affects decision-making, particularly related to water data.

As mentioned earlier, ESG has also functioned as a means for the private sector to reduce the severity of the market impact on water resources. Several participants noted, cynically, that ESG has been treated as a good marketing tool to bring in new cash from new investors. Indeed, some participants shared that ESG seemed to have been co-opted by private investors. And worse, in some cases, ESG has been mostly employed as a tool for large corporations or entire sectors to enter the mainstream through virtue signaling.

ESG often intends to affect and inform investors, private capital, and corporations. When we center fiduciary responsibility, however, including when we use ESG to provide better risk-related insights, we are centering a small group of people and we avoid solving bigger problems. This practice of catering to the private sector frustrates a broad swath of society, including many forum participants who are producing data that is used in developing ESG measures. ESG has also attracted enormous political pushback on both sides of the political aisle, from community and environmental advocates to free-market advocates. As several forum participants noted, "ESG politics have become incredibly toxic." Indeed, there was a general sense that the politics around ESG have become so controversial that a rebranding would be wise simply to depoliticize the underlying intent as much as possible.

Aside from these broader challenges, one particularly problematic aspect of ESG that was raised by many participants was that when used for risk evaluation, ESG creates a self-perpetuating feedback loop. The S (social) component is the vast majority of what is moving the ESG risk analysis; poor, under-resourced communities that struggle with things like low property values, unaffordable water, and low-incomes, are often the ones scoring poorly on most ESG risk metrics. This means that ESG-based risk scores mark such under-resourced communities as particularly risky, with the effect being to steer investors away from these communities, and thus, raising the cost of capital for those communities. As one participant noted bluntly, "ESG has an affluence bias." In the case of water, Clean Water Act (CWA) violations, Safe Drinking Water Act (SDWA) violations, infrastructure quality, lead, and the affordability of services are all accounted for in ESG metrics and thus considered by investors. While it is generally good for the financial sector to be more aware of these metrics, if a community does not perform well on them, they are "punished by ESG." Jackson, Mississippi was raised as an example of this challenge in action, as few ESG-based investors would consider investing in Jackson or similar cities with poor water metrics and limited economic or population growth; that is, Jackson and similar cities are not a good ESG investment in the current ESG, risk-focused paradigm. The challenge for ESG then becomes how to adjust this approach to avoid perpetually punishing poor communities while rewarding wealthy communities. Especially as some benefits do exist as ESG data might influence sustainable actions within communities dealing with water challenges, for instance prompting initiatives like replenishing a groundwater basin to mitigate the impact of local business activities on water availability and scarcity in the area.

Water in ESG

Past Challenges with Water in ESG

Participants agreed that water has typically been excluded from the ESG data stream. While it appears in some ESG criteria, water is not a central aspect and has generally not been considered by ESG developers. When water is included in ESG, it is often through mechanisms that translate easily with the "carbon world." This mindset has resulted in the prevalence of "water footprinting" discussions and ambitions around "net zero" for water. Essentially, the climate mitigation community is leading water-related ESG-framework efforts, and broader sustainability strategies are dominated by carbon, particularly focusing on reducing emissions. Water is a distant second, third or even fourth consideration at best. Nevertheless, water is a critical input for many sectors, particularly agriculture and energy, and should therefore receive considerable attention, but it simply has not.

Why is water not more prominent in ESG data?

There are numerous reasons for the slow incorporation of water into ESG frameworks, but two specific challenges emerge consistently in discussions of ESG:

Water is many different things. Water in any risk-related framework can mean scarcity (droughts) or surplus (floods). Challenges related to water can also fall across an even wider swath of quality-related measures, whether ambient water quality, potability, or equity of access. The parameters and data related to quality can vary from sensor-based nitrogen measurements in large reservoirs to the potential toxicity of drinking water coming from taps in a household. It can also fall under inadequate and poorly maintained assets and infrastructure, which can impact both the quality and quantity of water. That is, even within one silo, water measurements can vary in ways that are nearly impossible to combine. Water also holds cultural and religious meaning, whether for Native American tribes in the U.S. or for rural, agriculture-based communities. These social dimensions are critical, but impossible to capture through measurements and metrics. For these reasons, capturing "water" in a way that can be either interchangeable or contained into single ESG measures or ratings that capture these various dimensions is challenging at best.

Water is local. While greenhouse gasses are interchangeable across continents, water availability in one watershed may be completely irrelevant to the immediately adjacent watershed. This is true for water at the scale of utilities as well; while Jackson, Mississippi had a water crisis in 2022, water utilities in the immediately surrounding suburbs in the Jackson metropolitan region were immune from the crisis. This geographical specificity of water pushes back against the desire to scale ESG measures across broad geographies, potentially expanding to multinational corporations.

Because of these many dimensions, water data often needs translation that is highly nuanced and specific. Many participants noted that it is just not possible to take water data and make sense of it in a vacuum, without local, environmental, and social context. To capture it succinctly, "water makes greenhouse gas emissions look very easy."

How the Water Sector/Community Can Engage with the ESG Process

Though there were general concerns about how water is included into ESG frameworks, there was consensus that water should continue to be incorporated in large part because "**ESG is not going anywhere**." Because of the widespread adoption of ESG, it is likely to be durable as a lens for incorporating non-financial factors into financial decisions. Indeed, ESG frameworks could be a mechanism to increase the consideration of and investment in water. If effective, ESG frameworks could exist as tools to drive innovation, investment, and effective water stewardship. ESG can be particularly valuable in increasing companies' awareness of their exposure to water risk (and impact on water) and potentially direct them toward water-informed decision making processes. Thus, ESG can serve as an opportunity to increase the "profile" of water in affecting decisions where it is normally ignored altogether.

To increase engagement and improve outcomes, the water sector and community needs to be more present in the formation of ESG frameworks and standard and benchmark setting. The water community must recognize that the intent of these frameworks is to generalize as much as possible across geographies, sectors, and scales. The greater capability to translate water data and information into comprehensive frameworks, the greater the probability that water will be included in ESG considerations going forward. This inclusion will significantly impact decision-making processes and the potential positive outcomes that could be harnessed. However, the water community's concerns when engaging ESG frameworks is that such frameworks produce little actual information, and potentially downplay the real risks, concerns, and opportunities related to water sustainability.

One example of meaningful measures and meaningful scales fitting together is the push toward water reuse in waterintensive industries. ESG frameworks that are developed for specific sectors (e.g., oil/gas) in specific geographic areas can provide very useful insight to individual companies in specific locations or regions. That is, in these specific cases for a narrow set of applications, ESG is moving the needle with companies and acting as a motivating factor, with ESG metrics providing insights into the reality on the ground. Companies are using ESG-driven data and insights to understand how and where to invest in water sustainability, or in this specific case, in industrial water reuse.

However, the data and insight that is useful at these types of sector-specific or region-specific scales is not necessarily useful for communicating to a broader market or shareholders. Typically, ESG metrics are scaled out to broad geographies, often global, and converted to generic metrics to be incorporated into frameworks that compare all water impacts across all geographies. For example, risks related to industrial water in Texas would need to be made parallel in some way to risks from degraded water quality for chip manufacturers in Oregon or Malaysia. The challenge is that for ESG related data to be actually useful for decision-making, the data needs to be able to speak to attributes of an entity's operations that could be at risk due to water, or alternatively, could be adjusted in a way as to increase sustainability (and thus reduce long-term risk). However, this granularity and specificity would reduce the usefulness of the data and framework for broader scales and purposes, such as philanthropy or impact investment. The exact aspects that the ESG community seeks - generalizability in topic and geography - are the characteristics that are particularly nuanced and difficult about water generally.

Even with these challenges, there are aspects of water data that come out of ESG that are important for the water community to consider. The first aspect is materiality, or how a metric conveys actual water-related risk at the scale of consideration. The second aspect is decision-usefulness, referring to practical and tangible applications.

Government Programs and ESG

One avenue through which ESG principles have already aligned with the water sector in the past is through government programs and grants. In fact, there is an argument to be made that government grant and funding programs could be considered the original impact investors (recognizing that these are public dollars rather than private). For example, in the early 20th century, the Reclamation Fund provided below-market loans (e.g., over thirty-year terms; 0% financing) for irrigation infrastructure and power projects. Similarly, since the 1990s, the Environmental Protection Agency (EPA) has used State Revolving Funds (SRFs) to provide below-market financing for drinking water and clean water infrastructure. These two programs used different approaches to assess applications and thus allocate funds for certain utilities over others. When government programs prioritize green infrastructure, recycled water, EJ communities, and other similar priorities, they are acting as ESG-like investors. In fact, if you summed up the SRF fund – it would be the 16th largest commercial bank in the world with impact-investing goals.

There is growing recognition, though, that the impact of these government loan programs could be much improved for greater impact. For example, SRFs have been around for several decades, but only 10% of communities in the United States have ever successfully received an SRF loan. By broadening the scoring and eligibility criteria for applicants, and being more intentional about reaching underserved communities, federal and state governments could achieve greater impact from these types of programs.

To broaden this impact, federal and state governments will need access to different kinds of data and information. Like in the private sector, ESG driven by the government is also powered by data and information. For example, the EPA wanted to change its definitions of disadvantaged communities and bake these definitions into the new policies and priorities of the Biden Administration. To do so, the EPA SRF program began asking how more transparency and uniformity could be brought into the SRFs, as well as how the EPA could provide more technical assistance to ensure that all communities have access to these sources of subsidized funding.

There is a general sense that the EPA, and other federal agency loan programs (e.g., WIFIA, TIFIA, Bureau of Reclamation, and USDA) could provide valuable insights to the private sector on where opportunities for impact investment might exist and vice versa, where data and information methods used by the private sector might be translated to the public sector.

In sum, there was recognition that both the public and private sectors are engaged in utilizing ESG mindsets for considering how and where to make investments, but the private sector is more likely to use ESG frameworks to evaluate risks rather than to identify investment opportunities.

Looking to a Future of Water & ESG

Potential Near-Term Futures for Water & ESG

As participants looked forward, there was a sense that ESG represents a growing philosophy or mindset rather than a final endpoint. Participants with corporate backgrounds suggested their sector is aspirational, and ESG gives them a label or framework for that aspiration. While not ideal, this is another step in moving the corporate sector toward water sustainability and equity, if water can be more explicitly benchmarked in the process.

Meanwhile, participants from the finance sector noted a rapid decline in ESG proposals in 2023 compared to previous years, with major investment groups, including BlackRock and Vanguard, witnessing stark declines in support for ESG proposals and related investments. Nevertheless, participants felt that despite its many flaws, ESG will "get a rebrand" and will continue to exist as a risk management framework. Within the finance sector, ESG is already deeply ingrained and has been adopted as part of a risk-evaluation toolset. It is also important to note that in 2023, the European Union adopted Corporate Sustainability reporting, requiring all EU and non-EU companies that operate within the EU to file annual sustainability reporting. Water resources were identified as one of the five main standards of this reporting regulation. This can ultimately have a ripple effect in the U.S. regarding the tracking and implementation of ESG, particularly water standards.

Participants observed that asset allocation acts as a method for organizations and individual investors to vote on the future; therefore, water becomes a fundamental aspect of future visioning when included in ESG risk and asset allocation. Rating agencies who are developing ESG frameworks will continue to shape asset allocation in this manner, and given the resources that have previously been allocated to ESG by credit rating agencies, these frameworks are likely to be used for some time.

Participants from the public sector, particularly utilities, noted that ESG frameworks are a novel concept to them. While the private sector remains cynical about its usefulness, municipal water utilities find ESG frameworks to be useful mechanisms for communicating with customers and regulators. Indeed, water utilities are now engaging with ESG frameworks and data platforms to show their communities and elected officials how they are progressing, where they are doing well, and where they need to improve. They are also finding what the private sector discovered: while ESG has its flaws, it does help communicate about the value and risks involved in water.

Long-Term Challenges

There are some long-term challenges for effectively incorporating water within ESG frameworks. One such challenge is for ESG frameworks to address where water challenges are most severe. For instance, to address water needs in the Western U.S., ESG frameworks must consider the role of water use for agriculture. If ESG frameworks are unable to more effectively identify water withdrawal-related risk to agriculture, and how that risk translates into other systems (e.g., the food and beverage industry), then the value of ESG frameworks would be questionable altogether. Another key challenge for ESG frameworks is to accurately convey the complexity of water; while water withdrawals are an acute challenge in some regions, water quality, flooding, contaminants, or species loss are key risks in others. Determining which risks and opportunities are present in the sector will remain important and long-term challenges for any ESG framework.

Another challenge will be to ensure that ESG frameworks do not negatively impact the communities that they are meant to benefit. How do we ensure ESG frameworks don't further marginalize or impact already under-resourced communities? Under-resourced communities are likely to be less able to collect, curate, and convey meaningful data about themselves while wealthy communities are better positioned to more easily provide data that presents themselves in a positive and less risky light. This reality will allow wealthy communities to shape the data in ways that potentially benefit them, while under-resourced communities are more likely to then suffer from the opposite.

Finally, the water community in general will need to determine how to build an ESG model that actually rewards sustainability, broadly defined. Forum participants emphasized questions about what an ESG framework might need to include so that more capital is meaningfully directed to under-invested communities, water conservation and recycling, and risk-reducing development. However, participants also noted that this type of broader vision of the future is being constrained in the U.S. by an overall limited nationwide priority on water sustainability, and even visions or strategies for water in the future.

A National Water Strategy?

The discussion of water and ESG raised a perennial topic that emerges quite regularly at the Aspen-Nicholas Water Forum: **the need for a national water strategy.** Throughout the meeting, many participants expressed their overarching concern as more conceptual, or philosophical: that incorporating water into ESG frameworks would be yet another data-based method by which poor communities are punished while wealthy communities benefit. They viewed this as an almost inevitable outcome of the private sector shaping the ESG approach to be a definitive framework for evaluating communities and the risk of water associated with those communities. A subset of participants began to question whether this inevitability was the result of the lack of some broader water strategy, perhaps along the lines of a national water strategy. In this perspective, the public sector is better suited to weigh complex risks, or the multiple benefits that water sustainability provides across communities or society generally.

Several participants suggested that we first need overarching national and state-level water strategies that will set the guardrails for water sustainability beyond the interests of financial institutions or corporations. Participants noted that, even if not fully realized, the threat of regulation has been a driver for success on carbon on the ESG side; and broader or more general regulation or policy in water may be needed for sustainability to be realized. That is, a framework for water at the national and state level may be needed in order for some form of water-centric ESG frameworks to be meaningful. Indeed, ESG may be a good model to provide some frameworks for state or national water strategies to build on. At a minimum, the ESG movement may be most valuable over the long-term by providing a data and reporting strategy that can underlie a national water strategy, while establishing a series of meaningful standards and benchmarks.

APPENDIX: Forum Agenda

WATER AND ESG: RHETORIC, REALITY, AND OPPORTUNITIES September 10-13th, 2023 | Aspen, Colorado

The **2023 Aspen-Nicholas Water Forum** will focus on Water and ESG. The growing interest in both ESG-integrated and impact-oriented investing raises questions about how to best incorporate measures of water into risk evaluations and ESG scoring methodologies. We will draw on the variety of ways in which water might influence ESG scoring, as it crosses environmental, social and governance dimensions. Our forum will also be intentional in unearthing the benefits and drawbacks of using ESG frameworks, with particular attention to the controversies surrounding ESG labeling and scoring.

This forum will continue the ongoing Aspen-Nicholas Water Forum theme of, "What does good water governance look like for the United States?" The Aspen-Nicholas Water Forum seeks dialogue that will probe how we as a society can balance the competing demands of equity with liberty, and community with efficiency.

SESSION ONE: The Scope of ESG

What are concepts of ESG? What is the origin story of ESG, what gaps was it filling, and what can we learn from that? Was/ is ESG filling a gap that government or industry was not filling? Trends in growth over time; breadth that exists. Reach of ESG in different sectors. Generally, what is ESG and how should we be conceiving it?

SESSION TWO: How Has Water Fit (or Not) into ESG to Date?

ESG processes and products often contain water in some form, but how water appears in ESG varies; indeed it is often non-existent. In this session, we will explore how water has appeared in ESG. One quick reality is that water is one of many factors considered in public debt, and so it is difficult for specific challenges or problems to be substantial enough to 'move the needle' on a cumulative ESG measure.

SESSION THREE: Federal Water Investments as ESG Investments

The federal government is investing in major infrastructure programs and projects across the US. Much of this investment is in climate and energy, but also in water specifically. Federal investments also enable ESG investments and related activities by the private sector, whether through SRF programs or through new investments in technological innovation. This session will focus on the investments being made by the federal government specific to water, as well as in areas adjacent to water, and how water is (or is not) benefitting or affecting those federal investment priorities. It will also focus on how ESG priorities can be advanced through partnerships with federal government programs.

SESSION FOUR: Why ESG instead Water Sustainability/Stewardship?

ESG is a reporting framework with the assumption that information can inform the market in a way that corrects for factors that have not been sufficiently accounted for to date by either regulations or other market mechanisms. Why has the private sector - whether manufacturers, asset managers, or construction firms - not had sufficient incentive to consider and manage water as part of their practices prior?

SESSION FIVE: What Should, or Could, Be the Goal of Including Water in ESG?

If ESG is a growing framework for data gathering and information provision, and if a growing diversity of sectors includes it, then how can water be included in ways that provide meaningful insights? Current ESG tools are at scales that become misleading or rely on poor surrogates of the relevant issues. What are the benefits of including water in ESG frames, and what are the risks? Could the water sector set out goals that increase the potential for meaningful measures of ESG? Are sufficient data available for these goals?

SESSION SIX: Role and Interests of Stakeholders

Most ESG frameworks are derived from data and insights that are about a community but not from a community. Yet communities are highly affected by ESG scores about them. How are communities, ecosystems, or local interests being considered or incorporated into ESG frameworks or databases? How can we ensure that ESG is not just another tool with which under-resourced communities are further marginalized?

SESSION SEVEN: Is There a North Star for Water in ESG?

If we assume that ESGs will exist, and grow in scope and importance, and if we assume that water will be incorporated into them, then what are some foundational principles for water in ESG? How should the interests of communities be represented? Can investors be given meaningful information about water? In a world awash in data, but often not the right data, what is the role of data and analytics?

CLOSING SESSION: Wrap Up

