Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Gabelli PFAS Symposium
September 28, 2023

Source: FDA.gov, company websites

Tony Bancroft
(914) 921-5083

Brett Kearney, CFA
(914) 921-8317

Rosemarie Morbelli, CFA
(914) 921-7757

Wayne Pinsent, CFA
(914) 921-8352

Rebecca Stern, PhD
(914) 921-7717

Tim Winter, CFA
(314) 238-1314

-Please Refer To Important Disclosures On The Last Page Of This Report-

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Gabelli PFAS Symposium

Our team hosted a PFAS Symposium on September 28, 2023 focusing on the impacts of "forever chemicals," pending regulations, and coming solutions to address the environmental and human health concerns. A total of thirteen companies participated, including specialty mineral and materials companies, consulting and engineering firms, water utilities, and waste companies.

Lieutenant Colonel Tony Bancroft, USMCR joined GAMCO in 2009 as a research analyst covering companies in the aerospace sectors and environmental services, focusing on suppliers to the commercial, military and regional aircraft industry and waste services. He hosts two annual conferences for the firm: the Aerospace & Defense Conference, and the Environmental Services Symposium. Tony graduated from the United States Naval Academy with a B.S. in Systems Engineering and an M.B.A. in Finance and Economics from Columbia Business School. Previously, Tony served in the United States Marine Corps as an F/A-18 pilot.

Brett Kearney, CFA joined Gabelli Funds in June 2017 as a research analyst covering industrial pump, valve, and motor companies. He began his career as a credit analyst, working for a total of over six years in the Bond & Corporate Finance Group at John Hancock and at Fidus Mezzanine Capital. Brett graduated cum laude from Washington & Lee University with a B.S. degree in Business Administration and received an M.B.A from Columbia Business School, where he participated in the school's Value Investing Program, and is a CFA charterholder.

Rosemarie J. Morbelli, CFA, is a Senior Vice President and research analyst at Gabelli Funds. She initially joined Gabelli & Company, Inc.'s institutional brokerage business in 2011, assuming research coverage of the specialty chemical industry.

Rosemarie spent nearly 30 years with Ingalls & Snyder, becoming a Limited Partner in 1994. While at I&S, she was named "Best on the Street" and the "Best of the Boutique and Regionals" by Institutional Investor. Following earlier nominations, she was recognized as the #1 Stock Picker in Thompson Reuter's 2019 StarMine Analyst Awards. Rosemarie has served as the President and Treasurer of the Chemical Specialists Group and is a graduate of the University of Grenoble, France with a Bachelor Degree in Natural Sciences, and is a CFA charterholder.

Wayne C. Pinsent, CFA, is Director of Research and analyst covering specialty chemicals and real estate, with a focus on lithium and agriculture. Since joining the firm in 2008 he has held various investment and management positions, including Director of Research of the firm's affiliated sell side brokerage. Previously he was a financial writer and has been published in Investopedia, Forbes, Yahoo Finance, among others.

Wayne holds a BA in economics from New York University and is a CFA charterholder.

Rebecca Stern joined the firm in 2022 and contributes to its sustainability efforts. Prior to that, she was a fellow at the Harvard Kennedy School and an employee of GAMCO in mutual funds from 2012-2015. Rebecca's undergraduate degree is from Yale University in environmental studies and political science. She holds a PhD from Harvard University in environmental engineering.

Timothy Winter, CFA, is a portfolio manager of The Gabelli Utilities Fund, The Gabelli Utilities Trust and The Gabelli Global Utility & Income Trust and a research analyst covering the utilities industry. He joined the firm in 2009 and has over 25 years of industry experience. Previously he served over 15 years as a research analyst covering utilities at AG Edwards as well as Jesup & Lamont and SM Research.

Tim has received numerous awards and recognition for his work in the industry. He was a three-time All-Star Wall Street Journal winner and five-time ranked number one Electric Utility Team by Institutional Investor. In 2018 he received Thomson Reuter's US Analyst Award and was ranked the number one stock picker in the electric utility sector and water utility sector and number two in the gas utility sector.

Tim holds a BA in economics from Rollins College and an MBA in finance from Notre Dame. He is a CFA charterholder.

Michael Burgio is a research analyst and covers the Aerospace & Defense and Environmental Services sectors. He joined GAMCO in 2022 after graduating from Boston College, where he earned a B.S. in Finance at the Carroll School of Management.

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Introduction

As concerns have grown over PFAS and their perceived health and environmental issues, on September 28, 2023, we hosted our First PFAS Symposium at the Harvard Club in New York. The focus was on existing technologies and the potential for future technologies in remediating these "forever chemicals." The name is due to the strong bond between the chain of carbon atoms and one atom of fluorine which does not degrade easily in the environment.

Origins of the "Forever Chemicals"

The compounds were invented in the late 1930s as the main ingredient in non-stick and waterproofing coatings. They were first manufactured by 3M and initially used to protect military equipment from the elements. Industrial usage began in the 1940s when DuPont introduced them as Teflon for non-stick cookware. Their development increased in the late 1960s after a deadly fire aboard a US Navy, Aircraft Carrier, killed more than 100 individuals.

Exhibit 1

Source: Google images, Gabelli Funds

PFAS became widely used in products such as fire-fighting foams, a key area of EPA focus due to their extensive use at military bases, airports, and in firefighting activities. In addition to firefighting foams, their oil-stain resistance and water-proofing properties have resulted in widespread use. They are in water resistant textiles, stain resistant furniture and carpets, as well as in paints and cosmetics, among other consumer applications. They are also found in packaging used by fast food restaurants, as well as in sandwich wraps, pizza boxes, and other packaging for greasy food.

Possible Sources of Contamination

Firefighting foams, in particular, seep into the ground and can eventually reach the water table. They can also be carried to surface water, such as rivers and lakes, by rain. In addition, most of the PFAS-containing items mentioned above eventually end up in landfills, from which they may leach into the ground and into the water table.

There are thousands of carbon-fluorine PFAS with different properties and applications, which depend on the number of carbon and fluorine atoms, as well as the presence of additional components.

Exhibit 2 – Possible Sources of Groundwater Contamination

Source: SCS Engineers

Perceived Health Issues

While PFAS consists of a broad group of thousands of chemicals, a handful of them have been linked to health issues. Studies show that the chemicals have found their way into our environment, drinking water, food supply, and into our bodies. PFAS have been detected in the bloodstream of approximately 98% of all Americans tested. The chemicals can enter the food chain in various ways and, over time, gradually accumulate into our bodies.

The most common and dangerous compounds are PFOAs and PFOS, which have been extensively studied, especially due to their presence in drinking water. They have been linked to health conditions including kidney and testicular cancers, a weakened immune system, thyroid disease, high cholesterol, and low birth weight in babies, to name a few. Having found their way into the food supply via crop products, dairy, and livestock, PFAS above acceptable levels have been detected in cows' milk, animal feed, and cereals, among other categories.

The amount of contamination is extensive, persistent, and toxic at a very low level. In 2006, the industry agreed to phase out C8; first out of carpets, followed by paper, and more recently out of textiles. However, PFAS are still on hard surfaces and construction materials such as grout and fiberboard. While some have been replaced by shorter carbon chains, they may present similar issues to those from the longer carbon chains.

Separately in July 2023, a study from the U.S. Geological Survey (USGS) captured headlines when it found that nearly one-half of the country's tap water may contain PFAS. In the study, 45% of samples that were tested found levels higher than the proposed 4 parts per trillion. We note that, while the U.S. is taking steps on the issues, this is a global problem, and no other country has issued specific regulations to date.

Proposed Regulations and Actions

As concerns over their prevalence and associated potential health risks have grown, regulators have begun to zone in on the issue. On March 14th, the EPA made major headline when it announced its proposed national standards for drinking water. The preliminary proposal limits the two most common PFAS compounds, PFOA and PFOS, to just four parts per trillion (ppt). This is the lowest detectable level using current technology, which essentially requires the elimination of any trace of PFAS. In addition, four other types of PFAS are being studied, and could be regulated as a group in the future with similar standards. The final EPA ruling is expected by late this year or early 2024. Once adopted, water providers and utilities will have three years to comply, which will require them to update their systems by late 2026/early 2027. This, the first official government action on PFAS, was the main topic of the symposium; the presentations focused on the companies' respective new technologies, each aiming to remove the chemicals from the environment.

Also in focus was the potential for EPA designation of PFAS as hazardous materials under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and under the Resource Conservation and Recovery Act (RCRA). CERCLA authorizes the President to respond to releases or potential releases of hazardous materials into the environment, and RCRA gives the EPA the authority to control hazardous waste from cradle to grave.

The EPA pushed the timeline for the final rule for CERCLA designation back to February 2024 from August 2023, but should they designate PFAS as a covered hazardous substance, any entity that handles PFAS would become liable for the recovery and remediation costs of potential environmental releases. This would require additional actions from waste management companies to avoid seepage from landfills and the subsequent contamination of ground water, and from any user of PFAS materials to employ services for hazardous waste and internal controls.

In addition, large settlements with former PFAS producers were recently announced. DuPont (DD), and its spin-offs Chemours (CC) and Corteva (CTVA) have settled with the US Water Systems for $1.2B. Shortly thereafter, 3M (MMM) agreed to a preliminary settlement of $10.3B. We note that contamination outside the drinking water systems is excluded from the above settlements.

Large manufacturers stopped producing the long carbon chains (C8) PFAS; however, there are no official government bans, and they are still produced in India, China, and other countries. As a result, they find their way back to the US via imports of products made overseas, and end-up into the environment when discarded.

Market Size

While the market size is currently a moving target, AECOM estimates that the PFAS-related liabilities could amount to $250B on a global basis. This includes efforts to remediate, contain, and destroy the chemicals, as well as finding suitable substitutes in order to eliminate the use of these materials. The Infrastructure Bill has $10B set aside for PFAS, an amount not nearly enough to solve the major problems created by the existing contamination. According to American Water Works, it may require $1B of capital expenditure to install the necessary remediation system, followed by $50M for annual maintenance expenses.

Potential Solutions

While we touched on several established technologies used for PFAS remediation in our June whitepaper, the Symposium featured a deep dive into both current technologies and novel technologies for both remediation and destruction. They include Activated Carbon, which adsorbs the pollutants from a stream of water going through an activated carbon column; Membrane Filtration, which uses either nanofiltration or reverse osmosis; and Ion Exchange, where a specialty resin filters out and holds onto the contaminants. During the Symposium, we learned about newer technologies such as Supercritical Water Oxidation, FLUORO-SORB, and DE-FLUORO, among others.

Summary

The thirteen participating companies introduced us to multiple perspectives and potential solutions for this growing environmental and health concern. We heard from Specialty Minerals and Remediation companies with new technologies and systems; Water Utilities with leading R&D activity focusing on the adoption of more stringent testing and filtration systems; and Waste Management companies whose focus is on capturing, containing, and remediating PFAS contaminants. The participating companies will see increased opportunities to leverage these technologies and expertise in the coming years as regulations are adopted and the impacts of PFAS are addressed. Overall, the very interesting and informative day focused on multiple solutions to tackle this important environmental issue.

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

374Water, Inc. (SCWO - $1.78 - NASDAQ) PFAS Symposium Highlights

Year	EPS	P/E
2022A	$(0.04)	NM
2021A	(0.03)	NM

Dividend: None Current Return: Nil
Shares O/S: 132.7 million
52-Week Range: $5.17 – $1.18

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

Headquartered in Durham, North Carolina, 374Water is a global cleantech technology provider which addresses environmental pollution challenges. It develops a waste stream treatment system based on supercritical water oxidation technology. 374Water, Inc. transforms wet wastes, including sewage sludge, biosolids, food waste, hazardous and non-hazardous waste, and forever chemicals, into recoverable resources in the United States.

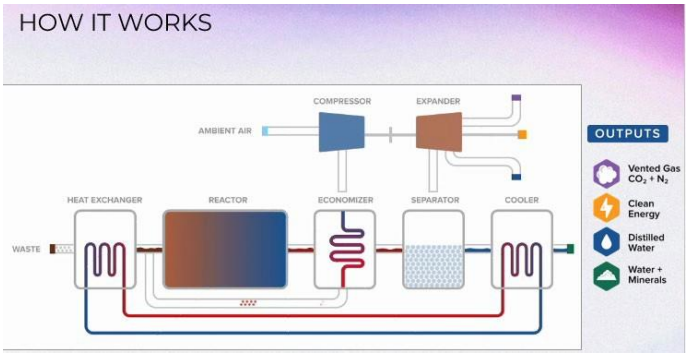
The company offers AirSCWO systems, a waste stream treatment system based on supercritical water oxidation technology that are used to treat various hazardous and non-hazardous waste streams. It serves multiple end-markets including agricultural, defense, food and beverage, oil & gas, chemicals, pharmaceutical, waste management and remediation, as well as municipal markets.

Reason For Comment

The following are key takeaways from 374Water's Chief Financial Officer Israel Abitbol and Senior VP of Marketing Doron Gez at our PFAS Symposium:

- Two officers of the company participated in the Symposium: Chief Financial Officer, Israel Abitbol, who contributes to senior management decisions framing business issues within their financial context. And Doron Gez, Senior VP of Marketing who plays a role in driving the company's mission to offer innovative waste management solutions.
- The company's system AirSCWO stands for SuperCritical Water Oxidation, which requires water to be heated at 374 degrees Celsius (hence the name), at which point it converts waste into energy, minerals, and water. SCWO destroys PFAS and is 100% thermal self-sufficient, according to the company. Under immense pressure and heat, the water becomes an even better solvent as it allows nearly anything to dissolve in it and, in the case of PFAS, it neutralizes the fluorine atom.

Exhibit 1 – 374Water SuperCritical Water Oxidation



Source: 374Water

- Management indicated that a 40-foot container unit can process 30 wet tons/day. The company is undergoing a trial in Orange County with a smaller version and noted that SCOW reduces the mass of the remaining solids by 95%, which would make incineration more efficient and reduce transport costs.
- Our presenters noted that the AirSCWO is different from other SCWOs as it uses air instead of oxygen. Any PFAS is destroyed and fully mineralized in the 40-foot industry-leading unit. Compatible with other technologies, it just needs a pumpable liquid without too much abrasive material and could process sludge from landfills on site.
- Prospective clients include Orange County and other water utilities as they will need to reduce PFAS to below the four parts per trillion limits in drinking water. In addition, companies such as pharmaceuticals and petrochemicals, as well as the military, could use the system to address their disposal needs. Management projects that PFAS could become a multi-billion-dollar segment within the massive waste management industry and believe that the system is scalable and are looking into different container sizes in order to best meet customers' needs.

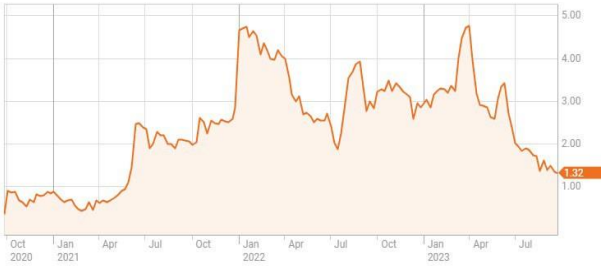
Exhibit 2 – 374Water Product Offering

Source: 374Water

Capitalization ($ in millions)

Balance Sheet as of:	6/30/2023
Shares Outstanding	132.7
Market Price	**$1.78**
Market Value	236.2
Plus: Debt	-
Minus: Cash	(14.6)
Net Cash	(14.6)
Total Capitalization	**$221.6**

374Water Inc.
Price Performance



Source: reuters.com

374Water Inc.

($ Millions - Percent Change)

Year	**2021**	**2022**	**2023E**	**2024P**
Revenue	$ 0.0	$ 3.0	N/A	N/A
% Growth		nm		
EBITDA	$ (4.7)	$ (115.4)	N/A	N/A
% Margin	nm	nm		
EPS	$ (0.03)	$ (0.04)	N/A	N/A
% Growth	nm	nm		
EBITDA Mulitple	nm	nm	N/A	N/A
P/E Multiple	nm	nm	N/A	N/A

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Advanced Emissions Solutions (ADES - $1.73 - NYSE) PFAS Symposium Highlights

Year	EPS	P/E
2025P	$(0.19)	NM
2024P	(0.72)	"
2023E	(0.48)	"
2022A	3.27	0.5x

Dividend: None Current Return: Nil
Shares O/S: 32.8 million
52-Week Range: $3.78 – $1.17

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

Advanced Emissions Solutions, Inc. (ADES) is headquartered in Greenwood Village, CO; it is principally engaged in the sale of consumable air and water treatment options, including activated carbon (AC) and chemical technologies. The company sells consumable products which utilize activated carbon and chemical-based technologies to coal-fired utilities, industrials, water treatment plants, and other facilities within multiple end- markets. Its primary products are comprised of AC, which is produced from a variety of carbonaceous raw materials; they include both powdered activated carbon (PAC) and granular activated carbon (GAC). The company acquired Arq in 2023, which significantly increased its capabilities in GAC.

Reason For Comment

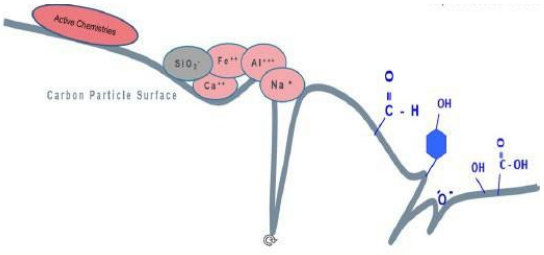
The following are key takeaways from Advanced Emissions Solutions' CEO Bob Rasmus and CTO Joe Wong at our PFAS Symposium:

- **Transformation:** Advanced Emissions has historically focused on powdered activated carbon (PAC) products serving legacy markets; primarily scrubbing mercury emissions from coal-fired power plants. The company shifted strategy earlier this year with the acquisition of Arq, which significantly increased its capabilities in GAC for water treatment and energy transition in higher growth markets. This is key to the company's ambition to transform from an AC focus in markets with long-term secular headwinds, to one focusing on the higher growth end-market of water remediation and purification, further boosted by coming PFAS regulations. With Arq's technology, the company is also able to shift from using lignite coal as feedstock to bituminous coal waste, which will give ADES a unique environmental profile.

- **Advantaged Position:** The GAC market is growing and, while manufacturing capacity has been reduced due to decommissioning of plants, there is limited ability to add new capacity due to significant capex requirements and constrained domestic feedstock. ADES is in an advantaged position as it is vertically integrated: it owns Five Forks, a lignite mine (primary raw material for PAC), as well as its Corbin, KY facility which supplies the waste-derived bituminous feedstock for GAC. The company also owns and operates its Red River plant - the largest AC plant in North America. ADES is currently converting its plants to produce GAC; it will do so as needed, at an incremental cost of $25-$30 million. The company had $37.4million of net cash as of June 30th.

- **Modified Carbon:** CTO Joe Wong conducted a deep dive into ADES' GAC capabilities, which allow it to create key activated carbon features focused on maximizing contact, conversion, and capture of contaminants including PFAS. Through its technology ADES is able to create a balance "transport" and "sequestration" pores to maximize contaminant removal.

Exhibit 1 – Modified Activated Carbon



We modify activated carbon surfaces in different ways to be highly selective for specific contaminant capture

Source: Advanced Emissions Solutions

- **New CEO, Changes to Come:** Bob Rasmus, who joined ADES just a few months ago in July 2023, participated in our PFAS Symposium as his first investor conference as CEO. Bob immediately aligned himself with shareholders by purchasing 950k shares, and taking a de-minimus $50k annual salary, with most of his compensation tied to the company's equity. He believes in the opportunity and assets of the business to transform the company into a GAC producer with unique patented technology and higher-value product offerings. The company should be able to price its GAC product 2-3x higher than its current PAC, leading to significantly higher margins. ADES is also in the process of a rebranding project: the new name, to be determined, will aim to better represent its businesses and their future potential.

Capitalization ($ in millions)

Balance Sheet as of	6/30/2023
Shares Outstanding	32.8
Market Price	**$1.73**
Market Value	56.7
Plus: Debt	21.4
Minus: Cash & Equivalents	(58.8)
Net Debt (Cash)	(37.4)
Total Capitalization	**$19.3**

Advanced Emissions Solutions Price Performance

Advanced Emissions Solutions

($ Millions - Percent Change)

Year	2021	2022	2023E	2024P
Revenue	$ 100.3	$ 103.0	$ 93.7	$ 104.2
% Growth		2.7%	-9.0%	11.2%
EBITDA	$ 84.9	$ 1.3	$ (13.2)	$ 3.1
% Margin	84.6%	1.3%	-14.1%	3.0%
EPS	$ 3.27	$ (0.48)	$ (0.72)	$ (0.19)
% Growth		nm	nm	nm
EBITDA Mulitple	0.2x	14.8x	(1.5x)	6.2x
P/E Multiple	0.5x	(3.6x)	(2.4x)	(9.1x)

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

AECOM (ACM - $76.10 - NYSE) PFAS Symposium Highlights

Year	EPS	P/E
2024P	$4.38	17.4x
202EP	3.69	20.6
2022A	3.47	21.9
2021A	2.82	27.0

Dividend: $0.72 Current Return: 0.9%
Shares O/S: 138.7 million
52-Week Range: $92.16 – $71.05

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

AECOM, headquartered in Dallas, TX, together with its subsidiaries, provides professional infrastructure consulting services worldwide. It operates in three segments: Americas, International, and AECOM Capital. The company offers planning, consulting, architectural and engineering design, construction, and program management, as well as investment and development services to commercial and government clients. It is also involved in the investment and development of real estate projects. In addition, the company provides construction services, including building construction and energy, as well as infrastructure and industrial construction.

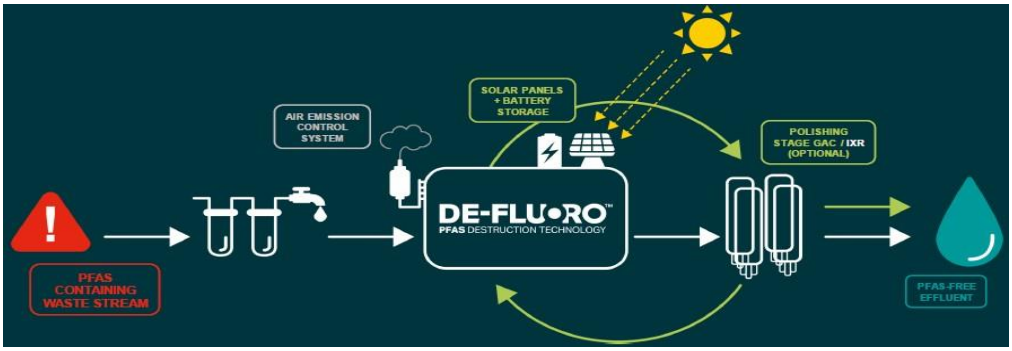
AECOM serves the transportation, water, government, facilities, environmental, and energy sectors. The company, formerly known as AECOM Technology Corporation, changed its name to AECOM in January 2015.

Reason For Comment

The following are key takeaways from AECOM's Global PFAS Technical Practice Leader Rosa Gwinn and Commercialization Leader Gavin Scherer at our PFAS Symposium:

- As a global company providing infrastructure consulting services, which include planning, architectural and engineering designs with, when needed, a focus on environmental remediation, AECOM's solutions focus on the best technology available for the problems at hand. It offers a full range of services to the transportation, water, government, environmental, and energy sectors.
- We heard from Dr. Rosa Gwinn, the Global Leader of PFAS Technical Practice, who early on recognized the need for the company to address PFAS in drinking water, wastewater, and in the environment. Dr. Gwinn is responsible for sharing management's focus on the issue and on driving the company's technical innovation and its execution.
- Also presenting was Gavin Scherer, the Leader of Global PFAS Commercialization, with over 24 years of consulting experience in environmental and contaminated land assessment, as well as in remediation. He leads the global team's strategy, which includes developing and bringing to market the company's onsite and cost effective PFAS destruction solution known as DE-FLUORO.
- As the "number one infrastructure consulting firm", AECOM focuses on identifying risks and proposing solutions for their clients. They have been treating PFAS for 20 years and are currently servicing 300 clients at 500 sites in the sector. They are technology agnostic, have experience running mitigation programs, and consult for the DoD, the U.S. Navy, and the Army National Guard.
- DE-FLUORO is the company's proprietary PFAS destruction technology, which uses electrochemical oxidization to break up the molecules. As a modular system which can be deployed on-site, the company believes that it is environmentally and economically viable. As a final solution, there is no risk that PFAS might later leak out into the environment again.

Exhibit 1 – DE-FLUORO- AECOM's PFAS Destruction Technology



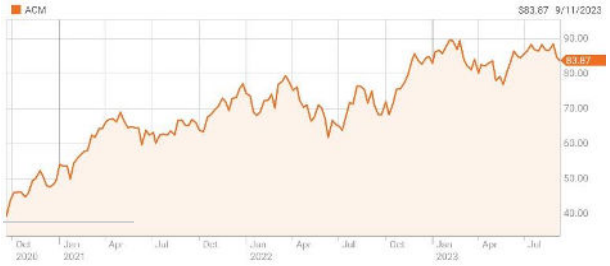
Source: AECOM

- AECOM estimates that there is $250B in global PFAS liabilities; however, they think that this amount is extremely broad as it includes testing for alternative chemicals, and that manufacturers are not currently on the hook for the entire $250B. Dr. Gwinn believes that DE-FLUORO is applicable to 1% of that market, or a $2.5B potential addressable market, and that AECOM would consider a joint venture for the product line going forward. As a consulting firm first, it will continue to recommend the best solution to its clients.

Capitalization ($ in millions)

Balance Sheet as of:	6/30/2023
Shares Outstanding	138.7
Market Price	**$76.10**
Market Value	10,557.1
Plus: Debt	2,203.9
Minus: Cash	(1,032.3)
Net Debt	1,171.6
Total Capitalization	**$11,728.7**

AECOM
Price Performance



Source: reuters.com

AECOM

($ Millions - Percent Change)

FYE9/30	**2021**	**2022**	**2023E**	**2024P**
Revenue	$ 13,340.9	$ 13,148.2	$ 14,250.0	$ 15,080.0
% Growth		-1.4%	8.4%	5.8%
EBITDA	$ 829.7	$ 900.3	$ 1,070.0	$ 1,190.0
% Margin	*6.2%*	*6.8%*	*7.5%*	*7.9%*
EPS	$ 2.82	$ 3.47	$ 3.69	$ 4.38
% Growth		23.0%	6.3%	18.7%
EBITDA Mulitple	14.1x	13.0x	11.0x	9.9x
P/E Multiple	27.0x	21.9x	20.6x	17.4x

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

American Water Works (AWK- $117.77- NYSE) PFAS Symposium Highlights

Year	EPS	P/E
2024P	$5.05	23.3x
2023E	4.75	24.8
2022A	4.45	26.5
2021A	4.25	27.7

Dividend: $2.83 Current Return: 2.4%
Shares O/S: 194.7 million
52-Week Range: $162.59 – $114.25

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

Founded in 1886 and headquartered in Camden, New Jersey, American Water Works Company, Inc., is the largest regulated water and wastewater utility company in the United States. The company serves 14 million people with drinking water, wastewater, and other related services in 24 states, and 1,600 communities as well as 20 military institutions. The company operates approximately 80 surface water treatment plants; 490 groundwater treatment plants; 175 wastewater treatment plants; 53,500 miles of transmission, distribution, and collection mains and pipes; 1,100 groundwater wells; 1,700 water and wastewater pumping stations; 1,100 treated water storage facilities; and 73 dams.

Reason For Comment

The following are key takeaways from American Water Works' CEO Susan Hardwick, CFO John Griffith, and COO Cheryl Norton at our PFAS Symposium:

- AWK supports a national PFAS standard and believes its water and wastewater network can comply using various available activated carbon and membrane exchange technologies. The cost of compliance is manageable and within its significant 5-year capital budget.

- Further, management believes the EPA has significantly under estimated the national cost of compliance. For its system, AWK believes compliance requires $1 billion of capital to install additional treatment facilities over a 3 to 5-year period and $50 million of annual operating expenses. Prior to EPS proposal, AWK had been working to minimize PFAS in drinking water and some states had already set some standards (though not as strict as the EPA proposal).

- Management believes that all water and wastewater systems, which include municipally-owned and smaller systems, should be held to the same standards. Historically, certain municipal and private water systems have been given latitude in meeting certain quality standards. Over the longer-term, PFAS compliance could be a catalyst to accelerate the consolidation of the nation's fragmented water systems.

- In addition, the company plans to support cost recovery from the polluters and will participate in the appropriate litigation to that end. In the meantime, we expect all of its regulatory jurisdictions to allow rate recognition of the capital investment and higher operating expenses. As a result, the investment results in EPS enhancing rate base growth.

- AWK has one of the stronger financial and operational track records of any utility in the sector including earnings growth and stock total return over the past 15 years. AWK's 2023 earnings guidance range is $4.72-4.82 per share and its long term EPS CAGR 7-9% for the 2023-2027 period. The growth rate consists of 5-7% from rate base growth, 5.5% from regulated utility acquisitions and 0.2% from non-regulated military services. Management expects ~8-9% annual rate base growth from $17.8 billion at December 31, 2022 ($16.3 billion as of year-end 2021).

- Year-to-date, AWK acquired 10 systems (5 states) serving 7,100 customers. The company currently has agreements to acquire 32 systems (10 states) serving 12,100 water and 62,700 wastewater customers for $555 million, including Butler Area Sewer Authority (BASA) in Butler County, PA (14,700 wastewater customers) for $231.5 million (close year-end 2023). In 2022, AWK closed 26 acquisitions adding 70,000 customers (11,400 water customers; 58,600 wastewater customers). In 2021, AWK closed on 25 acquisitions adding 20,700 customers (13,150 water customers; 7,650 wastewater customers) in six states. Over 2015-2020, AWK completed 106 acquisitions adding 211,000 customers in 10 states.

- AWK's 5-year regulated investment program totals $14-15 billion, including $2.9 billion in 2023. Roughly 75% of AWK's investment is subject to timely recovery, including 45% through infrastructure surcharges and 30% through forward test years. The significant investment in infrastructure or rate base drives the industry-leading 7-9% EPS growth rate. AWK has the size, scale, expertise and financial resources to understand and address the PFAS standards as well as if not better than any entity in the world.

Capitalization ($ in millions)

Balance Sheet as of:	6/30/2023
Coomon shares	194.7
Options	-
Shares Outstanding	194.7
Market Price	**$117.77**
Market Value	22,929.8
Plus: Debt	12,188.0
Minus: Cash	794.0
Net Debt	12,982.0
Total Capitalization	**$34,323.8**

American Water Works Company Inc.
Price Performance

Source: reuters.com

American Water Works Company Inc.

($ Millions - Percent Change)

Year	2021	2022	2023E	2024P
Revenue	$ 3,930.0	$ 3,792.0	$ 4,123.5	$ 4,374.3
% Growth		-3.5%	8.7%	6.1%
EBITDA	$ 1,832.0	$ 1,922.0	$ 2,213.0	$ 2,423.0
% Margin	46.6%	50.7%	53.7%	55.4%
EPS	$ 4.25	$ 4.45	$ 4.75	$ 5.05
% Growth		4.7%	6.7%	6.3%
EBITDA Mulitple	18.7x	17.9x	15.5x	14.2x
P/E Multiple	27.7x	26.5x	24.8x	23.3x

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

BioLargo (BLGO - $0.17 - OTC) PFAS Symposium Highlights

Year	EPS	P/E
2022A	$(0.02)	NM
2021A	(0.03)	"

Dividend: None Current Return: Nil
Shares O/S: 283.2 million
52-Week Range: $0.27 – $0.15

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

Incorporated in 1991, BioLargo, Inc is based in Westminster, California. The company invents, develops, and commercializes various platform technologies. These technologies solve challenging environmental problems including water contamination by per - and polyfluoroalkyl substances (PFAS), advanced water and wastewater treatment.

In addition, the company's technologies focus on controlling industrial odor and volatile organic compounds, air quality, infection, and other environmental remediation needs. BioLargo provides full-service environmental engineering services.

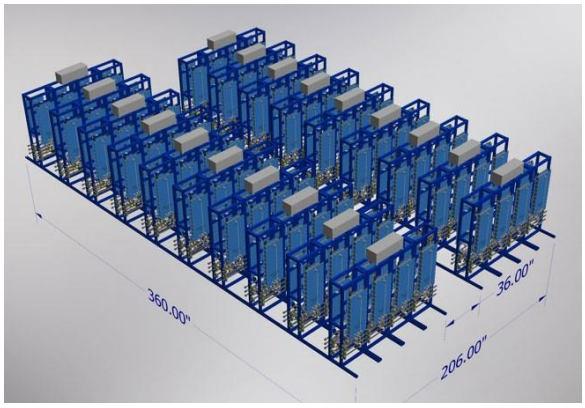
Reason For Comment

The following are key takeaways from BioLargo's Director of Communications Alex Evans at our PFAS Symposium:

- BioLargo is a microcap company which invents, develops, and commercializes various platform technologies with a focus on challenging environmental problems, including water contamination by PFAS and other remediation needs.
- We heard from Alex Evans, the company's Director of Communications, who started his career at BioLargo as a research scientist working on the development of innovative water treatment technologies.
- The company is predominantly focused on producing less waste than the competition. It has developed an Aqueous Electrostatic Concentrator (AEC) system. Tests show the effectiveness of the system, which uses a small electrical charge to trap PFAS molecules in a membrane.
- AEC is made of membranes designed to last one year; the systems have a comparable footprint to carbon, a lower operating cost (but the initial capital expenditures are higher), and they produce less waste in the form of only the saturated membranes. Deployed on a trailer, the system, which is currently used on a large industrial site in Illinois, works for the treatment of drinking water, groundwater, and wastewater.

Exhibit 1 – BioLargo AEC System and Modular and Scalable Ability

*Data available upon request for any claims, under NDA



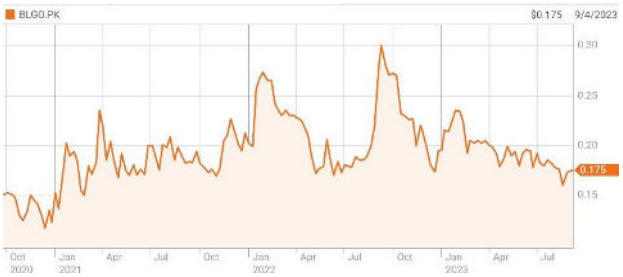
Source: BioLargo

- In addition to the project in Illinois, BioLargo has bids out for $15M worth of potential contracts. To increase the size of AEC to the capacity needed in order to support a large municipality, additional modules, using the same control system regardless of scale, can be added. However, in addition to the need for a larger footprint, which can be reduced by pre-treatment of the water, plumbing will be the main complicating factor.
- Having tested against 22 types of PFAS, management estimates that the AEC can handle PFAS not yet named by CERCLA; it projects that a first commercial, full-scale, contract could be in place by year-end 2025.

Capitalization ($ in millions)

Balance Sheet as of	6/30/2023
Shares Outstanding	283.2
Market Price	**$0.17**
Market Value	48.1
Plus: Debt	0.4
Minus: Cash & Equivalents	(3.6)
Net Cash	(3.2)
Total Capitalization	**$44.9**

BioLargo, Inc.
Price Performance



Source: reuters.com

BioLargo, Inc.

($ Millions - Percent Change)

Year		**2021**		**2022**	**2023E**	**2024P**
Revenue	$	1.6	$	4.4	N/A	N/A
% Growth				182.1%		
EBITDA	$	(6.7)	$	(5.2)	N/A	N/A
% Margin		nm		nm		
EPS	$	(0.03)	$	(0.02)	N/A	N/A
% Growth		nm		nm		
EBITDA Mulitple		nm		nm	N/A	N/A
P/E Multiple		nm		nm	N/A	N/A

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

GABELLI FUNDS

Casella Waste Systems (CWST - $75.00 - NASDAQ) PFAS Symposium Highlights

Year	EPS	P/E
2024P	$1.31	57.3x
2023E	1.06	70.8
2022A	1.03	72.8
2021A	0.89	84.3

Dividend: None Current Return: Nil
Fully Diluted Shares O/S: 58 million
52-Week Range: $95.78 - $72.33

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

Casella Waste Systems, based in Rutland, Vermont, is a vertically integrated solid waste and recycling company. The company operates eight landfills, 66 transfer stations, 50 collection operations and 26 recycling facilities, as well as three landfill gas-to-energy and facilities throughout the Northeast US.

Reason for Comment

On September 28, 2023, Casella Waste Systems' Vice President of Engineering & Compliance, Sam Nicolai, PE, participated in a fireside chat at the First Annual PFAS Symposium. Highlights from the session are included below:

- The Waste Industry sees itself as the "end of the line" for PFAS materials, where landfills and treatment facilities act like receptors taking in the waste stream. The industry has been working hard, over the years, to prepare itself for the role to manage these materials responsibly.

- There has not been a green field landfill in the Northeast for over 30 years. As a result, disposal assets continue to be scarce and possess attractive pricing power. Casella has captured this opportunity by developing a waste by rail operation at their McKean, PA landfill in order to accept more waste.

- Casella has proactively worked to address PFAS related issues at its landfills. The company has pilot programs in place – it removes PFAS from the landfill leachate and transports it to a wastewater treatment facility to be purified.

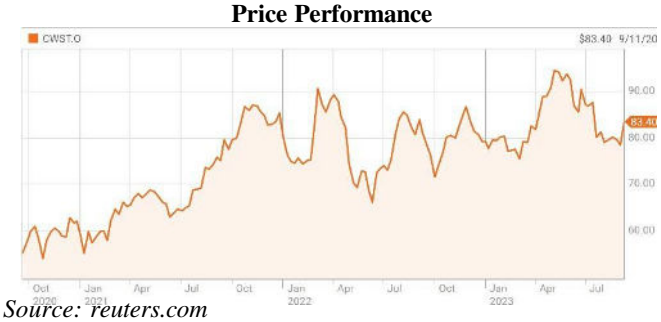
Summary

Casella is a well-managed business, priced at 15.2x 2024P EBITDA. The company is focused on growing its cash flow and reducing costs, while also reducing leverage to under 3x debt/EBITDA. CWST is committed growing via small, tuck-in acquisitions in its markets, which we believe will continue to improve route density, internalization, and margins.

Capitalization ($ in millions)

Balance Sheet as of	6/30/2023
Shares Outstanding	58.0
Market Price	**$75.00**
Market Value	4,351.9
Plus: Debt	1,016.0
Minus: Cash & Equivalents	(465.7)
Net Debt	550.3
Total Capitalization	**$4,902.2**

Casella Waste Systems, Inc.
Price Performance



Source: reuters.com

Casella Waste Systems, Inc.

($ Millions - Percent Change)

Year	2021	2022	2023E	2024P
Revenue	$ 889.0	$ 1,085.0	$ 1,254.0	$ 1,367.0
% Growth		22.0%	15.6%	9.0%
EBITDA	$ 204.0	$ 245.0	$ 295.0	$ 322.0
% Margin	22.9%	22.6%	23.5%	23.6%
EPS	$ 0.89	$ 1.03	$ 1.06	$ 1.31
% Growth		15.7%	2.9%	23.6%
EBITDA Mulitple	24.0x	20.0x	16.6x	15.2x
P/E Multiple	84.3x	72.8x	70.8x	57.3x

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Enviri Corp (NVRI - $6.13 - NYSE)

PFAS Symposium Highlights

Year	EPS	P/E
2024P	$0.30	20.4x
2023E	(0.19)	NM
2022A	0.10	61.3
2021A	0.69	8.9

Dividend: None Current Return: Nil
Fully Diluted Shares O/S: 79.76 million
52-Week Range: $10.00 - $4.44

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

Enviri Corporation is an environmental solutions company. The company serves a diverse customer base by offering critical recycle and reuse solutions for waste streams, enabling customers to address their complex environmental challenges and to achieve their sustainability goals. Its segments include Harsco Environmental and Clean Earth. Harsco Environmental segment operates primarily under long-term contracts, providing critical environmental services and material processing to the global steel and metals industries, including zero waste solutions for manufacturing byproducts within the metals industry. The Clean Earth segment provides specialty waste processing, treatment, recycling and beneficial reuse solutions for customers in the industrial, retail, healthcare and construction industries across a variety of waste needs, including hazardous, non-hazardous and contaminated soils and dredged materials. It offers a range of environmental services and related solutions.

Reason for Comment

On September 28, 2023, Enviri Corp's Vice President of Government Relations, David Dunlap, participated in a fireside chat at our PFAS Symposium. Highlights from the session are included below:

- PFAS remediation is a strategic complement to Enviri's Clean Earth segment, where the company has an extensive logistical footprint across the United States. This allows Enviri increased flexibility to serve clients in various geographic regions. Today, the Clean Earth segment comprises about half of the consolidated company.

- Enviri has permits that allows the company to take PFAS contaminated water or soil to its sites. After, Enviri reduces the contamination to an acceptable level and disposes of the waste. The regulation for this is state by state, but the company expects the EPA will further regulate PFAS before May 2024 for political reasons.

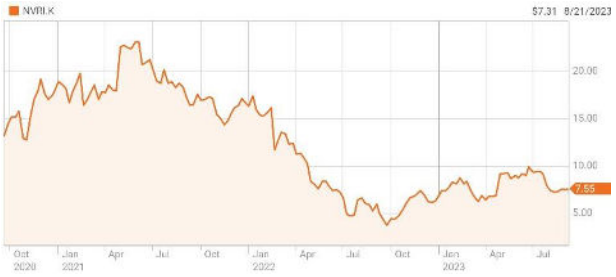
- Thermal destruction of PFAS is a superior method of destruction compared to incineration because thermal can leave reusable materials, whereas incinerated ash is sent to a landfill.

- Enviri anticipates companies with PFAS liabilities will need to act quickly. Additionally, lawsuits are expected to last for decades, noting 3M's PFAS situation is the beginning. The company expects PFAS regulation and lawsuits to be in full swing by 2025.

Capitalization ($ in millions)

Balance Sheet as of	6/30/2023
Shares Outstanding	79.8
Market Price	**$ 6.13**
Market Value	488.9
Plus: Debt	1,400.5
Minus: Cash & Equivalents	(85.5)
Net Debt	1,315.1
Total Capitalization	**$ 1,803.96**

Enviri Corporation
Price Performance



Source: reuters.com

Enviri Corporation

($ Millions - Percent Change)

Year	**2021**	**2022**	**2023E**	**2024P**
Revenue	$ 1,848.4	$ 1,889.1	$ 2,020.0	$ 2,100.0
% Growth		2.2%	6.9%	4.0%
EBITDA	$ 252.0	$ 229.3	$ 277.7	$ 295.0
% Margin	13.6%	12.1%	13.7%	14.0%
EPS	$ 0.69	$ 0.10	$ (0.19)	$ 0.30
% Growth		-85.5%	nm	nm
EBITDA Mulitple	7.2x	7.9x	6.5x	6.1x
P/E Multiple	8.9x	61.3x	nm	20.4x

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Minerals Technologies Inc. (MTX - $51.30 - NYSE) PFAS Symposium Highlights

Year	EPS	P/E
2024P	$5.99	8.6x
2023E	5.06	10.1
2022A	4.88	10.5
2021A	5.02	10.2

Dividend: $0.40 Current Return: 0.8%
Shares O/S: 32.6 million
52-Week Range: $73.57 – $48.61

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

Based in New York City, Minerals Technologies (MTI) is a resource and technology company focusing on minerals-based products and related systems. Having realigned its businesses in early 2023, it now operates in two segments:

Consumer & Specialties (53% of total) consists of Household & Personal Care with mineral-to-market products serving pet care, personal care, and fabric care, as well as edible oil and renewable fuel purification. The Specialty Additives category serves paper, packaging, sealants & additives, ceramics, plastics, and food & pharmaceutical end-markets.

Engineered Solutions (47%) consists of High Temperature Technologies providing specially formulated blends and technologies to the foundry and steelmaking industries. The Environmental & Infrastructure segment offers waterproofing, water purification, remediation, and other fluid management technologies to industrial markets.

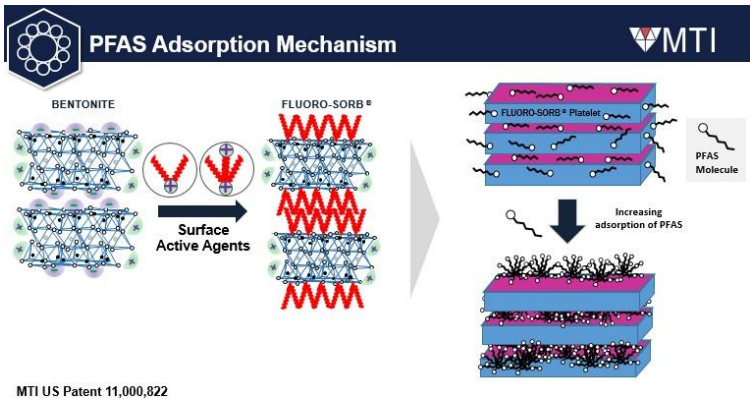
Minerals Technologies is expected to earn ~$5.05 per share on $2.2 billion of revenue and $365 million of Adj. EBITDA in 2023.

Reason For Comment

The following are the key takeaways from Michael Kozak, VP, Environmental Products, Dr. Michael Donovan, Director of R&D, CETCO, and from Carry Shadrix, Global Director Water, Wastewater, and Remediation, the company's R&D team who presented at our PFAS Symposium:

- Members of Minerals Technologies' R&D team presented the company's newest technology: FLUORO-SORB which removes PFAS from landfills, drinking water, and wastewater.
- Minerals Technologies is a resource and technology company focusing on minerals-based products and systems. The company believes that FLUORO-SORB could be an off-the-shelf solution to a wide variety of PFAS contamination with drinking water regulations and government grants likely to be major tailwinds. While FLUORO-SORB could be a $1 billion annual market, the growth and timing will depend on regulations.
- FLUORO-SORB is made from sodium bentonite, commonly used in drilling and cat litter. Sourced from the company's mines in South Dakota and Wyoming, it is extremely absorbent with a high surface area to volume. As most types of PFAS carry a negative charge, MTX alters the surface of the material to give it a positive charge, thereby attracting the chemicals' molecules. The thin FLUORO-SORB plates expand as much as five times their initial thickness as PFAS gets stuck between them. Longer lasting than others, the material also appears to outperform activated carbon and ion exchange; its price is slightly above that of carbon and similar to that of the more expensive ion exchange systems. In some applications, a FLUORO-SORB -impregnated textile fabric can cover affected areas thereby preventing the chemicals from leaking out.

Exhibit 1 – FLUORO-SORB Technology



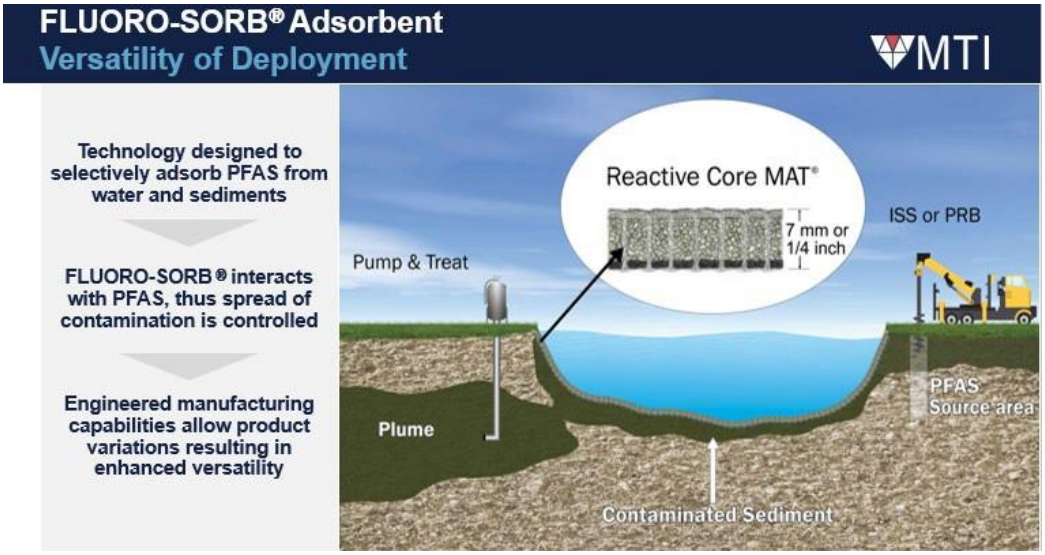
Source: Minerals Technologies

- The EPA estimates that there are 3,400-6,300 sites in the U.S. with PFAS contamination. The company is currently permitted to use FLUORO-SORB for five drinking water projects, two full-scale landfills, and five full-scale wastewater sites; it has also completed nine remediation projects.
- The company believes that a FLUORO-SORB pre-treatment would extend the bed life of the activated carbon, which is already used by water utilities. In addition, as the material specifically isolates PFAS, incinerators could

be more efficient by burning less extra material. With no regulations at the national level, the spent FLUORO-SORB membrane is currently returned to landfills as incineration is not cost-effective.

- As opposed to activated carbon, the spent material cannot be reactivated due to its very strong bond to the contaminant. Minerals Technologies' significant mineral resources and ownership of the mineral rights to the clay, will allow it to meet the anticipated strong demand as regulations come into place. With existing manufacturing capabilities to supply the material through 2026, capacity can easily be doubled with minimal capital expenditures.
- With multiple projects already operational, positive results, and an affordable price, we believe that FLUORO-SORB has a strong future and should contribute to the company's overall results.

Exhibit 2 – FLUORO-SORB Capabilities



Source: Minerals Technologies

Capitalization ($ in millions)

Balance Sheet as of	6/30/2023
Shares Outstanding	32.6
Market Price	**$51.30**
Market Value	1,672.4
Plus: Debt	1,042.8
Minus: Cash & Equivalents	(255.4)
Net Debt	787.4
Total Capitalization	**$2,459.8**

Minerals Technologies Inc.
Price Performance

Source: reuters.com

Minerals Technologies Inc.

($ Millions - Percent Change)

Year	2021	2022	2023E	2024P
Revenue	$ 1,858.3	$ 2,125.6	$ 2,190.0	$ 2,260.0
% Growth	16.5%	14.4%	3.0%	3.2%
EBITDA	$ 335.4	$ 346.7	$ 364.8	$ 400.2
% Margin	18.0%	16.3%	16.7%	17.7%
EPS	$ 5.02	$ 4.88	$ 5.06	$ 5.99
% Growth		-2.8%	3.7%	18.4%
EBITDA Mulitple	7.3x	7.1x	6.7x	6.1x
P/E Multiple	10.2x	10.5x	10.1x	8.6x

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

SJW Group (SJW- $58.35 - NYSE) PFAS Symposium Highlights

Year	EPS	P/E
2024P	$2.60	22.4x
2023E	2.45	23.8
2022A	2.43	24.0
2021A	2.03	28.7

Dividend: $1.52 Current Return: 2.6%
Shares O/S: 31.8 million
52-Week Range: $83.88 – $56.96

Source: Company filings, Thomson consensus estimates

COMPANY OVERVIEW

SJW Group, headquartered in San Jose, California is the third largest publicly-traded water utility in the US and owns a real estate business. The water utilities serve over 1.5 million water customers through subsidiaries, San Jose Water Company (SJWC), Connecticut Water Service, the Maine Water Company and the Texas Water Company (SJWTC). The company operates 39 surface water treatment plants; 5 wastewater facilities; 5,400 miles of mains and pipes; 400 groundwater wells; 160 water and wastewater pumping stations; and 300 water storage facilities.

Reason For Comment

The following are key takeaways from SJW Group's Mark Vannoy, President of the Maine Water Company, and Suzanne DeLorenzo, Director of Water Quality at our PFAS Symposium:

- SJWC is a regulated water utility with 232,000 connections (one million people) in metropolitan San Jose, CA and represented over 50% of 2022 consolidated SJW earnings. On October 9, 2019, SJW closed the $1.1 billion purchase of Connecticut Water Service (CTWS) adding more than 141,000 customers in CT and ME. SJWTX, Inc. a water utility in with 27,000 connections (75,000 people) three of the five fastest-growing counties in the nation in the San Antonio – Austin corridor. Connection growth in Texas quadrupled between 2006 and 2022 to more than 27,000 water and wastewater connections. With 8,400 community water systems in CA, CT, ME and TX and more than 16,000 publicly owned wastewater systems nationwide, SJW expects to benefit from ongoing consolidation.

- SJW supports a national PFAS standard and believes it can comply using various available activated carbon and membrane exchange technologies. The cost of compliance is manageable and within its significant 5-year capital budget. Based upon preliminary analysis, SJW Corp (SJW) has initially estimated that PFAS compliance would cost $230 million over the next 3-5 years, including $120 million in Connecticut and $110 million in California.

- In Maine, the service area has places that reuse biosolids and certain farms are affected. In Connecticut, there are "hot spots" around landfills and firefighting training centers. In California, SJW detects PFAS in groundwater facilities (55/80 are affected) and plans to focus on Ion exchange as activated carbon requires too large a footprint. In New England, SJW plans to use activated carbon as well as an ion exchange site in Maine. Over the longer-term, PFAS compliance could be a catalyst to accelerate the consolidation of the nation's fragmented water systems. In addition, SJW notes that interconnection might be useful in mitigating damage as large utilities can more easily provide clean water to those communities with contaminated water.

- In addition, the company plans to support cost recovery from the polluters and will participate in the appropriate litigation to that end. In the meantime, we expect all of its regulatory jurisdictions to allow rate recognition of the capital investment and higher operating expenses. As a result, the investment results in EPS enhancing rate base growth.

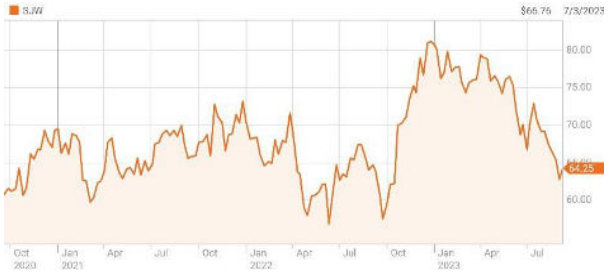
- SJW has the size, scale and expertise to understand and address the EPA's PFAS standards. SJW Group plans to invest more than $1.6 billion in capital over the next 5 years to build and maintain its water and wastewater operations, including $255 million in 2023 ($219 million in 2022). Roughly $180 million of the capital receives timely recovery through riders or forward-looking test years.

- SJW's 2023 EPS guidance is $2.40-2.50 and management targets non-linear long-term annual growth of 5-7% per share from a 2022 base of $2.43 per share.

Capitalization ($ in millions)

Balance Sheet as of	6/30/2023
Shares Outstanding	31.8
Market Price	**$58.35**
Market Value	1,855.5
Plus: Debt	1,646.9
Minus: Cash & Equivalents	25.5
Net Debt	1,672.4
Total Capitalization	**$3,527.9**

SJW Group
Price Performance



Source: reuters.com

SJW Group

($ Millions - Percent Change)

Year	2021	2022	2023E	2024P
Revenue	$ 573.7	$ 620.7	$ 668.8	$ 705.7
% Growth		8.2%	7.7%	5.5%
EBITDA	$ 205.6	$ 235.4	$ 260.8	$ 280.5
% Margin	N/A	37.9%	39.0%	39.7%
EPS	$ 2.03	$ 2.43	$ 2.45	$ 2.60
% Growth		19.7%	0.8%	6.1%
EBITDA Mulitple	17.2x	15.0x	13.5x	12.6x
P/E Multiple	28.7x	24.0x	23.8x	22.4x

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Xylem, Inc. (XYL – $89.44 - NYSE)

PFAS Symposium Highlights

Year	EPS	P/E
2024P	$4.00	22.4x
2023E	3.63	24.6
2022A	2.85	31.4
2021A	2.49	35.9

Dividend: $1.32 Current Return: 1.5%
Shares O/S: 240.8 million
52-Week Range: $118.58 – $89.35

COMPANY OVERVIEW

Xylem, Inc., headquartered in Washington, D.C., is a leading global water technology company that designs, manufactures, and services highly engineered products and solutions for use in critical utility, industrial, commercial, and residential applications. On May 24, 2023, Xylem completed the acquisition of EVOQUA Water Technologies for approximately $7.5 billion (or 25x LTM EBITDA of $298 million) in an all-stock transaction. EVOQUA is a leading water treatment solutions provider primarily serving the North American market.

Reason For Comment

The following are key takeaways from Xylem's Chief Growth & Innovation Officer Sne Desai at our PFAS Symposium:

- **Broad Portfolio of PFAS Solutions:** Together, Xylem and EVOQUA have a comprehensive suite of sensing, testing, and capture technologies to help water utilities and industrial customers identify and treat PFAS in their water streams. The one technology that the company does not currently possess is destruction, though Desai noted that Xylem is working closely with several start-ups in this space and could ultimately partner with, or acquire, a viable PFAS destruction solution provider. Xylem's scale, depth of relationships with both customers and regulators, and track record in commercialization uniquely position it to be a leader in PFAS solutions.

- **Growing Market Opportunity in Late 2020s:** Desai estimated that, today, the PFAS treatment market in the U.S. is just a few hundred million dollars in annual revenue (with EVOQUA typically winning one-third of all bids - or just over $100 million worth of company PFAS-related revenue). The EPA has estimated that this could grow to $800 million per year (in capex and opex spending), though likely not until three to five years.

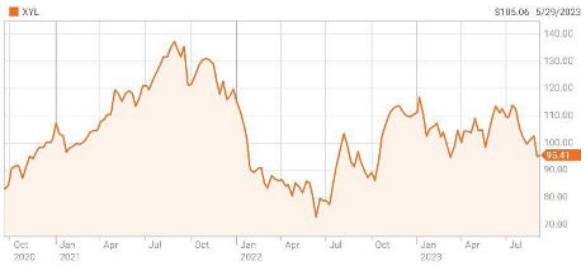
- **International Market Potential Longer-Term:** The U.S. currently has the highest level of attention and progress on addressing PFAS and Desai estimates the U.S. will also be the largest single market opportunity for treatment. Nonetheless, multiple developed market regions (Canada, Europe, and Japan) are closely watching the EPA's regulatory framework and are likely to follow with their own mandates later this decade. While Desai expects technology sets to be transportable across regions, he noted that business models will likely have to be tailored to each individual country or large end customer (i.e. capital investment or treatment-as-a-service).

- **Combination Unlocks Broader Opportunity Set:** Desai is leading the integration of EVOQUA into Xylem and noted that the combination is unlocking several incremental revenue opportunities both specific to PFAS and more broadly. Namely, EVOQUA is now receiving warm introductions (for its water treatment solutions) to Xylem's long-tenured utility customer base and is also leveraging Xylem's global footprint to serve existing EVOQUA customers with previously-unserved overseas operations.

Capitalization ($ in millions)

Balance Sheet as of	6/30/2023
Shares Outstanding	240.8
Market Price	**$ 89.44**
Market Value	21,539.7
Plus: Debt	2,507.0
Minus: Cash & Equivalents	(708.0)
Net Debt	1,799.0
Total Capitalization	**$23,338.70**

Xylem Inc.
Price Performance



Source: reuters.com

Xylem Inc.

($ Millions - Percent Change)

Year	2021	2022	2023E	2024P
Revenue	$ 5,195.0	$ 5,522.0	$ 7,210.0	$ 8,320.0
% Growth		6.3%	30.6%	15.4%
EBITDA	$ 890.0	$ 940.0	$ 1,330.0	$ 1,620.0
% Margin	17.1%	17.0%	18.4%	19.5%
EPS	$ 2.49	$ 2.85	$ 3.63	$ 4.00
% Growth		14.5%	27.4%	10.2%
EBITDA Mulitple	26.2x	24.8x	17.5x	14.4x
P/E Multiple	35.9x	31.4x	24.6x	22.4x

Source: Public data and consensus estimates

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Hazen & Sawyer (Private) **PFAS Symposium Highlights**

COMPANY OVERVIEW

With over 1700 employees and 70 domestic offices, Hazen and Sawyer develops practical solutions to water quantity and quality challenges around the globe. Since its founding over 70 years ago, the company has maintained a singular focus on all things water – working with communities to identify new sources, structure effective treatment, and deliver water back to the environment in a productive and mindful way.

Hazen and Sawyer's integrated water resources management provided improves the resiliency of watersheds and turns nutrient removal into nutrient recovery, waste into energy, discharge into reuse. These will often reduce operating costs and provide a multitude of environmental and societal benefits.

The company's focus on water prepares it to handle the exceptional challenges facing the industry: adapting to new regulations and changes in supply and/or demand, targeting stretched budgets for optimal ROI, developing resilience to drought, floods, severe storms, and wildfires, charting a course into the digital age, and much more. "If you are entrusted to protect public health or the environment, we can help."

Reason For Comment

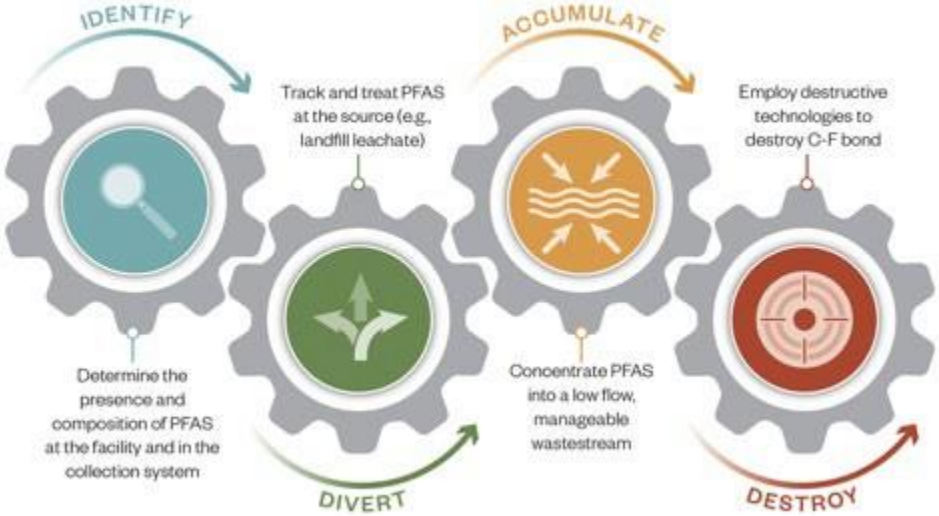
The following are key takeaways from Hazen & Sawyer's Vice President & Residual Group Practice Leader Dr. Mohammad Abu-Orf at our PFAS Symposium:

- The firm focuses on multiple categories of PFAS management, namely identification, diversion, accumulation, and destruction of the chemicals. In biosolids, the company focuses on destruction with two technologies: pyrolysis/gasification and supercritical water oxidation (SCWO) in Minnesota, Colorado, and Israel.

- Hazen & Sawyer's project with the Water Research Foundation examines gasification and pyrolysis as a process of desorbing PFAS from biosolids to the air, producing biochar, and evaluates the fate of PFAS in the air and whether it is destroyed completely at specific temperatures used in pyrolysis.

- From a regulation timeline, biolsolids are facing EPA scrutiny by the end of 2024 to complete the health risk assessment from biosolid land applications that could affect future land management approaches.

Exhibit 1 – Hazen & Sawyer PFAS Services



Source: Hazen & Sawyer

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

REGENESIS Corp (Private) **PFAS Symposium Highlights**

COMPANY OVERVIEW

REGENESIS is a privately held company based in San Clemente, California, that specializes in innovative environmental remediation solutions for a wide range of contaminants, including PFAS, petroleum hydrocarbons, chlorinated solvents, and metals.

The company's flagship product is PlumeStop®, a colloidal suspension of activated carbon particles that can rapidly and effectively immobilize PFAS in groundwater and soil, preventing further migration and enhancing natural attenuation. This colloidal activated carbon solution has successfully treated PFAS contamination at 50 sites, with over 180 additional sites currently in the design and review phase. PlumeStop can be applied under low-pressure injection, which reduces the costs and challenges associated with conventional pump and treat systems.

REGENESIS also offers other remediation products and services, such as enhanced bioremediation, bioaugmentation, in situ chemical oxidation, reduction (ZVI), sorption, desorption, immobilization and vapor intrusion mitigation. With 24 patents in the field of groundwater and soil remediation, as well as contaminant vapor intrusion mitigation, it has a global presence with offices and distributors in Europe, Asia, and Australia. REGENESIS is committed to providing cost-effective, safe, and sustainable solutions for the environment.

Reason For Comment

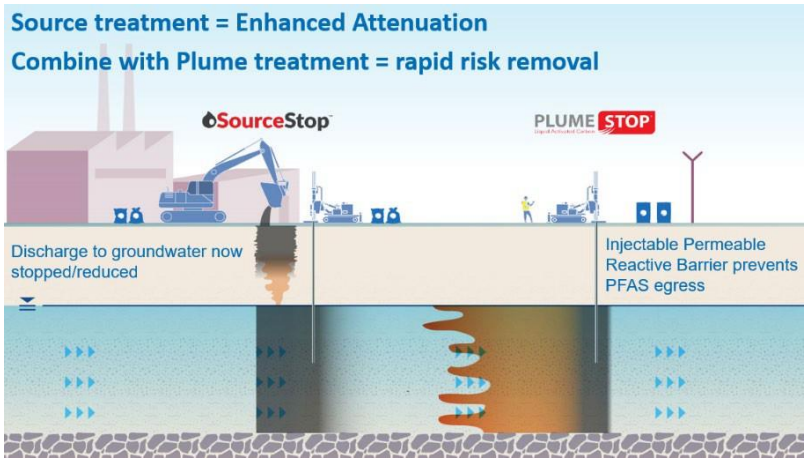
The following are key takeaways from REGENESIS's Industrial Sector Vice President Maureen Dooley at our PFAS Symposium:

- REGENESIS' colloidal activated carbon patented technology can remediate PFAS and attenuate plumes in groundwater contamination.

- Currently operating with 47 site applications and an additional 187 in design. Locations and entities being serviced include airports, military bases, industrial facilities, Department of Defense, and locations in the Middle East. For example, in burn pits, residual firefighting foams are leached into groundwater with rain and REGENESIS materials are applied at the source to stop discharge into groundwater. In cases of down gradient receptors, REGENESIS can create barriers immediately to mitigate spread of the compounds.

- The company's technologies are effective in a range of different media, including soil and groundwater, with no hazardous waste generated, no O&M, and no carbon footprint. The company's *in situ* PlumeStop technology is 2.5-2.8 times less expensive than *ex situ* pump and treat options.

Exhibit 1 – REGENESIS PlumeStop



Source: Minerals Technologies

Gabelli Funds
One Corporate Center
Rye, NY 10580-1422
Tel (914) 921-5100
www.gabelli.com

October 25, 2023

Revive Environmental (Private) **PFAS Symposium Highlights**

COMPANY OVERVIEW

Revive Environmental, a full-service environmental contaminant mitigation and water treatment company, co-founded by Battelle and Viking Global Investors, is on a mission to destroy PFAS using ready-now, advanced technologies.

These patented technologies—PFAS Annihilator® and GAC Renew™—are commercially available and already operating in the U.S. Revive is rapidly scaling and deploying these technologies to isolate, remove, and annihilate PFAS chemicals from landfill leachate, industrial wastewater, drinking water, groundwater, and AFFF firefighting foam.

In the first-ever deployment of a PFAS destruction technology in North America, Revive's PFAS Annihilator is running in a continuous operation and destroying PFAS in landfill leachate to below the U.S. EPA's proposed 4 parts per trillion drinking water standards.

Reason For Comment

The following are key takeaways from Revive Environmental's CEO David Trueba at our PFAS Symposium:

- Revive's global patented technologies are capable of destruction of PFAS *in situ*, whether on site or in fixed facility bringing materials to the centralized location.

- The company brings decades of experience in PFAS management and offers the first commercial application of landfill leachate and AFFF in North America. Revive is capable of leveraging extensive direct channels for industrial opportunities, working with Battelle as a channel partner for government partnerships, and using Heritage Crystal Clean connections and side partners to gain access to leachate.

- Revive is in the early stages and expanding. The company sees a pipeline of $100 million with the first of six additional units it is releasing, and all six are expected to be deployed by February 2024.

Exhibit 1 – Revive Go To Market Strategy

Source: Revive Environmental

Tony Bancroft
(914) 921-5083
Tbancroft@gabelli.com

Brett Kearney, CFA
(914) 921-8317
bkearney@gabelli.com

Rosemarie Morbelli, CFA
(914) 921-7757
rmorbelli@gabelli.com

Wayne Pinsent, CFA
(914) 921-8352
wpinsent@gabelli.com

Rebecca Stern, PhD
(914) 921-7717
rstern@gabelli.com

Timothy M. Winter, CFA
(314) 238-1314
twinter@gabelli.com

This whitepaper was prepared by Tony Bancroft, Brett Kearney, CFA, Rosemarie Morbelli, CFA, Wayne Pinsent, CFA, Rebecca Stern, PhD, and Tim Winter, CFA. The examples cited herein are based on public information and we make no representations regarding their accuracy or usefulness as precedent. The Research Analyst's views are subject to change at any time based on market and other conditions. The information in this report represent the opinions of the individual Research Analysts as of the date hereof and is not intended to be a forecast of future events, a guarantee of future results, or investment advice. The views expressed may differ from other Research Analysts or of the Firm as a whole.

As of June 30, 2023, affiliates of GAMCO Investors, Inc. beneficially owned 1.03% of Minerals Technologies and less than 1% of all other companies mentioned.

This whitepaper is not an offer to sell any security nor is it a solicitation of an offer to buy any security.
Investors should consider the investment objectives, risks, sales charges and expense of the fund carefully before investing.