

374Water Inc. (NASDAQ:SCWO)



CHRIS GANNON is the President and CEO of 374Water Inc. He brings more than 25 years of experience within publicly traded and private equity backed companies. His previous roles include CEO at Energy Recovery and National Fire and Safety, where he led both companies through periods of rapid growth; Lead Operations Advisor to the city of Detroit throughout its revitalization/reorganization; and PE Operating Partner and PE investor, among other roles. Mr. Gannon holds an MBA from University of Chicago Booth School of Business and a Bachelor of Engineering from University of Michigan.

SECTOR — MANUFACTURING TWST: What were 374Water's origins?

Mr. Gannon: 374Water was originally founded at Duke University, where a brilliant professor by the name of Marc Deshusses invented our AirSCWO technology. At the time, Marc was evaluating new technology development research projects, and during this process he discovered the power of supercritical water oxidation to destroy and mineralize both non-hazardous and hazardous organic wastes.

The Gates Foundation provided initial grant funding to develop early versions of the technology. Marc and his research team eventually built a commercial-scale system and completed hundreds of hours of waste destruction operations on Duke's campus. Following this success, Marc and one of his lead engineers, Kobe Nagar, spun the technology out of Duke creating 374Water.

The concept of waste destruction, versus simply managing and moving waste around, has been around for 30 years. The municipal, federal and industrial markets are all seeking alternatives to existing waste treatment technologies or approaches, which are considered inadequate as they primarily transform or condense waste streams instead of destroying waste.

Existing or conventional solutions to managing wastes include incineration, digestion, land application, landfilling, deep well injection, and outright storage. The problem with those approaches is waste is merely moved around from one location or company or environment to another.

That's where our commercial-scale AirSCWO solution comes into play. Our technology is designed to continuously destroy nonhazardous and hazardous organic wastes and, in the process, produce safe dischargeable water streams, safe mineral effluent, safe vent gas, and recoverable heat energy. It's been shown to destroy traditional waste streams like biosolid sludge from wastewater treatment facilities, leachate from landfills, industrial wastes, military waste, and many other organic wastes.

In addition, our technology is effective at destroying emerging contaminants, like PFAS "forever chemicals," which are a group of thousands of synthetic chemicals that don't degrade naturally and are known to be toxic and negatively impact human health, as well as pharmaceuticals, plastics, and many other emerging waste streams.

The EPA is focused on the elimination of PFAS from the environment and has enacted drinking water standards, super fund standards, and has also recently issued a draft risk assessment of PFAS in sewage sludge. While there's been a lot written about PFAS and their impact on human health and the environment, there has been little written about the actual means to address these issues, namely the solution or solutions to eradicate those persistent and toxic materials.

Our technology is designed to destroy these persistent waste streams at the source by either augmenting, meaning bolting onto, or outright replacing conventional waste handling infrastructure used across the U.S. and the world.

TWST: What else would you add for our readers about 374Water's business mission and the technology behind achieving that?

Mr. Gannon: If we can agree on the fundamental premise that the world is drowning in garbage or waste — and that it is not simply a U.S. issue, but rather a worldwide issue — then we can explore solutions. We believe our waste destruction technology is the most viable product on the market to address this, namely the ability to destroy organic waste streams and produce water and energy in the process.

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The world generates an incredible amount of waste every day without a robust means to eliminate or destroy it at the source. If you think about biosolids, water and wastewater management, manufacturing lithium-ion batteries or petroleum products or pharmaceuticals, landfill leachate, and all those other waste streams I mentioned earlier, all of those are examples of the world drowning in garbage or waste.

We believe our technology is the solution to destroying these waste streams effectively and completely, preventing them from impacting the environment and humans. In addition, our technology is not only cost effective versus conventional approaches, but also can address and eliminate the long tail environmental and other liabilities associated with these waste streams.

Through the destruction process our technology produces safe dischargeable water which can be converted to potable water standards and heat energy which can be recycled.

TWST: Describe your current operations, applications, customers. And we can talk a bit about the future potential, too?

Mr. Gannon: We segment the estimated \$250 billion global waste destruction market into three main areas, namely municipal, federal and industrial, which are all looking for viable waste destruction technologies to solve their problems. As of today, we have a backlog and pipeline of approximately \$1.8 billion. Throughout 2025 we plan to begin generating substantial revenue through executing on our backlog and converting our pipeline.

assist in the purification or filtration process to generate potable or drinkable water which we use in our homes, businesses, farms, etc. Eventually that GAC or IX gets spent, or used up, and it needs to be replaced and disposed of. Our technology has been shown to completely destroy this spent GAC and IX waste.

AFFF firefighting foam, which is used by state and local municipalities, the federal government and military, and many industrial companies, such as the oil and gas industry, is also highly toxic. AFFF is being phased out nationally, and there are millions of gallons of AFFF stockpiled across the country that now need to be eliminated. Again, our system has been shown to effectively destroy this toxic material.

The municipal market has very real challenges that must be solved. Take Florida, a Republican-led state, which is confronting their biosolid sludge issues due to environmental and human health concerns surrounding this contaminated waste. The state recently dramatically reduced the amount of biosolids that can be land applied on Florida lands.

This decision, which I applaud due to the contaminated nature of biosolids, has created what I'd characterize as the perfect storm, as the state lacks a cost-effective way to dispose of this waste. Rather, Florida has had to dramatically increase their use of expensive long-haul trucking to transport biosolid sludge across state lines to those landfills willing to accept it. So, Florida's municipalities, like the city of Orlando, are looking to our system to provide onsite biosolids waste destruction solutions.

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Within the U.S., the municipal market includes 16,000 wastewater treatment facilities, 150,000 public drinking water facilities, thousands of capped and uncapped landfills, and more than 52,000 state and local firefighting units. All these facilities have waste streams that must be managed, disposed of, and/or destroyed.

Wastewater facilities process millions and millions of gallons of biological waste as well as industrial and other wastes through their facilities daily. Of this contaminated municipal sludge, 50% to 60% is converted into fertilizer. This contaminated fertilizer is then applied to farms and other lands across the U.S., which in turn negatively impacts our food and water system.

Another 25% or so of this municipal sludge is sent to landfills, which contributes to landfill leachate issues across the country. While the engineering and operations of landfills is quite advanced, there are many environmental challenges and issues they must manage.

As landfill waste degrades or decomposes, nasty leachate is generated. Despite landfill operators' best efforts, this leachate often eventually breaks through highly engineered landfill liners or barriers and contaminates surrounding areas as this toxic waste makes its way into groundwater, impacting humans and the environment. We believe we have a solution to address these very real leachate issues.

Water facilities process and purify water to potable water standards by eliminating contaminants. Part of what they do is use granular activated carbon – GAC – or ion exchange – IX – resins to

At the federal government level, there are significant waste destruction needs within the Department of Defense, the Department of Energy, and the FAA. There are 715 bases in the United States which are characterized as highly contaminated and require cleanup. Many of these bases store an incredible amount of different non-hazardous and hazardous wastes that they would like to destroy.

The federal government has already earmarked billions of dollars for this cleanup, including waste destruction services. We believe our system is a very viable solution to their waste destruction needs. In fact, the federal market has stated supercritical water oxidation is a viable alternative to landfilling and incineration.

The industrial waste management market has many subgroups or subsectors such as oil and gas, pharmaceuticals, lithium-ion batteries, pulp and paper, and health care.

Oil and gas companies use AFFF firefighting foam to quickly and effectively eliminate gas, oil, and other heavy-duty fires before they get out of control. However, AFFF is highly toxic, and again, it is getting phased out. So, here again the oil and gas industry has millions of gallons of AFFF stored all across the country, and this toxic substance needs to be disposed of or destroyed. Again, we believe we can play a major role there.

Now let's talk about the green movement, which receives significant coverage and investment nationally and internationally. One component that is particularly relevant is lithium-ion batteries, which are used in everything from electric vehicles to energy storage. The dirty

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little secret is that the actual production and recycling of lithium-ion batteries generates highly toxic wastewater.

The United States is focused on onshoring or bringing the manufacturing of lithium-ion batteries and other green technologies to the U.S. As that happens, we're going to start generating large amounts of toxic lithium-battery waste. I believe this will become a major issue for our country and that we have the solution, as our system has been shown to effectively destroy lithium-battery waste.

Let's add another layer to the waste handling landscape within the U.S. There are roughly 860 RCRA — Resource Conservation and Recovery Act — permitted treatment, storage and disposal facilities, or TSDFs for short, within the U.S. These TSDFs service municipal, federal and industrial market participants by receiving both toxic and non-toxic, or hazardous and non-hazardous, waste at their facilities.

These TSDFs then either treat these wastes, store these wastes, and ultimately dispose of these wastes in a variety of ways. Many TSDFs use incineration to destroy certain various wastes. What has been shown, and there is lots of research around this, is that incineration, while it eliminates and destroys some of the waste, it doesn't destroy all of it, and in the process these facilities emit toxins into the surrounding areas.

We believe our system can eliminate these issues entirely. In fact, we are in discussions with all major TSDF players to supply our technology through our AirSCWO Destruction-as-a-Service business. We anticipate Europe, which tends to be more forward looking from an environmental standpoint than even the U.S., will be a large market for 374Water in the future. That said, all seven continents face similar issues to those we discussed, which makes our market opportunities truly global.

Over the longer term, we intend to provide solutions to the \$250 billion total addressable waste destruction market globally, a number I think is likely understated. That said, we are currently focused on addressing the U.S. market. Over the coming years, we intend to expand internationally, likely through a network of large international strategic partners.

TWST: What were the key highlights or takeaways from your most recent quarterly results and most recent business update?

Mr. Gannon: We recently published 374Water's 2024 year in review and 2025 outlook. I came on board as CEO in late April of 2024. My immediate focus was building the technology and organizational foundation necessary to transform 374Water from a technology development company in 2024 to a growth company in 2025.

We spent the year enhancing and ruggedizing our technology, and we developed our pre- and post-treatment solutions to address a myriad of waste streams, many of which we have discussed publicly. We also expanded our product offering to include four commercial-scale models: our highly mobile AirSCWO-1, mobile AirSCWO-6, semipermanent AirSCWO-30, and our bespoke AirSCWO 100/200 solutions.

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So, we believe the different municipal, federal and industrial waste issues we are talking about are solvable through the adoption of waste destruction technologies like AirSCWO, as existing conventional approaches to waste processing are, quite simply, inadequate.

In addition, while I don't mean to bring politics into this, I believe these are in fact bipartisan issues. EPA drinking water regulations, CERCLA Superfund regulations, as well as new regulations for wastewater are all focused on these PFAS "forever chemicals" and dealing with those toxic materials that, again, are entering our environment and entering our bodies.

While we don't fully know where the new federal administration will land on all these issues, much of these regulations or coming regulations were being advanced under the last Trump administration. And the individual who is likely to be appointed to run the EPA, a Republican, is very focused on clean drinking water and regulations surrounding the issues we covered.

This returns us to the critical water-energy nexus. I believe 374Water has a role to play here and is well positioned to have a positive impact over the next four years.

TWST: I imagine the application of your technology is worldwide. Is that part of your overall growth strategy, operating outside of the U.S.?

Mr. Gannon: Yes, the technology is applicable worldwide. There is immense worldwide need for waste destruction solutions specifically, and water-energy nexus solutions more broadly. Following a two-year residency in Kokomo, Indiana, with the Merrell Bros., the third largest wastewater hauling and treating company in the U.S., we relocated our AirSCWO technology, our engineering, and our manufacturing operations to Orlando's Iron Bridge Water Reclamation facility, and also established a nearby manufacturing facility. We have now been fully operational at Iron Bridge for months, destroying biosolids and a host of other municipal, federal and industrial waste streams.

During this period, we also materially increased our manufacturing footprint so we could more easily produce multiple systems for deployments in early 2025. These included Orange County Sanitation, our Destruction-as-a-Service business, and other customers.

Also, in response to customer demand, we moved into a large state-of-the-art Biosafety Level 1 lab in North Carolina. Our lab operations are often the first introduction customers have to the effectiveness of our technology to destroy organic waste.

We also announced the launch of our AirSCWO Destruction-asa-Service — AS-DaaS — business. We are in negotiations for our first AS-DaaS facility, as well as in discussions for multiple other facilities across the U.S. These AS-DaaS facilities will transition us into a consistent revenue generating business where we're actively destroying all sorts of waste streams. In support of our AS-DaaS business we have also begun bidding on AFFF and other waste destruction opportunities nationally.

Our theme for 2025 is one of execution and growth. In line with this, during the first half we will mobilize a team to Orange County Sanitation in California to install our technology and conduct

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extensive biosolids demonstrations. We also intend to sell and deliver other systems to customers throughout the year. In addition, we will complete previously announced AirSCWO destruction services for the federal government and military, as well as new industrial and other municipal customers.

Finally, we plan to construct our first AS-DaaS facility during the first half of 2025, with destruction operations beginning in Q3, and are in discussions with RCRA permitted TSDF, industrial, and federal participants to establish additional AS-DaaS operations throughout the U.S. in 2025.

TWST: You raised capital in 2024. Would you tell us about that and, generally, your financial ability to fund growth?

Mr. Gannon: Yes, we raised a little over \$12 million in 2024. This capital will fund the manufacturing of multiple systems for deployment in 2025, launching our Destruction-as-a-Service business, further building our manufacturing operations, and importantly, further expanding our manufacturing, engineering and field operations teams.

What you will see from us in 2025 will be new AirSCWO capital sales and technology deployments, Destruction-as-a-Service facilities and revenue, market expansion, further wastes destroyed enhancing our market opportunities, the scaling of our company, and so forth.

We are laser focused on executing on our \$1.8 billion backlog and pipeline and generating material revenue. 2025 will be a transformational year for us as we become a growth company.

TWST: What else do you think readers should know — about 374Water itself or how the company fits into the broader investment theme of sustainability and the circular economy?

Mr. Gannon: When you think about the waste management ecosystem, if you will, there are a lot of different approaches to handling or processing the waste. There are very few alternatives to outright destruction of these waste streams. And continuing to do what has been done in the past is no longer feasible in terms of just handling and moving around those waste streams.

Our technology is a commercial-scale system, designed to continuously destroy non-hazardous and hazardous organic wastes and, in the process, produce safe dischargeable water streams, safe mineral effluent, safe vent gas, and an immense amount of recoverable heat energy. So, there's a huge market opportunity for us. There's a huge, very critical pain point that needs to be addressed across multiple different industries. And we think we are in a very good position to do that.

TWST: Do you want to wrap up with any final thoughts?

Mr. Gannon: I'd just reiterate that this is a bipartisan issue. I often get the question, with the incoming administration, what's going to happen to EPA regulations? Is the U.S. going to move away from the issues surrounding drinking water, wastewater, and so forth?

What I see is that while some regulation may get delayed slightly from an enforcement standpoint, I don't believe there's going to be a wholesale movement away from these water, wastewater and energy regulations. I believe the train's already left the station surrounding these issues.

Look at a lot of these different regulations, and people trying to address these issues; much of these regulations really started moving aggressively under the last Trump administration. And again, who's likely to lead the EPA? Someone who is already focused on these issues. I just don't see the need for waste destruction going away. Rather, I see it accelerating.

374Water has the only commercial-scale, continuous-flow, and robust solution available to address the various waste pain points throughout the municipal, federal and industrial markets. In addition, our technology also produces valuable and needed safe dischargeable water and heat energy, which are needed everywhere. We are scaling the company throughout 2025 to meet immediate and future customer demand.

TWST: Thank you.

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