

LABELLA ASSOCIATES CONTINUES 20%+ GROWTH; WASTE & RECYCLING PRACTICE WEATHERS COVID AND PREPARES FOR PFAS

LaBella Associates has experienced an average of 20% year-over-year growth for the past decade. It's not the type of performance you might expect for a mature, mid-market firm headquartered in Rochester, NY. With over 1000 employees across 25 office locations, the firm's growth has been the result of a continual strategy of diversification. While the firm has been active in M&A (closing 16 deals in the past 6 years), an award-winning culture has been a catalyst for organic growth. Originally founded as a civil engineering firm, the company's service diversity is approaching that of the A/E giants. LaBella Associates' work is broadly categorized into 4 sectors: Buildings (architecture and design, building engineering, hazardous building materials), Infrastructure (civil, transportation, planning, survey), Energy (utility engineering, renewables, program management) and Environmental (environmental consulting, contracting, waste and recycling).

Jenny Johnson, Director of Waste & Recycling. Ms. Johnson holds a Master's Degree in Environmental Science and Engineering and has more than 29 years of environmental consulting experience. She joined LaBella in 1998, and since that time has provided solid waste consulting services to facilities in the South, Mid-Atlantic, and Northern U.S. Her experience includes landfill permitting and compliance, negotiations with regulators, groundwater remediation, odor management, landfill gas collection and control systems, stormwater management, and organic waste management. During her tenure as Director of Waste & Recycling, the group has experienced a 25% growth in employees.

EBJ: Jenny, you oversee the Waste & Recycling Practice at LaBella. What are some highlights of the practice?

Johnson: The past few years have been marked by substantial growth for Waste & Recycling, both organic and M&A. One highlight has been expanding our services in Alabama where we have practiced for 15 years, by establishing a physical presence with an office opening in early 2020 and then by acquiring **Highland Technical Services** later in 2020, adding two more offices to our Alabama footprint.

Another highlight over the past couple of years has been assisting our Renewable Energy Group in developing solar farms on closed landfills. Turning an old landfill into a source of revenue is one of my passions.

A niche service that we provide, which has grown exponentially, is our training program. We offer training to more

than 500 industry personnel every year. Our training started as certification for solid waste facility operators and managers and has now grown to include specialized training for household hazardous waste, compost management, safety, and collections training.

EBJ: What services do you provide through your practice and what are clients asking for in 2021? What needs do they have?

Johnson: LaBella provides comprehensive solid waste services, including permitting and design of all solid waste and recycling facilities; bid phase, construction administration, and construction quality assurance services; financial and master planning; collections and waste stream analyses; facility operations consulting; Title V permitting and reporting; gas collection and control system design and operation and maintenance; groundwater, stormwater, and landfill gas monitoring,

reporting and remediation; and Waste Facility Operator Training for initial certification and continuing education credits.

A significant challenge our industry continues to face is the lack of experienced landfill operators. The solid waste industry has a difficult time attracting and retaining employees who have the skill sets required to perform the job. There are fewer young adults in America who have worked on their own cars or have grown up on farms and learned to maintain and operate equipment.

Our education system seems to be focused on preparing students for a college education and no longer prioritizes developing students for skilled trade careers. Whatever the cause, the fact remains that there are fewer young adults with the desire to learn how to operate heavy equipment. We have heard frustration from many owners of both municipality-owned and privately-owned facilities as they struggle to entice the younger generation to become equipment operators.

In fact, many are turning back to those who have already retired, attempting to get them to come back to full-time work or even on a part-time basis. Municipality-owned facilities are at an even bigger disadvantage, as typically, they cannot compete with the pay or benefits of the larger private waste companies.

EBJ: Any changes in the way in which PFAS are being handled in waste facilities?

Johnson: Science has demonstrated that the primary exposure of PFAS to humans is from inhalation of dust and ingestion of food, and not from landfill leachate that is collected and disposed. While landfills and wastewater treatment plants (WWTPs) are easy targets for regulating and measuring PFAS concentrations, neither landfills nor WWTPs manufacture or use PFAS to create a product. Rather, both are receivers of materials containing PFAS. The most effective way to reduce PFAS in our envi-

ronment is to regulate the compounds at their source, where they are manufactured or used in the manufacturing of other consumer products.

Research also suggests that landfills sequester PFAS, meaning that the bulk of the landfilled PFAS is separated and effectively removed from the environment. Long chain PFAS compounds, like PFOA and PFOS, are more persistent in human bodies than are short chain PFAS compounds. Similarly, WWTP sludge, which is often disposed of in landfills, frequently contains a higher percentage of long chain PFAS compounds. However, landfill leachate typically contains short chain PFAS, meaning that the decomposition process within a landfill appears to break the strong bonds of long chain PFAS compounds. In other words, landfills seem to take long chain PFAS out of cycle and may sequester a large fraction of PFAS loading. This sequestration is beneficial to human health and the environment.

Studies have also shown that landfill leachate is the primary pathway by which PFAS leave the containment of modern Subtitle D Municipal Solid Waste landfills. Rather than changing the way in which waste containing PFAS is managed at landfills (which would be labor intensive and cost prohibitive), energy would be better spent improving operations to reduce the quantity of leachate produced.

EBJ: During the pandemic, how many months was revenue for your particular practice below forecast? How long did

that last for?

Johnson: Our industry did not see a slow-down due to COVID. Solid waste workers are essential personnel, as garbage has to be collected and disposed of at all times. Similarly, our revenue has remained fairly constant since the beginning of 2020. The pandemic reduced the volume of commercial waste as businesses sent their workers home. With many people working from home and cleaning out their garages, basements, or attics, however, the volume of residential waste being generated increased tremendously, which impacted collections, as well as traffic at convenience centers. Overall, the total volume of waste remained consistent. Therefore, the rate at which landfill cells were filling did not decrease.

EBJ: How will the future office at LaBella will look like? And how long will it take before this happens? How will the transition be?

Johnson: The future office at LaBella post-COVID will look very similar to what it looked like pre-COVID. However, we have a new Work from Home policy, and we anticipate that engaging in virtual conferencing will be more prevalent than it was pre-COVID. While we have adjusted to having the majority of our staff working from home for the last year, the quality of mentoring of younger staff and the ability to collaborate and effectively exchange ideas have been more difficult to maintain. The transition to a full office will not happen overnight. Rather, our return to office

will be a planned transition that occurs over a few months, with our goal of 100 percent in-office by early July. However, as we have since March of 2020, LaBella will adjust our plan, if needed, to react to increases in the number of cases or policy changes. We are optimistic that our July target date will not change.

EBJ: In which ways is the Biden Administration reverting actions taken during the Trump Administration that have an impact on the Waste & Recycling industry?

Johnson: The Biden Administration's focus on climate change and a reduction in greenhouse gases will inevitably impact the waste industry. Methane, a greenhouse gas, is generated during the decomposition of organic waste that occurs in landfills. Diversion of organic food waste from landfills is one means of reducing methane emissions from landfills. Unfortunately, diversion of organic food waste from large generators (e.g., hospitals, grocery stores, schools, and correctional facilities) cannot happen overnight. Policy makers need to understand all of the complexities that are involved for organic food waste diversion programs to be successful and allow sufficient time for successful programs to be established.

Successful diversion programs will need nearby facilities that can manage the large quantity of food waste, including both the processing of the waste, as well as controlling its odors. Long hauling distances will contribute to the carbon footprint of organic food waste rather than minimize it. Whether the waste is managed at composting facilities or via anaerobic digesters, it will take time and capital to permit and construct the number of facilities required to manage organic food waste in the U.S. Regulations will need to be developed in most states, and local ordinances changed.

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LaBella Associates Notable Waste Management Projects

In Situ Thermal Remediation of Former Solvent Pits at the City Landfill, Martinsville,

VA. The Martinsville Landfill is a closed, unlined, MSW landfill owned by the City of Martinsville, Virginia. Starting in the 1970s, there were two unlined solvent pits at the landfill used for disposal of liquid chemical wastes, primarily used paints, varnishes, and solvents produced by the local furniture industry. A plume of groundwater contamination containing volatile organic compounds (VOCs) extends under the landfill from the two solvent pits. In 2016, LaBella, at the request of the City and the Virginia Department of Environmental Quality evaluated the solvent pits and options for remediating the contaminated soil. We determined that in situ thermal remediation (ISTR) would be the most effective and cost-efficient remedy and we began developing plans and obtaining proposals. The winning proposal was from GEO for ISTR using natural gas heating. LaBella supervised implementation of the ISTR project in 2019. The system operated for a total of 165 days. More than 141 tons of VOCs were removed as vapors from the solvent pits. The off-gas treatment achieved >95% removal efficiency. Confirmatory soil sampling indicated an average 96% reduction of VOC concentrations in soil in the two pits. As these solvent pits were the primary source of groundwater contamination at the Martinsville Landfill facility, we expect to see a reduction in the VOC concentrations in the groundwater over time.

Feasibility Study of a Source Separated Organics Collection & Composting Program, City of Rochester, NY.

LaBella was retained by the City of Rochester, New York, to conduct a feasibility study and provide recommendations for the development of a source separated organics (SSO) collection and composting program. The project included assessing the type and quantity of materials that could be composted; evaluating best options for collection including containers, equipment, and processing systems; and conducting an inventory of existing regional SSO outlets and processing facilities. Key component included an examination and benchmarking of SSO collection and processing facilities at cities within the U.S. that have similar climate and demographics, and developing a customer educational assistance program. By conducting a waste characterization study, the project team determined the tonnage of SSO available for collection, and that direct hauling of City-collected SSO to an existing processing or collection facility within Monroe County was the most feasible option. Based on the results of the study, LaBella designed four viable pilot tests. Each pilot test included a different collection method and processing facility, allowing the City to implement multiple pilot tests simultaneously. For a program to be effective, extensive public education and outreach will be required to ensure the essential participation by citizens. Similarly, pilot tests are necessary to help determine what type of collection mechanism (e.g., volunteer drop off at farmer's market, curbside collection, etc.) will work best for a specific municipality or county.

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agement to affect their facilities and their costs.

EBJ: As the leader of the Waste & Recycling Practice, what was the biggest challenge in 2020 as you managed, motivated and mentored your staff and teams?

Johnson: One challenge the Waste & Recycling staff faced was that although many of us were working from home, our clients could not because they are essential workers. They had to continue to collect and manage garbage and recycling, their landfills continued to be filled with trash, and construction of new landfill cells could not stop. Finding the balance of providing exemplary service to our clients while keeping everyone safe was challenging in the first few months of COVID.

For me, though, the greatest challenge has been the extra effort required to maintain the humanness of interacting with other people. Bringing new staff on board during COVID has been extremely challenging. It is difficult to expose a new employee to our company culture when he or she seldom goes to the office. It has also been difficult to monitor how well a young employee is being mentored compared to what that employee could learn by being able to walk down the hall to ask a question of more experienced staff. But the biggest challenge for me has been acquiring a company located in a different state and integrating them with LaBella remotely rather than in person.

I am blessed to work with really great people. Over the past year, we have done our best to keep connecting with each other through activities such as virtual wine tasting, virtual wheel of fortune, and virtual bingo. I look forward to the days when I can once again laugh in-person with the Waste & Recycling staff. ▣

The manner by which the waste is collected must also be considered.

Another consideration to address is the presence of PFAS in food wrappers or containers that are mixed in with the organic food waste. Either procedures need to be established and enforced to ensure "clean" food waste is being processed, or the processing of the waste itself must ensure that the PFAS compounds are destroyed.

Under the Biden Administration, we are starting to see a lot of activity out of the EPA concerning PFAS. The regulation of PFAS will impact the cost of managing solid waste. For example, if the EPA establishes MCLs for some PFAS compounds,

it is likely these compounds will be added to the list of constituents monitored in groundwater at solid waste facilities. Therefore, facility owners will experience an increase in monitoring costs. The Biden Administration is also targeting funds for PFAS management in air. The study of whether or not significant concentrations of PFAS are in landfill gas is in its infancy. Therefore, landfill owners may incur additional testing costs, and if concentrations are above a regulatory threshold, they may be required to install costly landfill gas collection and control measures. Although the exact outcome is uncertain at this time, landfill owners should expect PFAS man-