



# Our Commitment to Sustainability

**2018**

Report



ADVANCED DRAINAGE SYSTEMS, INC.

# A Letter From Our CEO

For more than 50 years, Advanced Drainage Systems, Inc. (ADS) has been a leading manufacturer of high performance thermoplastic corrugated pipe, providing innovative solutions to some of the world's most challenging water management problems. Whether at construction sites, on farmland or within businesses, schools and even among homes in your neighborhood, I am proud to see our products making a difference in communities around the world.



As a result of our products, land is more arable, cities are more livable and discarded plastic is being recycled and put back to good use. Our commitment to advancing sustainable business practices isn't just a trend or a means to "check a box," it is at the core of who we are and what we do.

In the last 30 years alone, we have gone from sourcing nearly 100 percent virgin resin to becoming one of the largest recycling companies in North America. Every year, we prevent more than 400 million pounds of plastic from ending up in landfills. This is just one example of how ADS is an industry leader in sustainable business practices.

Importantly, however, our view of sustainability is more than facts and figures. We have always been active supporters of the communities in which we operate, whether we are helping to increase a farmer's crop yield, ensuring natural resources are protected or supporting local initiatives important to our more than 4,400 dedicated employees.

We are focused on advancing our sustainability efforts every year and are proud of the progress we continue to make. We provide this report as a means to offer greater transparency and insight into the important work we are doing to have a positive environmental, operational and social impact. Thank you for taking the time to learn more about our work. We look forward to providing more updates in the future.

**Scott Barbour**

President and CEO  
Advanced Drainage Systems, Inc.



# Sustainability By-the-Numbers



6th Largest  
**Recycling Company**  
in North America



**>400M pounds**  
of plastic is kept from landfills each year because of ADS



OSHA Recordable Incidents



Total Case Incident Rate



in pounds of scrap in FY18



Standardizing Operating Procedures



**60%**  
Our MEGA GREEN™ pipe contains 60% recycled HDPE materials



Increase in the percentage of **HDPE recycled plastics** used in our plastic pipe manufacturing over the past decade



Aluminum trailers continuing to be incorporated into fleet to improve fuel efficiency



**4% increase**  
in payload efficiency in 2018



At two of our Green Line Polymer facilities



Annual Ethics & Anti-Corruption Training



Global-focused Code of Business Conduct



Of our truck asset mix is comprised of smaller and higher fuel economy trucks



Donated more than **\$500,000** to charitable organizations in 2018



**400+** employees have participated in leadership training



**4** Industry organization memberships



# Commitment to Environmental Sustainability

**We are problem solvers who develop innovative solutions to protect a precious natural resource, while keeping millions of pounds of plastic out of landfills each year. Not only are our products designed for use in the environment, but we also lead the industry in ensuring the materials that go into our products are environmentally sustainable.**

## Management of a Precious Resource

At ADS, we are on a mission to keep waterways safe from harmful debris and pollutants associated with storm water runoff. Our history of bringing innovative solutions and industry leading technologies to market has led to development of storm water management standards that have transformed the treatment of water over the years.

Our **water quality products** are designed to effectively remove sediment, nutrients, petroleum hydrocarbons, large debris, and small micron pollutants before they reach our common waterways. In fact, our Barracuda™ water quality units treat more than one hundred thousand gallons of water per minute during storm events.



Our **StormTech®** retention / detention chambers allow for efficient infiltration and recharge of storm water, while mitigating erosion and flooding. Our current StormTech footprint has infiltrated more than 1.4 billion gallons of storm water runoff.



We work closely with cities, towns and rural communities around the world to provide solutions that address their water management challenges and help advance their sustainability goals. It is a role we take seriously, as we know that with each pipe, fitting, chamber and structure shipped, we are helping to improve the environments and lives of people everywhere.



“ADS solutions are managing billions of gallons of storm water runoff, protecting bodies of water, making cities more livable and improving quality of life in the communities we impact.”



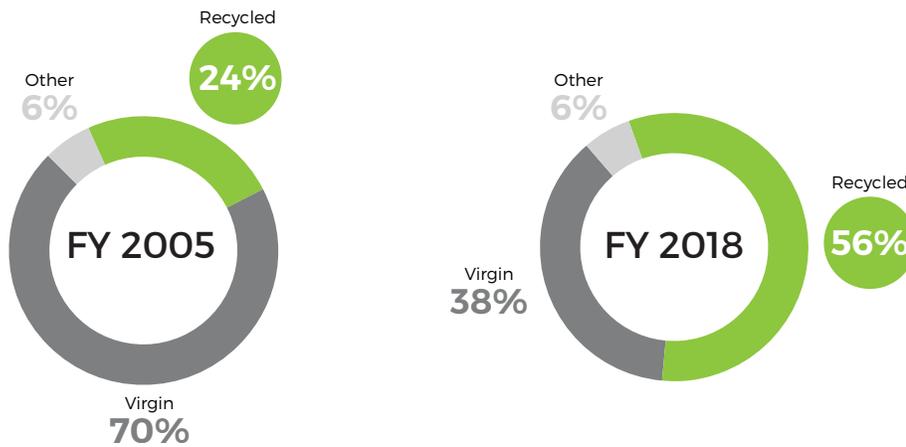
— Dan Figola  
Director of Sustainability Development

## Industry Leading Recycling Solutions

Our expertise in material science, including purchasing, reprocessing and resin blending, presented a unique opportunity early on for ADS to lead the industry in increasing the use of recycled materials in pipes. We stepped up to the challenge by investing in our people, processes and technology to create a solution that would help fundamentally change and ultimately shape the way our industry views and uses recycled plastic pipe. The result was our innovative **MEGA GREEN™ pipe** in 2007, which has a high-density polyethylene (HDPE) content of up to 95 percent.

Today, Green Line Polymers®, a wholly owned recycling subsidiary of ADS, processes a wide variety of reusable HDPE materials at its eight recycling facilities across North America. We currently **recycle more than 400 million pounds of household and industrial plastics** annually, turning these materials into storm water management pipe products that will last a century.

### Recycled Content in Our Pipe Manufacturing



Recycled-content pipe delivers additional value to our industry in the following ways:

- 1. Safe and long-lasting:** Our industry-leading resin blending program converts post consumer and post industrial recycled materials into MEGA GREEN™ pipe products that can support America’s infrastructure needs for more than 100 years.
- 2. Green building:** Our MEGA GREEN™ and Water Quality products help clients meet sustainability goals for programs like Leadership in Energy and Environmental Design (LEED®), the International Green Construction Code and the Institute for Sustainable Infrastructure’s Envision program.
- 3. Vertically integrated:** ADS owns and operates its own plastic recycling facilities, ensuring quality control over every aspect of the manufacturing process. This helps us keep hundreds of millions of pounds of plastic out of landfills every year.
- 4. Design leadership:** ADS has proudly pioneered the inclusion of recycled thermoplastics through key investments in our people, processes and technology to develop highly engineered recycled plastic products. We exploit our expertise in purchasing, reprocessing and resin blending (material science) techniques to increase the quality of recycled materials that are used in sustainable products.



“ADS is a national leader for the inclusion of recycled thermoplastics. With 34 patents issued since 2007, our engineers continue to develop highly engineered products that incorporate over 400 million pounds of recycled plastic annually.”



— Ron Vitarelli  
Executive Vice President,  
Innovation and Research  
& Development

# Commitment to Safety and Operational Efficiency

**With a global network of manufacturing and distribution operations, we are committed to finding new and innovative ways to create a safer environment for the backbone of ADS' operations – our more than 4,400 dedicated employees. We're also focused on continuously improving the efficiency of our operations.**

## Executing Industry Leading Safety Practices

We are constantly focused on introducing new and innovative ways to create a safer work environment for our employees. Each of our facilities has dedicated safety personnel, including employee-led safety committees supported by Regional Safety Coordinators that focus on proactive safety improvement activities.

Our safety team reports daily on safety performance to senior management, maintaining a consistent channel for safety dialogue and ensuring best-practice sharing across the company. We also have a company-wide program to amplify process improvements and provide an easily accessible online platform for safety suggestions.

Here are a few of the initiatives focused on in 2018:

- ✓ We rolled out a program to provide bump caps to all of our plant employees and mandated their use on the plant floor to reduce exposure to lacerations and abrasions caused by minor bumps to the head.
- ✓ We continue to introduce Collision Mitigation technology to our trucks to further ensure the safety of our drivers and others on the road.
- ✓ Introduced an approved list of cutting tools to ensure personal safety protection for our employees.

## Focused on Automation

Downstream manufacturing processes are one of our biggest safety challenges. In order to mitigate this concern, we are focused on automating these processes to improve both safety and employee retention in addition to preparing for future workforce composition. We recently introduced a machine that automates downstream pipe coiling, which reduces the risk of injury and improves both the rate and quality in the process. In addition, we encourage employees at our manufacturing and distribution facilities to generate automation ideas and share them through our operational improvement program. We will continue to focus on automation and process improvement to ensure our facilities are operating safely.

“ Safety of our employees is our highest priority. Safety is a culture we create by changing mindsets, changing behaviors and encouraging employees to demonstrate safe habits in everything they do.”



– Darin Harvey  
Executive Vice President,  
Supply Chain and  
Manufacturing



ADS Bump Cap  
Introduced in 2018

## 2018 Statistics

OSHA Recordable Incidents



Total Case Incident Rate (TCIR)



## Safety Stand-Down in Muncy, PA

In 2018, we held our first ever Safety Stand-Down in our Muncy, PA facility, dedicating an entire day to safety awareness and skill development. Executive leadership, senior management, plant managers and employees alike participated in the event, rotating to various stations led by subject matter experts from the Safety, Logistics and Continuous Improvement teams. Here are some of the topics covered:

- **Leader Standard Work**
- **Root Cause Analysis & Problem Solving**
- **Safety Committee**
- **Behavior Risk Observation**
- **Safety and 5S**
- **Driver and Load Safety**

The Safety Stand-Down resulted in productive communication related to safety that will help our team with enhancing their processes and culture, as well as enhancing safety programs throughout ADS. The day concluded with the idea that safety should not be just a priority, which can change with circumstances, but a part of what we do every day.

CEO Scott Barbour addressing employees at the Muncy, PA Safety Stand-Down



## Improving Operational Efficiency

Our business requires a local presence in order to efficiently serve our customers. Our network of 55 manufacturing plants and 34 distribution centers is nearly six times larger than our largest plastic peer, which gives us a significant competitive advantage but also elevates the importance of operational excellence. We manage operational efficiency through continuous improvement initiatives to ensure we are managing our material and energy use, while also optimizing the use of our network.

Within the four walls of our plants, we are focused on continuous improvement initiatives to reduce scrap and machine downtime, while also upgrading our equipment to improve extrusion rate and product quality. To maximize the use of our assets, we standardized the changeover process on our 12" - 30" tooling setups in 2018. We now have dedicated employees to manage this process and track the assets as they move between facilities and we are standardizing the process for other tooling setups as well.

Over the last two years, we have made significant investments to integrate supply chain planning into our business. The planning tools we have developed have allowed us to more efficiently use our raw materials by identifying inventory targets that tie to demand, thereby reducing production of high-volatility, low-demand products and improving the quality of our inventory on hand. The ultimate goal of our supply chain planning is to ensure we have the right products in the right place at the right time to position us to deliver products to our customers as efficiently as possible. This integrated planning tool allows us to reduce changeover frequency, downtime and inter-plant freight cost, and we plan to role out this process to our allied product portfolio next.

### Efficient Material Use: Scrap Reduction



“Our mission is to create and sustain a culture that embraces continuous improvement through associate training, empowerment, ownership and accountability, fostering pride and a shared purpose in how we serve our customers.”



— **Kevin Kish**  
Vice President,  
Manufacturing

## “Driving” Transportation Improvement

ADS owns and operates the industry’s largest company-owned fleet, which allows us to provide a tremendous service to our customers and control over our freight costs. We work continuously to optimize our vehicle fleet and shipping routes, while also monitoring our fuel consumption and related emissions.

Here are a few initiatives we focused on in 2018:

- ✔ We continue to focus on safety and driver unloading practices, resulting in a 22% decrease in driver injuries this year.
- ✔ We revised our customer delivery policies to improve payload efficiency, which has increased 4% since implementation.
- ✔ We increased the amount of Medium Duty trucks we operate for short routes and congested areas, which reduces our emissions and improves our fuel economy. Medium Duty trucks now represent 8% of our fleet, and the number of trucks increased 50% since 2017.

We utilize a robust training program and our continual data-feedback loop to encourage safety and driver best practices, such as promoting higher gear/lower RPM motor use to cruise control, decreasing idling time and continuous assessment of out-of-route miles. We have tracked over 270 million miles since we implemented this system in 2013, well ahead of the Federal Motor Carrier Safety Administration’s mandate requiring use of electronic logging devices by December 2017. This continual data-feedback has a range of benefits, including improved safety, driver productivity and fuel costs.



## Developing Leadership Program

Our multi-year Developing Leadership Program provides recent college graduates the opportunity to hone key leadership and functional skills while preparing for an operations management career at ADS. The faceted rotational program supplements a structured training plan with mentorship by senior managers and hands-on experience across our many manufacturing facilities. Participants will develop their operations and project management skills before advancing to focus on financial fundamentals and talent management, all while transitioning through a variety of supervisory and managerial roles.

Within the first two years in the Program, participants will be leading teams within key functional areas, becoming active members of leadership committees and leading corporate global-impact projects. At the end of the Developing Leadership Program, they will have to skills to:

- work with people of differing backgrounds, generations and personalities
- assess and leverage the talents of their teams
- set clear expectations and manage team performance
- manage change, conflict and critical conversations
- develop and coach teams toward extraordinary achievements

We are dedicated to building a best-in-class team at ADS and our Developing Leadership Program provides a strong foundation for successful future leaders at ADS.



“ We make the most of every mile on the road by optimizing our fleet routes for maximum payload and mileage efficiency.”



— Pat Coyle  
Vice President,  
Logistics and Supply  
Chain Planning

# Commitment to Social Responsibility and Corporate Governance

We are dedicated to operating ethically and with integrity in all that we do – both inside our organization and in the communities where we live and work. Our commitment to social responsibility and corporate governance is wide-reaching, as seen in the variety of ways we hold our employees to the highest standards, move the industry forward and give back to make our communities stronger.

## Giving Back to Our Communities

We have a long history of performing community service, both at the corporate level and at our regional facilities. Team members across North America are committed to giving back in the communities where they work, live and raise their families, and we understand the importance of supporting our employees in their service efforts.

Through our charitable giving program, we've helped local and national nonprofit organizations achieve their broader goals. In 2018, our efforts we focused around the following areas:

- **Donations to charitable organizations** in cities where we operate, which have been coordinated by local employees to reflect local priorities. In FY 2018 ADS and our employees donated **more than \$500,000** to charitable organizations in central Ohio and other communities where we do business.
- **America's Dedicated Service Members** is a benefit committee started by ADS employees to provide support to our families with members who are serving, or have served, in any branch of the United States Armed Forces.

### Organizations We Supported in 2018



“ We are committed to being a good local citizen in the communities where we live and operate. We encourage our employees to participate in and lead efforts to make our communities stronger through volunteer work and charitable giving.”



— **Andrea Seymour**

Director of Talent Acquisition and Performance Management

## Promoting Workforce Excellence

Our culture is focused on creating an environment where our employees feel supported and empowered. We succeed when they are given the right resources and opportunities to do their best work. That is why we are so focused on helping our employees thrive by providing them access to critical learning opportunities that help them grow and learn in their time at ADS. This includes a variety of training programs that focus on building their technical and leadership skills to match both individual and company performance development needs, as well as rewards and recognition.

**Leadership training:** Since 2013, more than 400 ADS emerging leaders, field managers and new hires have participated in leadership training programs, including:



**Attracting and Retaining Top Talent**



**Leveraging Emotional Intelligence to Lead Multiple Generations**



**Managing Teams During Times of Change**



We are also a proud member of the Employer Support of the Guard and Reserve Group, which encourages cooperation, understanding and flexibility between members of the Army National Guard® and Reserves and their civilian employers.

## Operating Ethically and with Integrity

We require our employees, directors and officers to comply with all laws applicable to our business operations. We also necessitate that our personnel abide by a code of business conduct and ethics, which defines our vision of ethical behavior and embodies compliance with the law. Our ethics requirements are built into our leadership competencies and considered in annual performance reviews.

Other ways we promote ethics and integrity include:



**Ethics and Anti-corruption Training**



**24-hour Ethics Hotline**



**Annual Employee Survey**



**Global-focused Code of Business**



**Conduct and Ethics**



“Respect, fair play, honesty and accountability are the bedrock upon which we built the company. Our success in business is closely tied to our commitment to integrity.”



— **Kevin Talley**, Chief Administrative Officer

## Advancing the Industry

ADS leaders **invest many hours each year collaborating** with trade associations and experts in our field to help drive the industry forward. For example, our highly skilled engineers recently collaborated with ASTM International to create consensus technical standards and improve performance in the design, manufacturing and construction of materials and products. We've also worked to educate the industry about the use of recycled HDPE products and advocate for increased testing and use of recycled plastics in construction applications.

Our employees regularly attend and present at conferences for many top associations, such as the Transportation Research Board (TRB) and American Association of State Highway and Transportation Officials (AASHTO). Additionally, we're a proud member of ASTM International, as well as the following associations:



Outside of industry associations, we educate building owners, specifiers and installers about new technology and best practices to achieve long-term water management performance at an optimized cost, while minimizing the impact to the environment.

## Supporting Critical Research

We provide facilities, materials and engineering support to fund and support third-party research to test the performance of our products. For example, last year we supported research studies that helped confirm the material properties and testing necessary to achieve 100-year design service life for corrugated plastic pipe manufactured with recycled material.

Additionally, we have supported the following industry research studies:

- National Cooperative Highway Research Program (NCHRP) Report 870 – Performance of Corrugated Pipe Manufactured with Recycled Content
- Long-Term Performance of Corrugated HDPE Pipes Manufactured with Recycled Materials for Commuter Railroad Applications
- Life Cycle Assessment of North American Municipal Pipe Systems for the Plastics Pipe Institute® (PPI)
- University of New Hampshire Stormwater Center (UNHSC) Comparison Study of the Performance of Stormwater Treatment Systems





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## Thank you for reading **Our Commitment to Sustainability Report**

We value feedback from our stakeholders.  
If you would like to get in touch, please email  
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