2025

Extreme Endeavors

COMPANY PROFILE

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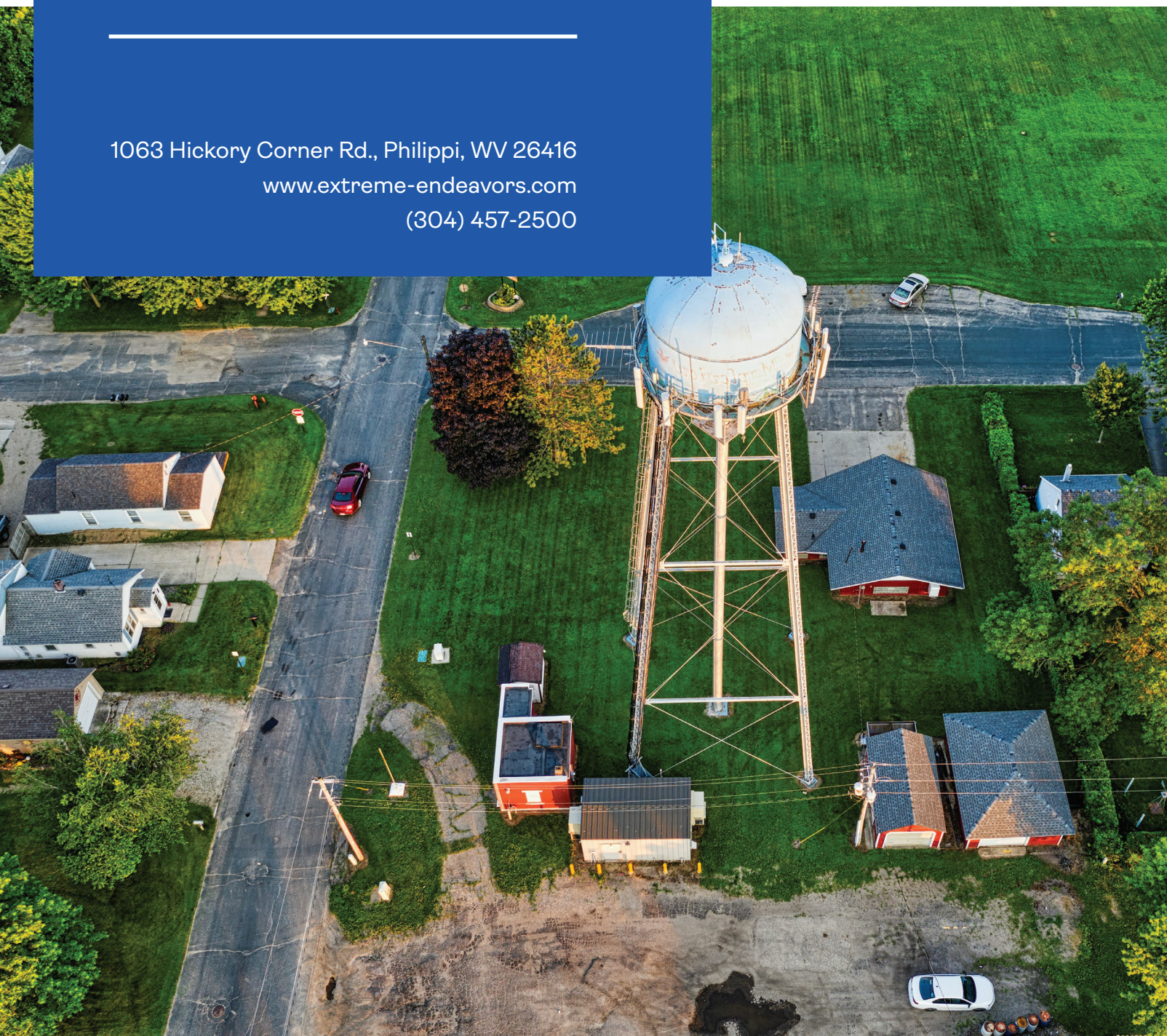

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COMPANY **OVERVIEW**

Extreme Endeavors is a U.S.-based technology company specializing in the automation and monitoring of critical infrastructure. Originally founded to support scientific research in Antarctica, the company now operates globally, delivering IoT-driven solutions.

Unlike traditional consultants, Extreme Endeavors implements real systems backed by research, hands-on expertise, and lifelong support. With deep knowledge in cloud-based systems and embedded hardware, the company develops and delivers smart monitoring and control technologies for public water systems, municipalities, and private industry. Known for rapid customer support and highly adaptive solutions, Extreme Endeavors operates with an experienced, forward-thinking engineering team.

OUR **STORY**

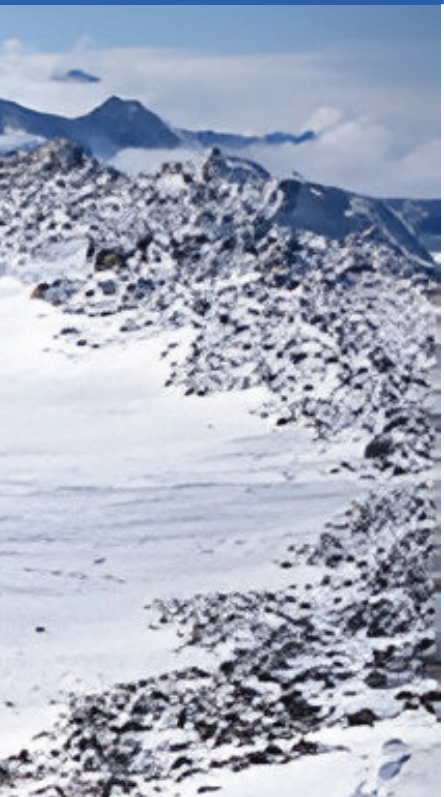
Extreme Endeavors began on the icy plateau of Antarctica with a mission to support scientific research in one of the most extreme environments on Earth. Today, while our headquarters are based in West Virginia, our work spans continents—from monitoring mountain ranges and cave systems to implementing smart water solutions in South America. We are now expanding into regions across Africa and Asia to address critical water infrastructure needs.

What sets us apart is our hands-on approach. We're not consultants—we're a team of engineers and problem solvers



who deliver real, working solutions. Every project, big or small, begins with a conversation. If we're the right fit, we take it on with full commitment. If not, we'll guide you in the right direction.

Each project involves deep research, collaborative design, and a passion for delivering more than what's expected. We don't just implement technology—we grow with it, learn from it, and use it to serve people. Whether it's advanced IoT systems or small-scale public infrastructure, our goal remains the same: to create technology that benefits humanity, supports communities, and protects what matters most.



OUR **MISSION**

Innovation that benefits humanity, people and community!

We deliver cutting-edge automation solutions that enhance operational efficiency and resource management in critical infrastructure.

OUR **VISION**

To be a global leader in smart infrastructure automation, providing sustainable and innovative technology solutions.

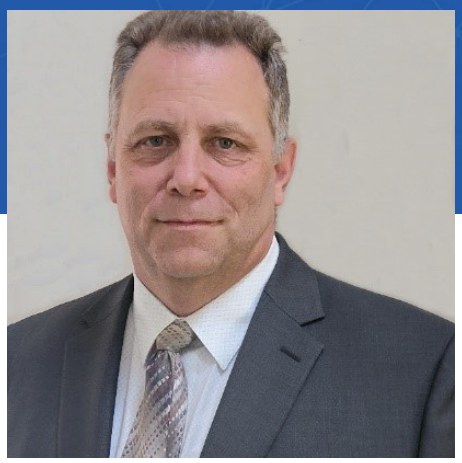
CORE **VALUES**

Innovation

Sustainability

Efficiency

Customer Commitment



FOUNDER'S INSIGHT

Mike Masterman, Founder & President – Extreme Endeavors

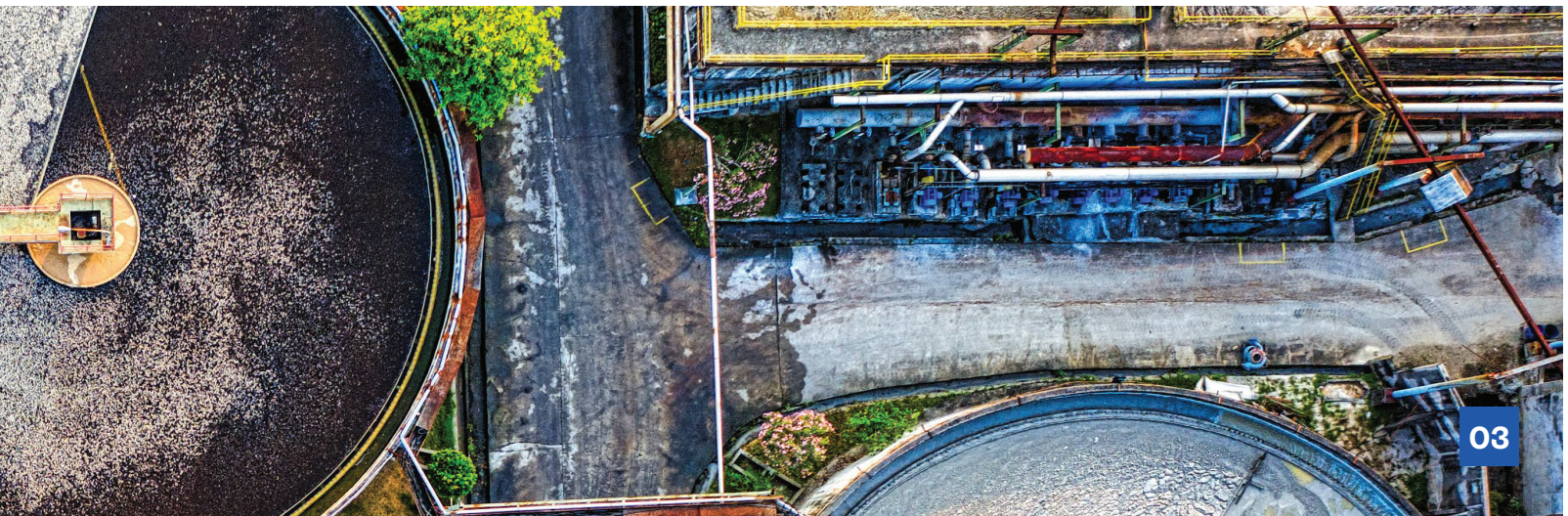
Mike Masterman, Founder and President of Extreme Endeavors, is a pioneer in innovation with a background in radio astronomy, RF systems, and critical infrastructure development. His diverse experience spans managing scientific operations in Antarctica and serving as a firefighter and EMT. With over 35 years of experience in engineering, innovation, and public service systems, he has been the driving force behind Extreme Endeavors' mission to make water systems smarter, safer, and more efficient.

Under Mike's leadership, the company has developed cutting-edge IoT automation systems and monitoring solutions that transform water challenges into opportunities for sustainable progress.

As both an author and entrepreneur, Mike published "Extreme Endeavors: An Entrepreneur's Journey From Antarctica to Ethiopia," sharing his remarkable journey and the story behind the company's evolution.

Mike's rare combination of technical depth, field resilience, and mission-driven leadership defines the culture at Extreme Endeavors. He is a builder of systems, a protector of communities, and a steadfast believer in using technology to serve humanity.

> **"Our journey in the water industry, at its core, is about combating complacency and addressing the vulnerabilities in water management systems. It's about leveraging technology to protect a resource that's essential to life itself. And let me tell you, once you fully grasp the significance of water security, it's impossible to look at a glass of water the same way again.**
>
> — Mike Masterman, Extreme Endeavors



OUR **KEY OFFERINGS**

Automation of Critical Infrastructure
Smarter control systems for improved efficiency.

Source Water Monitoring
Early warnings to protect water quality.

Technology Assessment
Expert advice on water tech solutions

Network Development
Setup of servers, fiber optics, and IT systems.

Digital Twin & 3D Automation Systems
Virtual models for monitoring and planning.

Emergency Maintenance
Fast response to system issues or failures.

Smart Sensors
Advanced water quality monitoring

Water Usage & Loss Tracking
Detect leaks, prevent waste

Maintenance Management
Efficient water system upkeep

Automated Reporting
Simplifying compliance with city, state, and federal agencies.



OUR **PRODUCTS**

IoT Devices
SingleNode, IPAC, INSCADA, Tank Monitor

Electrical Panel Products
POE Injector, 4-20mA Surge Protector, Ethernet Break out, etc...

Sensors
PH, Turbidity, ORP, COD, Dissolved Oxygen etc...

Structures & Supporting Hardware
Autonomous portable tower, etc...

OUR **KEY TECHNOLOGIES AND SOLUTIONS**

Extreme Endeavors delivers smart water automation solutions through an integrated ecosystem of SCADA systems, proprietary IoT hardware, and our EEMACS cloud-based software. These technologies empower public utilities and industries to manage water infrastructure with speed, precision, and intelligence.

Voice Command & Control
Research and development is underway to enable hands-free system operation through voice commands using our EEMACS software and SCADA platform.

Water Loss Analysis
Our cloud-based monitoring system collects and analyzes real-time data via IoT sensors and SingleNode devices to detect abnormal flow patterns and reduce costly water waste.

Real-Time Tank Level Graphics
Using SCADA visualization interfaces, operators get instant, graphical insight into tank levels and historical trends for better decision-making.

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Smart Control Software
Our software, EEMACS, is the core intelligence behind every automation decision. It provides predictive analytics, custom alerts, and seamless communication between devices.

Off-the-Grid Tank Monitoring
Using solar-powered IoT devices and low-power communication modules, this system enables tank monitoring in areas without grid access or internet coverage.

Advanced Plant Automation
Our SCADA system manages every step of the water treatment process, reducing downtime, human error, and operating costs.

Mission Control Center
A centralized control hub designed to monitor and manage your entire water infrastructure in real time.

OUR **FUTURE GOALS & GLOBAL EXPANSION**

Extreme Endeavors has proudly operated in the United States for over 25 years, with a strong foundation in West Virginia. During this time, the company has focused on building smart, reliable solutions for water infrastructure, helping communities and municipalities manage their systems with greater efficiency, transparency, and innovation.

In recent years, Extreme Endeavors has begun expanding its horizon beyond the U.S., driven by a commitment to address water challenges on a global scale. Starting with South America, the company is now actively working to grow its presence in Ethiopia, Zambia, and Türkiye. These regions face unique and pressing water management needs, and Extreme Endeavors is dedicated to providing sustainable, technology-driven solutions that make a meaningful difference on the ground.

Looking ahead, the company envisions a future where smart water technologies are accessible and impactful across diverse communities. With a continued focus on solving water issues, Extreme Endeavors aims to expand its operations, forge new partnerships, and develop innovative tools that empower people to manage water more efficiently. After all, water is the most vital resource on Earth, and we must always strive to use it wisely.



PROJECT HIGHLIGHTS

Extreme Endeavors has partnered with various municipalities and service districts to implement smart water management solutions. The following projects demonstrate our impact across different regions and system complexities.

Mount Hope Water Association – SCADA Expansion & Leak Detection

Mount Hope Water Association adopted a five-year SCADA plan that lowered labor costs and enabled affordable monthly payments. Seeing strong results, they re-enrolled—adding advanced software and acoustic leak detection using gel-filled couplers. Now, they're partnering with Extreme Endeavors to install full battery backup across all tank sites, ensuring uninterrupted operations during power outages or natural disasters.

Newburg Water Works – Five-Year Automation Plan

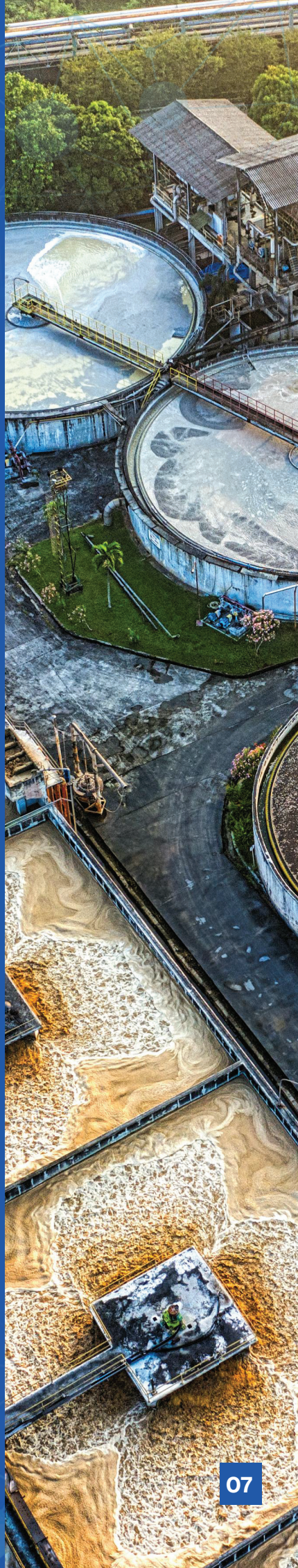
In Newburg, WV, manual water pump operations created inefficiencies and overburdened the local workforce. Extreme Endeavors developed a five-year automation plan that eliminated the need for 4 a.m. trips to pump stations, allowing staff to focus on maintenance and leak detection. This partnership transformed how Newburg manages its water system—at no upfront cost—providing operational efficiency and improving infrastructure reliability.

Fountain Public Service District – SCADA System

Fountain PSD faced repeated failures from a legacy SCADA system unsuitable for West Virginia's terrain. Extreme Endeavors restored functionality by repositioning radios, then introduced a five-year renewal plan to upgrade their infrastructure. We integrated advanced controls, reused existing hardware to cut costs, and delivered emergency support—including temporary systems during outages. The collaboration continues, focused on enhancing data quality and operational stability.

New Creek Public Service District – Automation Return on Investment

New Creek PSD was operating pumps nearly 23 hours a day before partnering with Extreme Endeavors. Our automation system reduced pump time to 16 hours, significantly lowering energy costs and reducing water purchases from Keyser City. Within months, the PSD recouped its investment through savings—demonstrating the tangible financial and operational benefits of smart infrastructure.



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