



2026 Department of War

# Environmental Awards

Environmental Restoration – Individual  
Ms. Shannon McMillan

## Introduction

In the heart of west-central Texas lies Goodfellow Air Force Base (GAFB), a site with a storied history that has evolved from a pilot training school in the 1940s to a vital, modern-day intelligence and defense hub. Today, its primary mission is to forge exceptional intelligence, surveillance, reconnaissance, and fire protection professionals for the entire Department of War (DoW).

At the core of this mission is the Louis F. Garland Department of War Fire Academy, the largest and sole distinguished firefighting academy in the United States. This premier institution is where warriors from the Air Force, Space Force, Army, Coast Guard, Navy, and Marine Corps are trained, developed, and inspired. Each year, over a thousand service members endure a grueling 68-day trial-by-fire, a comprehensive program that transforms them into elite professionals

ready to protect critical assets and personnel across the globe.

Ensuring the integrity of this vital training ground is no small task. With over 15 years of experience, Ms. McMillan serves as the pivotal Restoration Project Manager for the Air Force Civil Engineer Center (AFCEC) at GAFB. She masterfully oversees the environmental health and safety of the base's 1,200 acres, ensuring that this hallowed ground remains a safe and effective proving ground for our nation's defenders. Her leadership and foresight are instrumental in sustaining the academy's globally recognized standard of excellence and preserving its capacity to train the next generation of heroes.

## Background

As a sole key leader in the base's Environmental Restoration Program (ERP), Ms. McMillan is directly responsible for executing the goals of the installation's

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restoration program by working towards a common objective of implementing the mission and ensuring clean-up efforts continue to make forward progress. Joining AFCEC in late 2022, Ms. McMillan immediately distinguished herself by tackling one of the Air Force's most significant and complex environmental legacies: Per- and Polyfluoroalkyl Substances (PFAS) contamination affecting both the on-base and local communities. As the Restoration Project Manager for 15 intricate restoration sites, she is directly responsible for confronting a multi-generational challenge, protecting public health, and safeguarding the mission of the 17th Training Wing.

This challenge originated decades ago. In the 1970s, the Air Force adopted Aqueous Film-Forming Foam (AFFF), a revolutionary tool that was highly effective at extinguishing petroleum-based fires and saved countless lives. However, this life-saving foam contained PFAS, now known as "forever chemicals," which carried a hidden, long-term environmental cost. Decades of historical AFFF use led to unintended impacts on the local environment. The first official sign of this legacy issue emerged in 2015 when an assessment completed by the Air Force Civil Engineer Center confirmed the presence of PFAS from historical releases. While the Air Force acted swiftly to replace the legacy AFFF with a modern alternative in 2016, the contamination of soil and groundwater had already taken root.

It is at the difficult intersection of this history and the present-day community that Ms. McMillan operates with unparalleled leadership and skill. An extensive 2020 off-base investigation revealed that 24 private drinking water wells contained PFAS levels exceeding the lifetime health advisory. In response, Ms. McMillan has established herself as the sole, dedicated point of contact for these impacted residents. Demonstrating profound commitment, she frequently works

non-conventional hours to be accessible to the public, building a foundation of trust through transparent and proactive communication with community members, local leaders, and base leadership.

Her technical acumen is critical to the success of the program. Ms. McMillan is not only managing the immediate response for the affected private wells but is also spearheading two additional investigations to define and mitigate the full contaminant plume. Furthermore, she meticulously reviews all base dig permits to prevent the cross-contamination of soil and groundwater, implementing best management practices that protect clean areas from legacy pollution. This diligence ensures that current base operations do not compromise ongoing environmental restoration efforts.

Ultimately, Ms. McMillan expertly balances the critical needs of the community with the operational demands of the 17th Training Wing. Her leadership and unwavering dedication have been instrumental in preventing further PFAS impacts while empowering the vital mission to train and transform joint and coalition warriors.



#### **Aim High, Fly-Fight-Win**

Ms. Shannon McMillan, Restoration Project Manager for Goodfellow Air Force Base in Texas, posing at the Louis F. Garland Department of War Fire Academy where many of her investigations occur.

## Accomplishments

### Safeguarding Health, Rebuilding Public Trust

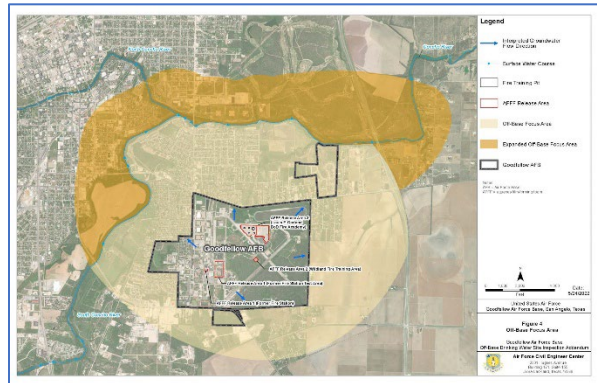
In November 2023, Ms. McMillan's decisive leadership and genuine compassion were instrumental in rebuilding the bridge between the Air Force and its community. When a critical water contamination issue threatened public trust, she immediately seized ownership of the permanent solution, moving beyond the initial response to address the long-term concerns of worried local families.

She served as the essential human element in a technical problem, personally overseeing the design, installation, and proactive maintenance of 24 Point of Entry Treatment Systems (POETS). More than a project manager, she became the direct, trusted contact for 42 residents, visiting their properties to listen to their concerns and ensure they felt understood. Her ability to translate complex field conditions for both families and contractors proved instrumental in building a bridge of confidence, leading to a perfect 100% inspection rating and a near-perfect 98% customer satisfaction rating.

Furthermore, Ms. McMillan demonstrated remarkable fiscal and environmental stewardship. When faced with accusations of GAFB drinking water contamination, she spearheaded a thorough investigation that identified crucial evidence of upgradient groundwater discrepancies. Her findings definitively safeguarded community relations and shielded the Air Force from over \$750,000 in liability, ensuring those funds could be reallocated to other critical restoration priorities.

Ms. McMillan's dedication to people and her commitment to fiscal responsibility epitomizes the standard for excellence, demonstrating her exceptional value to the United States Air Force and the community it serves. Her leadership establishes a transferable framework for community relations across the DoW, proving that direct

engagement and taking ownership of long-term solutions are critical to maintaining public confidence.



### Mapping the Impact of Groundwater Contamination at Goodfellow Air Force Base

This map highlights the groundwater survey of private wells potentially used for drinking water outside of Goodfellow Air Force Base and assists in informing the Base's sampling program. The lighter shaded areas represent the initial focus area, and the darker shaded area represents the expanded focus area. These findings are critical for protecting local water resources and assist in guiding cleanup efforts.

### Forging Partnerships to Secure Safe Water

Responding to a critical environmental hazard in December 2023, Ms. McMillan spearheaded a multi-agency initiative that saved the Air Force \$3.75M and provided a permanent, safe water source for three families impacted by PFAS contamination. She orchestrated a diverse group of stakeholders, including affected residents, a public water supply company, the Texas Department of Transportation, and Tom Green County, to navigate intricate logistical and regulatory challenges.

Proactively mitigating legal risks, Ms. McMillan consulted with the Air Force legal team to structure binding legal agreements with each family for a replacement of their impacted private well with a municipal drinking water connection that significantly reduced future government liability. Her unwavering commitment to excellence was demonstrated by her on-site presence during the connection to the public water supply, where she meticulously

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reviewed installation plans to guarantee adherence to the highest industry and engineering standards. Despite numerous roadblocks, her persistent leadership and innovative problem-solving were instrumental in the project's success.

Ms. McMillan's expert management not only resolved a pressing environmental issue and strengthened community relations but also delivered a safe and reliable water source to the affected families. Her decisive leadership directly resulted in a cost avoidance of \$3.75M for the Air Force, eliminating the need for indefinite and costly maintenance of temporary filtration systems.

Ms. McMillan's dedication to people and her commitment to fiscal responsibility epitomizes the standard for excellence. Her proactive engagement strategy has since become a model for other DoW installations facing similar community relations challenges, demonstrating her exceptional value to the United States Air Force and the community it serves.

### **Innovative Leadership Protects Human Health, Delivers 160% ROI**

As the PFAS plume migrated toward the sole water source for 3,000 citizens, Ms. McMillan seized command of a critical \$11.2M mission project in October of 2024. Designated as a CERCLA Interim Removal Action, the project was aimed at cutting off contamination at the installation boundary. Rejecting a conventional, reactive approach, she architected a visionary "source reduction" strategy to address PFAS at its origin, preventing potential public health impacts.

Ms. McMillan's data-driven leadership forged a multi-faceted defense that guaranteed effectiveness by mandating a rigorous hydrogeological study to guarantee the cleanup system's success, eliminating guesswork and securing a lasting solution. She safeguarded the community, with exceptional foresight, by directing a pivotal investigation into the project's impact during drought

conditions, a crucial step that protected local water access and secured public trust. Her planning culminated in the installation of a proven pump-and-treat system. This process purifies contaminated water and re-injects it, creating a powerful hydraulic wall that actively cleans the 4,000-acre plume, halts contamination at the source, and protects the community's drinking water wells.



### **Eyes Underground**

Off-base monitoring wells are crucial for mission assurance, allowing the Department of War to proactively manage and mitigate environmental risks and provide critical data needed to track pollutants and assess the effectiveness of remediation efforts.

Ms. McMillan's decisive actions halted the plume's 100-foot-per-year migration, protected 3,000 citizens, and will save the Air Force over \$18M, delivering a remarkable 160% return on investment (ROI).

The project's resounding success has established a new blueprint for proactive environmental defense. The findings are now shared extensively within the Air Force through internal restoration meetings and have become a foundational "Lessons Learned" roadmap. Externally, Ms. McMillan's work is showcased at key regulatory summits and the

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annual Joint Services meeting, bringing these innovative strategies to the Army, Navy, Texas regulatory agencies, and the regional Environmental Protection Agency.

### **Uncovering a Monumental Environmental Impact**

With remarkable leadership and technical acumen, Ms. McMillan spearheaded a landmark \$2.1M remedial investigation that culminated in the unmasking of a staggering 5,400-acre PFAS contamination zone in October 2023. Confronted with unknown and potentially catastrophic risk, she served as the central architect of the investigative strategy, masterfully orchestrating a complex, multi-disciplinary task force of the nation's leading scientific experts.



#### **Uncovering the Subsurface**

At Goodfellow Air Force Base, AFCEC contractors are installing new environmental monitoring wells. This project directly supports the DoW's mission by enabling precise, effective, and high-standard remediation efforts.

Her pioneering approach demanded an unprecedented level of precision and scale, directly resulting in the installation of over 40 deep-strata monitoring wells to chart the hidden pathways of the contamination, and the extraction and forensic analysis of 266 discrete soil samples to pinpoint the vertical and lateral extent of the pollution.

This monumental undertaking, driven by Ms. McMillan's relentless pursuit of definitive data, directly exposed a previously undetected 2.3-mile contaminant plume migrating beyond the installation's perimeter, revealing a significant and unmitigated environmental liability.

Ms. McMillan's leadership delivered the definitive, data-driven account of a crisis, transforming ambiguity into actionable intelligence. Her work established the irrefutable scientific baseline, setting a new standard for environmental stewardship and providing the critical framework essential for protecting natural resources and public health.

### **Elite Training with Environmental Integrity**

Ms. McMillan demonstrated exceptional foresight and environmental leadership in her management of the Louis F. Garland Department of War Fire Academy's new \$5.4M jet propellant-8 (JP-8) live-fire trainer. Her intervention began in December 2023 when she entered project design meetings after discovering the initial planning environmental review had not addressed PFAS contamination. This project is pivotal to DoW's mission, as it closes a critical gap in training realism for the 2,000 firefighters who train annually at DoW's sole joint service fire academy. By transitioning from propane-based simulations to JP-8 fuel, the new trainer provides the only means for firefighters to learn and master the hazardous realities of extinguishing intense jet fuel fires, directly preparing them for real-world aircraft disasters.

Her direct intervention was instrumental in navigating significant environmental and regulatory challenges, resulting in substantial cost savings and ensuring mission readiness. Key accomplishments include:

- **Proactive Contamination Avoidance:** Ms. McMillan developed and executed a strategic avoidance plan after identifying significant PFAS contamination. Her proactive leadership prevented the improper disturbance of 976 cubic yards of contaminated soil and groundwater before construction began. This single action safeguarded the environment from widespread contamination, prevented over a month of contract delays, and saved an estimated \$200,000 in costs.
- **Mission Assurance and Fiscal Stewardship:** Building on her initial success, Ms. McMillan's expert enforcement of regulatory compliance throughout the project averted further crippling delays and potential fines. Her sustained diligence saved an additional \$1M, bringing the total project savings to \$1.2M by identifying environmental waste disposal requirements upfront in lieu of after the project began construction. This ensured the DoW's vital, mission-enhancing fire training facility was delivered on schedule and under budget, directly supporting the next generation of warfighting firefighters.



#### **Top Notch Training for the Future**

A Department of War instructor (right), assigned to the 312th Training Squadron, coaches students through extinguishing a vehicle fire at the Louis F. Garland Department of War Fire Academy, Goodfellow Air Force Base.

#### **Personal Initiative Expedites Environmental Security**

In an era where response speed is critical, Ms. McMillan proved she could overcome any bureaucratic obstacle. Tasked in February 2025 with securing access agreements across multiple jurisdictions to monitor urgent PFAS groundwater contamination, she navigated a process that typically takes months and condensed it into days.

Drawing upon her past service with the City of San Angelo, Ms. McMillan did not just coordinate; she connected. She personally engaged with former colleagues in the city's attorney office, transforming a tedious legal review into a swift and collaborative effort. This unique advantage allowed her to single-handedly slash an estimated 80 man-hours from the process, accelerating the timeline for the installation of vital monitoring wells.

Her foresight did not stop at the city limits. Anticipating similar challenges with Tom Green County, she took the proactive step of attending the Commissioner's Court in person. By standing ready to answer any question from the County Judge and Commissioners, she replaced potential friction with immediate clarity. Her presence demonstrated a profound respect for local governance and resulted in an unprecedented one-week approval for an access agreement. This action not only saved critical time and resources but also powerfully reinforced the partnership between the county and the Air Force.

Beyond her deft navigation of official channels, Ms. McMillan became the trusted voice of the mission for the local community. When the Air Force sent letters to agricultural operators about the sensitive issue of groundwater contamination potentially impacting their property, she stood as the primary point of contact for 144 concerned property owners. She ensured that every single inquiry—100% of them—was met with a timely, informative, and empathetic response.

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She not only disseminated information; she built trust between the public and the Air Force, embodying the spirit of an exemplary ambassador during a time of uncertainty.

Through a combination of strategic insight and personal initiative, Ms. McMillan set a new standard for intergovernmental collaboration. Her success was directly fueled by deep community ties cultivated through her involvement on local boards, participation in civic organizations, and past city employment. These established relationships and insider knowledge allowed her to bypass bureaucratic hurdles, expedite a critical environmental security mission, and secure public trust from the outset. Her approach serves as a powerful blueprint for other installations, demonstrating that proactive community

engagement is a key strategy for mission success and leaving a legacy of strengthened relationships.



#### **Fuel to the Fire**

Students assigned to the 312th Training Squadron extinguish simulated ground pool fire at the Louis F. Garland Department of War Fire Academy, Goodfellow Air Force Base, Texas. The ground pool fire simulates an ignited fuel spill for students to learn how to control and extinguish.