



Exponent®
Engineering & Scientific Consulting

Morgan Reed

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Professional Profile

Ms. Morgan Reed is an Associate at Exponent's Construction Consulting Practice. She has three years of experience in site investigations, data analysis, project planning, scheduling, engineering design, technical writing, and risk assessment.

Prior to joining Exponent, Ms. Reed worked as an Environmental Engineer, contributing to projects on brownfields as well as federal and military sites. She has led investigations in contaminated groundwater, soil, and vapor intrusion. She has done surveys on per- and polyfluoroalkyl substances (PFAS or "forever chemicals"), chlorinated solvents, petroleum hydrocarbons, and unexploded ordnances. She also has knowledge in designing air sparging systems and bio-barrier injection technologies.

Ms. Reed earned both her Master's and Bachelor's degrees in Civil and Environmental Engineering from Carnegie Mellon University. Her Master's in Environmental Engineering focused on water waste treatment and sustainable design.

Academic Credentials & Professional Honors

M.S., Civil and Environmental Engineering, Carnegie Mellon University, 2022

B.S., Civil Engineering, Carnegie Mellon University, 2021

Academic Appointments

Research Assistant, Department of Civil Engineering, Carnegie Mellon University, 2020-2021

Prior Experience

Junior engineering consultant, Jacobs 2022-2025

Project Experience

Site Investigations

Performed on-site inspections and gathered data to validate designs and ensure adherence to safety and quality protocols. Researched and integrated innovative technologies to enhance product performance and streamline project workflows. Supported the preparation of detailed engineering documentation, including reports, specifications, and test plans, ensuring clarity and accuracy. Maintained a strong focus

on safety and environmental compliance to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Conducted environmental sampling in Puerto Rico, managing monitoring wells with low-flow water pumps to gather critical data for remediation of unexploded ordnances. Led monitoring well development in restricted military areas, navigating complex logistics and obtaining radio clearance. Calibrated water quality meters and photoionization detectors per standard operating procedures, ensuring data accuracy and reliability.

Contributed to five-year review documents by gathering, documenting, and revising historical site reports to meet regulatory requirements. Conducted public surveys to measure remedy effectiveness and incorporate community input into remediation strategies. Collaborated with project management and technical specialists to finalize complex reports, ensuring accuracy and alignment with project goals.

Engineering Design

Collaborated with senior engineer to design and implement a fluid injection system aimed at remediating a contaminated military base. Engineered a system that injected 500,000 gallons into 68 ground wells, successfully distributing 14,000 gallons of the biobased solution for environmental cleanup. Designed and executed the installation of a bio-barrier to contain contaminants, preventing further spread and minimizing environmental impact.

Led engineering efforts in remedial design layout delivering precise and efficient design solutions. Assisted in the design, analysis, and implementation of engineering projects, ensuring compliance with standard operating procedures (SOPs) and project specifications. Collaborated with cross-functional teams to develop engineering solutions, improving project efficiency.

Ecological Risk Assessment

Performed detailed data analysis for ecological risk assessments (ERA), leveraging EPA Ecological Screening Values (ESV) to identify environmental impact trends and guide remediation strategies. Assessed risk to ecological receptors, including birds, mammals, plants, and invertebrates, to guide environmental management strategies. Compiled comprehensive reports identifying at-risk ecological groups impacted by on-site activities, ensuring clarity and compliance.