

A letter from Emma, Data Systems GIS Officer at Fire & Rescue NSW

Dear young innovators,

If you've ever looked at a map and wondered how it *knows* the fastest route, or watched a helicopter on the news and thought, "How did they decide where to fly?", you've already touched the edges of my world. I'm Emma Griffen, a Data Systems GIS Officer at Fire and Rescue NSW, and every day I help our crews make smarter, safer decisions using the power of geography, data, and problem-solving.

What GIS and RPAS look like in real life

Geographic Information Systems (GIS) is the "where" engine behind almost everything: where fire trucks should go, where hazards are likely to spread, where communities will need support.

In emergency services, good information delivered at the right time saves lives. Today, that includes RPAS—drones equipped with cameras and sensors that capture real-time imagery during bushfires, floods, and hazardous incidents. My job blends maps, maths, coding, and clear communication to turn complex data—including aerial imagery—into simple, actionable answers—fast. It's science, technology, engineering and maths working together, with a huge dose of teamwork and purpose.

Why your perspective is needed in emergency services

Emergencies don't wait. We rely on people who can think critically, collaborate under pressure, and care deeply about communities. Girls—and all young people—who bring curiosity, empathy, and technical skill help us see risks earlier and respond smarter. Your ideas might become the model that predicts a hazard better, the RPAS workflow that captures critical imagery, or the map that helps a family get to safety. That impact is real, and it's within your reach.

A final note from me to you

STEM is not a straight path—it's a very human one. You'll meet mentors, teammates, and communities who will challenge and cheer you on. You'll discover that the skills you build can protect people, restore places, and sometimes even change how your city moves. When you choose this path, you're choosing to be part of something bigger than yourself.



If you ever doubt whether you belong here, hear me clearly: **we need you.** Bring your curiosity, your questions, and your courage. The map of your future is wide open—and you get to chart it.

With pride in your potential,

Emma Griffen

Data Systems GIS Officer

Fire and Rescue NSW 