



# NOEL NELSON

*Industry: Scientific Civil Service*

## CURRENT ROLE

- Atmospheric Scientist, Met Office

## EDUCATION & CAREER PATH

- **BSc in Physics & Maths** – University of Sheffield (4 years)
- **MSc in Environmental Science** – University of Surrey (2 years)
- **Atmospheric Scientist, Met Office** – 34 years

## CAREER HIGHLIGHTS & KEY CONTRIBUTIONS

- Contributed to the early development of the NAME model for dispersion modelling at the Met Office.
- Led the Weather and Health Initiative, linking weather patterns to NHS workload predictions.
- Established the Met Office's environmental consultancy group to apply scientific expertise in industry.
- Secondments & Collaborations:
- Defra Air Quality Policy Unit – Gained insight into how science informs policy.
- Royal Commission on Environmental Pollution – Assisted in research for Command Reports.
- Pirbright Institute – Improved modelling of atmospheric transmission of animal diseases, leading to better surveillance.
- SPF Clean Air Research Programme – Oversaw commissioned research to advance air quality understanding.

## CAREER INSIGHTS AND REFLECTIONS

- "I originally pursued environmental science out of concern for the natural world, wanting to make a difference."
- "Early on, environmental science wasn't a popular career choice, but I found satisfaction in contributing to solutions rather than problems."
- "In recent years, I've enjoyed working at the intersection of science and policy, where my strategic thinking is well suited."

## HOW HIS PATH DIFFERED FROM EXPECTATIONS

- "I wasn't always in control of my career direction. Moving to Defra was necessary when the Met Office relocated to Exeter, but it turned out to be a great opportunity."
- "As an ECR, I imagined a quiet, research-focused career, but I was eventually promoted into managerial and advisory roles."
- "While I enjoy mentoring and working with people, I sometimes miss the hands-on scientific work."
- "Remaining connected to core science is important—it's difficult to provide expert advice without truly understanding the research."
- "Racism was a significant barrier during my early career. While progress has been made, some challenges persist. Workplace environments must continue evolving to ensure fairness and inclusivity."

## FUTURE PLANS

- "I plan to stay at the Met Office, working on environmentally relevant projects."
- "I enjoy contributing to external organisations, including:\*\*
- Institution of Environmental Sciences
- Institute of Air Quality Management
- Clean Air Advisory Panel for the Welsh Government
- "My work allows me to engage with international committees on climate change and environmental issues, which I hope to continue for years to come."

## ADVICE FOR EARLY CAREER RESEARCHERS (ECRS)

- ✓ Be flexible – Careers rarely follow a straight path. Stay open to unexpected opportunities.
- ✓ Say yes to experiences – Exposure to different projects and collaborations can lead to incredible opportunities.
- ✓ Don't aim to be invisible – Engaging with others will open doors.
- ✓ Learn from failure – Mistakes are part of the process. Be honest about challenges and ask questions.
- ✓ There are no 'dumb' questions – Curiosity drives innovation, especially in new and evolving scientific fields.