I am a Geographer

Jess, Principal Environmental Planner

Royal Geographical Society with IBG
Advancing geography and geographical learning

Photo credit: Jess Pearce

Name: Jess
Job Title: Principal Environmental Planner
Organisation: LUC
Favourite project: working on the development of the Nant Mithil Wind Farm in South Wales

What is your job role and what do you actually do?

I'm a Principal Environmental Planner working at LUC (Land Use Consultant). I am a Project Manager for Environmental Impact Assessments (EIAs).

What are Environmental Impact Assessments?

As part of the planning process, large projects are required to undertake Environmental Impact Assessments (EIAs) to assess the impacts of proposed projects on the environment. An EIA is required for onshore wind projects where more than 2 turbines are being proposed or the height of a single turbine exceeds 15 meters. The purpose of the EIA is to identify any potentially significant impacts on the environment that might be caused by the proposals. This begins with assessing the current baseline environment. So in the example of a wind farm, you'll find a hill somewhere that looks like it's got good wind resource, and then you have to say what does this environment currently look like? What birds live there, what animals have their habitats there? What's the peat like? Are there any water courses? Do people take water supplies from this hill? Do people use this area for recreation, like walking? I coordinate a whole team of specialists to answer these questions and develop the proposals to try and reduce environmental impact on the environment. This is done via the EIA process.

How did you get to where you are now?

I did a degree in geography at the University of Bristol and throughout my degree I could choose whether to do more human geography or more physical geography units. I leant more towards the side of physical geography and I chose to study a whole range of physical geography units over the three years, but the ones that I gravitated to the most were units in hydrology and glaciology. I also studied a very interesting unit in climate scepticism, which in the current political and news climate, is very relevant and was really interesting.

While I was at university, I had some work experience during the summer in investment consulting because I wasn't sure what job I wanted to do. Very quickly I realised that I didn't want to be an investment consulting professional and that doing something that could make a difference to the environment and protect the landscapes that I love was really important to me.

When I graduated, I first started working as a flood risk consultant for a small hydrology (river) consultancy based in Cardiff. In this role I produced hydraulic models of water courses. This involved using computer models to map

what areas were most at risk of flooding in a catchment area following a rainfall event. This information would help developers design good housing schemes and build infrastructure that isn't at risk of flooding.

I looked a lot at the flood risk associated with wind farms, and that led into the role that I'm doing now. I also used to do a lot of peat probing on potential wind farm sites too. Peat is a huge sink of carbon, so it's a very important factor to consider when looking for sites for wind farms and designing projects to try and avoid impacting peat resources. This experience was my gateway into the job I do now, which is all about reducing the potential environmental impacts of large developments like wind farms.

What is one of your favourite projects you've worked on?

One of my favourite projects I've worked on in my current job is the development of the Nant Mithil Wind Farm which is in Powys in Wales. The planning application is to build 30 turbines up to 200 metres in height, which means there is a huge amount of renewable energy that could be generated to power homes across the whole of the UK. This is super important for the UK's energy transition to renewable sources. It will also help the UK reduce its reliance on using energy that is imported from other countries, which will increase energy security as well as hopefully reduce energy prices for everyone!

There are a lot of constraints to consider when designing a wind farm, for example we cannot have any impact upon designated sites like SSSIs (Sites of Special Scientific Interest). We also have to avoid impacting heritage features and designated historic assets, noise is also a key constraint that we have to design around. I work with lots of technical specialists who provide information on how to best avoid impacts on these things. There are also constraints around birds and wildlife. We work with engineers to ensure the wind turbines are well-placed and not on too much of a gradient. There's a lot of factors to consider before a wind farm can be built!

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What advice would you give to someone wanting to go into this career?

Do something you enjoy. My brief work experience in investment consulting helped me realise what was important to me, and led me to my current career path in environmental planning.

Finally, why did you choose geography?

It was my favourite subject at school. It's in everything that we do in the whole world around us, whether that's physical geography, from volcanoes and lakes and beautiful mountains. Its societies, how they work, understanding globalisation and trade across different countries. It's everything. It's also interlinked into day-to-day life. By living we are doing geography, especially if you're engaged and curious about the world.