

create a better place



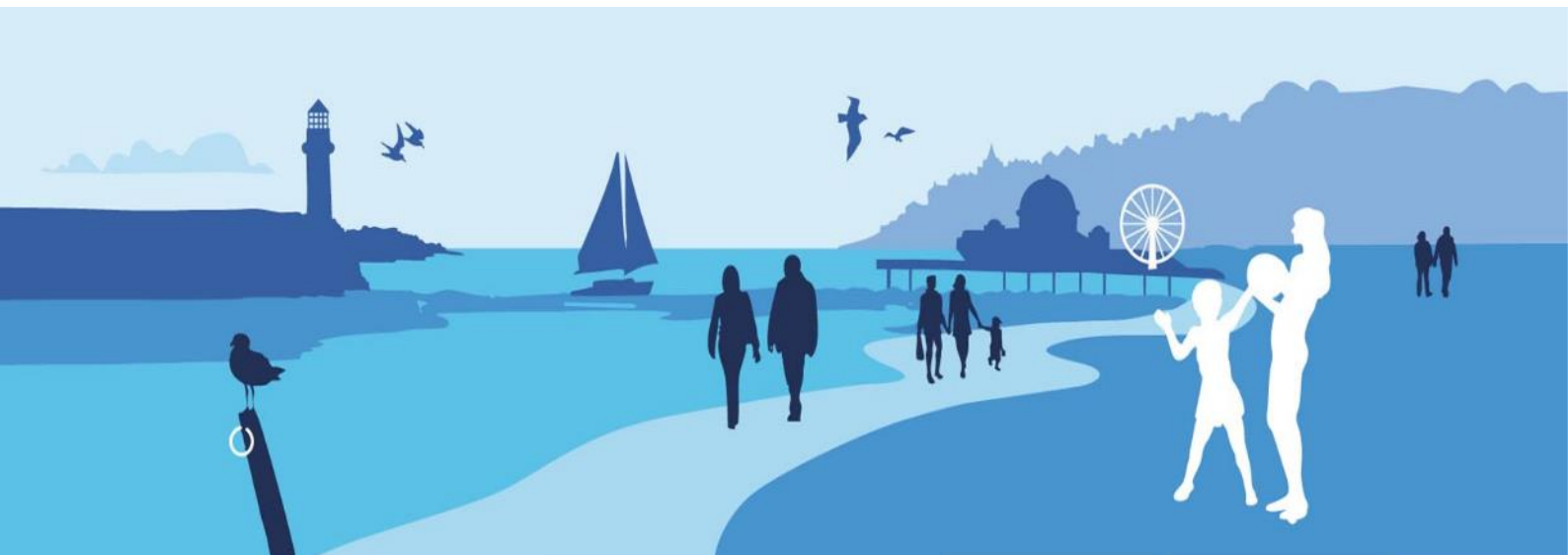
Modelling and Forecasting

Candidate Information Pack

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1. Our organisation

Our organisation

We are the Environment Agency. We protect, improve the environment and support sustainable development.

Acting to reduce the impacts of a changing climate on people and wildlife is at the heart of everything we do. We reduce the risks to people, properties and businesses from flooding and coastal erosion. We protect and improve the quality of water, making sure there is enough for people, businesses, agriculture and the environment.

Our work helps to ensure people can enjoy the water environment through angling and navigation. We look after land quality, promote sustainable land management and help protect and enhance wildlife habitats. And we work closely with businesses to help them comply with environmental regulations. We can't do this alone.

We work with government, local councils, businesses, civil society groups and diverse communities to make our environment a better place for people and wildlife.

Of course, none of this would be possible without the professionalism and dedication of our staff. We're committed to helping our people to find new ways of working and to maintain our focus on creating a better place for people and wildlife. For more information on the Environment Agency and what we do, please visit:

www.environment-agency.gov.uk/aboutus





2. Flood and Coastal Risk Management

Modelling and Forecasting

Our role

At the Environment Agency, our Flood and Coastal Risk Management (FCRM) team plays a huge part in the work that we do, helping to protecting people and property from flooding and minimising the risks caused by any floods that do occur.

Modelling and Forecasting analyse and communicate our understanding of river and coastal flood risk information, both for strategic requirements and in 'real time' for flood forecasting. Our analysis then underpins all investment and incident response decisions for flood risk.

We're making £1.4 billion capital investment between now and 2021 that will reduce flood risk to 300,000 homes, improving the environment and protecting transport, businesses and creating £30.3 billion benefit to society. It's an exciting time and we need your help to ensure we're prepared for any future flooding.

The Environment Agency are a Category 1 responder (the same as other Emergency Services). All our teams play an important part in incident management when flooding occurs.

These vary from:

- Going out to support communities at risk from flooding
- Working in the incident room when a flood occurs
- Helping to manage our response to flood risk and flooding

There are many opportunities for you to get involved in incident management. With 70% of incident management roles being office based, it's a unique and exciting opportunity to have a direct impact on your local community. You'll also be making an immediate impact upon people's lives in their hour of need.

Diversity and Flexibility

We are passionate about employing people from all backgrounds that reflect the diverse communities we serve. Likewise, we respect family and caring responsibilities, religious practices and disabilities. We welcome applications from candidates seeking flexible working patterns, including job share and we also operate a Guaranteed Interview Scheme for candidates with a disability.

“We want the Environment Agency to be a life-enhancing place to work - a place where you feel able to bring your whole self to work and where difference is truly valued. Being a diverse and inclusive organisation is essential for everyone’s wellbeing, engagement and productivity. It also means we will better reflect the communities we serve, helping us to do even better for people and wildlife.” James Bevan, Environment Agency Chief Executive.

We look forward to welcoming you to Modelling and Forecasting and hope you can play a pivotal role in one of the following four teams.



Our teams - Flood modelling and forecasting:

By joining Modelling and Forecasting you will be integral to informing our understanding of flood risk, making effective decisions and ensuring we are prepared for any future flooding. Our teams are presented below.

Inland and Coastal teams

Our modelling teams provide leadership, technical expertise and specialist advice on building, running and analysing detailed mathematical models. The outputs are used to describe flood risk, providing evidence for determining potential impacts on communities and informing flood risk management and incident management decisions.

Our Inland teams are experts in river flooding and hydrology. Our Coastal team are experts in coastal flooding, coastal processes, tides, waves, and estuaries. Both teams also support the delivery of flood incident response from our seven flood forecasting centres, working closely with a range of partners, from environmental consultants to the national Flood Forecasting Centre. The teams work on strategic projects helping us to prepare communities for future floods and determine appropriate flood mitigation solutions.

Operations and Resilience team

Our Operations and Resilience team provide national support to the organisation on incident response planning, preparedness, training, systems maintenance and development in the event of flooding. The team also lead on implementing and developing improvements to the flood forecasting services and the products provided to the Environment Agency and partner organisations.

Planning and Partnerships team

Our Planning and Partnerships team plan and programme Modelling and Forecasting projects. They are the leads for communications and performance reporting, in addition to leading on partnership and engagement work. The team improves and develops the way we work, learning from others and ensure we are working efficiently and effectively to deliver high standards for our customers.

Skills Resilience team

The Skills Resilience team is a new national team which focuses on ensuring that we are developing the right technical and leadership skills for the future of Modelling and Forecasting.

The team ensures that we have a self-development mind-set across Modelling and Forecasting, demonstrate progress using data and evidence, set up and ensure delivery of development programmes.



3. Employee testimonials



“...the single most important aspect of the organisational culture here is caring passionately about personal development”

“During my long and hugely satisfying career with the Environment Agency, I have helped develop and deliver the country’s response to flood risk. In my current Senior Team Leader role, I am leading cutting edge work to overcome some of the challenges that we have in our modelling and forecasting capabilities. This work requires my team

and I to engage and collaborate with numerous experts from other risk management authorities and research organisations.

A huge part of my job satisfaction comes during incidents, when I am performing my flood duty work , knowing my work has directly minimised risk to people’s lives and livelihood as well as safeguarding their wellbeing. What fantastic career motivation.

In M&F, we provide a wide range of services to our partners. These include: modelling work to support delivery of a national programme of flood risk management initiatives, support to the EA’s incident response efforts, set and monitor service standards and provide technical assurance to work done by others.

It really doesn’t take long for someone working in the EA to realise that the single most important aspect of the organisational culture here is caring passionately about personal development and achieving a healthy work life balance for everyone. Another big reason why I continue to offer my services to the EA.”

Asghar Akhondi-Asl, Senior Team Leader, Modelling & Forecasting



“I was on duty the week before 5th December 2013 and there were early indications there could be a large surge together with high spring tides.

I had several conversations with the Area teams and rosters were put in place. I was rostered to come in for the 6am shift on the 5th December. I thought it was okay to go out to a friend’s birthday party knowing I would be in the following morning. Just as I sat down to dinner I received a call to ask if I could possible get into the office for 3am rather than 6am as there was a lot of information required. I agreed if they ensured that my horses got extra carrots as they really don’t like been woken up so early. I then left the party so that I would be fresh for the morning.

The early forecasts gave us the knowledge that we would need to roster and allowed lots of preparation. During the incident it was a matter of tweaking the information in light of conversations with the met office around confidence in wind speed, direction and wave height all of which have an influence on the final forecast water level. The worst case and the most likely were updated after each model run then adjusted with confidence levels.

This was one of the largest coastal incidents the Environment Agency has managed and there were a lot of lessons learnt about acting early using reasonable worst case and they were put in to practice in the smaller incident in January 2017”.

Angela Scott, Peterborough Centre Modelling and Forecasting Duty Officer



“The Environment Agency is also very clear that responding to incidents comes first”

“I’m a Senior Technical Advisor in Modelling & Forecasting and a Lead Monitoring and Forecasting Duty Officer (MFDO) based in Warrington Centre. My duty role means I take a central role in the local impacts forecasting before and during any flood incidents in North West England. As you may have noticed we can get a lot of rain in our part of the country and our rivers can react very quickly, sometimes rising from their normal daily level to out of bank in as little as 30 minutes.

This presents us with lots of challenges as it means we need to forecast the likely and worst case river levels before the rain has even started. To do this we have to work closely with the Flood Forecasting Centre discussing the uncertainty within our rainfall forecast and then translate this into a range of impact scenarios for the local operational teams.

Working shift patterns in my duty role can be tough but the Environment Agency makes sure proper rest periods are taken between shifts and our health, safety & wellbeing is well looked after. The Environment Agency is also very clear that responding to incidents comes first and any deadlines in my day job should be “stopped and slowed” whilst we deal with the incident and its aftermath”.

Ian Perkins, Warrington Centre – Senior Technical Advisor



4. Roles available

As part of your exciting and challenging role in one of these teams, you will take on one of our incident response roles where you will be trained to help provide our dynamic 24/7 flood forecasting service.

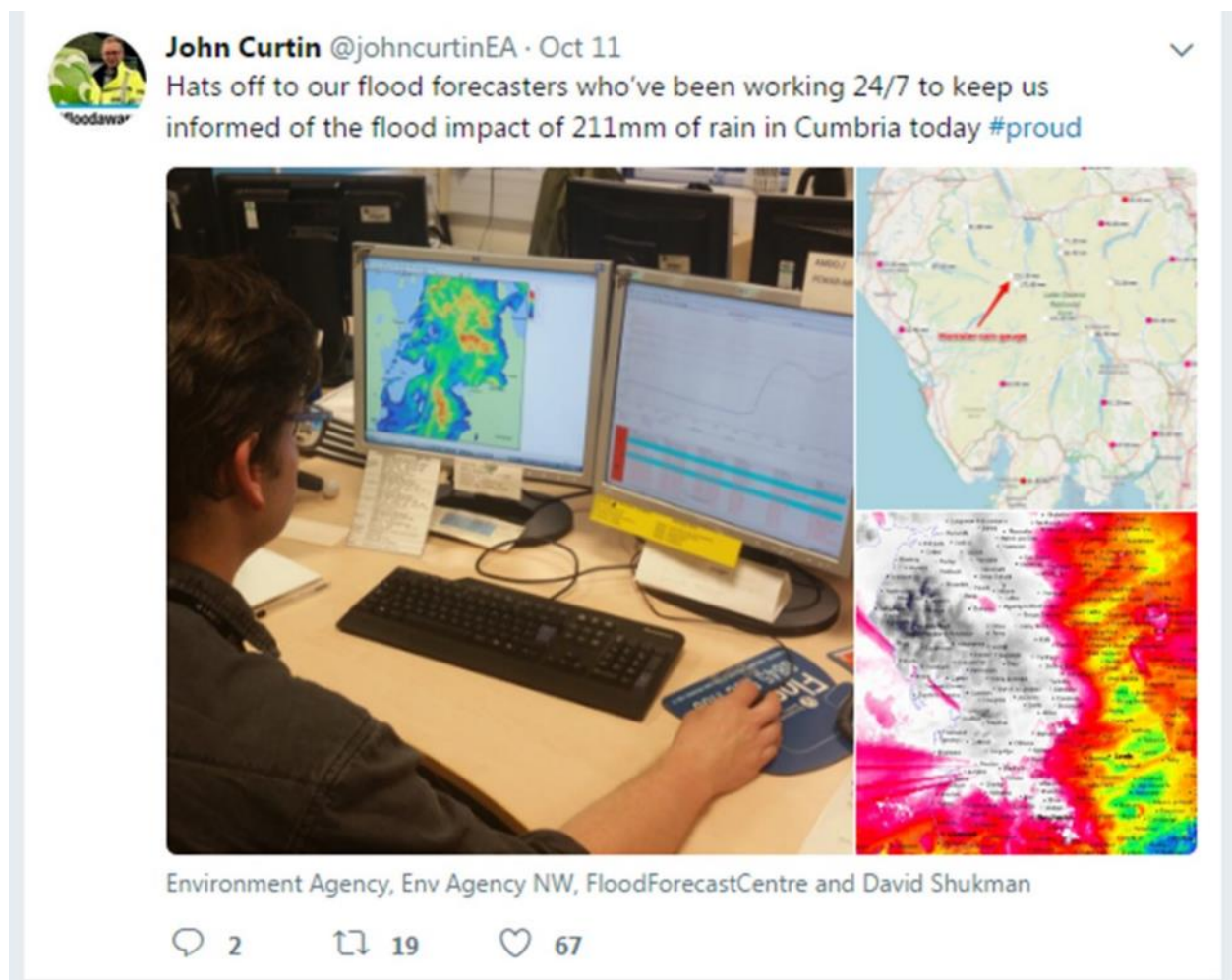
We are currently recruiting nationally to a mixture of temporary and permanent roles across our teams, for staff at various grades, dependant on knowledge, skills, experience and interest.

Job Title	Team	Starting Salary	Forecasting Hub Locations	Vacancy Reference	Contracts Available
Modelling and Forecasting Officer	Across all 5 teams	Grade 3 - £22,433	Exeter, Leeds, Peterborough, Reading, Solihull, Warrington, Worthing	Ref: 7316	Permanent & Fixed Term
Modelling and Forecasting Coordinator	Across Inland and Coastal Teams	Grade 4 - £27,138	Exeter, Leeds, Peterborough, Reading, Solihull, Warrington, Worthing	Ref: 7329	Permanent & Fixed Term
Modelling and Forecasting Advisor	Across all 5 teams	Grade 5 - £34,330	Exeter, Leeds, Peterborough, Reading, Solihull, Warrington, Worthing	Ref: 7330	Permanent & Fixed Term

5. Principal Accountabilities for each role

Principal accountabilities

We are recruiting across Modelling & Forecasting at various grades from entry level to more experienced, dependent on knowledge, skills and interest. Vacancy across all grades are a mixture of permanent and fixed term positions (To the end of March 2019).



Modelling & Forecasting Officers (Grades 3):

You will be involved in

- All of our staff play an important part in incident management when flooding occurs
- Providing support across the breadth of modelling and forecasting activities
- Collection, analysis and interpretation of data
- Responding to modelling and forecasting data requests

- Contributing to the delivery of the Modelling & Forecasting programme
- Liaising with other Environment Agency teams and partner organisations
- A comprehensive training and development programme in this specialist field.

Top competencies

- **Achieves Results**
 - **Data and Information Management**
 - **Communicates Effectively**
 - **Works in Teams**
-

Modelling & Forecasting Coordinator (Grades 4):

You will be involved in

- Supporting management of the flood forecasting incident room, monitoring forecasts, maintaining rosters and engaging with partners when flooding occurs.
- Contributing to the delivery of the Modelling & Forecasting programme
- Taking a lead in projects and when working in technical groups
- Project management of your own technical projects
- Collection, analysis and interpretation of data
- Provide professional/technical expertise to support priority projects
- Running and reviewing outputs from 'real-time' and 'non real-time' models
- Develop and maintain a strong customer focus to ensure effective relationship building and partnership working
- Reviewing Flood Risk Assessments and advising on detailed planning applications

Top competencies

- **Numerical modelling and forecasting**
 - **Achieves results**
 - **Takes decisions and solves problems**
 - **Communicates effectively**
-

Modelling & Forecasting Advisors (Grades 5):

You will be involved in

- Management of the flood forecasting incident room, monitoring forecasts, accountability for maintaining rosters and engaging with partners when flooding occurs
- Monitoring the delivery and productivity of teams workload
- Project management of technical numerical modelling / forecasting projects
- Producing documentation and reports to agreed quality standards, to support operational work, management decisions, public enquiries, data and legal requests
- Acting as a 'point of contact' for providing professional/technical expertise to the Environment Agency and partner organisations
- Develop and maintain a strong customer focus to ensure effective relationship building and partnership working
- Building, running and reviewing outputs from 'real-time' and 'non real-time' models
- Advise the organisation on complex modelling and forecasting approaches.

Top competencies

- **Numerical modelling and forecasting**
- **Programme and Project Management**
- **Takes decisions and solves problems**
- **Focus on customers and partners**

Locations

We are recruiting at multiple locations across the country, our staff are predominantly based in 7 Forecasting 'hubs'. We are a flexible location employer, please state your preferred location in your application. This campaign is recruiting in the following locations:

Modelling & forecasting hub locations:

Exeter, Reading, Worthing, Peterborough, Solihull (Birmingham), Warrington, Leeds.



7. Training and development

You will receive the necessary training and development to ensure that you have the skills needed to perform your role in Flood and Coastal Risk Management to a high standard. This will include a mixture of on the job training, mentoring, e-learning and role specific training courses.

Below is a list of some of training courses and development opportunities, you will be eligible for if you are successful in gaining a role in Flood and Coastal Risk Management:

- Incident Management,
- Health & Safety; including 'Working Near Water' and 'Manual Handling',
- Flood defence asset Condition; Inspection and Grading,
- Programme and Project Management; Association of Project Management / PRINCE 2 – Foundation to Practitioner,
- ArcGIS – Geographic Information Systems,
- Numerical Modelling & Forecasting,
- Data and Information Management and flood Mapping,
- Legislation and Law relating to flood defence,
- Environmental Awareness; Climate Change, Hydrology Foundation and Geomorphology,
- Financial Management,
- Incident Management,
- Mentoring / Coaching and Assignment opportunities within the organisation.

In addition to a comprehensive training package, the Environment Agency will support and fully fund your Continuous Professional Development (CPD). In Flood Risk Management we encourage our staff to become certified in their field and will provide the time, resources and reimburse costs for membership of any preferred Professional Institution i.e. CIWEM, ICE, IET, Institution of Mechanical Engineers, IAM.



Apprenticeships

We are committed to the personal and professional development of employees and offer over thirty, fully funded, different apprenticeship qualifications across our business. These allow eligible employees to gain technical qualifications (for example in civil or maintenance engineering) or general business skills (for example qualifications in Leadership and Management, Project Management and Business Administration). A number of these are offered up to and including degree level, allowing employees to obtain a BSc or BA qualification that is fully funded by the Environment Agency.

If you are successful in securing a permanent role at the Environment Agency, you will have the opportunity to complete an apprenticeship that is linked with your role. Examples of those apprenticeships relevant to flood and coastal risk management include:

Apprenticeship	Qualification
Civil Engineering	BSc or BEng civil engineering degree with progression to Chartered status (Level 7) if required
Project Management (Associate Project Manager)	Accredited by the Association of Project Managers
Leadership & Management – Team Leader	Chartered Management Institute Level 3 Diploma in First Line Management
Data Analyst	Entry onto the Register of IT Technicians



8. Salary and benefits

Join us in this role and you will enjoy the following benefits:

Grade Rate:

Grade 3: £22,433 (pro-rata - if part time or an assignment)

Grade 4: £27,138 (pro-rata - if part time or an assignment)

Grade 5: £34,330 (pro-rata - if part time or an assignment)

Location:

Various locations dependent on role.

Hours of work:

37 hours, Permanent or Fixed Term Contract until end of March 2019

Leave entitlement:

Your leave allowance in this role will be 25 days plus bank holidays (pro-rata - if part time or an assignment).

We also offer up to two days paid environmental outcome days each year. These give you the opportunity to take part in community activities with a clear environmental outcome for people and wildlife.

Pension:

We will enrol you into the Environment Agency Pension Fund (EAPF) on commencing employment, if your employment contract is for 3 months or more. The EAPF is part of the Local Government Pension Scheme (LGPS). It is a career average scheme, which means you will build up benefits based on your pay each scheme year rather than your final salary.

We will base your pension contributions on your actual pay and you will receive tax and national insurance relief on your contributions. The pension contribution rates currently range

between 5.5% to 12.5%. Whilst you are in the scheme we will also pay an employer contribution into your pension pot. We currently pay 18.5%, so this is a very generous scheme.

Work/life balance:

We support flexible working hours and practices to help you strike a good balance between your work life and your personal life. We will also encourage you to keep developing your skills and professional knowledge throughout your career.

Diversity:

We are committed to diversity and inclusion. We want all our staff to feel valued and respected and to see this as a great place to work. Diversity: it's in our nature.



9. Further information

As a national organisation we with work and customers across England, in some of our roles you may be asked to undertake infrequent national travel usually to London or Birmingham.

The Environment Agency values a diverse workforce and welcomes applications from all sections of the community who wish to join a workforce which embraces difference and welcomes everyone.

We particularly welcome applications from Black, Asian and Minority Ethnic (BAME) and female candidates who are under-represented across our workforce.

We welcome flexible working patterns for all our vacancies, including job share, so please include clearly any information regarding your preferred working arrangements on your application.

As part of our commitment to flexible working we offer up to 15 additional days 'flexi-time' per year. These directly correlate with any hours worked above your core 37 hour contracted working week (pro-rata - if part time or an assignment).

Please note that Environment Agency employees are not civil servants so you may wish to check your eligibility for continuity of employment by contacting your HR department. All eligible bodies are listed in the Redundancy Payments (Continuity of Employment in Local Government etc) (Modification) Order 1999.

Employment agency workers and contractors are considered to be external candidates and should therefore only apply for positions that are being advertised externally. They are also not eligible to claim continuity of employment should they be successful in securing a position with the Environment Agency.

To find out more about what it's like to work at the Environment Agency, please visit: <https://www.gov.uk/government/organisations/environment-agency/about/recruitment>

Please note all successful applicants must undergo Baseline Personnel Security Standard (BPSS) checks prior to commencement of employment. This includes a basic criminal records check.

For the great majority of roles in the Environment Agency this will be sufficient and only certain roles will require a higher level of clearance. Should this be necessary, you will be advised of this during the recruitment process.

10. How to apply

We use an online recruitment system. To make the application process simple and straightforward, and so that you know how it works and what we need from you, we've put together a few hints and tips.

The first thing you need to do is sign up to our recruitment system. You will need a valid e-mail address to log in and apply for opportunities, as all communication from us will be via e-mail. You can do this via the vacancy you are interested in by selecting '**Apply**' at the bottom of the advert. (For some jobs, you'll be asked to download a candidate pack, like this one, where you'll find specific application instructions.) Once you've clicked this link you'll then be asked 'Do you have the right to live and work in the UK?', 'Do you have the required qualifications or equivalent experience, which were stated in the job advert?' and 'Are you currently an employee of this organisation?' Simply answer yes or no and you can carry on with your application. You'll then see the '**Register**' page. Simply complete the details and select '**Submit Registration**' and register to the system. You only need to sign up to the system once; you'll just be able to login next time.

When it comes to the actual application, you need to fill out each section, please be aware that the system will automatically time out if you are inactive for more than 60 minutes. This will result in any unsaved information being lost so make sure you save what you are doing regularly. Once you've finished, your details and information will be saved on the system for any future applications – of course, you can edit your details at any point.

When you apply to the Environment Agency for a job we will ask you to provide your personal data on our application form. We need this information so that we can establish your identity and your right to work in the UK.

You can read our Data Protection Statement on the application process page of our recruitment system. It is also available for reference on each page of the actual application.

Competence Questions/Statement

We're keen to know what makes you right for the job you're applying for and why we should ask you in for an interview. The competence questions/statements are your chance to convince us!

You should demonstrate how your skills, qualities and experience meet the requirements of the job (as described in the job advert and candidate pack). And instead of simply telling us, show us: use real life examples of where you've used a certain skill or how you've practically applied your experience.

There's a 250 word limit per competence including spaces. It's a really important part of the selection process so make sure you keep your statement relevant and concise. Think about what we need to know about you and what you'd bring to the role and our organisation.

Application questions

For some roles, we'll ask you some specific questions, like if you have a preferred work location. If you're disabled and you'd like to be part of our Guaranteed Interview Scheme, you can add this information in here.

Equality and Diversity

We're committed to reflecting the communities we serve and we'd like you to tell us about yourself and your background.

Role Specific Questions

For further information relating to any of these roles, please contact Lindsey.Russell@Environment-Agency.gov.uk

Submitting your application

Once you've filled out and completed everything, you'll be prompted to submit your application. Simply click the button and you're done. If, at any stage, you have questions or problems, please contact the recruitment team on 0845 602 6099 or email ea_recruitment@sscl.gse.gov.uk

For further information on this role

If you have been unsuccessful with your application you can set up email alerts for future vacancies. You will automatically receive an email when a job that matches your criteria becomes available. To do this simply click on '**create a new job alert**', enter your job criteria and save.



