

create a better place



## National Operations, Assets and Incidents Modelling and Forecasting Team

Candidate information pack: Flood Modelling and  
Forecasting – Technical Officer

Please consider the environment and only print this document if you really need to.

[www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)

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# 1. Our organisation

## Our organisation

We are the Environment Agency. We protect and improve the environment. 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 that 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 cannot do this alone. We work with government, local councils, businesses, civil society groups and communities to make our environment a better place for people and wildlife.

Of course, none of this will be possible without the professionalism and dedication of our staff. We are 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](http://www.environment-agency.gov.uk/aboutus)





## 2. Modelling and Forecasting

### Our role

At the Environment Agency, Flood and Coastal Risk Management (FCRM) plays a huge part in the work that we do, helping to protect against flooding and minimise the risks caused by any floods that do occur. The Modelling and Forecasting Team analyses and communicates 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 FCRM.

Joining the Modelling and Forecasting Team, you will be integral to informing our understanding of flood risk, making effective decisions and ensuring we are prepared for any future flooding. Here you will work in one of our teams.

### Our teams

#### Flood modelling and forecasting: Inland and Coastal teams

Our modelling teams provide leadership, technical expertise and specialist advice on building, running and analysing detailed mathematical models before using their outputs to describe flood risk, provide evidence for determining potential impacts on communities and inform 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 and work closely with a range of partners, from environmental consultants to the national Flood Forecasting Centre. The team works on strategic projects helping us to prepare communities for future floods and determine appropriate flood mitigation solutions.

#### Operations and Resilience

Our Operations and Resilience team provides national support on flood forecasting incident response planning, preparedness, training, systems maintenance and development. The team also leads on implementing and developing improvements to the flood forecasting services and the products we provide.



## Planning and Partnerships

Our Planning and Partnerships team supports the teams above with planning, programming, communications and performance reporting as well as 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 the best outcomes for our customers.

## Skills Resilience

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

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 a mixture of temporary and permanent roles across our teams, for staff at various grades, dependant on knowledge, skills, experience and interest. Applicants to our previous campaign our welcome to apply.

## Principal accountabilities

Within the Inland Modelling and Forecasting team, we currently have a vacancy for a permanent Technical Officer. This role will be based at one of our seven offices: Reading, Worthing, Exeter, Leeds, Warrington, Solihull or Peterborough.

As a Flood Forecasting and Modelling – Technical Officer you will:

- contribute to the delivery of the departmental business plan, supporting effective change and improvements, providing professional technical expertise to local projects and working groups to support operational priorities
- maintain a strong customer focus to ensure effective relationship building and partnership working
- monitor work progress, identify delivery gaps and take remedial action to enhance the service and recommend appropriate reallocation of time and effort
- guide, advise and support team members to resolve issues and incidents, ensuring timely decisions are made on sound technical grounds and in line with best practice
- produce documentation and reports to agreed quality standards to support operations, management decisions, public enquiries, etc., so that information, evidence and Environment Agency interests are accurately and effectively presented
- contribute to the successful implementation of emergency plans, to ensure effective, timely and safe response to emergency incidents
- encourage and develop a safety conscious culture within the team.

Our assessment centres are likely to be held in Manchester (week commencing 3 July 2017) and Reading (week commencing 10 July 2017).

## Knowledge and qualifications

Candidates should be degree qualified or have the equivalent experience. Knowledge is desirable in an engineering, science or geography background; programme or portfolio and project management, or a customer related field. This may be gained through either a formal qualification or vocational activity.

It is desirable that candidates have or are prepared to work towards, a specific professional qualification or membership of a professional body.

## Skills, abilities and experience

Excellent communication and engagement skills are a must as you will be working with a range of customers and stakeholders. Whether you are a graduate or an experienced professional, you will need to be a proactive self-starter with demonstrable ability, understanding or interest in at least one of the following areas:

### River Flood Modelling:

- Experience in numerical modelling and its application to Flood and Coastal Risk Management and/or understanding or experience of probabilistic modelling (experience of industry standard packages desirable).
- Ability to communicate complex modelling concepts and the impacts of modelling outputs to a non-technical audience as well as the ability to coach others in technical subjects.
- Experience of Geographic Information Systems.

### Forecasting skills:

- An understanding or experience of 'real time' modelling and its application.
- An understanding of or experience of incident management, including post event review and lessons learnt
- Meteorology or weather forecasting training or experience.

### Understanding of natural processes:

- Natural flood management skills.
- Good understanding of catchment and physical processes in the water cycle (both hydrology and hydraulics).

### Communications skills and data management:

- Good communication and engagement skills including experience of working with and servicing multiple customers.
- Great analytical skills, working with statistics and data.
- Understanding of hydrometric and meteorological data, its limitations and collection techniques.

### Planning and portfolio or project management:

- Work programming skills, good understanding of project management processes.
- Good administrative skills and competence in Microsoft Office products.
- Knowledge of and/or experience in continuous improvement for ways of working.

A driving license is not essential.

## Top competencies

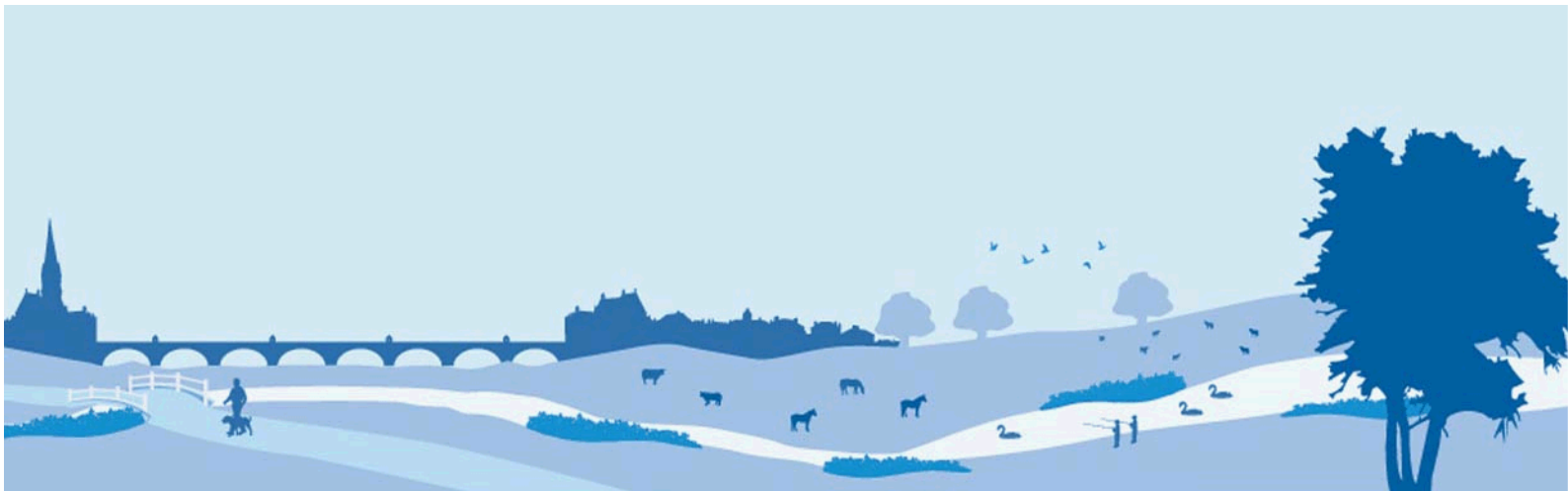
- Expertise in numerical modelling and its application to Flood and Coastal Risk Management and understanding of hydraulic modelling
- Achieves results
- Takes decisions and solves problems
- Focuses on customers and partners



# 3. Salary and benefits

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

<b>Grade Rate:</b>	£26,869 (pro-rata if part time)
<b>Location:</b>	This role will be based in one of our seven locations: Reading, Worthing, Exeter, Leeds, Warrington, Solihull or Peterborough.
<b>Hours of work:</b>	37 hours
<b>Leave entitlement:</b>	<p>Your leave allowance in this role will be 25 days per year initially, increasing with your length of service, plus bank holidays (pro-rata if part time).</p> <p>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.</p>
<b>Pension:</b>	<p>We will enrol you into the Environment Agency Pension Fund (EAPF) on commencing employment, if your employment contract is for three 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.</p> <p>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% and 12.5%. Whilst you are in the scheme we will also pay an employer contribution into your pension pot. We currently pay 17.5%, making this is a very generous scheme.</p>
<b>Work/life balance:</b>	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.
<b>Diversity:</b>	<p>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.</p> <p>Diversity: it is in our nature.</p>



## 4. Further information

As a national team 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.

For further information on the role, please contact Julia Shepherd: [julia.shepherd@environment-agency.gov.uk](mailto:julia.shepherd@environment-agency.gov.uk), quoting the job title.

We are fully committed to having an inclusive workforce to reflect the communities we serve. We welcome applications from candidates seeking flexible working patterns, including job share. Please highlight any information regarding preferred flexible working arrangements on your application.

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 is like to work at the Environment Agency, please visit: [www.gov.uk/government/organisations/environment-agency/about/recruitment](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.

## 5. 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 have 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 email address to log in and apply for opportunities, as all communication from us will be via email. You can do this via the vacancy you are interested in by selecting '**Apply**' at the bottom of the advert. (For some jobs, you will be asked to download a candidate pack, like this one, where you will find specific application instructions.) Once you have clicked this link you will 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 will 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 will 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 20 minutes. This will result in any unsaved information being lost so make sure you save what you are doing regularly. Once you have 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 are keen to know what makes you right for the job you are applying for and why we should invite you 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 have used a certain skill or how you have practically applied your experience.

There is a 250 word limit per competence including spaces (1000 for an overall statement). It is 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 would bring to the role and our organisation.

### Application questions

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

## Equality and Diversity

We are committed to reflecting the communities we serve and we would like you to tell us about yourself and your background.

## Submitting your application

Once you have filled out and completed everything, you will be prompted to submit your application. Simply click the button and you are 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](mailto:ea_recruitment@sscl.gse.gov.uk)

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.

