



## Job Details

<b>Reference:</b>	<b>11352</b>
<b>Position Title:</b>	<b>Web Systems and Database Developer</b>
<b>Classification:</b>	<b>Executive Level 1 (Senior Information Technology Officer Grade C)</b>
<b>Salary range:</b>	<b>\$88,966 - \$100,212 per annum, plus an additional 15.4% superannuation</b>
<b>Location:</b>	<b>14 Childers Street, Canberra, ACT 2600 Canberra preferred, other capital cities will be considered</b>
<b>Division:</b>	<b>Climate and Water Division</b>
<b>Branch:</b>	<b>Water Forecasting Services</b>
<b>Section:</b>	<b>Extended Hydrological Prediction</b>
<b>Status:</b>	<b>Ongoing</b>
<b>Applicants:</b>	<b>Australian Citizenship – see <a href="#">Eligibility Requirements</a></b> - Whilst Australian citizenship is not a mandatory requirement, the successful applicant will need to have the necessary visa and work rights. - Non Australian citizens will only be considered if there are no suitable Australian candidates.
<b>Applications close:</b>	<b>Thursday 26<sup>th</sup> January 2012</b>

## Advertisement

To secure the long term water supply of all Australians, the Australian Government announced *Water for the Future*, a \$12.9 billion water investment program in 2008. This includes \$450 million for the 'Improving Water Information Program' administered by the Bureau of Meteorology and backed by the Commonwealth *Water Act 2007* and key stakeholders. The Bureau's expanded water information role is enhancing the quality and utility of Australia's water information by producing the National Water Account, water resource assessments and water availability forecasting services, supported by a national water monitoring and data collection network. These responsibilities add to the Bureau's existing responsibilities for flood forecasting and warnings. The program includes development and maintenance of an integrated, national water information system freely accessible to the public (see [www.bom.gov.au/water](http://www.bom.gov.au/water)).

Australian streamflows are among the most variable in the world. These streamflows are relied upon by a range of water managers and users, including irrigators, urban and rural water supply authorities, environmental managers and hydroelectricity generators. Predictions of future seasonal streamflows and long-term water availability forecasts can potentially allow these water managers and users to better plan and manage water use, to inform water allocation, environmental flow management and water trading decisions and to assist with development of water policies to ensure security of supply.

The Extended Hydrological Prediction section (EHP) has been established to develop seasonal and long term water availability and streamflow forecasting services. The seasonal streamflow forecasting service was launched in December 2010 and the service provides water availability forecasts at important locations in the Murray-Darling Basin (see [www.bom.gov.au/water/ssf](http://www.bom.gov.au/water/ssf)). The service will be extended to areas providing substantial inflows to major storages across Australia. The Web Systems and Database Developer is an important member of the EHP team complementing our existing skills in modelling, systems development and forecasting services. Underscoring the importance of the Bureau of Meteorology's web presence, the organisation is consistently the leading government website nationally.

We are seeking an experienced and motivated professional who will enjoy working in a close and dynamic team environment to achieve practical environmental outcomes benefiting Australia.

## Duty Statement

Under broad direction,

1. Establish and maintain an understanding of the Climate and Water Division's Extended Hydrological Prediction (EHP) section's information and forecasting system needs, existing structures and plans for development.
2. In collaboration with others, plan, develop and deploy internal web-based systems, EHP modelling systems and protocols to support efficient work processes within EHP, the Climate and Water Division and the Bureau.
3. Lead the design, development and maintenance of our internal and external water forecasting services websites using hand-on approach and liaise with IT staff across the Division and the Bureau to ensure consistency of EHP products and services with corporate procedures and guidelines.
4. Develop and maintain web-based systems and databases, EHP modelling systems and computational infrastructure and large scientific datasets that support the promotion, distribution, application and technical support of the EHP water forecasting products and services.
5. Provide advice and supporting technical expertise in applying web-based technologies and design to other members of EHP, senior management and Bureau staff.
6. Carry out other duties as required.
7. Ensure that policies, principles and practices in relation to all elements of the Bureau's Social Justice Strategy are applied in the work area.

**Duties representing highest function:** 1-4

**Immediate Supervisor:** Supervising Hydrologist, Prediction Systems Unit- PN 10703 (EL2 (Lower))

## Job Profile

Our Web Systems and Database Developer will lead and implement web-based solutions to achieve the Bureau's Water Forecasting Service goals. The position is part of a motivated team sharing responsibility for developing and delivering seasonal and long term water availability forecasting services that will contribute to improved land and water management nationally. The Web Systems and Database Developer will make a significant contribution to the Bureau by making sure that our web-based systems are integrated, effective and user friendly.

Responsibilities include:

- developing and maintaining the Extended Hydrological Prediction section (EHP) external web presence including the design of web-based information and products (e.g. [www.bom.gov.au/water/ssf](http://www.bom.gov.au/water/ssf))
- establishing large databases and web systems to support delivery of the Water Forecasting Services, including the Seasonal and Short Term Streamflow Forecasting service
- working with specialist colleagues across areas of hydrologic modelling, water forecasting, web design, usability and web content management
- contributing to the development and delivery of the web applications directly supporting water forecasting systems and services (see <http://www.bom.gov.au/water>)
- contributing to the development and maintenance of the Climate and Water Division's Sharepoint and intranet sites
- developing EHP modelling systems and services that promote interaction and collaboration between EHP team members located in head and state offices.

The successful applicant will be highly motivated to lead, develop and apply skills and knowledge across a range of web-based systems and skilled in identifying opportunities for web technologies to support our work. The position will suit an individual with strong communication and people skills who wants to work as part of a close, multi-disciplinary team and develop a breadth of knowledge to underpin the next step in their career.

Applicants will appreciate the benefits of a dynamic, team-based culture and the challenges and rewards associated with contributing to the development and delivery of a new national program to transform Australia's water resources information.

The position requires a strong team approach to working with other members of the EHP and regular liaison with a range of other Water Division staff and other IT groups within the Bureau.

The successful applicant will have previous experience in a similar role in systems or software engineering working with multiple tools and across varied environments. It would be desirable for the successful applicant to have an appreciation of the Australian water industry. Some interstate travel may be required.

## Selection Criteria

**Applicants are required to address the selection criteria.**

**Responses to the selection criteria should be limited to a maximum of 500 words per criterion. For information on how to address the selection criteria refer to [A Guide On Addressing Selection Criteria For Applicants](#).**

1. Demonstrated experience and expertise in designing, developing, implementing and maintaining web applications and services in an operational environment, preferably in climate and water related areas.
2. Demonstrated capabilities and experience in designing, implementing and handling large databases and expertise in handling scientific datasets in efficient data formats (e.g. NetCDF; HDF).
3. Demonstrated knowledge of and proficiency Python and related agile programming languages; knowledge and skills in scientific data analysis, visualisation and design will be highly regarded.
4. Demonstrated proficiency in web systems and applications operational on a broad range of operational systems including Unix and variants, Microsoft Windows Server and workstations and experience with dynamic mapping and charting solutions for supporting web applications and services, Javascript and related web technologies.
5. Sound liaison and communication skills (oral and written), strong interpersonal skills and the ability to develop and maintain productive relationships within a team environment.
6. Knowledge of the Bureau's Social Justice Strategy and a commitment to ensure its implementation in the work place.

### **Mandatory Requirement:**

1. An Associate Diploma or Certificate IV in Information Technology or higher; OR
2. A relevant industry certification ie. Cisco Certified Network Associate (CCNA), Microsoft Certified Engineer (MSCE) or Red Hat Certified Engineer (RHCE); OR
3. Relevant experience and training which enables the employee to competently perform the duties at this level.

### **Desirable qualifications:**

1. A degree or diploma in software engineering, computer science, systems engineering or information technology and experience in water and climate industry will be an advantage.

## Contact

If you would like to know more about the Bureau of Meteorology visit <http://www.bom.gov.au/>

Employment conditions for most Bureau employees are contained in [The Bureau of Meteorology Enterprise Agreement 2009–2011](#).

Please read the selection documentation and if you have any queries specific to this position please contact Narendra Tuteja Ph: 02 6232 3518 or email [n.tuteja@bom.gov.au](mailto:n.tuteja@bom.gov.au).

## How to Apply

Applications are to be lodged online through the Bureau of Meteorology [eRecruit system](#) by the closing date.

The eRecruit system is easy to use and will prompt you on how to register and apply for vacancies.

### **Prior to lodging your application online we recommend you:**

- Read the position information contained in the Job Details document
- Have a current resume which details relevant employment experience, skills and qualifications
- Prepare a statement specifically addressing the Selection Criteria for the position

### **When applying online:**

- Please respond to all the online questions, complete your responses to the selection criteria and upload a copy of your resume.
- Regularly click save during the online process to ensure your application is saved. If there is no activity for a set period of time the online application process will time out and automatically disconnect you.
- We recommend you prepare your answers to the criteria in a word document then copy and paste your responses into the eRecruit system.
- Your resume should be in a Word or PDF format.

For further information on our recruitment process and how to apply refer to our careers website <http://www.bom.gov.au/careers/>.

Should you experience any difficulties with accessing the eRecruit system and applying online, please contact the Recruitment Unit by email: [jobs@bom.gov.au](mailto:jobs@bom.gov.au) or phone 03 9669 4401.