# Position Details

## Spatial Analyst – CSOF4/5

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| The following information is for applicants | |
| Advertised Job Title | Spatial Analyst/Programmer |
| Job Reference | 80861 |
| Salary | CSOF4: AU$87,068k - AU$98,504k per annum (pro-rata for part-time), plus up to 15.4% superannuation  CSOF5: AU$102,724k – AU$111,165k per annum (pro-rata for part-time), plus up to 15.4% superannuation  \*NB: This position is offered across two levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate |
| Tenure | Specified Term of up to 4 years |
| Location(s) | Melbourne, Brisbane |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team Leader Bushfire Adaptation |
| Number of Direct Reports | 0 |
| Enquire about this job | Raphaele Blanchi via email Raphaele.Blanchi@csiro.au or  phone +61 3 9545 8194 |
| How to apply | Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Role Overview

CSIRO is the national science agency that undertakes research to make life better for Australia and Australians. CSIRO have partnered with the Bureau of Meteorology, Geoscience Australia, and the Australian Bureau of Statistics in creating the newly established Australian Climate Service.

The Australian Climate Service (ACS) was established to address a series of recommendations from the Royal Commission into National Natural Hazard Arrangements, and will be the Commonwealth’s trusted provider of data, information and knowledge-based services to support improved preparation for, response to and recovery from natural disasters in Australia. It brings together Australia’s leading climate and natural disaster information and expertise in a customer-led and mission-focussed national capability.

The ACS has commenced a major 4-year program of work, in which CSIRO will lead a series of customer-oriented projects. The projects will build national capabilities to:

* Provide Australian national bushfire intelligence, to inform relief, recovery and longer-term disaster risk reduction activities;
* Improve the capture, standardisation and use of disaster impact and consequence data across all elements of the disaster cycle;
* Catalyse and scale-up investment in disaster risk reduction, adaptation and resilience.

We seek spatial data analysts with programming skills to support delivery of these large complex projects. The roles include large data processing, programming, spatial analysis, modelling and cloud computing skills. The design and implementation of data streams and analytics systems that help define bushfire hazards are also required.

The roles are based within the CSIRO Land and Water Business Unit as part of the Living Landscapes Program where information and technologies required by government, industry and the Australian and international communities are provided to protect, restore, and manage natural and built environments. Opportunities may emerge to provide support for other projects in CSIRO’s Land and Water Business Unit portfolio of projects.

Internal and external engagement partners for these roles include: internal CSIRO, ACS partners, ACS customers, collaborators and end users.

**Duties and Key Result Areas:**

Spatial data analysts work with project leads and project team to support:

* processing and analysis of large spatial and temporal environmental datasets
* implementation of statistical, physical and process models that report on environmental processes
* development of data processing workflows using programming skills in a high-level language such as R or Python
* data integrity and quality, including maintaining and managing metadata
* collaboration for software development using version control systems such as Azure DevOps, BitBucket and GitHub.
* utilisation of parallel and distributed computing resources, including commercial cloud platforms (AWS, GCP and/or Azure).

*The role will also require:*

* Significant contributions to the interpretation and communication of scientific research and technological results. This may include collaborating on presentations and written reports for, clients and the scientific and/or technology community, *representing CSIRO externally, including in public forums, with industry or the research sector or with government.*
* Under general direction, participation in planning projects and accepting responsibility for the scheduling and completion of major project activities, including allocating and directing tasks where appropriate.
* Accountability for the quality of the results delivered, the alignment of project activities with the business, research and/or technology directions.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and Business Unit to perform tasks in support of CSIRO’s scientific objectives.
* Adherence to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Required Competencies:**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

* Demonstrated knowledge and technical capability in the use of spatial and temporal data in multi-disciplinary projects that support decision making for environmental management, investment and policy.
* Demonstrated knowledge and technical capability in computer programming or scripting languages for automating workflows or the processing of large data sets.
* Demonstrated knowledge and technical capability with a range of computing platforms (e.g., high-performance and cloud computing) and programming languages (e.g., Python, R) and collaborative software development (e.g., Azure DevOps, BitBucket and GitHub).
* Demonstrated experience in the implementation and use of modelling approaches that report on environmental processes.
* Sound written and oral communication skills, including the production of scientific reports.
* A tertiary degree in a quantitative discipline such as science, engineering, IT or a related field.

#### Desirable

* Established knowledge and understanding of bushfire processes, risk analysis and mitigation.
* Ability to articulate complex scientific concepts, as demonstrated by experience in the generation of technical reports or peer-reviewed journal articles.
* Experience in collaborative project teams and use of project management tools.

Special Requirements

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

Find out more about CSIRO

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted