# Position Details

## Research Projects – CSOF5

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| The following information is for applicants |
| Advertised Job Title | Soil Information System Administrator/Developer |
| Job Reference | 85445 |
| Tenure | Specified Term of 4 years Full-time |
| Salary Range | AU$102,724 – AU$111,165 per annum plus up to 15.4% superannuation |
| Location(s) | Black Mountain, Canberra, ACT (preferred)Other locations may be considered |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens
* Australian Permanent Residents
* Australian Temporary Residents, with an existing valid visa and full work rights to cover the duration of the specified term (at least until August 2026), without the requirement of visa sponsorship from CSIRO
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| Position reports to the | Team Leader, Soil Information/ANSIS Project Leader  |
| Client Focus – Internal | 60% |
| Client Focus – External | 40% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Liz Stower via email at Liz.Stower@csiro.au \*Please do not email your application directly to Liz Stower. Applications received via this method will not be considered by the selection panel. |
| How to apply | Apply online at <https://jobs.csiro.au/> Internal applicants please apply via **Jobs Central**If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

The role of Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

Under the general direction of the ANSIS Project Leader, the Soil Information System Administrator/Developer will be responsible for managing the Australian National Soil Information System (ANSIS) computing environment within CSIRO. This role will be integral within the initial phases of scoping a complete review of our current Soil Information System and enabling the redevelopment and ongoing management and administration of our new national system, in partnership with CSIRO IM&T infrastructure specialists, data engineers, consulting developers and collaborating agencies and other stakeholders.

The use of mature soil data standards and cutting-edge interoperability approaches will be a major focus within the system design, along with the development of new tools for monitoring and reporting on system performance & use and ensuring data governance through user management.

The System Administrator/Developer will work within the CSIRO Soil Information Team to support ongoing development and implementation of data environments within an evolving data modelling domain, connecting and collaborating with research, industry and governments to ensure soil data is accessible and interoperable for future benefit to the Nation.

### Duties and Key Result Areas

* Administer the operational components of the Australian National Soil Information System, including server and software maintenance, shared documentation and guidelines, diagnostics, monitoring, tuning and coordinating with the CSIRO specialist IT infrastructure teams to enable storage, security, networking, virtualisation, web servers, geospatial servers and databases.
* Enable and manage required domains, proxies and redirections to support access to new and persistent data and vocabulary services.
* Develop ANSIS operational analytics, data governance and authentication tools and regular reporting processes.
* Provide systems support to the development and maintenance of web sites and applications and mobile applications.
* Develop tools and new system infrastructure to support ongoing data lifecycle processes relating to ANSIS components such as the Australian National Soil Archive and the CSIRO National Soil database (Natsoil) and field data collection.
* Work effectively as part of a multi-disciplinary research team, to undertake independent scientific investigations and carry out associated tasks under the guidance of more senior Research Scientists/Engineers.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.

## **Selection Criteria**

#### Essential

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

1. A bachelor’s degree, or higher, in Information Technology or similar field, and/or equivalent demonstrated work experience in a relevant field.
2. Demonstrated experience in computer systems administration, management and development, including a working knowledge of domains, proxy servers, networking, storage solutions, data security, cyber security, authentication, server administration, systems analytics and monitoring.
3. Demonstrated experience with managing and developing complex information systems, including within spatially and semantically integrated data environments, and through networked collaborative systems federation.
4. Experience with software development and integration across mixed operational systems, including experience with IIS, Apache, HTML5, JavaScript and also Java, Python, R, C#.
5. Proven ability to work with specialist IT teams to collaborate and integrate system functions.

## **Desirable**

1. Knowledge of Australian soils and landscapes and soil information systems, or willingness to learn.
2. Experience with the delivery of spatial web services via geospatial servers such as ArcGIS Server, GeoServer and AppSchema, Snowflake, Thredds and the usage of COGs.
3. Knowledge of innovative and interoperable approaches to data management and delivery, including O&M and feature based approaches, data fabrics, RDF and triple stores, and knowledge graphs.

## **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 team 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.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

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

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* People First
* Further Together
* Making it Real
* Trusted

Find out more about CSIRO [Agriculture and Food](https://www.csiro.au/en/Research/AF)