# Position Details

## Research Projects- CSOF4

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| The following information is for applicants | |
| Advertised Job Title | Project Officer Soil Condition and Function |
| Job Reference | 92659 |
| Tenure | Specified Term of 4 years, Full-time |
| Salary Range | AU$89,680 - AU$101,459 per annum (pro-rata for part-time)  plus, up to 15.4% superannuation |
| Location(s) | Canberra (Black Mountain Site), ACT, Australia |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents  Australian Temporary Resident, with an existing valid visa and unrestricted work rights for the duration of the term |
| Position reports to the | Team Leader Proximal Sensing |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Ben Macdonald via email at ben.macdonald@csiro.au or phone +61 2 6246 5947 |
| 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](mailto: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).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### 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.

The Research Project Officer Soil Condition and Function will directly support the development of new digital proximal soil sensing and soil analytical measurement approaches. The position will require demonstrated hands-on experience in the understanding, measurement, and inference of soil properties, proximally sensed in the field and in the laboratory, including data analysis skills for the translation of field and laboratory measurements to soil information required by a range of users. These users include the geospatial modellers, the *Australia National Soil Information Systems* (ANSIS) team and soil and agricultural researchers.

A fundamental role of this position will be to support the development of a capability to continuously capture CSIRO wide and national soil information, including soil spectra, analytes and associated metadata into the National Soil Archive and ANSIS. The role will also support several other nationally and internationally funded projects that are introducing rapid soil measurements including spectroscopic measurement techniques.

Joining the Soil and Landscapes Group Canberra, the Research Projects Officer will have access to the full range of laboratory (e.g. FT-IR, Leco analyser) and field deployable proximal tools (e.g. Vis-NIR, pXRF, EMI and gamma radiometrics), high-performance computing, and a tailored career development and training program.

This position is for 4 years, with possibility of conversion to indefinite, subject to funding and strategic alignment.

### Duties and Key Result Areas

* Under general direction, contribute to research and/or technology through the development of original and adapted experimental methods, equipment, or software.
* Under general direction, undertake international, national, regional and farm scale soil state and trend assessments for incorporation within natural capital accounting and other reporting frameworks as well as digital soil maps and land suitability assessments.
* Use rapid and cost-effective proximal sensing tools as well as soil analytical methods to support functional understanding of the agro-ecosystem.
* Show initiative to seek new approaches meeting experimental or technological needs when encountering new problems where methods are not defined.
* Participate in the identification and definition of research and/or technological problems with colleagues.
* Liaise with clients to determine their needs and take personal responsibility for their satisfaction.
* Address problems promptly and in a constructive manner.
* Participate in project planning and accept responsibility for scheduling and completion of project milestones, including evaluation of options, experimental design, data collection and analysis, user and customer research, user experience and/or software design, implementation, and delivery.
* Make significant contributions to the interpretation and communication of research or technological results and collaborate on drafting presentations to, and/or detailed written reports for clients and the scientific and/or technology community.
* 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, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy and diversity initiatives.
* Other duties as directed.

## **Selection Criteria**

**Please specifically address the Selection Criteria in writing and append to the end of your Cover Letter.**

#### Essential

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

1. Relevant bachelor’s degree or equivalent combination of qualification and demonstrated relevant work experience in soil science, agricultural science, environmental science, or similar fields of science.
2. Demonstrated hands-on experience in the analytical measurement of soil and/or other material properties, including the use and maintenance of laboratory equipment.
3. Demonstrated hands-on experience in measuring soil and/or other material properties using proximal sensing tools such as infrared spectroscopy (e.g. FT-IR, Vis-NIR) in the field and laboratory setting, and knowledge of, or clear evidence in developing a skillset in the laboratory and data requirements for soil inference calibration and validation including the QA&QC of the collated datasets.
4. Applied experience in data analysis, including a sound understanding of FAIR data principles, data management and version control, and statistics.
5. A willingness to work on and/or demonstrated knowledge of domestic and international projects that require field and laboratory-based research and capacity building.
6. The ability to work effectively as part of a multi-disciplinary or regionally dispersed research team, and the motivation and discipline to carry out autonomous work components.
7. A current Australian driver’s licence.

## **Desirable**

1. Demonstrated practical knowledge of Australian landscapes and soils, their constraints, and sustainable management opportunities.
2. Demonstrated programming skills in one or more scientific coding languages including (but not limited to) Python and R.
3. Documented all-terrain driving and/or 4WD experience and training.

## **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:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **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:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **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 is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and <https://www.csiro.au/en/about/people/business-units/agriculture-and-food> for more information.

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

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