# Position Description

## Research Projects – CSOF3

The following information is for applicants

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| Advertised Job Title**:** | Research Projects Officer – Instrumentation specialist |
| Job Reference: | 62107 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian Citizens Only |
| Percentage of Client Focus - Internal: | 10% |
| Percentage of Client Focus - External: | 90% |
| Reports to the: | Team Leader |
| Number of Direct Reports: | 0 |
| How to apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number. Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon and email the responses to the selection criteria to the contact officer.  |
| Contact details to discuss this position: | Janet Anstee, 0262465714, janet.anstee@csiro.au *Please do not email your application directly to Janet Anstee. Applications received via this method will not be considered.* |
| If you have difficulty applying please contact: | Call 1300 984 220 or email csiro.online@csiro.au between 8.30 am and 5 pm Australian east coast time. |

## Role Overview:

The Aquatic Remote Sensing team in the Coasts program in CSIRO Oceans and Atmosphere is seeking to appoint a Research Project Officer to specialise in bio-optical field measurements.

## Existing inland water quality data for Australia is scarce but what data we have shows that Australia's inland water quality is declining. CSIRO in collaboration with Geoscience Australia, aims to develop a nationally applicable inland water monitoring capability with an operational and technical focus. This involves measuring the optical properties of inland water systems and comparing them to remote sensing signals from space.

## The project team will measure the absorption, attenuation and backscattering of light in reservoirs and lakes in NSW, Victoria (within the Murray Darling Basin) and WA. These measurements will be used to model the remote sensing signal (the colour of the water surface determined by the amount of reflected light at different wavelengths) that can be used to parameterise the remote sensing models.

## The team will also be collecting water samples and analysing them for chlorophyll, suspended sediment and coloured dissolved organic matter back in the laboratory. By relating the water samples with the remote sensing signals, the team will be able estimate water quality from space at regional to continental scales. The intention of this project is to provide a cost-efficient tool that can be used by water managers to monitor the condition of Australia’s inland water systems and reduce the requirement for repeat travel, often to remote areas, and the need for costly laboratory analyses.

## The products developed from this project will also be used to operationalise remote sensing products for water quality management and to be potentially integrated with hydrodynamic modelling for prediction and forecasting.

## Duties and Key Result Areas:

Bio-optical instrumentation specialist, small boat operator, remote fieldwork (logistical planning, mobilisation demobilisation), data processing and data management.

The core skillsets required for this position are:

* Instrumentation maintenance and calibration as well as the mobilisation and demobilisation of instrumentation for field campaigns.
* Under technical direction undertake processing and archiving of data.
* 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, including engagement with local communities and Indigenous groups.
* Undertake in laboratory and field work in aquatic environments, including boat operations; instrumentation calibration, operation and maintenance; data processing and data management.
* Deploy instrument hardware, (as well as configuring and operating menu-driven instrument software)
* Undertake instrument operation and appropriate deployment methods in the environment.
* Participate in field measurement campaigns including research vessel-based missions.
* Lead/assist with remote field campaigns for up to 3 weeks at a time.
* Undertake small boat operations including coxswain training.
* 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.
* 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.
* Other duties as directed.

## Competencies:

1. **Teamwork and Collaboration: Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.**
2. **Influence and Communication: Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.**
3. **Resource Management/Leadership: Provides instruction and assists other staff to complete allocated tasks and activities.**
4. **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
5. **Independence: Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **Adaptability:** Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## Selection Criteria:

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

* Relevant tertiary qualification or relevant work experience in water quality monitoring and assessment.
* Previous experience and/or a desire to participate in field measurement campaigns including research vessel-based missions.
* The ability to lead/assist with remote field campaigns for up to 3 weeks at a time.
* Experience or ability to undertake small boat operations including coxswain training.
* Experience or ability to undertake processing and archiving of water quality data, under technical direction.

## Desirable Criteria:

* Demonstrated experience in instrumentation maintenance and calibration as well the mobilisation and demobilisation of instrumentation for field campaigns.
* Demonstrated experience in deploying instrument hardware, (as well as configuring and operating menu-driven instrument software) and understanding of instrument operation and appropriate deployment methods in the environment.

## Special Requirements:

Successful applicants will be required to provide a National Police Check prior to commencement and a medical check for fieldwork suitability.

## About CSIRO:

At CSIRO we solve the greatest challenges through innovative science and technology. See more [online](http://www.csiro.au/)!

Find out more about CSIRO [Oceans and Atmosphere](https://www.csiro.au/en/Research/OandA) and the project [here](https://www.csiro.au/en/Research/Environment/Water/Blue-green-algae/Our-research).