# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Senior Research Consultant, Water Quality |
| Job Reference | 73679 |
| Tenure | Specified Term of 3 years  Full-time |
| Salary Range | AU$115,605 to AU$135,467 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Canberra |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens, and Australian Permanent or Temporary Residents, who are currently living in Australia |
| Position reports to the | Team Leader |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Klaus Joehnk via email at [klaus.joehnk@csiro.au](mailto:klaus.joehnk@csiro.au) or phone +61 2 6246 5636 |
| 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. |

### Role Overview

### This role is to initiate, develop, lead, and promote L&W’s water security research capability for the benefit of Australia's economy, community, and environment through strategic partnerships with industry and government. The appointee will use considerable professional expertise, interdisciplinary knowledge, networking abilities and research experience with demonstrated impact to formulate, develop and deliver projects on emerging water issues with special reference to water quality monitoring, modelling and remote sensing research efforts.

### The primary responsibility is the management of research, client relationships, staff and other resources, contribute to successful scientific and commercial achievements of the Managing Water Ecosystem group in particular and the Water Security program in general, and converting innovative science into opportunities to enhance water resource management. For example, based on understanding and knowledge of the underlying needs of the MDBA and CEWO, this role will conceive or identify opportunities for new business consistent with Water Security Program/Land &Water Business Unit research directions and resources and lead projects to client satisfaction. This role will also identify external and inter/intra Business Unit opportunities as well as links with CSIRO’s Future Science Platforms and Missions, specifically the inland water quality focused AquaWatch Mission, and foster collaboration and interactions between scientists and clients, matching needs with research outcomes.

### Duties and Key Result Areas:

* Incorporate ecological understanding of freshwater systems, adapting and/or developing original concepts and ideas for existing and future research projects, across spatial scales including basin scale.
* Advance knowledge in aquatic ecosystems response to environmental stressors using modern monitoring (e.g. remote sensing) and modelling tools.
* Assist in developing models and decision-based support tools to underpin water management, considering legacies, current and proposed development.
* Assist in leading research projects, including the negotiation of resource requirements, and managing activities involving the implementation of water quality models and analysis of remote sensing data.
* Draw on professional expertise, knowledge of other disciplines and research experience, recognise opportunities for innovation and generate new theoretical perspectives by pursuing new ideas/approaches and networking with scientific colleagues across a range of disciplines.
* Develop approaches for integrating socio-economic and health aspects into water quality management of inland waters to achieve ecological outcomes.
* Produce high quality client reports and scientific papers suitable for publication in quality journals and for presentation at national and international conferences. Communicate findings to broader stakeholder audiences.
* Interact with key clients, (e.g. MDBA, CEWO, State Governments), other research programs in CSIRO Land & Water and across various Business Units within CSIRO and with external project-based research partners.
* Act as a trusted advisor, utilising knowledge of client’s business and understanding of their underlying needs.
* Anticipate industry and/or community needs and market direction through client liaison/networking and identify and adapt quickly to changes.
* Communicate research results to clients and the scientific community through oral and written reports, which may include the preparation of documents for patent applications.
* 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.
* Undertake research, demonstrating a considerable degree of originality, creativity and innovation in solving problems and introducing new directions and approaches.
* 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 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:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **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:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

## **Selection Criteria**

#### Essential

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

1. A PhD in a relevant discipline area, such as natural sciences, water science, environmental engineering.
2. Demonstrated experience in business development with a current record of successful funding applications, project management and delivering multi agency big water quality projects.
3. Extensive network and experience in water security and water quality research particularly in combination with remote sensing, and a profound understanding of the client needs, ecological issues and advanced monitoring technology with respect to Australian river systems and reservoirs.
4. Proven experience working with key clients (e.g. MDBA, CEWO, State Governments) and other stakeholders, especially indigenous Australian stakeholders in relation to basin scale water security issues.
5. Demonstrated experience in deployment, operation of water quality sensors and data analysis techniques, and ability to undertake field based research in remote locations.
6. Experience in scientific (R studio, Sigmaplot), resource planning and customer relationship software
7. Working experience in water quality issues in the Murray-Darling Basin and modelling tools (e.g., Delft 3D, Hydrus, BRAT).
8. A solid record of publications in quality, peer reviewed journals as well as client reports in recent years.
9. Strong written and oral communication skills including the ability to present the results of scientific investigations at national and international conferences, clients, and stakeholder meetings.
10. Demonstrated ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, and carry out independent individual research, to achieve organisational goals.

## **Desirable:**

1. A degree/diploma in GIS & Remote sensing
2. An active association or affiliates to University education and research.
3. Water quality process knowledge for rivers, floodplains, lakes and reservoirs.
4. Experience in monitoring and evaluation of catchment scale water quality processes

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.

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Find out more about CSIRO [Land and Water](https://www.csiro.au/en/Research/LWF)