

POSITION DESCRIPTION



Postdoctoral Research Fellow in Forest Monitoring

POSITION DETAILS

Position Title	Postdoctoral Research Fellow in Forest Monitoring
Classification	Academic level A
Position Number	7015357
School/Office	Hawkesbury Institute for the Environment
Division	Provost

POSITION PURPOSE

This role is central to a new project, funded through the Australian Forest & Wood Innovation Centre for Climate-Smart Forestry, which will prototype an open-data platform to monitor the structure, condition and carbon stocks of Australian forests. The role will collate, manage and analyse ground-based and remotely-sensed datasets, and contribute to the development of a roadmap for a national forest monitoring program.

KEY ACCOUNTABILITIES

1. Contribute towards the overall development of prototype open-data platform and national roadmap for forest monitoring
2. Identify appropriate sources of data to support forest monitoring, including remotely-sensed and ground-based data
3. Liaise with project collaborators and data owners to identify appropriate methods for management of data
4. Apply data management methods to aggregate, store, access and integrate data from diverse sources in case study areas
5. Apply machine learning methods to estimate baselines and trends in forest structure, condition and carbon stocks in case study areas
6. Communicate project outcomes via presentations, reports and scientific publications

QUALIFICATIONS, EXPERIENCE AND SKILLS

1. A PhD degree or progress towards the formal completion of or recently submitted PhD thesis for examination in a relevant field (environmental science, remote sensing, data science etc)

2. Experience in managing large spatial datasets
3. Good understanding of open data principles
4. Experience in application of machine learning methods
5. Excellent written and verbal communication skills, with experience in presenting results to diverse audiences and publishing in the scientific literature
6. Excellent organisational skills, including the ability to work with multiple collaborators to deliver timely results

KEY RELATIONSHIPS

- This position reports to Professor Belinda Medlyn, Hawkesbury Institute for the Environment
- **Key internal relationships:**
 - Project collaborators Professor Ben Smith and Professor Brendan Choat, HIE
 - Academic staff and students involved in forest monitoring research
 - Information Technology and Digital Services
- **Key external relationships:**
 - AFWI Centre for Climate-Smart Forestry
 - NSW Natural Resources Commission
 - Forestry Corporation of NSW
 - Industry stakeholders

CHALLENGES

- *Developing innovative, forward-thinking approaches for management of large and complex datasets*
- *Deriving novel, data-based methods to monitor forest structure, condition and carbon stocks*
- *Collaborating with diverse stakeholders across the forest sector*

UNIVERSITY EXPECTATIONS

The University expects that all employees are aware of, and comply with legislation and Western's policies and procedures relevant to the position, including but not limited to:

- Code of Conduct
- Work Health and Safety and Wellbeing Management System
- Enterprise Agreement or Award
- Anti-discrimination principles, Equal Employment Opportunity and staff and student equity.

Approved by: Provost, Prof Deborah Sweeney

Date: 20/8/2025