**Senior Scientist (Landscape Systems Modeller), PO4**

**Soil, Catchment & Riverine Processes, Soil & Catchment Science, Science**

This role is open to all applicants, however applicants with disability or who identify as Aboriginal and/or Torres Strait Islander that meet the minimum requirements for the role will be given priority consideration and invited to participate in the next selection activity.

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| **Duration** | Temporary, from 22 July 2024 until 30 May 2025 | **Annual Salary** | $110,801 - $119,149 |
| **Type of appointment** | Flexible Full-Time | **Position number** | 779361 |
| **Location** | Flexible location will be considered. Brisbane preferred. | **Contact** | Dr Max De Antoni, Science Leader  [max.deantoni@des.qld.gov.au](mailto:max.deantoni@des.qld.gov.au) |
| **Closing Date** | Monday 8th July 2024 | **Job Ad Reference (JAR)** | QLD/573691/24 |

The [Department](http://www.psc.qld.gov.au/about-us.aspxhttp:/www.psc.qld.gov.au/about-us.aspx) of Environment, Science and Innovation

The Department of Environment, Science and Innovation (DESI) recognises the enormous value a clean environment, innovative society and economy, and a diverse and inclusive culture makes to Queenslanders’ lives. As a diverse organisation, the department brings together environment, heritage protection, national parks, science and multicultural affairs functions to help achieve government objectives for a better Queensland.

We value and are committed to:

* building inclusive cultures in the Queensland public sector that respect and promote [human rights](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.forgov.qld.gov.au_humanrights&d=DwMFAg&c=tpTxelpKGw9ZbZ5Dlo0lybSxHDHIiYjksG4icXfalgk&r=W4Gweh5POIqUFNTEU92Jny_3m0ZH7_MyCNsZ6WbxI2w&m=DP2ZLFkNwNjdifpUVipAQaVEBuedVVc4i5VxMuP_IJE&s=n8IaVLsBmceOUzhioUYLOvzCEJhlCoAknsTUtJUryPc&e=) and [diversity](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.forgov.qld.gov.au_inclusion-2Dand-2Ddiversity-2Dcommitment&d=DwMFAg&c=tpTxelpKGw9ZbZ5Dlo0lybSxHDHIiYjksG4icXfalgk&r=W4Gweh5POIqUFNTEU92Jny_3m0ZH7_MyCNsZ6WbxI2w&m=DP2ZLFkNwNjdifpUVipAQaVEBuedVVc4i5VxMuP_IJE&s=koW3J_GJiZzzdkvt7CTYJukNsnFmkSdIgcEJAKnkghA&e=).
* strengthening our culture which values results, professional growth, workforce diversity and a healthy balance between work and life commitments.
* encouraging and supporting employees as individuals in an inclusive environment by embracing our differences and applying diverse and inclusive thinking to our business.
* the values of the Queensland Public Sector: customers first; ideas into action; unleash potential; be courageous; and empower people.

The department is proud to be an accredited White Ribbon Workplace. Domestic and family violence has no place in homes, communities or workplaces and we are committed to preventing violence and supporting employees affected by domestic and family violence.

At DESI we recognise, respect and value First Nations people and cultures.  We are progressing self-determination by recognising the rights and interests of First Nations people. We are investing in a culturally connected and agile organisation, with the skills and experience we need to support better outcomes for First Nations people. We are taking action in fundamental areas like employment and procurement, and by building strong and sustainable partnerships with First Nations organisations and communities. We are focused on working with First Nations people to improve service design and delivery, knowing that this will deliver better outcomes for all of Queensland.

More information on the department’s functions, focus and the type of organisation we are, can be found on our [website](https://www.des.qld.gov.au/our-department/employment).

# Your contribution

As a senior member of the Soil, Catchment & Riverine Processes team you will calibrate, validate and apply the DayCent model to estimate the soil carbon sequestration potential of Queensland.

You will work in a team of 12 other scientists and alongside a larger project team to predict the carbon sequestration potential of different pedoclimatic regions across Queensland. You will also work closely with teams from other organisations to analyse agricultural trial data in relation to soil carbon sequestration that can be used to validate the DayCent model.

Your work will support state government policy, inform prioritisation of government funding. You will be required to provide leadership and specialist technical and scientific advice to state and federal government agencies, regional NRM groups and other science professionals on soil carbon sequestration modelling.

Travel statement

* This position in based in Brisbane, however travel to regional centres and other offices and for field work might be required from time to time. This might include overnight stays.

# Your role

As the **Senior Scientist (Landscape Systems Modeller)**, you will:

* Use the DayCent-CABBI biogeochemical model to integrate spatial soil, climate, landscape and land-use data to predict the soil carbon sequestration potential across Queensland.
* Provide science leadership in modelling, integrating new data and innovative approaches to improve the modelling of soil carbon sequestration from agriculture and natural ecosystems.
* Write efficient and well documented computer code to parameterise and execute model runs on a high-performance computer and analyse and summarise large volumes of data.
* Provide expert technical advice to internal and external clients on land management and modelling outcomes. Produce high quality technical reports and peer reviewed papers suitable for publication in international scientific journals.
* Represent the Queensland Government and build professional networks with stakeholders, presenting results and outputs from modelling in a range of forums including scientific workshops, natural resource management bodies and industry stakeholder groups.
* Occasionally assist with field work alongside dedicated field monitoring personnel to collect data to ensure scientific rigour of the modelling.
* Foster a workplace culture that supports and promotes the interests of First Nations people and actively engage through our work to contribute to better outcomes for First Nations people.

# What we are looking for

We are looking for the best suited applicant for the role. We will do this by assessing your eligibility and your suitability to undertake the requirements of the role (including, where relevant, the way you carried out previous roles). We will also consider your potential to make contributions to the department and how your engagement would support our commitment to equity, diversity, respect and inclusion.

This position requires:

* Demonstrated experience in spatial soil carbon sequestration modelling using DayCent, and a strong understanding of crop production, hydrology, natural ecosystems gaseous emissions from crops and soil science.
* Proven programming experience (e.g., C#, R or Python) and ability to parameterise and execute large model runs, analyse and summarise large volumes of data. Experience with GIS is desirable.
* Evidence of high-quality scientific writing and presentation skills.
* Experience in identifying complex problems and possible solutions including research, comprehension and critical evaluation of relevant technical information and data.
* Well-developed ability to communicate with influence across a wide range of stakeholders including in the scientific and stakeholder communities.
* Contribution to workplace equity and diversity that enriches our culture of innovation, respect and inclusion.

Every staff member is expected to role model leadership behaviours. This role requires the Individual Contributor leadership capabilities as outlined in the [Leadership competencies for Queensland booklet](https://www.forgov.qld.gov.au/leadership-competencies-queensland).

# Eligibility requirements

## Citizenship/Visa

To be eligible for employment in this position, you must be an Australian citizen, have permanent residency status or a visa permitting you to work in Australia. If you are not an Australian citizen you will need to provide evidence of your residency status or visa, with your right to work (including any conditions / restrictions) prior to engagement. You are required to notify the department if your right to work in Australia ceases.

## Qualifications

To be eligible for employment in this position, you must hold Degree qualification in Agricultural Science, Environmental Science, Engineering, Rural Science, Natural Resource Management, Applied Science (Rural Technology) or agreed equivalent. You will need to provide a copy of your qualifications, with originals sighted prior to engagement. Please contact Max De Antoni if you have queries regarding equivalency.

If your qualification is from an overseas institution, you are responsible for obtaining official recognition (see <https://desbt.qld.gov.au/training/training-careers/osqrecognition>). You will be required to provide this prior to engagement.

## Licences

It is a mandatory requirement for the occupant of this position to hold an manual driver’s licence. You will need to provide a copy of your driver’s licence, with the original sighted prior to engagement. Employees are required to drive government vehicles, including four-wheel drives as a part of their day-to-day and field work.

# Benefits and conditions

For a full list of benefits and conditions that come with this role please see our departmental website: <https://www.des.qld.gov.au/our-department/employment/why-work-with-us/information-for-applicants>

# How **to** apply

The selection panel will assess your ability to perform the work required of the position based on your application and other selection processes which may include an interview and/or work test. Pre-employment checks, including referee checks will be conducted.

To apply, lodge an application online at [www.smartjobs.qld.gov.au](http://www.smarjobs.qld.gov.au) that consists of the following:

* your current resume of no more than four pages
* a short two page statement that briefly describes why you are the best suited person for this role – noting, our department values equity and diversity so please include information that will help us understand how you could contribute to our workforce diversity.
* evidence of the above listed [**Eligibility Requirements**](#_Mandatory_requirements) to confirm your eligibility.

If you need any additional support or adjustments during the recruitment process to help you demonstrate your ability to meet the inherent requirements of the role, please contact Max De Antoni.

**Submitting your application**

* Applying online through the Smart Jobs and Careers website [www.smartjobs.qld.gov.au](http://www.smartjobs.qld.gov.au) is the preferred means to submit an application. To do this, access the ‘apply online’ facility on the Smart Jobs and Careers website. You will need to create a ‘My SmartJob’ account before submitting your application.
* By applying online, you can track your application through the process, maintain your personal details through registration and withdraw your application if required.
* If you experience any technical difficulties when accessing [www.smartjobs.qld.gov.au](http://www.smartjobs.qld.gov.au) please contact 13 QGOV (13 74 68). All calls relating to the status of your application once the job has closed should be directed to the contact officer on the position description. If you do not have internet access and are unable to submit your application online, please contact the QSS Customer Support Team on 1300 146 370, between 9am to 5pm Monday to Friday, to enquire about alternative arrangements.
* Late applications cannot be submitted via the Smart Jobs and Careers website, so please allow enough time before the closing date to submit your application. If approval has been granted by the Selection Panel for a late application to be considered, please contact the QSS Customer Support Team on the number above to arrange.
* Hand delivered applications will not be accepted.

**Additional information**

* Criminal history checks may be undertaken on the recommended applicant(s). A criminal conviction or charge will not automatically exclude an applicant from being considered for employment with the department. If information is received that may exclude you from further consideration, you will be given an opportunity to respond and your response will be taken into account in the evaluation process.
* If you are the recommended applicant, you will be required to disclose any serious disciplinary action taken against you in public sector employment.
* If you are the successful applicant, the department will work with you to ensure reasonable adjustments are made in the workplace to enable you to work safely and productively.
* A probationary period of three months will apply to external appointees.
* All newly employed public sector employees are obliged to provide their chief executive with a disclosure of employment as a lobbyist in the previous two years.
* Applications will remain current and may be considered for identical/similar vacancies, provided employment commences within 12 months of the closing date of the original vacancy.