

NSW Office of Environment and Heritage (OEH) Scientific Rigour Position Statement

Science is the systematic study of the natural and social world to develop and apply knowledge and understanding, based on evidence.

Science in OEH includes collecting, analysing and publishing data (evidence) of natural or social phenomena using a range of tools including experimentation, research, monitoring and surveys. The evidence is analysed to draw conclusions and make evidence-based predictions. The organisation also delivers science and provides peer review to the Environment Protection Authority (EPA).

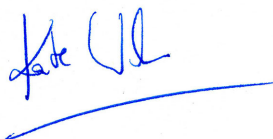
The **purpose** of the *Scientific Rigour Position Statement* is to ensure that all science undertaken or commissioned by OEH meets globally accepted standards for scientific rigour from start to finish. This will ensure OEH has robust scientific evidence on which to base decisions. It also prevents wasting resources on scientific work which does not meet standards of scientific rigour, and so will not deliver defensible and/or meaningful results.

Science is undertaken or commissioned across the organisation, and this statement applies to all scientific work undertaken or commissioned by the organisation. A scientific project should only be undertaken or commissioned by OEH if it will meet standards of scientific rigour.

Scientific rigour is a process of ensuring sound and defensible science by:

1. **Appropriate design** including:
 - establishing a clear objective
 - selecting a scientifically sound and appropriate method
 - ensuring the people involved have relevant skills and experience to undertake the work
 - peer review of the design before implementation
2. **Meticulous implementation** including:
 - adhering to the adopted method, and documenting variations
 - ensuring data are reproducible, secure, discoverable and accessible
3. **Objective analysis and reporting of results**, including:
 - ensuring evidence supports results and conclusions
 - peer review prior to publishing data, results and conclusions
 - publishing results in appropriate media.

Peer review: The [Australian Code for the Responsible Conduct of Research](#) describes peer review as the 'impartial and independent assessment of research by others working in the same or a related field.' Peer review may be undertaken by OEH staff or by external reviewers. The critical element is objective assessment by a suitably qualified person who is independent of the work.



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Sally Barnes, Chief Executive