

Biosecurity challenges for large multi-national resource projects

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The Gorgon Gas Development will involve the construction and operation of facilities on Barrow Island, Western Australia to produce and export liquefied natural gas, condensate, domestic gas, and separate and geosequester reservoir carbon dioxide.

In their 2006 assessment of the proposal to construct the Gorgon Gas Development, the Western Australian Environmental Protection Authority concluded that the development of a Gorgon Gas Development on Barrow Island posed an unacceptable risk to the conservation values of Barrow Island, in part due to the risk of introducing non-indigenous species which may lead to the loss of biodiversity. The Western Australian government proceeded to approve the project for implementation, on condition that the proponent could prove that the risk to introducing a non-indigenous species could be reduced to an acceptably low level.

This objective was achieved through the development of a comprehensive Quarantine Management System (QMS) based on a qualitative risk assessment that assessed quarantine risk to conservation values based on expert judgment. This approach involved community stakeholders and an independent Quarantine Expert Panel, in setting up a risk management methodology including Standards for Acceptable Risks that provided the benchmark for what was acceptable risk. This resulted in a biosecurity management approach that established a pre-border prevention program, post border detection program and an eradication capability in the event a non-indigenous species evaded the pre-border prevention measures.

As demand for resources push exploration into increasingly remote and biodiversity rich areas, the irreplaceability and vulnerability of the biodiversity of such areas may be the single greatest risk project proponents face in gaining environmental approval from governments. This case study demonstrates that through a systematic risk-based approach it is possible to develop an operational management system that can meet the objectives of a diverse range of stakeholders, and enable companies to gain approval to access to environmentally sensitive areas where the introduction of non-indigenous species may result in the loss of biodiversity.