



## En-Route Radar Replacement Program

Airservices Australia was required to undertake a replacement and renewal program for its existing radar network along Australia's east coast. We were engaged by project manager (AECOM) to provide ecological advice regarding upgrade or replacement of radar sites at: Rockhampton (Mt Alma); Mackay (Swampy Ridge); Townsville (Tabletop); and Cairns (Hann Tableland).

### CLIENT

AECOM (ON BEHALF OF AIR SERVICES AUSTRALIA)

### LOCATION

VARIOUS LOCATIONS  
QUEENSLAND

### Statutory Context

The works were wholly confined to Commonwealth land, and were being undertaken on behalf of the Commonwealth. Accordingly, we were required to assess project impacts against the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Significant Impact Guideline 1.2. However, Airservices Australia issued a directive to ensure that impacts on all species and areas of ecological significance were minimised.

### Challenges and Solutions

The project had many interesting dimensions. First, we were required to work with the design team to clarify the precise extent of impact likely to arise at each tower site. Direct impacts were easily determined, but vegetation removal required to establish 'clear vision' from the radar site was more difficult.

The challenge was resolved by accurately locating and identifying the height of all trees within 100m of the radar site. Significant species and habitat features were also identified during this exercise.

This information was aligned with site contour data, and a 3D model developed in GIS to identify the potential for vegetation impacts. A cost-benefit analysis was then undertaken to identify whether lopping/clearing of the vegetation, or increasing the height of the radar tower was the most effective strategy. Environmental impacts arising from vegetation clearing were a key consideration in this analysis.

When potential impacts were clearly understood we provided an impact assessment report, and made recommendations for mitigation.

Based on careful design, and strategies for sensitive construction management, we were able to determine that none of the four projects were likely to cause a significant impact on the environment, and therefore require further assessment and approval under the EPBC Act.

### Outcome

Three of the four radar replacement projects have been completed. The Mackay (Swampy Ridge) replacement project is nearing completion.



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