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Supplementary material: details of updated gamba grass cost model

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We estimate the resources (total costs and labor time) required to support the management strategies based on the cost model presented in Adams and Setterfield (2013), wage rates based on current park wages (assumed a wage of $32 an hour which reflects a base rate of $28 and overtime rate of $42 and a mix of 25% of time reported as overtime) and assuming no access issues (equipment rate associated with a single 4x4). The cost model provides variable costs for a grid cell depending on the density defined as scattered (<10%), medium (10-50%) and dense (>50%). We assume each infested grid (6.25 ha) was treated independently, ignoring potential economies of scale. For containment boundaries we assumed a single visit is necessary while for ground control zones (aiming for local eradication) we assumed two visits a year are required. This is based on best practice recommendations and current management approaches reported in Adams and Setterfield (2013). The estimated cost per grid cell is reported in Table S1.

Table S1. Estimated costs and associated labor for ground control and containment of gamba grass in Litchfield National Park.

	Cost per visit	**Labor per visit**	**Annual cost**	**Annual labor**
Containment (25% of scattered infestation cost based on para grass model, McMaster *et al.* 2014)	140	1	140	1
Scattered ground control	580	4	1160	8
Medium ground control	900	7	1800	14
Dense ground control	1550	12	3100	24

The average percentage breakdown of estimated costs across management components is: Equipment 50%, labor 25%, chemical 10% and planning and monitoring 15%. This breakdown may be useful to park managers estimating how to allocate an annual budget across management costs (e.g. staff time versus equipment maintenance).

References

Adams, V. M. and Setterfield, S. A., 2013. Estimating the financial risks of *Andropogon gayanus* to greenhouse gas abatement projects in northern Australia. *Environmental Research Letters* **8:** 025018.

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