

Station trap yard cost and freight estimation tool

Southern Rangelands Revitalisation Program (SRRP) – Phase 3

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Purpose

Southern Rangelands Revitalisation Program (SRRP) Phase 3 participants can apply for a grant of up to \$75,000 to help implement their on-property revitalisation proposal, and trap yards for mustering cattle or managing total grazing pressure (including feral goats) are a common infrastructure item in these proposals. This spreadsheet tool was developed and distributed to Phase 3 participants to give them a quick, editable way to size a portable panel trap yard against a target head capacity and to estimate its delivered materials cost, to support the infrastructure costing section of their grant application.

Model structure

The tool is a single Excel workbook (Station_Trapyard_Cost_Model.xlsx). It contains two parallel sets of worksheets — a Standard design and a second, alternative design — each following the same four-tab structure:

- Assumptions – editable inputs: target head capacity, holding density, yard shape, panel and gate specification, unit weights, and freight distance and rate bands.
- Materials & BOM – calculates the yard perimeter and number of panels, gates, connector pins and corner/anchor lugs required, together with unit prices and total weight.
- Freight – converts the total material weight into an estimated freight cost from the supplier to the station, using distance and a tiered \$/tonne-km rate table.
- Summary – rolls materials and freight into a grand total, a cost-per-head-of-capacity figure, and a list of assumptions to confirm.

The second set of sheets (labelled "(JA design)" in the workbook tabs) costs an alternative panel and gate configuration set out as a possible trap yard design in the DPIRD trap yard factsheet

(library.dpird.wa.gov.au/cgi/viewcontent.cgi?article=1046&context=ap_factsheets). It is included as a second worked example for participants to consider alongside the Standard design, not as the recommended option, and can be compared side by side before choosing which configuration to cost into an application.

Key inputs and assumptions

- Yard sizing – target head capacity, area per head (holding density) and yard shape (circular or square); a circular yard uses roughly 11% less panel run than a square yard of the same area and gives cattle no corners to jam into.

- Panel and gate specification – panel length, number of spear traps (one-way entry gates), number of additional access gates, connector pins per joint, and corner/anchor lugs.
- Weight assumptions – estimated unit weights for panels, the spear trap gate, access gates and pins/lugs, used to convert the bill of materials into a total freight weight.
- Freight assumptions – road distance from the supplier to the station, and the same four-tier \$/tonne-km rate table used in the fencing model (small consignment, part load, multi-pallet/part load and full truckload).

Illustrative example

The Standard design is pre-populated for a 100-head circular trap yard (1.75 m² per head holding density, 2.1 m Budget Blackline panels, 2 spear traps and 2 access gates) delivered 900 km to the station. The alternative design from the trap yard factsheet is costed for the same 100-head target. The resulting cost build-up for each is:

Cost item	Standard design	Factsheet design
Target head capacity	100 head	100 head
Materials cost	\$4,640	\$6,142
Freight cost (supplier → station)	\$290	\$418
Grand total	\$4,930	\$6,560
Cost per head of capacity	\$49 /head	\$66 /head
Freight as a share of total cost	5.9%	6.4%

The factsheet design uses more perimeter panels and access gates than the Standard design for the same 100-head target, which increases both the materials and freight cost. As with the fencing tool, every figure is a live formula, so changing the target head capacity, holding density, panel specification or freight distance automatically recalculates the full cost build-up for either design.

Limitations and items to confirm before lodging a grant application

The model is a planning-level estimate, not a supplier quote. The Summary tabs list the following items for participants to confirm before relying on the total in a funding application:

- The trap enclosure only is costed — no loading ramp, crush, forcing yard/laneway or cattle grid is included. A crush/ramp line item should be added separately (e.g. from the Brazen price list) if the trap needs to double as a working yard.
- Panel and gate weights are estimates and should be confirmed before trusting the freight figure.
- The yard is treated as a simple circle or square for panel-run purposes; real terrain or the position of water points may require an irregular shape and more panels than estimated.

- Freight is costed against indicative regional WA road-freight benchmarks, not an actual carrier quote. Panels and gates are bulky and low-density, so a real quote may run higher per tonne than a dense load of the same weight — ask suppliers whether they run their own delivery direct to stations, which can beat a standalone freight booking.
- Installation and labour (post-driving, assembly) are not costed — the model covers materials and freight only.

How Phase 3 participants can use this tool

- Enter the target head capacity and preferred yard shape for the trap yard proposed in the revitalisation project.
- Choose the Standard design or the alternative design set out in the trap yard factsheet, or adjust panel, gate and lug quantities to match the design being proposed.
- Enter the actual road distance from the intended supplier to the station.
- Confirm or update unit prices and weights on the Materials & BOM tab against current supplier quotes.
- Use the Summary tab total, together with any crush, ramp or laneway and labour costs, as the trap yard line item in the infrastructure development budget submitted with the SRRP Phase 3 application.

Further program information, eligibility and application guidance for the Southern Rangelands Revitalisation Program is available on the DPIRD website.

Important Disclaimer

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