Farm Dams for Water Storage

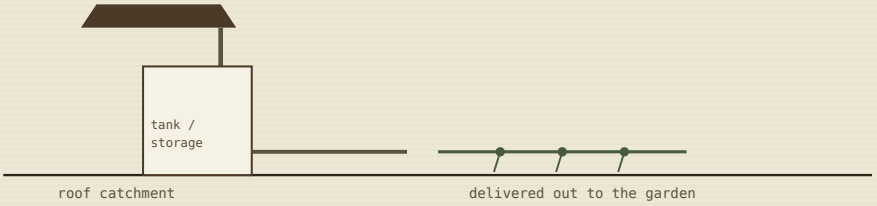
Store runoff for stock and irrigation (not for power generation)

DIFFICULTY Hard
TYPE One-off construction, ongoing maintenance
TIME Weeks of planning, days of earthworks

DIFFICULTY	TIME	COST	BEST SEASON	FREQUENCY
Hard	Days of earthworks	High	Dry season for construction	Passive once built, inspected regularly

01 Captures and stores runoff

A farm dam captures surface runoff from its catchment area and stores it for stock or irrigation use — this is a different and generally more straightforward proposition than damming a flowing watercourse for power, though it still typically requires approval.



02 What you'll need

- A suitable site with adequate natural catchment and appropriate soil (clay content for a sealed dam)
- Earthmoving machinery (usually contracted)
- Water licensing/approval from your state authority — check before any construction
- A spillway design to safely handle overflow in heavy rain

03 Method

- **1.** Check water licensing requirements with your state authority — most farm dams require some form of approval, especially above a certain size.
- **2.** Assess the site for catchment area, soil suitability (clay content for sealing), and safe spillway location.
- **3.** Engage a suitably experienced contractor for earthworks, particularly for wall construction and spillway design.
- **4.** Construct with a properly engineered spillway to handle overflow safely — this is the single most common failure point in poorly built dams.
- **5.** Fence if needed to manage stock access and protect water quality and dam walls from erosion.

04 Troubleshooting

- **Dam not holding water** — often insufficient clay content in the soil; may need a clay liner or bentonite treatment.
- **Wall erosion or failure risk** — usually inadequate spillway capacity for heavy rain events; this is a genuine safety issue requiring professional assessment.
- **Poor water quality** — often from stock having direct access; consider fencing with a separate trough system fed from the dam.
- **Regulatory issues discovered after construction** — always confirm approval requirements before starting earthworks, since retrofitting compliance is far more difficult and costly.

05 Timing & maintenance

BEST TIME	Construct during the dry season when the site is accessible and dry for earthworks.
DURATION	A properly built dam is a long-term, multi-decade asset with appropriate maintenance.
MAINTENANCE	Regular inspection of walls and spillway, particularly after heavy rain events.
SIGNS OF SUCCESS	A dam holding water reliably through dry periods, with a spillway that's never been tested to its limit in a way that causes concern.

06 Tips & variations

PAIRS WELL WITH

- Bore Water Basics
- Rotational Grazing at Property Scale

COMMON MISTAKES

- Skipping water licensing checks before construction
- Underestimating spillway capacity needed for extreme rain events

PRO TIP

This is genuinely a project to bring in experienced local contractors for — dam wall and spillway engineering mistakes can be dangerous and expensive to fix after the fact.