



Storage Dam Design

Professional Service in Storage Dam Design and Construction Supervision

On farm storage of large volumes of water has become an increasingly important water management tool for irrigators. Because of the value of water stored, and the resulting hazards of failure, the importance of correct construction and maintenance of these storages cannot be over emphasized.

Deciding on a storage size and choosing its site must start at the whole farm planning stage. Ideally, a Business Management Plan for the property, and the Irrigation and Drainage Management Plan will indicate the type of storage required, and how it is used.

Price Merrett Consulting P/L has 23 years experience preparing storages for a range of properties in South Eastern Australia. Price Merrett Consulting P/L can help farmers make smarter use of water and improve how soils and crops are irrigated.

Services provided by Price Merrett Consulting P/L:

- Site analysis
- Soil testing
- Topographic and Feature survey
- Plans and specifications
- Schedule of quantities
- Planning permits and certifications
- Contract documents and administration
- Construction supervision

Landholders are always faced with the compromise of achieving their objectives within a budget. The additional effort required to have a storage dam constructed properly, however, is not great. A poorly constructed storage dam may prove very expensive. By following the correct procedures you can achieve a safer storage dam and peace of mind at little additional cost.

Why develop an on-farm storage

On farm water storages allow irrigators to:

- Use water more efficiently
- Capture drainage flows from irrigation or rainfall and store it for later use
- Minimize water loss and loss of nutrients
- Store water for later use, allowing irrigation when it is needed, rather than only when water is available.
- Simplify water management.

There are 4 main phases of building and operating a storage dam and can be summarised as follows

Investigation

It is better to discover any problems before work has started on the construction, not after. Soil testing is critical. We need to understand how the bank will perform under pressure to ensure that the dam will not leak. EM31 surveys and test holes are used. Native vegetation and cultural heritage issues must be examined.

Design

The designer uses the results of the investigations, to locate the storage dam site and to determine the correct embankment profile. The design gives the contractor a standard to build to, which results in a safer structure with lower maintenance requirements.

Construction

The contractor must adhere to the specifications and always be prepared to contact the designer if unforeseen circumstances are encountered. Proper moisture content of fill material and proper compaction are the key elements of successful construction.

Maintenance

Routine maintenance should prevent problems from arising. Any problems that do occur should be fixed immediately before they become big (expensive) problems.

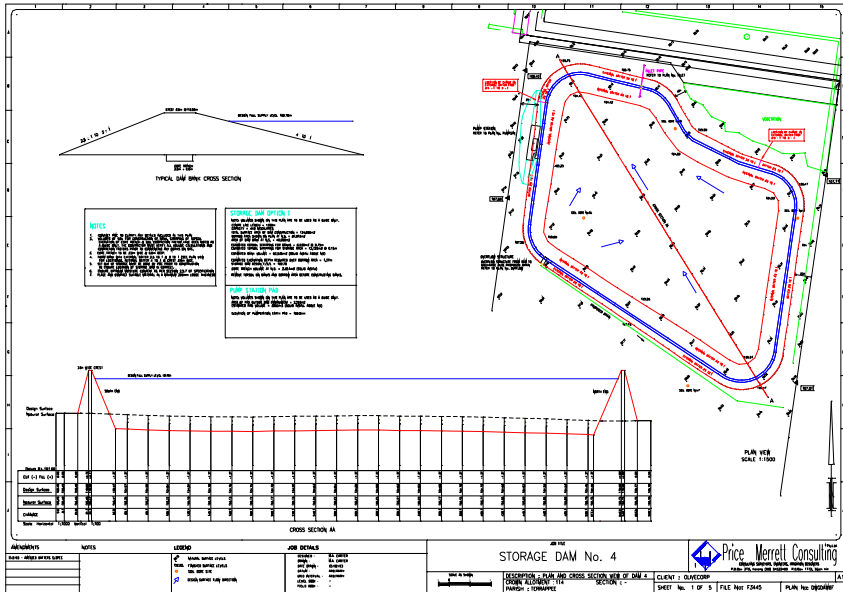


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- Price Merrett Consulting P/L Offers:**
- **Professional Service**
PMC staff are professionally qualified and trained surveyors, engineers and irrigation designers.
 - **Experience**
PMC has provided quality service to the water and irrigation industry throughout South Eastern Australia for over 23 years.
 - **Accreditation**
PMC staff hold appropriate certification and accreditation.
 - **Independence**
PMC is not aligned with any contractors, suppliers or product line.
 - **Technical Innovation**
PMC continually invests in latest technology, hardware and software.



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