

CASE STUDY PRODUCT:
DAVEY DYNA DRIVE, EAFM9 CARBON MEDIA FILTER, KINETICO WATER SOFTENER

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Water Filtration Solution for Kelly Hill Conservation Park, Kangaroo Island

In the aftermath of the devastating 2019 bushfires on Kangaroo Island, the Kelly Hill Conservation Park faced a significant challenge. The new visitor centre, constructed to welcome tourists back to this breathtaking but remote location, required a sustainable and effective water treatment solution. The conservation park, managed by National Parks & Wildlife SA, is far removed from urban infrastructure, necessitating a self-reliant and efficient water system for the new toilet block. The key issue was a limited and compromised water source, characterised by high tannin content and offensive odours, which posed a risk to both visitors' comfort and the longevity of the new sanitary facilities.

Davey Master Dealer, Daish Irrigation & Fodder have long supported the irrigation needs of remote Kangaroo Island so were perfectly placed to offer a solution for a reliable and low-maintenance water treatment system.

The Water Challenges

The visitor centre required a dependable water source, primarily for the new toilet block, which had to be both efficient and environmentally responsible. The main issue was water quality. The dam water was heavily stained with tannins and had a strong odour, making it unpleasant for use and causing potential damage to the plumbing fixtures.

With no connection to mains water, the site had to rely on dam water and restricted rainwater harvesting. Maintaining adequate water pressure was also crucial.



The Davey Solution

Daish Irrigation & Fodder recommended a tailored Davey water filtration system designed to tackle the specific challenges of Kelly Hill Conservation Park:

- 1. Davey DynaDrive DD90-11**
A variable speed pump to accommodate varying flow requirements across the toilet block, ensuring consistent water delivery and efficient operation.
- 2. Davey EAFM9 Carbon Media Filter with Auto Backwash**
To mitigate sediment and odour issues, the carbon media filter ensures cleaner and odour-free water. The auto backwash function simplifies maintenance, a critical factor given the park's remote location and the limited availability of on-site technical support.
- 3. Water Softener**
This product addresses the high tannin content, reducing staining and prolonging the lifespan of the toilet fixtures, enhancing the overall user experience.

Implementation Challenges

The installation had to contend with several constraints:

- **Space Limitations:** The system was designed to fit into a compact area without sacrificing performance.
- **Stringent Standards:** As government property, the equipment needed to meet rigorous operational and maintenance criteria, including environmental considerations given the conservation park setting.
- **Reliability:** The remote nature of the site required a low-maintenance and highly reliable solution, reducing the need for frequent servicing.

Results

The installation of the Davey water treatment system at Kelly Hill Conservation Park has had a transformative impact. By effectively addressing the water quality issues and minimising maintenance requirements, the solution has improved the park's infrastructure, ensuring a pleasant experience for visitors and protecting the investment in new sanitary facilities. The project showcases the effectiveness of a custom-engineered approach to water treatment in a sensitive and remote environment.