



Puckapunyal Army Base Reticulation Plant



1989

ABOUT THIS PROJECT:

Market Segment:
Wastewater Collection
& Treatment

Owner:
Australian Army

Products Used:
Patch'n Plug, Concentrate,
Modified

Location:
Puckapunyal Army Base,
Victoria, Australia

Contractor:
Australian Construction
Services

Engineers:
Hazen and Sawyer

PROBLEM

Following up on projects is essential to assess the success of any structural repair solution, and this is particularly true for Xypex. As a company that provides innovative waterproofing and protection solutions for concrete structures, Xypex has built a reputation for permanent waterproofing solutions and extension of the service life of new and existing structures. By monitoring and evaluating the performance of past projects, Xypex can provide evidence of its effectiveness, longevity and showcase the benefits of its crystalline technology.



In 1989, the Puckapunyal Royal Australian Army Base faced a critical infrastructure challenge with its aging sewage reticulation plant. The facility, which had been in operation for over 50 years, was

deteriorating and faced the risk of closure due to the severity of its condition. However, Xypex Chemical Corporation's concrete waterproofing and repair products, including Xypex Patch'n Plug and a two-coat application of Xypex Concentrate, and Xypex Modified, proved to be an efficient and cost-effective solution for the repair and restoration of the plant.

THE XYPEX SOLUTION

The repairs were successfully completed, which prevented the closure of the plant. The Australian Construction Services (ACS), the government department responsible for maintaining all federal structures in the country, reassessed the condition of the plant and estimated that it had gained an additional 25-30 years of usable life.



13 year later the tank and the original Xypex repairs remained in excellent condition, showing no signs of deterioration. A regular inspection carried out on the structure in May 2002 revealed no evidence of spalling, leakage, new cracking, or any failure of the structure. The Xypex repairs are still visible in photos.

Based on this inspection and the structure's condition, the original estimate of the increase in the service life of the sewage plant held true and will be easily exceeded.

PROJECT BIO



The restoration and protection provided by Xypex technology have numerous benefits for various concrete structures. Xypex's range of concrete repair and protection products can perform repairs without taking facilities out of service.

The cost-effective solution minimizes downtime, reduces repair and maintenance costs, and promotes sustainability. Moreover, Xypex technology can address specific challenges posed by unique conditions, such as wastewater, sulfates and other aggressive materials which cause rapid concrete degradation and corrosion. Xypex typically provides a far more cost-effective solution that results in a restored concrete structure with increased service life.

The restoration and protection of the sewage reticulation plant at the Puckapunyal Royal Australian Army Base is an excellent example of the extended service life that Xypex technology provides.

