

# Beaconsfield Reservoir

## Site Background

- Constructed in 1918 by the State Rivers and Water Supply Commission.
- Decommissioned in 1991 due to water quality not meeting improving standards and Cardinia Reservoir coming online.
- Melbourne Water (MW) retains responsibility for the safety of the dam embankment under our Statement of Obligations.
- The reserve is Crown Land owned by DELWP, committee of management is by the Cardinia Environmental Coalition (CEC).

## Land use/Public access opportunity

- The reserve is Crown Land administered by DELWP. The committee of management (COM) is the Cardinia Environmental Coalition (CEC) and currently closed to the public.
- Melbourne Water would like to ensure the Dam Safety project compliments any future land use of the site however the decision around public access is not a decision for Melbourne Water.
- DEWLP are open to the idea of public access if an ongoing parks manager is identified for the public recreational use area of the site and changes to the COM made. If this occurs MW can include liveability and recreation assets as part of the Dam Safety project.

## Dam Safety Issue

- 100 years old, does not meet current safety requirements and risk guidelines in terms of stability, internal erosion (piping) protection and general design deficiencies as defined by Australian National Committee on Large Dams (ANCOLD) guidelines.
- Retaining the dam in its current state, would not comply with national dam safety regulations.
- The driver of the Beaconsfield Reservoir Dam Safety project is to reduce the risk of Beaconsfield Reservoir failing, protecting properties and community located downstream of the dam.
- While the likelihood of dam failure is low, the consequence is significant.

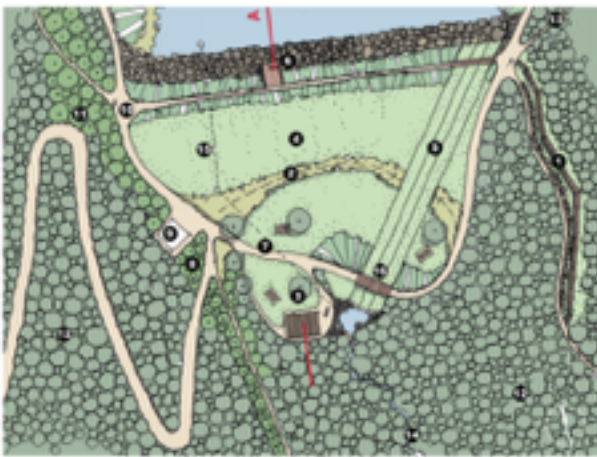
---

Melbourne Water is owned by the Victorian Government. We manage Melbourne's water supply catchments, remove and treat most of Melbourne's sewage, and manage rivers and creeks and major drainage systems throughout the Port Phillip and Westernport region.

## Embankment options assessed

- Option 0: Do nothing, not considered as a feasible option, because the risk is too high
- Option 1: Partial decommission, embankment and reservoir reduction
- Option 2: Full decommission, removal of all dam infrastructure and a return to previous state before dam was built
- Option 3: Full dam safety upgrade, this would involve buttressing the dam wall but maintaining the water level.

## MW preferred option



1. Dam crest level is reduced from RL 104.62 m AHD down to RL 96.1 m AHD
2. Modifying the low level outlet to act as the new primary spillway with a FSL at RL 94 m AHD by installing a concrete riser
3. Demolition of redundant infrastructure
4. New energy dissipater to allow flows to safely enter Haunted Gully Creek
5. Constructing a 10 metre long secondary spillway with a rock lined channel
6. Decommissioning of the high level outlet function, but retaining the viewing platform
7. Landscaping

