

Dam Pre-Release and Surcharge Policy

Purpose

The Purpose of this Policy is to define Melbourne Water's operational practices in relation to pre-release and surcharge of our dams.

Scope

This policy applies to all water supply dams that Melbourne Water manages, inclusive of harvesting dams with or without catchments, seasonal storages and non-operational dams.

This policy covers Melbourne Water's practices relating to:

- Pre-releasing water from its dams.
- Water level surcharge in its dams.

Policy Statement

Melbourne Water manages 16 dams. Each of these dams has been designed for the purpose of water storage for potable supply and in some cases irrigation. All 16 dams have uncontrolled spillways. This means that Melbourne Water cannot control the water volume of the reservoirs for the purposes of flood mitigation during a flooding event. The spillways at Melbourne Water's dams are designed to maintain the safety of the dam by ensuring that the water does not rise above the crest of the dam in extreme flood events thus compromising the integrity of the structure. The design ensures that the dams will attenuate and pass floods when they surcharge above full capacity and naturally store flood waters when storage capacity below spillway level is available. The dams cannot be operated to maintain a surcharge above spillway level, and therefore it is not possible to significantly regulate or change the discharge during flood events.

Although Melbourne Water has no operational control over its spillways during a flood event, in normal 'non flood' operating conditions, Melbourne Water does operate the storages so that controlled low volume releases can occur, either as part of our environmental flow obligations, river health releases or low level dam releases to marginally reduce reservoir level. In some circumstances environmental releases will be planned and made to coincide with minor rainfall events for the benefit of the environment.

Melbourne Water continuously monitors the safety of its dams and provides discharge information to relevant emergency agencies during flood events.

Melbourne Water manages its dams in the order of priorities as listed below:

1. Dam Safety
 - Melbourne Water undertakes controlled releases of water from its dams when it is deemed necessary for dam safety reasons.
2. Water Supply Security (Maximising total harvest in storage subject to water quality and environmental flow obligations)
 - Melbourne Water manages its dams to maximise water harvest while minimising risk to the community and ensuring compliance with its Bulk Water Entitlements and environmental flow obligations.

Dam Pre-Release and Surcharge Policy

Definitions

Reference	Definition
FSL	Full Supply Level: The maximum normal operating level of the storage. For most of Melbourne Waters Dams this is the crest of the spillway
Dam	Built structure to create a reservoir
Reservoir	Body of water retained by a dam
Spillway	Built structure to allow safe passage of surcharged water
Uncontrolled Spillway	Spillway without ability to regulate flow once water level is above FSL
Surcharge	Water in a reservoir above FSL (or restricted FSL)
Attenuation	Retarding of flood water in the reservoir as it spills

Stakeholder Consultation

Water Supply Ops Strategist, Service Delivery - Wholesale Services
Water Asset Management

Document History

Date	Reviewed/ Actioned By	Version	Action
Feb 2023	Tommie Conway	5	Reviewed and minor edits
March 2018	Tommie Conway	4	Reviewed and minor edits
October 2015	Tommie Conway	3	Updated to better articulate operational practices
January 2015	Carly O'Halloran / Michelle Riley	2	Updated to correct template
November 2013	Brie Jowett / Tony Antoniou	1	Document Created