

Pioneer Valley

Eton Water Supply Scheme Operations Manual

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Chapter 1 Preliminary

1 Short title

- (1) This operations manual may be cited as the Eton Water Supply Scheme Operations Manual.
- (2) Reference in this document to 'this manual' means the Eton Water Supply Scheme Operations Manual.

2 Interpretation of words used in this manual

The dictionary in attachment 1 defines particular words used in this manual.

3 Water supply scheme

The extent of the Eton Water Supply Scheme is defined in the Water Plan (Pioneer Valley) 2002.

Chapter 2 Operating rules

4 Operating levels of storages

- (1) The minimum operating level and full supply level for Kinchant Dam is specified in table 1.
- (2) The licence holder must not release or supply water from a storage when the water level in that storage is at or below its minimum operating level as specified in table 1.

Table 1 – Operating levels of storage

Storage	Minimum operating level (m AHD)	Full supply level (m AHD)	
		May to Nov	Dec-Apr
Kinchant Dam	EL 43.76	EL 57.51	EL 57.21

5 Flood flow release into Sandy creek

- (1) When Kinchant Dam is above full supply level, the licence holder may release water from Kinchant Dam into Sandy Creek up to the maximum discharge rate of the outlet works.
- (2) When Kinchant Dam is below full supply level, the licence holder must not release water from Kinchant Dam into Sandy Creek.

6 Diversion to supply water allocations

- (1) The licence holder must only take water using the Mirani Pump Stations to supply water allocations where—
 - (a) the water level in Kinchant Dam is below full supply level;
 - (b) inflow to Mirani Weir is greater than or equal to 250 ML/day;
 - (c) the water level in Mirani Weir is at or above fixed crest level;
 - (d) the water requirements to supply water for water allocations downstream of Mirani Weir are being met; and
 - (e) the minimum flow rates specified in attachment 2 of the Pioneer River Water Supply Scheme resource operations licence, are met.
- (2) The rate at which the licence holder is permitted to take water using the Mirani Pump Stations to supply water allocations is the lesser of—
 - (a) 910 ML/day; or
 - (b) a rate having regard to—
 - (i) the actual inflow to Mirani Weir; and
 - (ii) the amount of water that can be taken consistent with maintaining the requirements of Subsections 1(c), 1(d) and 1(e).

Chapter 3 Water sharing rules

7 Announced allocations

- (1) The water year is from 1 April to 31 March in the following year.
- (2) The licence holder must—
 - (a) determine an announced allocation for each priority group for use in defining the share of the water available to be taken under water allocations in that priority group;
 - (b) use the water sharing rules specified in this chapter to calculate announced allocations throughout the water year;
 - (c) calculate and set the announced allocation for each priority group to take effect on the first day of each water year;
 - (d) following the commencement of a water year—
 - (i) recalculate the announced allocation to take effect no later than five business days following the first day of every month; and
 - (ii) reset the announced allocation if a recalculation indicates that the calculated announced allocation would—
 - (A) increase by five or more percentage points; or
 - (B) increase to 100 per cent; and
 - (e) publish details of the announced allocation, including parameters used in determining the announced allocations, on the licence holder's internet site within five business days of—
 - (i) setting an announced allocation under subsection 1(c); or
 - (ii) the first calendar day of every month when resetting the announced allocation under subsection 1(d).
- (3) The announced allocation must not be greater than 100 per cent.

8 High class A (Eton) priority water allocations

The announced allocation for high class A (Eton) water allocation must be 100 per cent.

9 High class B (Eton) priority water allocations

- (1) The licence holder must determine the announced allocation for high class B priority water allocations for the Eton Water Supply Scheme using the following formula—

$$AA_{H-B(Eton)} = 100 \times \frac{[(UV^E - HA^E + DIV^E)]}{HB^E}$$

- (2) The parameters used in the announced allocation formula are defined in table 2.

Table 2 – Parameters for calculation of announced allocation

Term	Definition
$AA_{H-B(Eton)}$	High class B priority announced allocation percentage—the percentage of the water allocation nominal volume for a high class B water allocation that may be taken for the water year.
HA^E	High class A priority water allocations (ML)—the total nominal volume of high class A (Eton) water allocations, including the losses associated with delivering the allocation.
HB^E	High class B priority water allocations (ML)—the total nominal volume of high class B (Eton) priority water allocations (including the losses associated with delivering the allocation).
UV^E	Useable volume (ML)—UV is the useable volume of Kinchant Dam. $UV = (US \text{ storage})$ $US = (CV - DSV - SL)$ $US = 0 \text{ if } (CV - DSV - SL) \text{ is less than } 0$ <p>Where:</p> <ul style="list-style-type: none"> • <i>US</i> is the useable storage volume of Kinchant Dam. • <i>CV</i> is the current volume in Kinchant Dam. • <i>DSV</i> is the dead storage volume of Kinchant Dam (refer to attachment 1 of the resource operations licence for the Eton Water Supply Scheme). • <i>SL</i> is the projected storage loss (calculated using data in table 3) from Kinchant Dam for the remainder of the water year. Storage losses include lake evaporation and seepage. The storage loss depths to be used are given in table 3. The depth for the month in question is used with the relevant storage curve and current storage volume to determine the resulting storage loss.
DIV^E	Diverted volume (ML) is the volume of water taken under HA^E and HB^E water allocations in the water supply scheme in a water year up to the time of assessment of the announced allocation. This volume does not include any volume for water taken under the Pioneer River Water Supply Scheme resource operations licence.

Table 3 – Storage loss – Kinchant Dam

Month in which announced allocation is calculated	Storage loss until end of water year (mm)
April	1740
May	1610
June	1510
July	1420
August	1330
September	1210
October	1070
November	890
December	700
January	500
February	320
March	160

10 Taking water under a water allocation

The volume of water taken in a water year under the authority of a water allocation must not exceed the nominal volume of the water allocation multiplied by the announced allocation and divided by 100.

Chapter 4 Seasonal water assignment rules

11 Seasonal water assignment rules

- (1) The licence holder must not approve the seasonal assignment of a water allocation if — the seasonal assignment involves a change in location to or from zone Eton 01;
- (2) The holder of a water allocation may enter into an arrangement for a seasonal water assignment in relation to the allocation under section 61 of the Water Regulation 2016.
- (3) Despite subsection (1), the consent of the distribution operations licence holder to the arrangement is also required when—
 - (a) water is being seasonally assigned from the Eton Water Supply Scheme into the Eton Channel Scheme; and
 - (b) water is being seasonally assigned from the Eton Channel Scheme out to the Eton Water Supply Scheme—
- (4) Water supplied under section (2) or (3) may be used for any purpose.

Attachment 1 Dictionary

Term	Definition
AHD	The Australian height datum, which references to a level or height to a standard base level.
Announced allocation	For a water allocation managed under a resource operations licence means a number, expressed as a percentage, which is used to determine the maximum volume of water that may be taken.
Dead storage	For a dam or weir, is the volume of water within the ponded area of the storage that cannot be released or used from the storage under normal operating conditions.
Discharge	Discharge is the rate at which a volume of water passes a point in a stream or pipeline per unit of time. This could be measured in litres per second (L/s), cubic metres per second (cumecs m ³ /s) or in megalitres per day (ML/day).
Distribution loss	Water that is 'lost' when delivering water for water allocations in reticulated areas via constructed infrastructure through processes such as (but not limited to) evaporation, seepage, pipeline leakage, accidental loss through temporary pipe failure (breaks), loss through pressure relief systems and scouring.
Distribution operations licence holder	The holder of the distribution operations licence for the Eton Channel Scheme.
EL	Elevation Level
Flood flow	A flow in a river or stream that is at a much higher level than that which occurs at normal stream flows, usually associated with high rainfall events.
Fixed crest level	The part of a dam or weir, the level of which cannot be easily altered due to its nature of construction, over which water flows are designed to spill from the ponded storage.
Inflow to Mirani Weir	The total daily flow in ML measured on the Pioneer River at AMTD 58.1 km and Cattle Creek at AMTD 11.0 km less any water released from Teemburra Dam.
Licence holder	The holder of the resource operations licence for the Eton Water Supply Scheme.
Location	For a water allocation, means the zone from which water under the water allocation can be taken.
Megalitre (ML)	One million litres.
Natural stream flow	The total daily flow in ML measured at a given point along a watercourse, less any water released from an upstream storage which contributes to flow at that point.
Ponded area	Area of inundation at full supply level of a storage.
Priority group	A grouping of water allocations for taking supplemented water from a water supply scheme with the same Water Allocation Security Objective (WASO).
Stream flow	The total daily flow in ML measured at a given point along a watercourse. This includes both natural stream flow and water released from an upstream storage which contributes to flow at that point.
Release	Water from a dam or weir that passes downstream from the dam or weir through the dam or weir outlet works.
Water Year	The period as defined in the Eton Water Supply Scheme Resource Operations Licence