

Lower Lockyer Valley Water Supply Scheme Operations Manual

Water Plan (Moreton) 2007

January 2018

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Chapter 1 Preliminary

1 **Short title**

- (1) This operations manual may be cited as the Lower Lockyer Valley Water Supply Scheme Operations Manual.
- (2) Reference in this document to “this manual” means the Lower Lockyer Valley 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 Lower Lockyer Valley Water Supply Scheme is defined in schedule 4 of the Water Plan (Moreton) 2007.

Chapter 2 Operating rules

4 Operating levels for infrastructure

- (1) The minimum operating levels for the infrastructure in the Lower Lockyer Valley Water Supply Scheme are specified in table 1.
- (2) The licence holder may release water from any infrastructure if the water level in that infrastructure is above its minimum operating level and the release is necessary—
 - (a) to supply downstream demand; or
 - (b) for operational purposes.

Table 1 – Operating levels of infrastructure

| Infrastructure | Minimum operating level (m AHD) |
|------------------------------|---|
| Atkinsons Dam | Buaraba Creek outlet level EL 57.34 m AHD. Brightview Channel outlet level EL 57.84 m AHD. |
| Brightview Weir | EL 54.37 m AHD (level of outlet works). |
| Sippels Weir | Not applicable. |
| Potters Weir | Not applicable. |
| O'Reillys Weir | 26m AHD. |
| Buaraba Creek Diversion Weir | Not applicable. |

Chapter 3 Water sharing rules

5 Calculating and setting announced allocations

The licence holder must—

- (a) calculate the announced allocation for each priority group using the water sharing rules for the scheme to take effect on the first day of the water year;
- (b) following the commencement of a water year—
 - (i) recalculate the announced allocation at the beginning of each month;
 - (ii) reset the announced allocation no later than 5 business days following the first day of the month only if the recalculation indicates that the announced allocation would—
 - (A) increase by 5 or more percentage points; or
 - (B) increase to 100 per cent.
- (c) make public details of the announced allocation, including parameters for determining the announced allocation, on the resource operations licence holder's internet site within—
 - (i) 5 business days of setting an announced allocation under subsection (a); or
 - (ii) the first calendar day of every month when resetting the announced allocation under subsection (b).
- (d) not reduce the announced allocation during a water year;
- (e) round the announced allocation to the nearest whole percentage point; and
- (f) not set an announced allocation that is greater than 100 per cent.

6 Announced allocation for medium priority water allocations

- (1) The announced allocation for medium priority water allocations in the Lower Lockyer Valley Water Supply Scheme must be calculated using the following formula—

$$AA_{MP} = \left\{ \frac{UV + DIV_{MP} - TOA}{MPA} \right\} \times 100$$

- (2) The parameters used in the announced allocation formula for medium priority water allocations are defined in tables 2, 3 and 4.

Table 2 – Announced allocation parameters

| Term | Details |
|------------------|---|
| AA _{MP} | Announced allocation medium priority—the percentage of the nominal volume for Medium Priority water allocations that may be taken for the current water year. |
| UV (ML) | Useable volume—the useable storage volume is determined by summing the useable volume of each of the storages included in the assessment of the announced allocation as per the following equations. UV = sum (UV storage) UV storage = (CV – MOV – SL) UV storage = 0 if (CV – MOV – SL) is less than 0 Where: |

| Term | Details |
|-------------|--|
| | UV is the useable volume of each storage (Atkinsons Dam, Brightview Weir and O'Reillys Weir). CV is the current volume of the storage. MOV is the minimum operating volume of the storage. |
| SL (ML) | Storage loss—the net projected storage loss from the storages for the remainder of the water year and includes lake evaporation plus seepage minus direct rainfall onto the storage. The storage loss volume is calculated by using the value next to the current month multiplied by the current surface area of the storage. The storage loss values used for resource assessment purposes are shown in table 3. |
| TOA (ML) | Transmission and operational allowance—an allowance for the river transmission and operational losses expected to occur in running the system to the end of the water year. TOA varies with the announced allocation for medium priority water allocations. TOA is calculated using table 4. |
| MPA (ML) | Medium priority allocations—the total volume of medium priority water allocations served by the scheme (includes medium priority distribution loss allocation). |

Table 3 – Storage loss depths (mm)

| Month in which announced allocation was calculated | Atkinsons Dam, Brightview Weir and O'Reillys Weir |
|---|--|
| July | 628 |
| August | 606 |
| September | 551 |
| October | 473 |
| November | 395 |
| December | 317 |
| January | 240 |
| February | 181 |
| March | 134 |
| April | 82 |
| May | 31 |
| June | 12 |

Table 4 – Transmission and operational allowance

| Month in which announced allocation is calculated | Transmission and operational loss allowance (ML) | | | | | |
|---|--|------------------------|------------------------|------------------------|------------------------|-------------------------|
| | AA _{MP} = 0% | AA _{MP} = 20% | AA _{MP} = 40% | AA _{MP} = 60% | AA _{MP} = 80% | AA _{MP} = 100% |
| July | 0 | 1 427 | 2 854 | 4 281 | 5 708 | 7 135 |
| August | 0 | 1 343 | 2 687 | 4 030 | 5 373 | 6 716 |
| September | 0 | 1 215 | 2 429 | 3 644 | 4 858 | 6 073 |
| October | 0 | 1 087 | 2 174 | 3 260 | 4 347 | 5 434 |
| November | 0 | 947 | 1 893 | 2 840 | 3 787 | 4 734 |
| December | 0 | 823 | 1 646 | 2 469 | 3 292 | 4 114 |
| January | 0 | 724 | 1 448 | 2 172 | 2 896 | 3 620 |
| February | 0 | 622 | 1 243 | 1 865 | 2 486 | 3 108 |
| March | 0 | 485 | 969 | 1 454 | 1 938 | 2 423 |
| April | 0 | 327 | 654 | 982 | 1 309 | 1 636 |
| May | 0 | 160 | 321 | 481 | 641 | 802 |
| June | 0 | 78 | 156 | 234 | 312 | 390 |

7 Alternative water sharing arrangements for O'Reillys Weir

When the announced allocation for the Lower Lockyer Valley Water Supply Scheme, determined under section 6, is zero per cent, the licence holder may make water available from O'Reillys Weir by announcement.

8 Taking water under a water allocation

- (1) The total volume of water taken under a water allocation in a water year must not exceed the nominal volume for the water allocation.
- (2) The total volume of water that may be taken under a water allocation in a water year, other than water made available by announcement under section 7, must not exceed the nominal volume of the water allocation multiplied by the announced allocation percentage.

Chapter 4 Seasonal water assignment rules

9 Seasonal water assignments

- (1) The licence holder may approve a seasonal assignment of a volume of water.
- (2) Water supplied under a seasonal water assignment may be used for any purpose.

Attachment 1 Dictionary

| Term | Definition |
|--------------------------|--|
| AHD | Australian Height Datum, which references 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 in a water year under the authority of a water allocation. |
| EL | Elevation level. |
| Infrastructure | A dam, weir or other water storage and any associated works for taking or interfering with water in a watercourse, lake or spring. |
| Megalitre (ML) | One million litres. |
| Minimum operating level | For a dam or weir, is the volume of water within the ponded area of a dam, weir or barrage below which water cannot be released or taken from the infrastructure under normal operating conditions. |
| Minimum operating volume | The specified minimum volume of water within the ponded area of a dam weir or barrage below which water cannot be released or taken from the infrastructure under normal operating conditions. |
| Nominal volume | Nominal volume means the volume of water, in megalitres, that represents the share of the water available to be taken by holders of water allocations in a priority group or a water allocation group. |
| Outlet | Means an arrangement on a dam or weir that allows stored water to be released downstream. |
| Ponded area | Area of inundation at full supply level of a dam, weir or barrage. |
| Priority group | A grouping of water allocations for taking supplemented water from a water supply scheme with the same Water Allocation Security Objective. |
| Release | Water from a dam or weir that passes downstream from the dam or weir either through the dam or weir outlet works or over the dam spillway. |
| Water use | Refers to actual take of water. |