

Daily extraction limits in the Barwon-Darling Unregulated Water

Individual Daily Extraction Components

Implementation of Individual Daily Extraction Components (IDECs) in the Barwon-Darling unregulated river water sharing plan.

What is an individual daily extraction component?

An Individual Daily Extraction Component (IDEC) is the daily volume of water that may be extracted under an individual water access licence after commence to pump (CtP) thresholds have been reached. These CtP thresholds may be adjusted and the daily extraction volume reduced to protect environmental water.

A water access licence allows the right to take water from a particular water source. A water access licence includes the share the owner has available to them (called the share component) and the times, rates, circumstances and locations the water can be taken (called an extraction component).

IDECs are part of the extraction component on a licence. They are referred to as an individual daily extraction component (IDEC) in the *Water Sharing Plan for the Barwon-Darling Unregulated River Water Source 2012* (WSP) and on the licence.

An IDEC is made up of three elements:

- the management zone where water can be taken
- the number of 'daily flow shares' (determined using a formula described below)
- the water permitted to be taken.

Up to 1 ML per day per daily flow share or a lower amount of water can be taken if announced by the Minister. IDECs work with other active management rules to allow the Minister to announce that licence holders can only access a proportion of their full IDEC. This will happen when there is less available volume in the management zone than there is total volume licence holders want to access. Announcements are made to protect active environmental water from extraction, or to fairly distribute limited volumes, even when active environmental water does not require protection.

Why limit daily extractions?

IDECs limit total daily extraction for A, B and C Class access licences across the Barwon-Darling water source. Daily extraction limits restrict the impact of rapid removal of water during peak irrigation periods. This mitigates localised and downstream impacts for the benefit of all water users, including for social, cultural and environmental benefits.

The total daily extraction allowed for the water source is the sum of authorised pump capacities for all authorised pumps attached to a *Water Act 1912* (WA 1912) entitlement, or the sum of agreed pumping rates for any installed pumps attached to the WA 1912 entitlement, on commencement of the 2012 water sharing plan (WSP).

There will be no overall growth in daily extraction permitted for each river section above these levels for A, B and C licence classes. If available flows above the CtP thresholds are greater than the sum of the IDECs on that day there will be additional flow downstream as shown in Figure 1.



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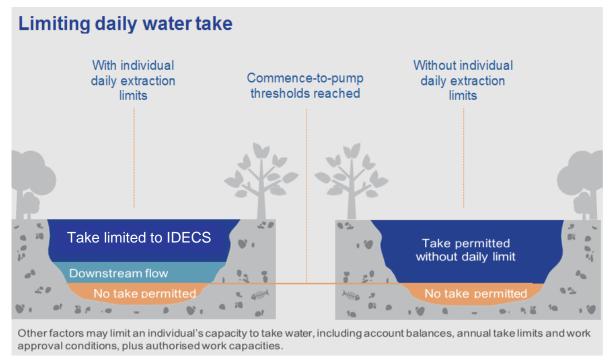


Figure 1: Concept of limiting daily water extraction in each river section

All unregulated river access licences have received an IDEC, including those owned by environmental water holders.

Figure 1 demonstrates what occurs when the flows are above the commence-to-pump (CtP) threshold. If available flows are greater than the sum of the IDECs in the management zone on that day, there will be additional flow downstream. In the absence of IDECs, all of the flow above the CtP may be taken.

Procedures to determine the total volume of available flow (volume above the CtP) are defined in the <u>Active Management Procedures Manual for the Barwon-Darling Unregulated Rivers Water Source</u>. This volume is shared among unregulated river licence holders based on their IDECs so the cumulative extraction does not pump any of the flow below the thresholds.

What parts of our water management framework relate to IDECs?

The IDEC is part of the extraction component of an access licence, specifying the daily volume of water that may be taken under the licence by reference to daily flow shares. Daily flow shares are initially specified by amending the extraction component of access licences under Section 68A of the Act, in accordance with clause 52 of the water sharing plan. IDECs are recorded in the water allocation account of an access licence under section 85AA of the Act. Water taken is recorded in the water allocation account for the access licence kept under section 85 of the Act.

The amendments limit total daily extraction across all unregulated river access licences in the Barwon-Darling to the maximum of the sum of pump capacities for authorised pumps, or the sum of agreed pumping rates for any installed pumps on commencement of the 2012 WSP. IDECs are used to equitably distribute to each licence holder a portion of the total daily limit within each licence class. The total daily extraction limit for each licence class in the Barwon-Darling is shown in Table 1.



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Table 1: Total daily extraction limit by licence class in the Barwon-Darling water source

	A Class licences	B Class licences	C Class licences
Total daily extraction limit	513 ML/day	10,962 ML/day.	8,193 ML/day

IDECs were distributed based on licence holder access licence share components, within each licence class and across the whole water source. The distribution of the IDEC matches the proportion of the licence holders' share component against all the share components in each licence class. The distribution was calculated on the water licensing data available on the first day of public exhibition of the draft WSP amendments. IDECs commenced on the 1 July 2020.

The current total share component for the water source reflects the history of water use that was the primary basis for volumetric conversion of licences and the entitlement reduction to a share of the Murray-Darling Basin Cap.

The Minister may make an announcement to reduce the maximum volume of water permitted to be taken per daily flow share under subclause 42A (3) (b) of the water sharing plan if the sum of IDECs for licence holders that have expressed interest to take water exceeds the water available to be taken under those licences for the relevant flow class. In this situation, the available water must be shared between licence holders that have expressed an interest in taking the water. This clause commenced on 1 December 2020.

The Barwon-Darling Active Management Procedures Manual defines how WaterNSW will determine if a daily flow share less than 1 ML/daily flow share (full IDEC) should be announced:

- a) individual daily extraction component x ML/daily flow share announced under Clause 42A
 (3) if a flow share announcement is made under Clause 42A (3), or
- b) individual daily extraction component x 1 ML/daily flow share if a flow share announcement under Clause 43A (3) is not made.

WaterNSW must publish (via the WaterNSW website) if licences with an IDEC can take up to 1 ML/daily flow share for periods when a flow share announcement is not required under Clause 43A (3) of the Barwon-Darling WSP. WaterNSW will also publish when flow share announcements are in effect, causing licence holders to check their individual flow share announcements.

Changes to IDECs may happen through dealings (trade) as set out in the access licence dealing rules in Part 10 of the 2012 WSP. Dealings affecting the extraction component can operate independently of dealings relating to the share component of a licence. The trading of daily flow shares under section 71Q of the Act within river sections is permitted under clause 64 of the plan. However, it is intended the short-term trading of daily flow shares in an IDEC will be considered as part of the remake of the 2012 WSP. Clause 42A and clause 64A will be amended to in relation to the assignment of daily flow shares specified in the IDEC on a temporary or short-term basis once such dealings under section 71QA of the Act are permitted. Permanent assignment of daily flow shares under section 71Q of the Act is permitted in the circumstances set out in clause 64.

The total volume of water that may be taken on any day under an access licence with daily flow shares specified in the extraction component is as set out in clause 42A.



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Amendment of access licence extraction components (water sharing plan extract): Clause 42A Take in accordance with individual daily extraction components

- (1) The maximum volume of water that may be taken on any day under an access licence with an IDEC is 1 ML per daily flow share, or an amount per daily flow share as announced by the Minister in accordance with subclause (3).
- (2) Before making an announcement under subclause (3), the Minister must invite expressions of interest to take water from relevant access licence holders in accordance with the Active Management Procedures Manual.
- (3) The Minister may announce, in accordance with the Active Management Procedures Manual, that 1 ML per daily flow share or a lesser amount is the maximum volume of water permitted to be taken on any day in a specified management zone in relation to specified access licences over a specified period.

This announcement only applies to access licences in relation to which expressions of interest have been made in response to the Minister's invitation in subclause (2). An announcement may only be made to protect the following:

- (a) Active Environmental Water
- (b) water below the flow class threshold for a flow class listed in Table B to clause 49A.

Clause 52 Amendment of access licence extraction components

- (1) This clause applies to the following access licences in the water source, if the access licence does not have daily flow shares specified in the extraction component of the access licence:
 - (a) each unregulated river (A Class) access licence
 - (b) each unregulated river (B Class) access licence
 - (c) each unregulated river (C Class) access licence
 - (d) access licence WAL36273.
- (2) The Minister may amend the extraction component of the access licences referred to in subclause (1) under section 68A of the Act to specify an IDEC, expressed as the following:
 - (a) a specified number of daily flow shares, and
 - (b) an entitlement to take a volume of water per daily flow share per day, as determined in accordance with the Plan.
- (3) Any amendment of the extraction component of access licence WAL36273 under subclause (2) must specify 123 daily flow shares.
- (4) Any amendment of the extraction component of an unregulated river (A Class) access licence, unregulated river (B Class) access licence and unregulated river (C Class) access licence under subclause (2) must specify the number of daily flow shares calculated in accordance with subclause (5) adjusted to the closest one decimal place with any value that is to two decimal places and ending in a "5" being adjusted upwards to the next one decimal place.



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(5) The following formula is to be applied for the purposes of calculating daily flow shares for the purposes of subclause (4):

$DFS = (SC/TSC) \times TDFS$

Where, as at 26 September 2019:

- DFS is the number of daily flow shares
- SC is the share component of the unregulated river (A Class) access licence, unregulated river (B Class) access licence or unregulated river (C Class) access licence respectively, as at 26th September 2019.
- TSC is the sum of all share components for each of the following access licence categories:
 - (a) unregulated river (A Class) access licence
 - (b) unregulated river (B Class) access licence
 - (c) unregulated river (C Class) access licence.
- TDFS is the total daily flow shares for each category of access licence as follows:
 - (a) unregulated river (A Class) access licences 512.73
 - (b) unregulated river (B Class) access licences 10,962.25
 - (c) unregulated river (C Class) access licences 8,192.73.

Effects of implementing IDECs

Ecological analysis revealed the implementation of IDECs will improve the lower flow ranges, although it may have some impact on the fresh flow ranges. This is because after a period where IDECs have protected base flows and/or small freshes, licence holders may seek to make up volumes by pumping in higher flow ranges, such as small and large freshes.

Establishing IDECs will reflect the important social and cultural values of non-extractive water use by limiting the daily volume of extraction, likely improving local and downstream flow. Hydrologic modelling shows the implementation of IDECs will provide environmental, social and cultural benefits, especially by limiting A Class pumping closer to pre-2012 WSP levels.

Rules for trading of IDECs

The WSP will allow permanent trading (dealings) of a licence's IDEC within a river section but not between river sections. A permanent trade will result in a change to the extraction component on a water access licence.

Short-term temporary trading of an IDEC will not be allowed at the time of publication of this fact sheet. The implications of short-term trades will need to be further assessed and specific operating systems developed to support these trades.

The share component of a water access licence can still be traded between sections, up to the limits specified for each section as described in the WSP.

More information

You can find information about the new rules in the 'What's new' fact sheets for Gwydir, Macquarie and Barwon-Darling. You can also read our fact sheet 'How to find out more'. Fact sheets are



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available on the Department of Planning, Industry and Environment's <u>environmental water hub</u>, or WaterNSW's active management information.

If you have any questions, please contact one of our the WaterNSW Customer Service team on 1300 662 077 or email Customer.Helpdesk@waternsw.com.au

All compliance activity is the responsibility of the Natural Resources Access Regulator (NRAR). Contact NRAR on 1800 633 362 or via email at nrar.enquiries@nrar.nsw.gov.au

Fact sheets in this series:

Environmental water fact sheets				
What's new – Gwydir (fact sheet 1)	What's new – Macquarie (fact sheet 2)	What's new – Barwon- Darling (fact sheet 3)		
How to comply – Gwydir (fact sheet 4)	How to comply – Macquarie (fact sheet 5)	How to comply – Barwon-Darling (fact sheet 6)		
How to find out more (fact sheet 7)	New Rules for protecting environmental water – summary (fact sheet 8)	New Rules for protecting environmental water – FAQ (fact sheet 9)		

Individual Daily
Extraction
Components (IDECs)
– Barwon-Darling
(fact sheet 10)

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