

A new water sharing plan for the greater metropolitan region

A summary of proposed changes included in the draft *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2023*.

Water sharing plans in NSW are the primary legal framework for managing water access and sharing in NSW. The plans are valid for 10 years from their start date.

Near the end of a plan's 10-year term, the Natural Resources Commission (NRC) formally reviews it to identify any changes necessary to deliver better outcomes for all water users, including the environment.

Under the *Water Management Act 2000*, the minister responsible for water management may, on the recommendation of the NRC, extend a water sharing plan for another 10 years or replace it with a changed plan.

In 2021, the NRC completed its review of the *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2011* and recommended its replacement. The plan must be replaced no later than 1 July 2023. A copy of the NRC report is available from the [Publications pages of the NRC website](#).

The proposed changes to the plan include changes to current rules, additional rules, and administrative changes. This fact sheet summarises the proposed changes.

Scope of the water sharing plan

The NSW Department of Planning and Environment has drafted a new water sharing plan – the *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2023*. When finalised, this will replace the current *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2011*.

Combining water sources

In the draft plan, we propose amalgamating some existing groundwater sources:

- the Lachlan Fold Belt Greater Metropolitan Region Groundwater Source combines the existing Cox River Fractured Rock and Goulburn Fractured Rock groundwater sources
- the Sydney Basin West Groundwater Source combines the Sydney Basin Blue Mountains, Sydney Basin Cox River and Sydney Basin Richmond groundwater sources.

The department has changed the map for the plan to reflect the amalgamated groundwater sources that we propose.

These changes:

- recognise the shared aquifers, and common hydrogeological characteristics and rainfall patterns, between the combined groundwater sources
- removes the arbitrary restrictions on trade that the current plan boundaries impose.

We will assess dealings (trade) and new or amended work approvals to ensure there is enough water for all users relying on the groundwater sources, including the environment.

Changes to groundwater source boundaries

The department proposes changes to the boundaries of the groundwater sources. The changes recognise the 'stacked' nature of the region's groundwater sources, specifically that the:

- (proposed) Lachlan Fold Belt Greater Metropolitan Groundwater Source is recognised as underlying the Sydney Basin groundwater sources
- various Sydney Basin groundwater source(s) are recognised as underlying the Botany Sands (Sydney Basin Central), Hawkesbury Alluvium (Sydney Basin Central, proposed Sydney Basin West and Sydney Basin North) and Metropolitan Coastal Sands (Sydney Basin North and Sydney Basin South) groundwater sources.

We also propose the following changes.

- Extend the Maroota Tertiary Sands Groundwater Source boundary to include the areas of the Sydney Regional Environmental Plan No 9 – Extractive Industry (No 2) to help identify the boundary of the water source, which gradually transitions to the adjacent Sydney Basin Central Groundwater Source.
- Extend the Hawkesbury Alluvium Groundwater Source to include lithologically similar, connected, alluvial areas of the aquifer excluded in the original boundary mapping.
- Extend the Botany Sands Groundwater Source to incorporate reclaimed land in Botany Bay.
- Incorporate areas underlying water bodies, previously excluded from the mapped extent.

Changes to groundwater source definitions

In keeping with the proposed boundary changes, we need to change the following groundwater source definitions:

- The Botany Sands Groundwater Source and the Metropolitan Coastal Sands Groundwater Source will only include the water contained within the unconsolidated sediments shown within the groundwater source boundaries on the plan application map. They will not include the underlying or exposed rock within the plan boundary.

Unconsolidated sediments will be included in the groundwater sources of the Lachlan Fold Belt (these were inadvertently excluded from the definition of the Coxs River Fractured Rock Groundwater Source in the 2011 Plan).

Objectives, strategies and performance indicators

The department has revised the objectives, strategies and performance indicators. The draft plan deals with similar matters to the current plan. There are changes to:

- make a stronger logical connection between objectives, the strategies of the plan and the performance indicators to be monitored.
- more clearly distinguish between the environmental, economic, social and Aboriginal cultural objectives of the water sharing plan.

Revised long-term average annual extraction limits

The long-term average annual extraction limits for each groundwater source were reviewed and have changed.

The method for determining extraction limits used in the current plan was outlined in the *Macro water sharing plans – the approach for groundwater – A report to assist community consultation 2015*. It remains a sound basis for determining extraction limits in the metropolitan groundwater sources where there is not enough information for a water balance model. The method considers rainfall recharge and environmental and socio-economic risks associated with extraction over the life of the plan and all measures available to mitigate risks.

For the draft plan, we incorporated the following improvements:

- additional rainfall data
- a better method for estimating rainfall recharge that considers the variability of the surface geology to determine the rainfall infiltration rates
- new information to assess environmental and socio-economic risks and consider factors specific to the metropolitan area, such as urbanisation, changing demand, dewatering¹ and potential emergency drought water supply for Greater Sydney
- the replacement of qualitative assessments with quantitative ones to improve how we assess environmental and socio-economic risks.

The extraction limits have changed because of this refinement of information and approach.

Water available for extraction is equivalent to up to:

- 5% of rainfall recharge to high conservation areas (such as national parks)
- 70% of the rainfall recharge to non-conservation areas (that is, rural, industrial or urban areas).

The percentage available depends on the environment and socio-economic risks in each water source. Less water is made available for extraction if there are medium to high environmental risks or low socio-economic risk (low demand).

¹ Dewatering refers to removing groundwater from excavations

For more information on how we determined the extraction limits, refer to the fact sheet – *How water is shared between the environment and consumptive purposes in the Greater Metropolitan Region Groundwater Sources* on the [department's website](#).

Estimated water requirements for basic landholder rights and licenced take

The draft plan gives updated:

- estimates of water requirements to satisfy basic landholder rights, taking into account recent data on the number of bores used for this purpose and land-use changes over the life of the plan
- total volumes or unit shares specified in the share components of all access licences to reflect current information.

Aboriginal community development licences

The draft plan allows for applications for Aboriginal community development licences in all groundwater sources except the Botany Sands, Sydney Basin Nepean and Sydney Basin West groundwater sources.

These licences are only made available where commitments are less than 80% of the extraction limit.

The current plan does not allow any applications for Aboriginal community development licences.

Carryover provisions

The draft plan maintains the aims of:

- prohibiting carryover of account balances for specific-purpose access licences in all groundwater sources
- prohibiting carryover for aquifer access licences in the Botany Sands, Maroota Sands and Hawkesbury Alluvium groundwater sources
- allowing up to 0.1 ML per unit share for aquifer access licences in other groundwater sources.

The draft plan removes rules prohibiting carryover, where otherwise allowed, if metering is not installed and maintained for these licences. Risks associated with metering were considered when the NSW Non-Urban Water Metering Policy was developed. These will be managed under the Water Management (General) Regulation 2018.

The draft plan includes a new rule prohibiting carryover for aquifer (town water supply) and major utility (urban water) access licences. This maintains the intent of prohibiting carryover for local water utility, urban supply and town water supply.

Environmental water provisions

The environmental water provisions remain in the plan but not in their own part. They have been distributed throughout the plan into:

- Part 4 – Limits to the availability of water
- Part 6 – Operation of water allocation accounts and managing access licences.

We have removed recharge figures from the draft plan. Recharge estimates were inputs to determine each long-term average annual extraction limit. The effect of both the 2011 plan and the draft plan is that planned environmental water is established and maintained by reserving the water:

- in excess of each long-term average annual extraction limit for the environment
- remaining after water has been taken under basic landholder rights, access licences and other rights under the Water Management Act 2000
- remaining in accounts at the end of a water year that cannot be carried over to the next water year (that is, the water left over from allocation accounts).

Changes to extraction limits therefore affects planned environmental water.

For more information on how we determined the extraction limits, refer to the fact sheet – *How water is shared between the environment and consumptive purposes in the Greater Metropolitan Region Groundwater Sources* on the [department's website](#).

Access rules

Hawkesbury Alluvium Groundwater Source

Access rules for aquifer access licences in the Hawkesbury Alluvium Groundwater Source will continue to apply.

Previously, these rules referred to flows in the Upper Hawkesbury River (Grose River to South Creek) Management Zone in the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources, 2011*. In the draft plan, the rules refer to flows in Upper Hawkesbury River Water Source in the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources 2023*.

The proposed change recognises:

- that some Upper Hawkesbury River Management Zones will be amalgamated and change name
- the change of title and concurrent replacement of the unregulated river water sharing plan.

Groundwater sources except Hawkesbury Alluvium

Access rules will continue to apply to extraction under an aquifer access licence from water supply works approvals on waterfront land. Waterfront land includes the bed and bank of any river, lake or estuary and all land within 40 metres of the highest bank of the river, lake or estuary.

The proposed rules reflect the intent of the 2011 plan to prohibit groundwater take from waterfront land when take from the relevant Greater Metropolitan Unregulated River Water Source is restricted.

The draft plan refers to flows in the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources 2023* to reflect the concurrent replacement of the unregulated river water sharing plan. We propose changing some rules for unregulated river access. These changes will also affect some aquifer access licences in the Greater Metropolitan groundwater sources. For example, we propose:

- using an alternative flow reference site (gauge), or changing the very low-flow class, in some water sources
- removing some of the exemptions that provided access to the very low-flow class.

Details of the rule changes can be found in the Greater Metropolitan Unregulated River Proposed Changes fact sheet on the [department's website](#).

For more details on these changes for each water source, refer to the [report cards](#).

Exemptions from access rule

Exemptions continue to apply:

- for works drilled to bedrock and sealed to deeper than 30 m
- for some specific purposes e.g poultry watering and misting
- for listed town water supply licences
- for aquifer interference activities, although planning approval conditions to protect baseflows in the adjacent river may apply
- if the applicant submits a hydrogeological study, that, in the minister's opinion, adequately demonstrates that the water supply work will have no more than minimal impact on base flows in a river

Water supply works approvals

Since the original water sharing plan began:

- new coastal wetlands in the Greater Metropolitan Region have been listed under the State Environmental Planning Policy (Resilience and Hazards) 2021
- potential Acid Sulphate Soil Risk Maps were updated in 2011
- the department has mapped and prioritised the groundwater-dependent vegetation ecosystems listed in the current plan
- information on contaminated sites has been updated.

The draft plan includes new rules restricting new or amended water supply works approvals near:

- coastal wetlands
- land classified as having a high probability of containing acid sulphate soils

- mapped high-priority groundwater-dependent ecosystems
- contamination sites and on-site sewage disposal systems.

Subclause 40(3) in the 2011 plan was a rule that required water supply works in the Sydney Basin groundwater sources to be sealed off from the overlying saline shale aquifers to minimise contamination. We will not include this rule in the draft plan. Instead, water supply construction conditions in the draft plan require the approval holder to ensure the construction and use of the work prevents contamination of the aquifer or between aquifers

Trade rules

The draft plan proposes permitting trade between amalgamated groundwater sources. For example, trade would be permitted:

- within the Lachlan Fold Belt Greater Metropolitan Groundwater Source, including between the former Goulburn Fractured Rock Groundwater Source and the Cocks River Fractured Rock Groundwater Source
- within the Sydney Basin West Groundwater Source, including between the former Sydney Basin Blue Mountains, Sydney Basin Cocks River and Sydney Basin Richmond groundwater sources.

The current plan prohibits these trades, limiting economic opportunities. Environmental outcomes can be maintained as water supply works may only be granted or amended if the minister is satisfied that adequate arrangements are in place to ensure there is no more than minimal harm to a water source or its dependent ecosystems.

The draft plan also defines the total shares permitted in the Nepean Management Zone 1 as 12,465 shares, which represents the shares in the zone when the 2011 plan began. This maintains the intent of the 2011 plan and improves transparency and administration of trade rules.

There are no other changes proposed to trade rules.

Removing rules for ‘local impact management’ and take ‘within restricted distances’

Rules for granting new water supply works or amending existing water supply works will remain in the water sharing plan, as outlined above. However, we propose to remove redundant rules:

- that restrict take from existing water supply works to manage local impacts
- for the use of water supply works located within restricted distances.

These rules duplicate the minister’s authority under the *Water Management Act 2000* to:

- impose conditions relating to protection of the environment
- only grant or amend a water supply work approval if satisfied that adequate arrangements are in place to ensure no more than minimal harm will be done to any water source, or its dependent ecosystems, because of the construction or use of the proposed or amended work

- restrict or prohibit the taking of water from existing water supply works if satisfied it is in the public interest or to:
 - maintain or protect water levels in an aquifer
 - maintain, protect or improve the quality of water in an aquifer
 - prevent land subsidence or compaction in an aquifer
 - protect groundwater-dependent ecosystems
 - maintain pressure, or to ensure pressure recovery, in an aquifer
- refuse an application for a dealing, or apply conditions on access licences or water supply work approvals at the time of a dealing, to apply the Access Licence Dealing Principles Order 2004. The order specifies principles about effects on water sources, Indigenous, cultural, heritage and spiritual matters, water users and social and economic benefits

Metering and record keeping

Most of the water sharing plan's rules for metering and record keeping (keeping logbooks) will no longer apply on 1 December 2023. From this date, licences and works approvals will be subject to the mandatory metering conditions of the *Water Management (General) Regulation 2018*. Refer to the web page, [What water users need to know](#), for more information about these requirements.

You must still record that you have confirmed the flow class if access from your water supply work is restricted when the adjacent river is in the very low-flow class.

Groundwater-dependent ecosystems

Like the 2011 plan, the draft plan contains provisions that restrict the granting or amending of a water supply work within specified distances of high-priority, groundwater-dependent ecosystems, including lagoons and streams, escarpments, and karsts and other high-priority groundwater-dependent ecosystems listed in a schedule.

We have revised the schedule of high-priority, groundwater-dependent ecosystems to:

- use longitudinal and latitudinal co-ordinates, consistent with international conventions
- remove groundwater-dependent ecosystems which are not within the plan area (this corrects errors in the 2011 plan)
- remove Table E Schedule 4 from the 2011 plan – a list of high-priority endangered ecological communities.

Not all the ecosystems identified in Table E of Schedule 4 in the 2011 plan were groundwater dependent. Instead of this list, the draft plan identifies high-priority, groundwater-dependent vegetation ecosystems on a map, making Table E unnecessary.

For the newly identified, high-priority, groundwater-dependent vegetation ecosystems on the map, distance restrictions do not apply:

- if, in the minister's opinion, there is not a high probability of groundwater dependence for the ecosystem concerned, or

- by the end of 2022, when the department will have developed a process to confirm the probability of groundwater dependence.

Consistent with the 2011 plan, distance restrictions from high-priority, groundwater-dependent ecosystems (other than those from a stream or lagoon) do not apply, if, in the minister's opinion, the location of the work is likely to cause no more than minimal harm to the groundwater-dependent ecosystem.

In addition to water sharing plan rules, the Water Management Act 2000 protects groundwater-dependent ecosystems and instream values by ensuring:

- water supply work approvals are only granted if there are adequate arrangements in place to ensure no more than minimal harm to the dependent ecosystem
- the minister can take action to limit or prohibit extraction from specific works.

For more information on groundwater-dependent ecosystems and how the department identified them, visit the [groundwater-dependent ecosystems page of the departments' website](#)

More information

The draft water sharing plan and other fact sheets are available from the water sharing plan public exhibition and public comment pages of the department's [website](#).