Northern Basin initiatives







The Basin Plan Report Card provides an independent overview of the implementation of key activities under the Basin Plan in the 6 months from January to June 2023. The Murray-Darling Basin Authority (MDBA) has a role to monitor progress towards implementing the Basin Plan to achieve a healthy, productive Murray-Darling Basin.

Work to implement the Basin Plan over summer and autumn in 2023 occurred at the tail-end of significant floods in the Murray-Darling Basin. January to June was a period of flood management and recovery for many communities as they worked alongside governments to re-establish livelihoods and community wellbeing. During autumn, weakening La Niña conditions resulted in a shift towards average to below-average rainfall, led by drying conditions in the northern catchments.















The MDBA has continued to listen to feedback from communities in a variety of ways including through the Basin Community Committee, our annual *River reflections* conference, the MDBA's regional engagement officers, Regional Community Forums and stakeholder relationships. Communities continue to press for transparency, with high levels of interest in Basin Plan implementation. First Nations from across the Basin want to share their traditional knowledge and concerns for Country. The MDBA will maintain a focus on genuine and active engagement to support transparency and access to contemporary information.

This report card shows some progress towards remaining recovery of water for the environment and implementation of water resource plans, which remain critical for achieving a sustainable Basin. Water resource plans in Victoria, Queensland, South Australia and the Australian Capital Territory are accredited and operational. Water recovery to Bridge the Gap is nearing completion. Planning and delivery of water for the environment over the past 6 months has helped to improve water quality in the aftermath of the floods, including during the devastating fish death event in the Lower Darling (Baaka) River at Menindee in March.

The Report Card also shows areas where challenges in implementing the Basin Plan persist. The submission and accreditation of the outstanding New South Wales water resource plans remain a significant concern. While 5 plans have been accredited and 8 are with the MDBA undergoing assessment, 7 of the plans previously submitted were withdrawn during this period. Similarly, progress in the delivery of measures for the sustainable diversion limit adjustment mechanism remains behind schedule. The Northern Basin Toolkit initiatives continue to indicate delivery delays – while there has been some measurable progress during the reporting period, overall confidence in project completion by the established deadline has declined.



## **About the Report**

The Murray-Darling Basin Authority is a statutory authority of the Australian Government, established to provide independent, expert advice on the implementation of the Basin Plan. An important part of the MDBA's role is to assess and monitor the implementation and effectiveness of the Basin Plan and to provide this information transparently to the community.

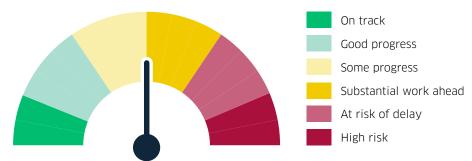
This Report Card is the tenth in a series, providing a short, timely and accurate update on progress to implement the Basin Plan. The Report Card includes stakeholder insights over the past 6 months from a wide range of sources, including the Basin Community Committee, regional engagement activities, peak bodies, Basin governments and the MDBA's public hotline and email inbox.

The Report Card does not assess on-ground Basin conditions or environmental and social trends occurring in the Basin. The MDBA's 2020 Basin Plan Evaluation, released in December 2020, provides the latest, most comprehensive report on these matters, along with recommendations for improvements to strengthen the social, cultural, economic and environmental outcomes being sought through the implementation of the Basin Plan. Five key elements of Basin Plan implementation have been assessed. Some elements are on track, while timely completion of others is at risk. Until all components of the Basin Plan are operational through the collective effort of Basin governments, the full benefits for Basin communities and the nation cannot be delivered.

The <u>December 2022 Report Card</u> assessed that key implementation activities of the Basin Plan were at various stages of progress. Since December 2022, there has been negligible improvement in the submission of New South Wales water resource plans, and the sustainable diversion limit adjustment mechanism projects and northern Basin initiatives continue to be challenging to implement and remain at risk.

This report card covers the period from 1 January to 30 June 2023.

#### **Guide to the ratings**





## **Assessment**

The MDBA assessed the progress of the key activities of Basin Plan implementation. These activities are interconnected, and the Basin Plan needs all themes to progress to meet the requirements of a healthy and sustainable Basin.



#### Water resource plans

Water resource plans in Victoria, Queensland, South Australia and the Australian Capital Territory are accredited and in operation. The MDBA is working with 2 state governments on amendments to accredited plans by providing advice to assist state governments with drafting and preparation.



# New South Wales water resource plans

Basin states were to develop water resource plans by 1 July 2019 to give effect to the long-term average sustainable diversion limits. Between January and June 2023, one further New South Wales water resource plan was accredited, bringing the total to 5 plans that have been accredited and are operational. Eight plans are with the MDBA and are undergoing formal assessment. The remaining 7 plans previously submitted for assessment were withdrawn by the New South Wales Government on 25 May 2023 and have not been re-submitted.



#### Water recovery

The quantum of water required to be recovered to Bridge the Gap will be finalised with the accreditation of all New South Wales water resource plans and the SDLAM determination in 2024.

Water recovery at the Basin scale remains at 98% for surface water and 92% for groundwater recovered against the Bridging the Gap target. As at 31 May 2023 there is 46.0 gigalitres per year (GL/y) surface water yet to be recovered. A tender process to purchase 44.3 GL/y to Bridge the Gap closed on 19 May 2023. As at 31 May 2023, 3.2 GL/y groundwater also remains to be recovered.



#### Sustainable diversion limit adjustment mechanism -(SDLAM) supply and constraint measures

There remains substantial work to implement many of the SDLAM supply and constraints projects by 30 June 2024. The MDBA's 2023 SDLAM Assurance Report concluded that of the 36 projects, 20 are currently operational or are likely to be operable by 30 June 2024, while 16 are unlikely to or will not be operable by 30 June 2024. A reconciliation will be required to determine the SDL offset that reflects how measures have been implemented.

The MDBA has not received a notification of withdrawal or amendment for any measure.



# **Assessment** (continued)



#### Sustainable diversion limit adjustment mechanism (SDLAM) – efficiency measures

Meeting the 30 June 2024 deadline to implement efficiency projects to recover 450 GL/y has been assessed as not possible, as indicated by the recent statutory review of the Water for the Environment Special Account. As at 31 May 2023, only 12.2 GL/y of the 450 GL/y had been recovered, with a further 13.8 GL/y contracted for delivery by 30 June 2024.



#### **Northern Basin initiatives**

Work continues for the coordinated planning and delivery of water for the environment and options to support event-based environmental water delivery, however the full package of toolkit measures will not be delivered by the June 2024 agreed timeframe. Of the 6 toolkit measures, 2 are on track for completion, 2 are at risk and 2 will not be completed by June 2024.



#### **Environmental water delivery**

The delivery of water for the environment commenced in late summer and autumn and played a critical role to improve water quality as floodwaters receded, to allow water birds to finish breeding, to support fish movement and to mitigate the impacts of low dissolved oxygen levels.



# Priority 1 **Water resource plans**

Water resource plans are an integral element of implementing the Basin Plan, as they set the rules for how much water can be taken from the system, so that the sustainable diversion limits in each area are upheld over time. The plans also make sure that state and territory water management rules meet the Basin Plan requirements and include arrangements that strengthen water management at a local level.

Water resource plans are developed by Basin governments, assessed by the Murray-Darling Basin Authority, and accredited by the Australian Government Minister responsible for Water. There are 33 plan areas in total: 14 for surface water, 14 for groundwater and 5 that cover both surface and groundwater. The New South Wales Government has withdrawn 7 water resource plans that had been submitted to the MDBA for assessment. When these water resource plans are resubmitted, they will be republished on the MDBA website.



#### Water resource plans

Water resource plans in Victoria, Queensland, South Australia and the Australian Capital Territory are accredited and in operation. The MDBA is working with 2 state governments on amendments to accredited plans by providing advice to assist state governments with drafting and preparation.



# New South Wales water resource plans

Basin states were to develop water resource plans by 1 July 2019 to give effect to the long-term average sustainable diversion limits. Five of the 20 New South Wales water resource plans have been accredited and are operational. Eight plans are with the MDBA and are undergoing formal assessment. The remaining 7 plans previously submitted for assessment were withdrawn by the New South Wales Government on 25 May 2023 and have not yet been re-submitted.



# Priority 1 (continued) Water resource plans

#### **MDBA** assessment

- All 13 water resource plans in Queensland, South Australia, Victoria and the Australian Capital Territory remain accredited and in operation.
- There has been one additional plan accredited in New South Wales in the past 6 months, adding the Darling Alluvium to the Border Rivers Alluvium, Fractured Rock, Porous Rock and Macquarie-Castlereagh Alluvium plans.
- Of the New South Wales water resource plans that are not accredited at this point:
  - The MDBA continues to progress 8 plans submitted for assessment against the 55 requirements of the Basin Plan.
  - In February 2023, the remaining 6 plans (New South Wales Border Rivers, Gwydir, Macquarie-Castlereagh, New South Wales Murray and Lower Darling, Barwon-Darling and Namoi) were submitted to the MDBA for assessment.
  - On 25 May 2023, these 6 plans and the Lachlan surface water plan were withdrawn by the New South Wales Department of Planning and Environment – Water.
  - There is now a material risk that New South Wales water resource plans will not be fully accredited prior to the MDBA undertaking the 2024 SDLAM reconciliation, given the uncertainty of when the water resource plans will be resubmitted and the time required to assess them.
  - The Inspector-General of Water Compliance's powers of enforcement and compliance with respect to sustainable diversion limits are limited until water resource plans are accredited.

 The MDBA has started to provide advice to Basin states about amendments to update currently accredited plans. It is anticipated that Basin governments will work closely with the MDBA prior to any amendment being submitted for assessment.

- The Inspector-General of Water Compliance has called for New South Wales to submit water resource plans for MDBA assessment.
- Communities expect water resource plans to be delivered and there is a sense of frustration that this hasn't already occurred.
- The MDBA continues to consult with relevant
   First Nations organisations in assessing the water
   resource plans submitted by the New South Wales
   Government. The MDBA recognises that some First
   Nations organisations are concerned about the state's
   engagement approach and accreditation of plans to date.

# Priority 2 **Water recovery**



Sustainable diversion limits (SDLs) set how much water can be used while leaving enough water in the system to sustain natural ecosystems. The Australian Government implements a range of measures to bring water diversions into line with the SDLs set out in the Basin Plan. This has included a combination of water efficiency projects and purchasing water entitlements in the market. The water recovered through these means is passed to the Commonwealth Environmental Water Holder in the form of water licences which must be used to achieve Basin Plan environmental watering objectives.

Bridging the Gap is the primary water recovery target in the Basin Plan. In 2018 this target was revised to 2,075 GL/y as a result of 2 amendments to the Basin Plan: the outcome of the Northern Basin Review and scientific reviews of groundwater systems, and the 2018 determination of the sustainable diversion limit adjustment mechanism (SDLAM), which estimated a 605 GL/y offset. The revised target is dependent on the SDLAM projects being delivered in full by 2024.



#### Water recovery

The quantum required to be recovered to bridge the gap will be finalised with the accreditation of New South Wales water resource plans. There is 46.0 GL/y remaining for surface water recovery as at 31 May 2023, and 3.2 GL/y remaining for groundwater. A recent tender process to purchase 44.3 GL/y of water to support Bridging the Gap closed on 19 May 2023.

#### MDBA assessment

- As at 31 May 2023, the MDBA estimates that the contracted (including registered) surface water recovery in the Murray– Darling Basin is 2,107.4 GL/y. Additionally, groundwater recovery in the Murray–Darling Basin is 35.2 GL/y. Recovery of an additional 3.2 GL/y is required in the Upper Condamine Alluvium, which has a target of 38.45 GL/y. Water recovery at the Basin scale remains at 98% for surface water and 92% for groundwater recovered against the Bridging the Gap target.
- To progress the remaining Bridging the Gap water recovery, the Australian Government sought tender responses to purchase 44.3 GL/y. The tender closed on 19 May 2023.

# Priority 2 (continued) **Water recovery**



#### What we are hearing

 Basin communities in most regions support full implementation of the Basin Plan. For some, there are concerns about the use of water buybacks to address shortfalls in water recovery. For others, delays in water recovery and the significant costs and time taken to recover water through infrastructure projects also continue to be raised as an ongoing issue.

## Priority 3

# Sustainable diversion limit adjustment mechanism



The Basin Plan sets sustainable diversion limits (SDLs) which are limits on how much water can be used for consumptive purposes in the Murray–Darling Basin, while leaving enough water in the system to sustain natural ecosystems. In 2012, Basin governments agreed on a mechanism to adjust these limits on the basis that there are better ways to manage the system that still achieve equivalent environmental outcomes, with less water recovery.

The SDL adjustment mechanism (SDLAM) involves 3 elements that work together – 'supply' and 'constraints' projects that improve river management and achieve equivalent environmental outcomes with less water recovery, and 'efficiency measures' that work to modernise water delivery infrastructure for consumptive users, with a proportion of the water savings through efficiency measures transferred to the environment and the balance remaining with the proponent of the measure.

Southern Basin governments brought forward 36 supply projects in July 2017. The 2017 SDLAM determination found that these projects, as a package, could deliver an offset of 605 GL/y. This meant 605 GL/y less water would need to be recovered from consumptive users such as towns, communities, farmers and industries, while still achieving equivalent environmental outcomes sought by the Basin Plan. Southern Basin state governments are responsible for the design and implementation of these projects, with funding from the Australian Government.

Under the Basin Plan, the MDBA is required to assess whether the notified measures have been implemented as proposed and can achieve the adjustment determined in 2017. Leading up to this decision, the MDBA is conducting assurance on the progress and expected outcomes of the notified measures. If the notified measures are not implemented or are amended in a way that would impact on the outcomes relative to the 2017 determination, the Authority must conduct a reconciliation of the mechanism, which may lead to a revision of the adjustment volume.

A <u>framework</u> outlining how the MDBA will approach this reconciliation has been developed in consultation with Basin governments. This framework provides the Authority's proposed approach to the reconciliation decision, including the role of assurance, and clarifies the roles and responsibilities of the Authority and Basin governments.

### Priority 3 (continued)

### Sustainable diversion limit adjustment mechanism



#### Sustainable diversion limit adjustment mechanism (SDLAM) – supply and constraints measures

There remains substantial work to implement many of the SDLAM supply and constraints projects by 30 June 2024. The MDBA's 2023 SDLAM Assurance Report concluded that of the 36 projects, 20 are currently operational or will likely be operable by 30 June 2024, while 16 are unlikely to or will not be operable by 30 June 2024. A reconciliation will be required to determine the SDL offset that reflects how measures have been implemented.



#### **MDBA** assessment

The most recent assessment of SDLAM supply and constraint measures was undertaken as part of the SDLAM 2023 Assurance Report, published by the MDBA in July 2023. This report identified that of the 36 projects

- 14 are currently operable
- 6 will likely be operable by 30 June 2024
- 7 are unlikely to be operable by 30 June 2024
- 9 will not be operable by 30 June 2024.

These 9 projects are critical to a substantial proportion of the 605 GL/y offset.

- The 2022 Assurance Report estimated a shortfall on the 605 GL/y target of between 190 and 315 GL/y.
   As the 2023 Assurance Report found that several measures have been further delayed, the Authority is of the view that the shortfall will be at the higher end of this forecast.
- To track progress and improve transparency, Basin state governments self-assess SDLAM project progress on a quarterly basis. The SDLAM program quarterly progress updates are compiled and published on the MDBA website on behalf of jurisdictions. The last dashboard published was in December 2022.
- In February 2023, the Murray-Darling Basin
  Ministerial Council (the Ministerial Council) noted New
  South Wales and Victoria's request for additional time
  to deliver supply projects that are well advanced.
  During the reporting period, progress on some SDLAM
  projects stalled.
- Given the requirement to conduct a reconciliation of the SDL adjustment, the MDBA is preparing to commence the process of reconciliation at the beginning of 2024.

All Basin governments have established mechanisms for consulting with communities, including First Nations peoples on their supply and constraints projects.

### Priority 3 (continued)

## Sustainable diversion limit adjustment mechanism



# Sustainable diversion limit adjustment mechanism (SDLAM) – efficiency measures

Meeting the 30 June 2024 deadline to implement efficiency projects to recover 450 GL/y has been assessed as not possible. As at 31 May 2023, only 12.2 GL/y of the 450 GL/y had been recovered, with a further 13.8 GL/y contracted for delivery by 30 June 2024.



#### **MDBA** assessment

- As of 31 May 2023, 26 GL/y of water recovery has been contracted towards efficiency measures, of which 12.2 GL/y has been delivered.
- To meet the 450 GL/y efficiency target by 30 June 2024, the remaining 13.8 GL/y contracted and an additional 424 GL/y will be required.
- The 26.0 GL/y contracted volume is being delivered with Australian Government funding through the now-closed Commonwealth On-Farm Further Efficiency (COFFIE) program in South Australia and the following 5 off-farm projects:
  - Victoria Goulburn-Murray Water (GMW), Water Efficiency Project
  - New South Wales Murrumbidgee Irrigation, Automation Finalisation Project
  - South Australia, Marion Water Efficiency Project

- Victoria Lower Murray Water, Water Efficiency Project
- New South Wales Nap Nap Station, Water Efficiency Project.

- The community knows that these key elements of the Basin Plan will not be delivered on time and are calling for a clear plan to manage and finalise implementation.
- Some are concerned that there may be buybacks to achieve efficiency measures, others perceive them as an option that should be considered.

## Priority 4

## Northern Basin initiatives

There are several initiatives underway in the northern Basin to better manage water for local communities, the environment and future generations. This includes diverse projects to improve environmental outcomes using less water, known as the 'toolkit measures', which include the following:

- 1. Targeted water recovery
- 2. Protection of environmental flows
- 3. Event-based mechanisms for environmental water delivery
- 4. Improved coordination and management of environmental water
- 5. Removal of physical constraints in the Gwydir catchment to improve flows to the wetlands
- Environmental works and measures to improve environmental outcomes across the northern Basin, including providing increased opportunities for native fish movement.



#### **Northern Basin Initiatives**

Work continues for the coordinated planning and delivery of water for the environment and options to support event-based environmental water delivery, however the full package of toolkit measures will not be delivered by the June 2024 agreed timeframe. Of the 6 toolkit measures, 2 are on track for completion, 2 are at risk and 2 will not be completed by June 2024.

The <u>toolkit</u> came about when the Northern Basin Review (2017) resulted in a 70 GL/y reduction to the 390 GL/y water recovery target in the north. The New South Wales and Queensland governments agreed to adopt a range of measures with assistance from the Australian Government.

The Basin Plan was amended in 2018 to reflect this outcome. At that time the Basin Commitments Package was also announced with bipartisan support for further initiatives.



### Priority 4 (continued)

#### **Northern Basin initiatives**

Following the Menindee fish death events in the 2018–19 summer and the subsequent 2019 Vertessy Independent Panel review, the Australian Government announced an additional response package, which included significant funding to improve northern Basin monitoring and compliance, protect native fish and improve river management.

Together, these reforms are intended to provide broad-based benefits to the rivers and communities of the northern Basin, by protecting water for the environment, instilling a culture of water compliance, improving river management across the northern Basin, and creating opportunities for local communities, including First Nations people.

#### MDBA assessment

The full package of toolkit measures will not be completed by the agreed June 2024 timeframe. While 2 toolkit measures remain on track for timely delivery, confidence in the delivery of the other 4 by June 2024 has declined in the past 6 months, with the environmental works projects and the addressing of Gwydir constraints no longer expected to be completed in this timeframe.

Of the 6 toolkit measures, 2 are on track for delivery by June 2024:

 Event-based mechanisms – the Commonwealth Environmental Water Office has demonstrated that market-based mechanisms can be used to deliver environmental water from Queensland to Dharriwaa (Narran Lakes) and arrangements are established for future use as needed. In February 2023, the release of 6.5 GL into the Narran River from private on-farm

- storages successfully supported tens of thousands of breeding waterbirds at the Ramsar listed Dharriwaa (Narran Lakes).
- Coordination of flows the intergovernmental Northern Basin Environmental Watering Group, which includes First Nations membership, has coordinated flow events for whole-of-northern Basin outcomes across consecutive years to improve river health and community outcomes. In April and May 2023, the Northern Refresh Flow provided about 8.5 GL of Commonwealth environmental water from storages in the Gwydir and Namoi to improve water quality, keep streams and rivers connected, to support native fish survival and to help the migration of native fish.

Two measures are at risk of not being complete by June 2024 despite good progress:

Protection of environmental flows – significant progress in recent years has seen new mechanisms codified in Queensland water resource plans to protect additional flows through the Lower Balonne and to measure and protect environmental water as it crosses the border into New South Wales. The New South Wales Government has implemented several changes to protect environmental flows including active management in the Barwon–Darling and unregulated flow in the lower Gwydir and lower Macquarie.

Gaps remain in the protection of environmental water in the Intersecting Streams and at the Menindee Lakes. Enduring arrangements, including through accredited water resource plans, are at risk of not being in place by 30 June 2024.



# Priority 4 (continued) Northern Basin initiatives

 Targeted Water Recovery – about 30 GL/y of surface water remains to be recovered in the Condamine– Balonne, Barwon–Darling, New South Wales Border Rivers and Namoi catchments, some of which may be recovered through voluntary acquisition in the Australian Government's tender process that opened in March 2023.

Two measures will not be completed by June 2024:

- Removal of constraints in the Gwydir catchment –
  extensive landholder and water manager engagement
  and on-ground investigations have been undertaken
  and is planned throughout 2023. Delays due to flooding,
  the need for additional modelling and analysis to
  understand changed conditions and supplier availability
  have impacted on implementation timeframes.
- Environmental works and measures these projects will not be fully delivered by June 2024 within the original scope. Four projects will not be delivered on time and the remaining 3 projects are in doubt for June 2024 delivery.

In February 2023, the Ministerial Council noted the request from New South Wales and Queensland for an additional 2 years to deliver the Northern Basin Toolkit measures.

- Northern Basin communities live through the 'boom and bust' of the northern system. Storages across the northern Basin have been at full capacity and widespread flooding has provided full connectivity from the upper reaches through to the Menindee Lakes and downstream.
- Communities are eager for more information on implementation progress, including opportunities to provide input. The community wants these measures implemented to deliver the best possible outcomes.



## Priority 5

# Planning and delivery of environmental water

The health of our rivers is crucial for all Australians. Water for the environment is carefully managed to improve the health of rivers, wetlands and floodplains, which benefits communities and farmers. Water is allocated to environmental water holders across the Basin, who make decisions about when, where and how much water is released for the environment. Stakeholders and partners including government agencies, advisory bodies, community groups and First Nations groups contribute to many environmental watering decisions

Six organisations hold water for the environment across the Basin. The Commonwealth Environmental Water Holder has the largest portfolio of water entitlements and works with other environmental water holders and river operators to manage environmental water across the whole Basin. The MDBA provides advice and guidance to support the planning of when and where to release environmental flows, primarily through the MDBA Basin-wide Watering Strategy and the Annual Environmental Watering Priorities. On behalf of Basin governments, the MDBA also manages water for the environment held by The Living Murray program.



#### **Environmental water delivery**

The delivery of water for the environment commenced in late-summer and autumn and played a critical role to improve water quality as floodwaters receded, to allow water birds to finish breeding, support fish movement and mitigate the impacts of low dissolved oxygen levels.

#### **MDBA** assessment

- Environmental water delivery is making good progress.
   Following the floods of 2022-23, the delivery of water for the environment played a critical role in improving water quality, allowing water birds to finish breeding, supporting fish migration and mitigating the impacts of low dissolved oxygen levels.
- In February, to help maintain bird breeding conditions at the Dharriwaa (Narran Lakes), the Commonwealth Environmental Water Holder entered into an arrangement to release water from private on-farm storages into the wetland via the Narran River.



### Priority 5 (continued)

## Planning and delivery of environmental water

- Water for the environment was used in the Edward-Kolety Wakool, Lower Darling (Baaka) and Murrumbidgee rivers to help native fish survive conditions dominated by low-oxygen water caused by natural flooding. Water for the environment was also delivered in the Murray Valley to help fish migration and bird breeding at Barmah-Millewa Forest, which is a Ramsar wetland site of international importance.
- First Nations involvement and influence in environmental water management is growing.
   However, it is recognised that there is significant room for improvement and challenges to be addressed to empower greater First Nations' involvement.

- Local communities recognise the benefits provided by water for the environment, including during times of poor water quality.
- The impacts of climate change remain a paramount concern to communities. Many are aware that the increasing risks associated with climate change will have a significant effect on water availability.



Office locations - First Nations Country

Adelaide - Kaurna Country | Canberra - Ngunnawal Country Goondiwindi - Bigambul Country | Griffith - Wiradjuri Country Mildura - Latji Latji Country | Murray Bridge - Ngarrindjeri Country Wodonga - Dhudhuroa Country

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