INQUIRY INTO RATIONALE FOR, AND IMPACTS OF, NEW DAMS AND OTHER WATER INFRASTRUCTURE IN NSW

Organisation: NSW Government

Date Received: 26 April 2021



NSW Government Supplementary Submission to the Inquiry into the rationale for, and impacts of, new dams and other water infrastructure in NSW

This submission supplements the NSW Government Submission to the Legislative Council's inquiry into the rationale for, and impacts of, new dams and other water infrastructure in NSW provided on 2 October 2020. Additional information is included in this submission on the following issues:

- objectives and anticipated benefits of major water infrastructure projects
- funding and financing water infrastructure
- · planning approvals processes and early works
- stakeholder and community consultation
- the Menindee Lakes project

Objectives and anticipated benefits of water infrastructure

It is critical to plan now for future droughts

Between 2017-2020, much of NSW was living through the greatest drought in living memory. The breaking of the drought and the continued rains have brought much-needed, life-saving relief to NSW's regional and rural communities. While recent much needed rain has brought positive impacts to NSW communities, it is important to prepare for future droughts.

It is well understood the hardship that prolonged drought causes to regional communities. Investment in local economies stalls, recreational activities become limited, jobs are threatened, and hardship is caused to the farmers, local businesses, communities and native habitats. Access to water for use in day-to-day lives is severely restricted. And the economic impact is substantial – the latest drought resulted in a \$5.7 billion reduction in NSW's Gross State Product (GSP) in 2018-19, \$6.3 billion in 2019-20 and \$4.8 billion in 2020-21.

Given this, it is essential NSW plans and delivers on a suite of measures required to ensure the impact of these droughts is never felt as harshly again.

Climate change is leading to more frequent and severe droughts

Climate change means NSW will confront more frequent weather events. To be more resilient a range of water sources will need to be drawn on to service regional centres and urban communities, including surface water, groundwater, recycled and manufactured water (desalination and purified recycled water), as well as ongoing demand management, water conservation practices and flood mitigation.

The Government's investment in water infrastructure aims to build greater resilience into regional NSW water supplies. Greater resilience means that the community is less at the mercy of a capricious climate. Much of the recent investment in water infrastructure planning and delivery has diversified water supply sources, helping local government agencies to access groundwater, alternate storages, or stormwater. This has proven to be an important strategy not only for managing droughts, it also was used to mitigate water quality issues following the flooding in Sydney with the desal plant bought back on line.



But there are several other ways NSW can build resilience, ranging from improved storage methods such as investment in dams or more efficient water infrastructure, to demand management mechanisms.

Water infrastructure investment has a range of anticipated outcomes

During the next 10 years, NSW Water agencies will deliver more than \$4 billion of bulk water infrastructure projects in regional and metropolitan NSW – an investment that is likely to increase as the Regional Water Strategies are finalised and more solutions for securing NSW's water supply are identified. This is the first time in decades that the NSW Government is embarking on a major program of investment to build the infrastructure, systems and technology required to deliver better water outcomes now and for future generations to come.

The NSW Government recognises there are no quick fixes, and what is needed is a suite of complementary measures, ranging from increasing storage capacity in new or augmented dams and weirs, exploring new and innovative technologies that help improve the efficient use of water and investing in other infrastructure that enables safe and effective water recycling and reuse.

Recognising the large program of bulk water infrastructure work that extends across NSW, the NSW Government established Water Infrastructure NSW in mid-2020. Water Infrastructure NSW will be the primary body responsible for overseeing and coordinating the delivery of water infrastructure projects. By streamlining processes and minimising the duplication of responsibilities across the sector, NSW will be able to deliver major infrastructure projects more efficiently, more effectively and with better shared outcomes for our customers and our communities.

Overall, it will lift the capacity of the water sector to deliver a range of projects. It will also enable NSW to better coordinate and manage human resources, lead engagement with industry on the water investment pipeline and by doing so provide a holistic view of major investments in the sector.

There are three major projects in particular that NSW is currently investigating to serve regional communities that found their quality of life, their investment potential and their economic security undermined by extreme drought conditions that threatened their water security. With funding from the Commonwealth Government, NSW is working to prioritise and fast track three water infrastructure projects, including investment in raising the Wyangala Dam wall in the Lachlan Valley building a new Dungowan Dam and Pipeline near Tamworth in the Peel Valley, and investigating a new Mole River Dam in the Border Rivers region.

These projects, along with the Western Weirs program, were declared Critical State Significant Infrastructure (CSSI) projects under the *Water Supply (Critical Needs) Act 2019*.

Raising the Wyangala Dam wall

The Wyangala Dam Wall Raising project is intended to provide thousands of Lachlan Valley region residents and their communities with improved water security, increased drought resilience and better flood mitigation.

The Lachlan Valley has some of the poorest levels of water security and reliability in NSW in terms of regulated and licensed irrigation and urban water supply. It was among the first of NSW's regions to suffer the full intensity of the millennium drought and was among the last of the state's regions to receive respite from that drought.

Wyangala Dam's storage fell as low as 9 per cent at the peak of the drought crisis during the summer of 2019-20, and in February 2020, the Lachlan Valley was in drought stage 4. At that time, if the drought were to continue and there were zero inflows, four major regional towns would have



had less than 18 months until their only water source ran out – Cowra with a population of 10,000 residents, Forbes with 8,400 residents, Condobolin with 3,500 residents, and Lake Cargelligo with 2,600 residents.

At the other extreme, communities and farm families in the Lachlan valley downstream of Wyangala Dam suffered extensive flooding in 2012 and 2016. In 2016, crop losses alone were valued at \$500 million.

The Wyangala Dam Wall Raising project would involve raising the dam wall by 10 metres, which is expected to create capacity for an additional 650 gigalitres (GL), or 53 per cent more storage. It will reduce the risk and impact of climatic events (both floods and drought) and mitigate associated social and economic impacts. Without the increased capacity, it is estimated that the region would fail to realise its full agricultural production potential, which equate to a loss in economic uplift of \$167 million on average each year.

Wyangala Dam has filled and spilled at least seven times since the spillway gates were installed in 1971, including most recently in 2012 and 2016. Had the Wyangala Dam wall raising project been delivered prior to 2012, the flood event in that year would have filled the new larger storage, and it would have filled again in 2016.

More generally, the Project is expected to:

- secure the region's urban water supply, stimulating the growth of the regional economy and supporting future population growth
- improve productivity of primary industries
- provide greater certainty around water availability to support additional investment by businesses, particularly in the mining and agricultural sectors, including transitioning to higher yield agricultural products increasing stock levels.

It is important to note that if the Wyangala Dam Wall Raising project were not to proceed, essential maintenance works and upgrades to meet dam safety obligations would be required. This is because the existing dam is classified as having a high flood risk potential. This spending would not create additional storage capacity or water security benefits.

Currently the Final Business Case is being prepared for the Wyangala Dam Wall Raising project. In line with the requirements under the <u>NSW Government Business Case Guidelines</u> (TPP18-06), the final business case will include a comprehensive assessment of the costs, benefits and financial impacts. Key inputs into the Final Business Case include:

- hydrological modelling based on paleoclimatic data and taking into consideration climate change, which will confirm the anticipated yield
- detailed cost estimates based on technical inputs
- estimates of the impacts on ecology (terrestrial, riparian and aquatic, including floodplains, fish, birds and river health) based on detailed field studies, and the costs associated with avoiding, mitigating or offsetting these impacts
- estimates of the impacts on Aboriginal cultural heritage and the costs associated with avoiding, mitigating or offsetting these potential impacts and
- any potential impacts on downstream producers.

Once the Final Business Case is completed, likely by end-2021, it will be independently reviewed as required under the Infrastructure NSW <u>Infrastructure Investor Assurance Framework</u>. Following this, the NSW Government will consider whether to proceed to construction for the project.



Building a new Dungowan Dam and Pipeline

The Tamworth community and farming families along the Peel River experienced prolonged severe water insecurity during the recent drought in the years culminating in the summer of 2019-20. In the most recent drought, Chaffey Dam fell to 14 per cent and Dungowan Dam was at 19 per cent. Without access to groundwater to supplement supply, as a last resort real consideration was given to evacuating the town of Tamworth and its population of 42,800 residents.

Since 2002, the Tamworth Regional Council has had permanent water conservation measures in place. Tamworth was on Level 5 Water Restrictions between September 2019 and August 2020, and now following recent rains Level 1 restrictions will be eased from 5 April 2021 and revert to permanent water conservation measures.

The proposed new Dungowan Dam and pipeline are intended to provide a more secure and reliable water supply for Tamworth and the Peel Valley. It aims to make local water supplies more resilient in times of drought and increase capacity to meet the area's needs well into the future.

The project involves building a new dam approximately 3.5km downstream of the existing Dungowan Dam and constructing a 55km pipeline from the dam to the Calala Water Treatment Plant. It will increase current storage capacity from 6.5GL to 22.5GL and replace an existing ageing pipeline to meet modern demands.

It will also avoid the costs of undertaking essential maintenance and dam safety works that are required for the existing dam and pipeline. These works would be required as the existing dam and pipeline are ageing (the pipeline is over 60 years' old), which leads to high maintenance costs and poor reliability. The pipeline experiences around six breaks a year, and when this happens, critical water is wasted in losses, and the water supply is often shut down to attend to repairs. The dam is also classified as having a high flood risk potential and does not meet current dam safety requirements.

Preliminary estimates indicate the costs of undertaking the necessary dam safety works and replacing the pipeline would cost around \$250m. This spending would not create additional storage capacity for Tamworth.

The expected benefits of the new Dungowan Dam and pipeline project include:

- avoiding capital expenditure on existing dam and pipeline infrastructure
- reducing water treatment costs
- improving town water supply security and levels of service for Tamworth residents and businesses
- increasing the value of agricultural production from improving reliability of water for Peel Valley irrigators
- potentially reducing flood duration and frequency and
- generating water savings from reducing transmission losses associated with pipeline.

The Dungowan Dam and Pipeline Project is also in the Final Business Case phase, and once complete in late-2021 will follow the same assurance and Government approval process as described above for the Wyangala Dam Wall Raising project.

Investigating a new Mole River Dam

The Border Rivers is a large catchment that services both NSW and Queensland users whose water supply is serviced by three relatively small catchment dams and large on-farm storages. This economy is heavily dependent on agriculture, specifically from dryland and irrigated cereals,



dryland livestock, and irrigated cotton. Poor security of water supply is a barrier to agricultural investment which means that with improved certainty of supply during drier years, there would be potential to convert farming enterprises to higher value crops.

The NSW Government is undertaking detailed investigations into a proposed new 100 GL rockfill dam on the Mole River, approximately 20 km south-west of Tenterfield in northern NSW.

A new dam in the Border Rivers region would help secure water in flood sequences so that in drier times more water would be available to communities, agriculture, and the environment. It would increase water reliability for farmers, improve the security of town water supply and provide better flood mitigation.

The benefits of a new Mole River dam are expected to include:

- improvements in on-farm productivity because of more reliable and secure water supply
- increased reliability for agricultural production, which will help secure existing jobs and create new opportunities
- an improvement to security of town water supply for downstream communities and
- increased flow reliability and associated environmental health outcomes downstream in the Barwon-Darling system.

The Mole River Dam project is currently in the Strategic Business Case phase, which is anticipated to be completed by mid-2021. The Strategic Business Case sets out the case for change and includes cost benefit and financial analysis. Once the Strategic Business Case is complete, it will be independently reviewed by Infrastructure NSW ahead of a NSW Government decision on whether to proceed to the Final Business Case phase.

Funding and financing water infrastructure

Snowy Hydro Legacy Fund

Investing in water security in regional NSW is a priority for both the NSW and Commonwealth Governments. For NSW, it is the highest priority for the \$4.2 billion Snowy Hydro Legacy Fund, which has provided funding for the business case development and early works for a range of infrastructure projects including the:

- Lake Rowlands to Carcoar Dam pipeline in the Lachlan Valley
- Lostock Dam to Glennies Creek Dam two-way pipeline in the Hunter
- Macquarie River Reregulating Storage and
- Hunter Water Corporation to Singleton Council potable interconnection.

Safe and Secure Water Program

The NSW Government is also investing in securing town water supplies for regional communities through the Safe and Secure Water Program (SSWP), a \$1 billion regional infrastructure co-funding program established in 2017. The SSWP co-funds eligible water and sewerage projects in regional NSW through improvements to public health, water security, environmental outcomes and/or social benefits. Since the SSWP was established, more than \$695 million has been committed to water infrastructure projects, and funding has been approved for 175 projects.



Great Artesian Basin Funding

Over the past 20 years, NSW has also invested around \$204 million in the Great Artesian Basin Sustainability Initiative and the Cap and Pipe the Bores projects, with some joint funding from the Commonwealth. These projects have so far successfully rehabilitated some 395 bores, improving drought resilience and providing a secure water supply for households and stock on properties covering an area of 4.2 million hectares across north-west NSW. In total, these projects have saved about 1,100 GL of artesian water allowing natural artesian water pressures to recover in areas such as Lightning Ridge, Walgett, Moree, and to the east of Tibooburra.

Despite the success of these programs to date, about 220 artesian bores across the NSW section of the Great Artesian Basin are still flowing uncontrolled. To help address this, the NSW Coalition made an election commitment of \$13 million – matching a funding offer from the Commonwealth Government – to continue the rehabilitation of artesian bores over the next four years.

This funding will be targeted towards infrastructure that will directly benefit drought-stricken communities across the Great Artesian Basin.

Funding for the Critical State Significant Infrastructure Projects

To date, the Commonwealth Government, through the \$3.5 billion National Water Infrastructure Development Fund (NWIDF) administered by the National Water Grid Authority, has agreed to provide \$579 million for the three CSSI projects, comprising:

- Business case development and construction funding of \$325 million for Wyangala Dam Wall Raising project
- Business case development and construction funding of \$242 million for the Dungowan Dam and Pipeline project and
- Business case funding of \$12 million for the Mole River Dam project.

The funding for the Wyangala and Dungowan projects has been provided under a separate schedule to the *National Water Infrastructure Development Fund* – *Capital Component* and the funding for the Mole River dam project has been provided under a separate schedule to the *National Water Infrastructure Development Fund* – *Feasibility Component.*

As discussed above, the business cases for all three projects are being prepared, and early works are progressing for the Wyangala Dam Wall Raising and Dungowan Dam and Pipeline projects (discussed in more detail below). Pre-construction activities are also underway for the Wyangala Dam Wall Raising and Dungowan Dam and Pipeline projects including the development of EIS's, early contractor involvement in the projects and investigative works such as geotechnical investigations.

The expected cost of preparing the business cases, undertaking early works and pre-construction activities across the three projects totals up to \$245 million. This is funded partly from Commonwealth Government Funding and partly through WaterNSW's balance sheet (via both cash and debt funding). The cost of preparing the three business cases is estimated to be \$80 million and the balance of the \$245 million is for the early works and pre-construction activities for the Wyangala and Dungowan projects.

The Commonwealth to date has committed \$152 million of funding towards the business cases (three projects) and early works/pre-construction activities (two projects), and \$427 million towards construction for Wyangala and Dungowan (following completion of the business cases). The Minister for Water, Property and Housing has recently written to the Deputy Prime Minister seeking agreement from the Commonwealth to contribute 50 per cent of the incurred total outturn



construction costs for the project. The Deputy Prime Minister has advised this request will be considered once the final business cases are completed and robust cost estimates are obtained.

While WaterNSW is funding a share of the costs for the business cases, early works and preconstruction activities for these projects from a combination of cash and debt funding, WaterNSW will remain compliant with the requirements under the <u>Capital Structure Policy for NSW</u> <u>Government Businesses</u> (TPP16-03) which requires State Owned Corporations in NSW to maintain a target credit rating of Baa2/BBB (Moody's/Standard and Poor's) or higher. The WaterNSW contribution will be confirmed in the next State Budget.

Note the NSW Government has committed that if for any reason the projects were not to proceed, the NSW Government would reimburse the costs incurred by WaterNSW for that project as part of the business case development, early works and pre-construction activities.

NSW Government construction funding is likely to be via the Snowy Hydro Legacy Fund, though the final source will be determined once the Final Business Cases are completed for the projects and the NSW Government makes its investment decision.

Other Commonwealth funded water infrastructure projects

The Commonwealth Government provides funding to NSW water infrastructure projects through a range of funding programs. These include funding for the:

- Sustainable Diversion Limit Adjustment Mechanism (SDLAM) projects under the Murray-Darling Basin Plan (Basin Plan) Commitments Package and the associated Project Agreement for Stage 1 Funding
- A range of projects under the Sustainable Rural Water Use and Infrastructure Program, including the Wilcannia Weir project.

Opportunities for future funding are also available from the NWIDF. The National Water Grid Authority which administers the NWIDF seeks funding proposals from the States twice a year, and recipients are announced as part of the Commonwealth Government's Budget and Mid-year Economic and Fiscal Outlook.

Funding under the NWIDF is available for water infrastructure projects that support primary industries and unlock potential, promote growth and sustainability of regional economies, and build resilience. In January, NSW submitted funding applications for a range of critical projects, which, if approved, will be announced in the 2021-22 Budget.

In addition, the Commonwealth Government also recently announced the \$1.48 billion off-farm efficiency program designed to recover water for the environment through off-farm water efficiency projects. NSW has already commenced discussions with the Commonwealth Government to get a better understanding of the eligibility criteria and to identify potential projects for funding.

Impact of water infrastructure projects on customer charges

The water infrastructure projects currently being developed by NSW, including the CSSI dam projects, are in the early investigative and preliminary planning stages. Projects of this scale are complex and significant work is required to establish a final cost estimate. Cost estimates will only become clearer once the final business case and environmental and cultural assessments are completed.

All business cases for major infrastructure projects in NSW require a funding strategy to be developed, which, for the water infrastructure projects, will identify the costs that need to be recovered. Once this is determined, the Independent Pricing and Regulatory Tribunal (IPART) will



be asked to ensure the share of the cost borne by water users is fair and affordable, with the balance borne by Government. IPART's role is to independently set prices for water to reflect the efficient cost of providing services and ensure fair prices for customers.

The process IPART uses to make a price determination for water users involves an extensive consultation and review process, allowing ample opportunity for local issues and concerns to be raised and addressed. The IPART price determination will typically consider:

- the cost sharing arrangements between users and the Government
- any grant funding arrangements
- any agreements or arrangements for the ownership of the assets and
- where relevant, any costs recovery arrangements negotiated directly with the customers.

Because of these factors, the Government is unable to provide an accurate assessment of the bill impact of the proposed major water infrastructure projects at this time.

Planning approvals and early works

Planning approval pathways for major water infrastructure projects

Currently four major water infrastructure projects have been declared CSSI projects as set out in Schedule 3 of the *Water Supply (Critical Needs) Act 2019.* These projects are the Wyangala Dam Wall Raising, the Dungowan Dam and Pipeline, the Mole River Dam, and the Western Weirs projects. While CSSI projects go through a fast-track approval process, this does not circumvent any environmental assessments or approval processes required under Federal or State Laws, and does not presuppose any Government investment decision. All rigorous environmental assessments must still be completed for CSSI projects.

The NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and Environmental Planning and Assessment Regulation 2000 form the statutory framework for environmental assessment and planning approval in NSW. Implementation of the EP&A Act is the responsibility of the Minister for Planning and Public Spaces, statutory authorities and local councils.

CSSI projects may be carried out without obtaining development consent under Part 4 of the EP&A Act. However, the projects are subject to Division 5.2 of the EP&A Act, which requires an Environmental Impact Statement (EIS) to be prepared and the NSW Minister for Planning and Public Spaces to approve.

Secretary's Environmental Assessment Requirements (SEARs) have been issued by Department of Planning, Industry and Environment (DPIE) for the three dam projects (SEARs have not been issued for the Western Weirs project to date). The SEARs identify matters which must be addressed in the EIS and essentially form its terms of reference. The SEARs are published on the DPIE website see – <u>Wyangala Dam Wall Raising SEARs</u>, <u>Dungowan Dam and Pipeline SEARs</u> and <u>Mole River Dam SEARs</u>.

As part of the planning approvals process, the EIS will consider environmental and cultural heritage impacts. The EIS for each project will also address issues such as construction, inundation, groundwater, downstream and upstream impacts, as well as impacts on ecology and matters of Aboriginal cultural heritage. In relation to the impacts on ecology, the EISs will be based on detailed terrestrial, aquatic and riparian field studies, and will consider floodplains, fish, birds, river health and critical species such as platypi and their habitat.



Any impacts that cannot be avoided or minimised will be offset through the Biodiversity Offset and Aquatic Offset schemes to ensure that for any impacted flora or fauna species a habitat in an appropriate location with the equivalent biodiversity values will be protected.

The EISs for the Dungowan and Wyangala projects are currently being prepared and will be exhibited in late 2021. The Mole River Dam EIS will be developed following completion of the Business Case, expected to be in late 2021.

Early works for the Wyangala and Dungowan projects

As part of the early works for the Wyangala Dam Wall Raising project, the NSW Government is investing \$4 million in a water treatment plant to provide clean drinking water to the Wyangala Village and to the Wyangala Waters Holiday Park. It will have capacity to deliver 0.8ML of treated water daily for residents and visitors in this area.

Construction is expected to start later in 2021. There is also the potential to commence road and utilities works to support the relocation of the Wyangala Waters Holiday Park ahead of main works construction. This will ensure recreational use of the dam can continue throughout construction. Landowner negotiations for impacted landowners in the inundation area are in progress, and any required acquisitions will be finalised by early 2022.

For the Dungowan Dam and Pipeline Project, the Government has announced the award of a design and construct contract to MPC Kinetic for the design and construction of the Dungowan pipeline from the new Dungowan Dam to the Calala Water Treatment Plant. The early works component involves the construction of the first stage of the pipeline from the Chaffey Dam Pipeline connection to the Calala Water Treatment Plant. These works involve replacing the existing section of pipeline which is in poor condition and is due for replacement regardless of whether or not the new dam is constructed.

The early works for both projects will be assessed using the appropriate planning approval pathway, ensuring all environmental obligations are met.

Stakeholder and community consultation

The NSW Government is partnering with local communities when developing and delivering water infrastructure projects across the State. NSW is committed to engagement with real, tangible and practical outcomes that can be effectively communicated to our communities – bringing them along the journey, listening and responding to their concerns and achieving shared outcomes for people and projects.

While the COVID-19 pandemic, and the associated physical distancing and travel restrictions have created challenges around face to face stakeholder engagement, there has been a shift to online consultation. For the projects considered by the Inquiry, some of the key consultation statistics are shown in Table 1.

Part 1 of the Inquiry Report published in March 2021 raised concerns about consultation with affected landowners in the inundation area for the Wyangala Dam Wall Raising project. One on one consultation with affected landowners in fact commenced in November 2020, and over 100 meetings had been held with landowners by end-February 2021.



Table 1. Community and stakeholder consultation on the Wyangala, Dungowan and Mole River Damprojects to February 2021

Consultation activity	Wyangala Dam Wall Raising	Dungowan Dam and Pipeline	Mole River Dam	Western Weirs	Menindee Lakes	Total
Community sessions	23	13	8	10	15	69
Registered Aboriginal Parties	12	15	74	n/a	n/a	101
Stakeholder briefings	82	19	8	26	53*	135
Landowner meetings/ notifications	102	227	39	60	n/a	428
Local businesses engaged	10	22	12	n/a	n/a	44
Media stories	283	1,286	242	0	83**	1811
Emails in	322	121	81	36	688	1248
Emails out	1,874	1,456	528	108	2,570	6536
Calls in	256	245	183	3	120	807
Calls out	332	674	227	94	256	1583
Facebook group members	732	124	58	n/a	n/a	914
Webpage views	22,891	13,767	11,297	444	821	49220
Complaints	18	17	11	1	-	47
Community sentiment (support)	84%	88%	-	-	-	-

* Includes Stakeholder Advisory Group meetings, engagement with Traditional Owners and community, and stakeholder briefings ** Six months to end-February 2021

The Part 1 Report also raised concerns about consultation First Nations people for the Wyangala Dam Wall Raising project. The NSW Government notes there have been numerous challenges with community and stakeholder engagement during the COVID-19 pandemic. While the NSW Government has been innovative in how it engages with communities during this time, there have been challenges with some Indigenous stakeholders who do not have access to the technology required to be engaged sufficiently during this time. The project team has refreshed its First Nations Engagement Strategy to improve consultation and engagement on the Wyangala Dam Wall Raising project going forward.



More generally, the NSW Government, through Water Infrastructure NSW within DPIE Water, wants to listen to the wisdom of First Nation's communities – who have managed water in this country for thousands of years – and build this into designing and delivering water infrastructure projects.

To do this, Water Infrastructure NSW is developing and implementing of its own Strategy for delivering Aboriginal Community Outcomes. This Strategy and its implementation will form part of Water Infrastructure NSW's commitment to putting Aboriginal engagement and inclusion at the centre of water infrastructure projects.

The NSW Government recognises and acknowledges the unique relationship and deep connection to Country that Aboriginal people have, as the Traditional Owners and first peoples of Australia. Ongoing access to Country and its resources is essential so Aboriginal people can continue cultural practices, maintain connection with the land and care for Country.

Aboriginal communities can retain and obtain valuable knowledge and skills through being proactively involved in environmental management and conservation. Water Infrastructure NSW is committed to supporting close involvement and participation of Aboriginal people in water infrastructure, research and management.

The Strategy for Delivering Aboriginal Community Outcomes will include:

- **Community engagement**: Having best class, sustainable and ongoing engagement with Aboriginal communities on all water infrastructure projects in NSW
- **Cultural capability**: Having a team of culturally competent people who have respect for Aboriginal culture and can work effectively with Aboriginal communities
- **Employment targets**: Creating sustainable and ongoing employment opportunities for Aboriginal people within Water Infrastructure NSW
- **Employment and training**: Creating employment opportunities for Aboriginal communities associated with programs and projects
- **Economic value capture**: Ensuring Aboriginal communities are best placed to capture economic benefits from infrastructure investments.

The Strategy is in the early stages of development, and consultation with targeted stakeholders on the Strategy will take place over the coming months to ensure the initiatives will lead to greater inclusivity of Aboriginal communities.

Menindee Lakes SDLAM Project

Background on the Menindee Lakes

Before the 1950s and 1960s when the Menindee Lakes were modified to provide a storage system, the Lakes would naturally fill during high river flows and subsequently recede, forming a series of pools that would periodically evaporate entirely. The addition of weirs, regulators, levees, and channels to allow the storage and release of water has substantially changed this natural regime.

On average the Menindee Lakes lose 426 GL of water each year to evaporation, and this increases to 700 GL lost to evaporation when the lakes are full. Across the four lakes there is also around 120 GL of 'dead storage' which cannot be accessed for consumption and can also be lost to evaporation. If evaporative water loss from the Menindee Lakes could be reduced, significantly more water could be made available for the environment.



As well as being an important source of water for local towns and users, the lakes are also located in an area of social and cultural significance, and provide recreational, tourism and economic opportunities for the towns and surrounding region.

The Menindee Lakes System is an ecologically significant area of the Murray–Darling Basin, providing key habitat for aquatic fauna, supporting native fish populations of the Barwon, Darling and Murray Rivers.

Since their modification, the Menindee Lakes have generally been operated to maximise the storage volumes, water quality, and ability to supply water users. Since the 1990s, operations have also focused on providing ecological benefits, managing flood mitigation for the Lower Darling to provide environmental benefits, controlling foreshore erosion, and minimising erosion of cultural heritage sites.

Over the last 50 years or so, the Lakes have also experienced increased sedimentation, which reduces water accessibility. It has also altered the flow regime in the Lower Darling, reducing the frequency of overbank flow events and freshes.

There are a range of ecological targets associated with the flow regime for the Lower Darling floodplain that are currently difficult to meet because of existing operational constraints including regulator capacities and operational policy, and the need to ensure reliability of local town water supply. Changing the existing operational strategies and constructing new or modified infrastructure has the potential to address many of these issues.

The Menindee Lakes SDLAM Project is a Basin Plan commitment

The Menindee Lakes project is one of the 21 SDLAM projects NSW committed to under the Murray-Darling Basin Plan (Basin Plan). SDLAM projects are an important aspect of the Basin Plan as these projects mean more water can remain in the system for all water users, including towns, industry and agriculture, while still delivering environmental outcomes.

Of the 21 SDLAM projects with which NSW is involved across the Murray, Murrumbidgee and Darling valleys, NSW is leading nine projects and a co-proponent for 12 projects. NSW has already completed, or nearly completed 12 of the SDLAM projects, and they are already delivering Basin Plan outcomes. These include The Living Murray projects, three River Murray rules-based projects, Computer Aided River management, River Murray Increased Flows, and Nimmie Caira Project. These projects are already delivering an estimated 40-60 per cent of NSW's commitments to the 605 GL target under the Basin Plan.

NSW is continuing to progress the SDLAM projects. In some cases projects are progressing well, but in some cases there are concerns about the ability of NSW to deliver the projects within the 2024 Basin Plan timeframe, or the ability to deliver the project as originally scoped while still meeting community expectations.

The Project aims to balance water savings against environmental outcomes

The original pre-feasibility concept proposal for the Menindee Lakes SDLAM Project focussed on reducing evaporative losses and delivering water savings. However, the project focus has now shifted in response to the Vertessy Report which investigated the fish deaths in the Lower Darling in 2018-19, and which recommended the Project aim to achieve a holistic mix of social, cultural, environmental and economic outcomes.



The revised aim of the Menindee Lakes SDLAM Project is to enhance the significant natural, ecological and cultural heritage values and still deliver on NSW's commitments under the Basin Plan.

NSW recognises the significant ecological, cultural heritage and socio-economic values that exist in the Menindee Lakes, Darling Baaka and Great Darling Anabranch, and that there is a need to strike a balance between protecting these values and achieving water savings.

Community groups have raised concerns about the Project

NSW is committed to genuine and transparent consultation and collaborative co-design of the Menindee Lakes SDLAM Project with the local community to ensure local and project-specific concerns are considered throughout planning and design activities.

However, there are concerns among some members of the local community, including the Menindee Lakes Lower Darling Stakeholder Advisory Group (SAG), the Darling River Action Group, Wentworth Shire Council and Broken Hill City Council. These concerns relate to broader water sharing arrangements including whole-of-system connectivity, drought reserve, protection of first flush, end of system targets and the protection of cultural heritage. While the focus of the Menindee Lakes Project is on local water management, the Government continues to work with stakeholders along the length of the river to address these broader concerns.

One of the specific issues raised recently by stakeholder and community groups is for Menindee Lakes to be considered for listing under the Ramsar Convention on Wetlands. The NSW Government notes Ramsar listing is not the solution for delivering balanced outcomes for the Menindee Lakes and the Lower Darling communities.

In response to the concerns being raised by local community groups, the Minister for Water, Property and Housing has made it clear to the Ministers of other Basin Plan states that there is not a SDLAM project that could be delivered at Menindee by the legislated June 2024 timeframe. This was formalised in a letter sent from Minister Pavey to Minister Pitt 29 January 2021.

Minister Pavey has also been clear that the department will not proceed with a project that does not have broad community support, as is the case currently at Menindee.

To this end, DPIE Water has written to the SAG advising it will suspend discussions on the Menindee SDL project and instead focus on issues around water reliability and quality.

DPIE Water will continue work to achieve commitments under the current milestone agreements, including further consultation with the SAG at the appropriate time, which would need to be informed by further technical investigations and cultural heritage studies.

© State of New South Wales through Department of Planning, Industry and Environment 2021. The information contained in this publication is based on knowledge and understanding at the time of writing (March 2021). However, because of advances in knowledge, users should ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate departmental officer or the user's independent adviser.