

# Broken Hill long-term water supply solution: Summary of final business case

## Questions and Answers

### Why is there a need for the Broken Hill pipeline?

Drought conditions and limited access to a secure bulk water supply has been a consistent challenge since Broken Hill's establishment.

Demand for a secure bulk water supply increased with the climbing population in the late 1800s and early 1900s as speculators and mining interests continued to be drawn to the region in search of economic gain and employment. A drought event in 1891 saw 230KL of water carted into Broken Hill daily via rail from South Australia for a period of seven months.

The population at the time was close to 20,000, which is approximately the same population as the present day. However, today average daily total water demand is between 14ML-16ML per day.

More recently, the frequency and severity of droughts has increased to a comparable level to the early 1900s.

The millennium drought which resulted in the lowest inflows in recorded history into Menindee Lakes, it became increasingly evident that the Menindee Lakes system would be unable to meet the demands of the range water users' needs, including the environment, over the longer term. Therefore a secure and sustainable water supply solution for Broken Hill – and indeed the Lower Darling River – was necessary.

### Why is the NSW Government pressing ahead with the Broken Hill pipeline?

The emergency water supply situation that faced the Broken Hill as a result of the lowest inflows in recorded history to Menindee Lakes in recent years – crystallised the need to find a long term water supply solution.

Short term emergency water supply needs were addressed by a series of projects, including the \$17.9million reverse osmosis plant, brine ponds and the construction of shallow bores at Lake Menindee. These projects have secured water supplies until 2019 and provided breathing space to look at a long term and sustainable solution.

Some 19 project options were analysed against strict economic, environmental and social criteria – to determine which project best meets the needs of the region and supports Broken Hill's economic prosperity for years to come.

The decision to construct the Broken Hill pipeline is a once-in-a-lifetime opportunity to ensure Broken Hill is on a sustainable footing for future generations.

Everyone should have access to clean and secure water and this pipeline will provide certainty to businesses and residents to give this region every opportunity to prosper

### Was the Broken Hill pipeline the best long-term water supply option?

Yes. To find a long-term solution for Broken Hill, the NSW Government looked at 19 potential options, including sourcing water from deep aquifers, different pipeline routes, changing existing surface water arrangements, and even doing nothing.

The River Murray to Broken Hill Pipeline was identified by experts from DPI Water, NSW Public Works and Infrastructure NSW as the best solution as it provides the greatest confidence in meeting the objective of a quality, safe and secure water supply for Broken Hill.

The consideration of the various water supply options involved extensive economic, social, environmental and technical analysis to ensure that only options that were feasible were taken forward.

### **Why did the community not have a say on the 19 water supply options that were considered?**

They did. Some of the 19 options were identified by the community. The consideration of the various water supply options by the NSW Government involved extensive economic, social, environmental and technical analysis to ensure that only options that were feasible were taken forward. The community were kept informed throughout the selection process.

### **Why is the pipeline peak capacity 37.4 megalitres per day when the typical current usage is much lower?**

A peak daily delivery of 37.4 megalitres is in excess of the current requirements for Essential Water, even during peak demand, but allows for future growth and associated water demand.

WaterNSW has included a provision for offtakes in the contract requirements for the construction of the pipeline. WaterNSW is considering up to six offtakes for low demand use along the 270km length of pipeline, and depending on early interest, are now trying to identify where those (up to 6) offtakes are best located.

Offtake customer access will be opportunistic, and considerations will need to factor in any availability after Essential Water's demand requirements have been met, water licencing, water volumes and when water can be accessed.

WaterNSW commissioned a report to inform the tender process on the extent to which the River Murray to Broken Hill Pipeline could provide opportunities to promote commercial activity along the length of the pipeline.

The RM Consulting Group Pty Ltd (RMCG) report considered the potential for new agricultural or other commercial pursuits and stock and domestic use that could provide additional future demand on the pipeline and found that three factors limit the need for the pipeline to provide more than a peak daily delivery of 37.4 megalitres: low population, the existing Darling Anabranh pipeline that provides raw water supply to a large number of pastoralists in the region and limited mine demand outside Broken Hill. The report also notes that the two mine-sites nearest the proposed route indicated they did not have any interest in accessing water from the pipeline.

The full RMCG report, completed in July, is available on the WaterNSW - <http://www.watnsw.com.au/projects/murray-to-broken-hill-pipeline>

### **Will the community be consulted throughout the construction phase of the pipeline?**

Yes. WaterNSW has already engaged with local councils, established a Local Representative Committee, had local business and community briefing sessions and engaged Registered Aboriginal Parties in cultural heritage surveys prior to construction.

Now that WaterNSW has appointed a consortium of John Holland, MPC Group and TRILITY in the coming months WaterNSW will be running training and employment information sessions and continued engagement with the community.

Further information on the project and planned activities is available on the WaterNSW website - <http://www.watnsw.com.au/projects/murray-to-broken-hill-pipeline>

Work is expected to commence in late 2017, and be completed by December 2018.

WaterNSW, the owners and project managers for the pipeline, will ensure the community is well informed and has an opportunity to provide feedback on the construction project as it progresses.

## How is Aboriginal cultural heritage being considered?

WaterNSW has been working with the Aboriginal community to conduct cultural heritage surveys across the length of the pipeline. To minimise impacts the pipeline route is largely within the Silver City Highway corridor, road easements and cleared areas. Consultation with the local community is ongoing, including the well-received employment of Aboriginal representatives in cultural heritage surveys.

Further opportunities will be provided during construction with the implementation of the Aboriginal Participation Plan to provide participation in employment and training.

## Will this project result in the Menindee Lakes being decommissioned?

No. The NSW Government will not be decommissioning the Menindee Lakes.

The Menindee Lakes are an instrumental part of the Murray Darling Basin water supply system and are of critical importance for water supplies to the Lower Darling River and the people who live and work in this remote part of NSW.

The Menindee Lakes are also a significant environmental area and asset in their own right.

The NSW Government has explored a scope of works and operational changes that could allow the Lakes to be operated in a way that achieves significant water savings, in line with a triple-bottom line approach that will help NSW meet its Basin Plan commitments without relying on water buybacks.

This project is currently being assessed by the Commonwealth – if endorsed - comprehensive stakeholder and community engagement will be undertaken in 2018. This consultation will form the basis of detailed project design based on local issues.

## Will recreational access to the Menindee Lakes continue after the pipeline project is commissioned?

Yes. The pipeline project being delivered by WaterNSW has no impact on recreational access to the Menindee Lakes.

## Who will pay for the pipeline and what will be the impact on Broken Hill resident's water bills?

The upfront capital costs of the pipeline will be fully funded by the NSW Government through WaterNSW.

Once constructed, ongoing costs will be funded by Broken Hill customers and the NSW Government. The Independent Pricing and Regulatory Tribunal (IPART) will be asked to ensure that the share of the cost borne by Broken Hill customers is fair and affordable.

All other costs above the customer share determined by IPART will be met by the NSW 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.

In reviewing water prices IPART considers a range of matters, including:

- the cost of providing the service
- consumer protection against abuse of monopoly power by a water utility
- the need to promote competition in the supply of the service
- the need for greater efficiency in the supply of the service to reduce costs to consumers and taxpayers
- appropriate rates of return on public sector assets
- the social impact of their determinations
- the need to maintain ecologically sustainable development and protect the environment

The process for making a price determination for Broken Hill residents will involve an extensive consultation and review process by IPART allowing ample opportunity for local issues and concerns to be raised and addressed.

### **Will the Menindee to Broken Hill pipeline be upgraded?**

Essential Water, as the local water utility, is responsible for the operation of the Menindee to Broken Hill pipeline. The ongoing operation and maintenance of this infrastructure needs to be referred to Essential Water.

### **How will Menindee receive its water?**

As the local water utility, Essential Water will continue to retain responsibility for water treatment and water distribution to its customers in Broken Hill, Menindee, Sunset Strip and Silverton.

Menindee and Sunset Strip will retain Menindee Lakes supply as their primary source of water and also retain use of the Menindee Common Bore Field as a supplementary water source.

### **Why are WaterNSW building the pipeline when the business case indicates that this would be Essential Water?**

Since the final business case was completed the NSW Government has made a number of additional decisions about which entity will have responsibility for constructing the pipeline and how the pipeline will be funded.

WaterNSW has a strong track record of delivering key water infrastructure projects, and as owner of the pipeline, will procure the design, build and maintain the infrastructure that will supply up to 37.4 megalitres of peak daily demand of raw water to Essential Water's Mica Street Water Treatment Plant.

Essential Water will continue to retain responsibility for water treatment and water distribution to its customers in Broken Hill, Menindee, Sunset Strip and Silverton.

### **There has been rain and inflows into Menindee Lakes since the Final Business Case was completed, why do we need to build the pipeline?**

The Menindee Lakes are approximately 16 km long and 14 km wide – located in the heart of a hot and windy desert area and are extremely shallow (average depth of 5 metres), meaning evaporation rates are very high.

It is estimated that some 400 to 600GL is lost each year through evaporation. This is an extremely large amount of water considering Broken Hill's entire entitlement is 10 GL per year and typical usage is 7-8 GL per year.

The Broken Hill pipeline is the culmination of years of work looking at the best long term solution to secure the region's water supplies and is designed to fix Broken Hill's chronic water shortage problems which have continually arisen since the town was established in 1883.

The pipeline provides security of supply and puts Broken Hill on a sustainable footing for future generations.

### **Is the pipeline dependent on the Menindee Lakes reconfiguration currently being considered by the Murray-Darling Basin Authority?**

No. The pipeline is a standalone project and is not dependent on any reconfiguration of the Menindee Lakes system.

### **Why is the pipeline following the proposed route and were other routes explored?**

Nineteen different options were considered by Government in order to deliver the most effective solution to secure Broken Hill's water supply.

The selected route along the Silver City Highway provides a pre-existing sealed all-weather, heavy-vehicle access with legal easements already established.

An alternative 'over-land' route would have added significantly to both the construction costs and build time. This was in part driven by the location of the river offtake.

The river offtake was been selected on the River Murray at Wentworth, next to Wentworth Shire Council's existing offtake. This site was selected given better water quality than the Darling River, and the excessive time it would have taken to obtain land access and Aboriginal and cultural heritage approvals for the route north of the alternative site at Fort Courage.

### **The cost of this project is considerably lower than the original announcement, why such a large variance?**

Our \$500 million investment in the far west also included the short term emergency water supply needs which were addressed by a series of projects, including the \$17.9 million reverse osmosis plant, brine ponds and the construction of shallow bores at Lake Menindee.

WaterNSW has been working hard to ensure that it delivers the lowest 'whole of life cost' solution that it can, mindful of any bill impacts the project may have, and the solution provided by John Holland, MPC Group and TRILITY delivers the best outcome at a lower cost than originally planned.

### **Is this a fixed price contract or does the government carry the risk of cost blow outs?**

The contracts WaterNSW have entered into are fixed price lump sum contracts, meaning the Government and the people of Broken Hill can have certainty in the cost of this project.

### **Why did the proposed 15 year maintenance contract change to a 20 year contract?**

WaterNSW determined, in consultation with the private contracting market, that a 20 year term would strike the right balance between getting the lowest whole of life cost outcome for the residents of Broken Hill, and be attractive enough for a tier 1 contractor to make a competitive bid.

### **How much will this Operation and Maintenance contract add to the water bill of the people of Broken Hill?**

Once constructed, ongoing operation and maintenance costs will be funded by Broken Hill customers and the NSW Government. The Independent Pricing and Regulatory Tribunal (IPART) will be asked to ensure that the share of the cost borne by Broken Hill customers is fair and affordable.

All other costs above the customer share determined by IPART will be met by the NSW Government.

Until IPART makes a determination, it's not possible to say how much extra the people of Broken Hill will have to pay.

However, there is a precedent:

For the 2017 WaterNSW pricing Determination, IPART decided not to set prices in two valleys based on full cost recovery prices. Instead, IPART decided to set prices in valleys substantially below full cost recovery using an approach that considered customers' 'capacity to pay'.

In its 2010 Determination for State Water, IPART decided to transition prices towards levels that would achieve full cost recovery; however, real price increases were capped at 10% per year to reduce adverse customer impacts.

The process for making a price determination for Broken Hill residents will involve an extensive consultation and review process by IPART allowing ample opportunity for local issues and concerns to be raised and addressed.

**Given that Broken Hill only uses around 7GL of water per year, how expensive is this water compared to other parts of NSW? Is this the most expensive water in NSW to supply to people?**

No, it's not the most expensive. Analysis by DPI Water indicated that the typical annual water bill in Broken Hill is \$781, whereas a comparable town such as Bourke has typical annual water bills of \$1,227 and the most expensive water bill in the state of \$1,972 per annum belongs to Brewarrina.

So even if water bills increased by around 10%, they would still not be the most expensive in the State, and still lower than Sydney.

**What was the outcome of the Water Impact Pricing Analysis conducted by Danu Consulting?**

The water pricing analysis was preliminary/indicative in nature. It simply identified the additional cost an average customer would incur each year under a broad range of pipeline investment recovery scenarios.

The purpose was to identify whether government support would be required to ensure the affordability of water following the investment. Ultimately, retail water pricing for Essential Water customers will be determined by IPART following Essential Water's next water pricing submission.

IPART will base their decision on their own water pricing framework and the final cost of the solution, as well as the range of other costs incurred by Essential Water. As such, IPART will not use this pricing analysis to inform any pricing decision.