Project update

December 2021



Water Infrastructure NSW acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation and the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples.

Field studies flourishing post COVID-19 restrictions

The opening up of COVID-19 travel and social restrictions over the past couple of months has been critical in allowing our Project team to further progress field surveys and geotechnical investigations.

The Project team were onsite again undertaking targeted terrestrial and aquatic surveys from October to December this year. Additionally, the team will be carrying out further field studies in autumn, winter and spring 2022.

For the recent surveys, the team were looking for the presence or otherwise of threatened species at locations around the dam reservoir and upstream along both the Lachlan and Abercrombie rivers.

This is done in a number of ways including:

- field walkover of the study area
- bird surveys
- nest tree searches
- koala scat searches
- grassland reptile, insect searches
- · dusk stagwatching of large hollows
- nocturnal spotlighting surveys
- call playback/recording
- mapping of hollow-bearing trees and potential threatened species habitats.

This work requires seasonal surveys; we undertook some seasonal work in 2020, however the 2021 seasonal surveys were interrupted by the COVID-19 health order restrictions, so it has been great to have some spring investigations completed, and summer studies are underway. Aquatic field surveys are also underway at the moment. Aquatic ecology studies the ecosystems found in bodies of water, be it marine, freshwater, or estuarine and focuses on the interactions among living organisms in that particular aquatic habitat which can directly affect various factors in the ecosystem.

These field studies re-started in spring and will continue through summer. Apart from the recent flooding which has impacted this work, the high water level has generally provided optimal conditions.

The team is using a drone to accurately map the extent of the aquatic system, and to complete the ecology surveys, they have been using e-DNA sampling, electro-fishing in some locations, drone flights, bait traps and fyke nets.

Electrofishing is an effective, harmless method of fishing which involves using a backpack device which emits an electrical charge into the water. The method temporarily stuns the fish (but does not harm them), allowing them to be identified and measured by the ecologists.



Owl and frog call playback on the Abercrombie River



Determining the types of fish living in the tributaries of the Lachlan River and Abercrombie River





e-DNA involves taking samples from the water, then completing DNA analysis of that water and amplifying the DNA samples to identify particular species from that analysis.

A previous survey was completed in late 2020 when water levels were minimal.

In Autumn next year we will have zoologists targeting tree-living mammals as part of our continuing biodiversity field studies. This work will use a variety of methods and look to particularly survey:

- Brush-tailed Phascogale: This species requires detailed remote camera surveys. An initial survey will be conducted to set up cameras, which need to be left for at least four weeks.
- Masked Owl, Barking Owl and Powerful Owl:
 Targeted surveys were completed between
 August 2020 and April 2021 and failed to
 record any owls. Potential breeding habitat
 for these species occurs throughout the study
 area and so targeted nocturnal surveys of
 breeding habitat will be undertaken, focusing
 on areas not previously surveyed.
- Koala: Additional targeted surveys will be undertaken in areas previously not identified as 'important habitat'.
- Bush Stone-curlew: Targeted surveys completed between August 2020 and April 2021 failed to record this species and it was assumed not to occur. Additional nocturnal surveys in areas not previously surveyed will be undertaken.
- Glossy Black-cockatoo: Only limited targeted surveys in the breeding season were able to be conducted in 2020. Additional surveys for this species will be undertaken throughout the study area.
- Squirrel Glider: Further spotlighting surveys in areas not previously surveyed will be completed.

Next year will also see surveys undertaken at offset sites and more surveys undertaken downstream. Undertaking additional surveys and surveys in areas previously not identified provides greater certainty and reduces assumption of presence. This then reduces the uncertainty of likely impacts and allows an adequate gauge to establish mitigation measures.

Experts to be engaged

The Project team will engage a number of experts to undertake field work and record the presence or otherwise of particular species that are difficult to survey and would benefit from expert study.

The Golden Sun Moth

is a medium-sized, dayflying (diurnal) moth. The Golden Sun Moth's NSW populations are found in the area between Queanbeyan, Gunning, Young and Tumut.



Female Golden Sun Moth, photo by Leo Berzins

The species' historical distribution extended from Bathurst (central NSW) through the NSW Southern Tablelands, through to central and western Victoria, to Bordertown in eastern South Australia.

More information

The Striped Legless Lizard differs most obviously from a snake in having external ear openings, small scaly flaps for hind limbs, a long tail and a broad, undivided tongue.



Striped Legless Lizard, photo by Ross Bennett

The Striped Legless Lizard occurs in the Southern Tablelands, the South West Slopes, the Upper Hunter and possibly on the Riverina. Populations are known in the Goulburn, Yass, Queanbeyan, Cooma, Muswellbrook and Tumut areas. Also occurs in the ACT, Victoria and south-eastern South Australia.

More information

Key's Matchstick Grasshopper is a small, slim, wingless grasshopper. It is characterised by its slanted face and long, narrow and pointed antennae.



Key's Matchstick Grasshopper, photo by Michael Kearney

The Key's Matchstick Grasshopper can be found in habitats with tall perennial grass. Although they do not eat the grass, this species relies on it for protection from predators and weather.

More information



A vision for the agency beyond bricks and mortar

The Wyangala Dam Wall Raising project is one of a suite of important water security projects that is being led by Water Infrastructure NSW; an agency within the Department of Planning, Industry and Environment, headed up by Chief Executive Officer Anissa Levy who is passionate and committed to delivering sustainable outcomes for communities across New South Wales.

"Throughout my time as CEO of Water Infrastructure NSW, I've met with hundreds of community members who have shared stories about the incredibly important role that water plays in their lives."

"I truly care about our communities and this is a passion that I share with the people who work in our organisation. We want our projects to deliver outcomes that go above and beyond the benefits of the infrastructure itself, working in partnership to solve water challenges and bring lasting opportunities for our regional communities," Ms Levy said.

Water Infrastructure NSW was established in 2020 and like similar agencies in Health and Education, is charged with providing a coordinated and unified approach to delivering critical water infrastructure projects in NSW. Anissa described how she reaches beyond this scope of work and has a vision for the agency around meaningful community outcomes.

"The bricks and mortar of infrastructure is just one small component of what these projects can achieve. It's the outcomes that truly matter - whether that be improved water security and reliability, better outcomes for the environment or boosting jobs and economic activity in the regions where we deliver our projects."

"We are truly focused on partnering with our communities, spending time understanding what's important to them, their values and aspirations and looking at how we can incorporate this into the way we develop and deliver our infrastructure projects."

"The passion, dedication and commitment of Water Infrastructure's teams is a major part of ensuring this success. I want people to enjoy what they do, be passionate about what they do, and to know that their work will leave a lasting, positive legacy for our communities," Ms Levy said.



Anissa Levy, Chief Executive Officer, Water Infrastructure NSW



Working with the Lachlan Regional Water Strategy

The draft Lachlan Regional Water Strategy is a long-term strategic plan to address key water-related challenges in the region and meet the Regional Water Strategy program objectives to:

- deliver and manage water for local communities
- enable economic prosperity
- recognise and protect Aboriginal water rights, interests and access to water
- protect and enhance the water
- affordability.

Also underway, final business cases are being developed for:

- Wyangala Dam Wall Raising
- Lake Rowlands to Carcoar pipeline
- Lake Rowlands augmentation.

The Wyangala Dam Wall Raising project is recognised in the draft Lachlan Regional Water Strategy as an existing government commitment. In finalising the Final Business Case for the

Wyangala Dam Wall Raising project, Water Infrastructure NSW is considering other available options that may complement the Wyangala Dam Wall Raising project and help drought-proof the Lachlan Valley. This includes reviewing infrastructure and non-infrastructure options from the draft Lachlan Regional Water Strategy. The purpose of this exercise is to confirm or update elements of the earlier options analysis and is standard practice to ensure that government projects are affordable, provide value for money and can be delivered.

Once the final business case is completed in 2022, it will be independently reviewed in line with Infrastructure NSW's Infrastructure Investor Assurance Framework, before an investment decision is made.

The outcomes of the Wyangala Dam Wall Raising, Lake Rowlands to Carcoar pipeline, and Lake Rowlands augmentation final business cases are all critical to the finalisation of the Lachlan Regional Water Strategy as it is not possible to determine the best combination of options in this Strategy without understanding the outcomes of the final business cases.



Wyangala Dam, photo by Farmpix



What does an enlarged dam mean for the people across the Lachlan Valley

As part of the Project's planning phase, we have been talking to communities and stakeholders across the project area to get a greater insight into their distinct connection to the dam and river system.

Today we share Jenny Bennett's story.

Members of the organisation Jenny Bennett oversees share many goals and dreams for their respective communities. None bigger than the battle for water security.

"We've been pushing hard for decades to get a more shared conversation," says the Executive Officer of the Central

West NSW Joint Organisation (CNSWJO).

"We have to work collaboratively across all levels of government and put structures in place so we know who to talk in the next drought. This will hopefully avoid the need to bring in Critical Water Needs Legislation and last minute scrambles to ensure communities have drinking water."

"It's been a long journey for our councils to secure water."

And that journey's far from over for the organisation born three years ago out of the Central-NSW Regional Organisation of Councils (CENTROC).

Despite differing circumstances, water security remains the one constant for its members comprising the Local Government Areas of Bathurst, Blayney, Cabonne, Cowra, Forbes, Lachlan, Oberon, Orange, Parkes, Weddin, and Central Tablelands Water.

They agree raising Wyangala Dam wall will be a crucial step worth the fight.

"It'll mean greater water security to enable more growth," Jenny says. "That's a conversation we're all obligated to have."

"We want to see those big storm events captured better and released more sensibly and sustainably down the river."

The flood in 2016 even closed the Newell Highway. "It's unbelievable you would cut a major national artery like that; it beggars belief. We are yet to understand the impacts of the recent flood, with the measuring of the costs being a major task to comprehend and appreciate the impacts on local communities."

Such drastic weather events serve as constant reminders for the need to work together.

"The only way we're going to get change is by continuing to have conversations."

"We need everybody sitting down together on a catchment basis consistently working towards better outcomes between droughts, then switching into emergency management during droughts."

"It's these conversations that can further grow the direct relationship between water and the region's stellar productivity levels."

"There's an enormous amount of industry that uses town water supplies. Our productivity is already huge. This will only rise when you think about developments such as Parkes Special Activation Precinct."

Social impacts cannot be overlooked either.

"Without water security, confidence in a town goes. If there's a perception a community has a water security issue, the likelihood a person will move or set up a business there reduces. That's a real challenge for us."

It's also something few residents east of The Great Divide can imagine.

"We'd take morning walks in Orange during the drought and talk about which trees in our garden we'd save using pasta water," Jenny recalls.

"I'd drain my pasta into a container, cool it and decide what tree to help survive. They're the types of tough conversations you have in a drought."

It's a stark reminder how water security plays out in every home across the central west.

"Given climate change, there'll be greater storm events and more droughts. How else are we going to manage if we don't have greater water storage?"



Missed a recent webinar?

The Project team hosted a number of webinars throughout October and November to provide updates on the project, information about the business opportunities and also an introduction to the project to provide an overview of the work to date. If you missed any of these you can watch them online.

Local Business Webinars

Community Webinars

Modelling continues

Modelling and assessment of the river system continues to be ongoing undertaking daily time step continuous simulation. This looks at what is the day-to-day behaviour of the river basin system, including the dam, under both existing and proposed conditions.

The Project team has started to review this preliminary modelling, and look at ways any impacts can be reduced.



The inundation maps were released in June 2021 and are available on the project website.

You can view local government area maps:

Cowra Shire Council

Hilltops Council

Upper Lachlan Shire

You can also view recreation parks:

<u>Grabine Lakeside Holiday Park</u> Wyangala Waters Holiday Park

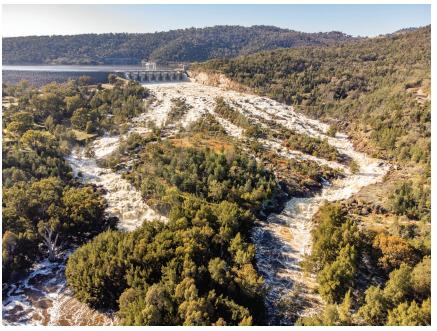
Project update

The NSW Government had the spotlight thrown on the three dams projects in November, and during budget estimates responded to a number of questions confirming their commitment.

The Wyangala Dam is often described as a mega project; one that is significantly complex and requiring unprecedented work as it navigates legislative requirements to progress treasury and environmental assessments.

The last dam built in NSW was over 30 years ago, and a lot has changed not only regarding legislative requirements but also in the areas of technology, river and flood modelling and climatic data.

Some areas of the project have been impacted by COVID-19 health order restrictions during this year, in particular the field work studies and investigations were delayed, however work on the project remains full steam ahead.



Wyangala Dam, photo by Farmpix



What's coming up?

Business opportunities at Wyangala Water Treatment Plant

In early 2022, the Project team will provide an update to keep you informed of opportunities associated with the Wyangala Water Treatment Plant, being delivered as part of the Wyangala Dam Wall Raising early works.

2022 Community Information Sessions

The Project team is looking forward to scheduling the next round of community information sessions along the Lachlan. More information will be distributed with dates and venues in early 2022 – we look forward to catching up with you in person!

Invite us to your next meeting

Are you part of a group or organisation that would like a project presentation?

Email us wyangaladamproject@dpie.nsw.gov.au and we are more than happy to arrange an inperson or online presentation with representatives from our team.

Happy holiday season

The Wyangala Dam Wall Raising Project team will be on leave between Wednesday 22 December 2021 and Monday 10 January 2022.

While our project inbox and project number is not being monitored while we are on leave, please feel free to drop us an email message at wyangaladamproject@dpie.nsw.gov.au or voicemail message on 1800 735 822. One of our team members will respond when we are back in the New Year.

We wish everyone a happy and safe holiday season! See you in 2022!



Our next newsletter will be out in early 2022, but you can always reach us via:



1800 735 822



wyangaladamproject@dpie.nsw.gov.au

If you have any feedback on our newsletter, or would like to see us include an article on a particular topic please email your feedback to: wyangaladamproject@dpie.nsw.gov.au

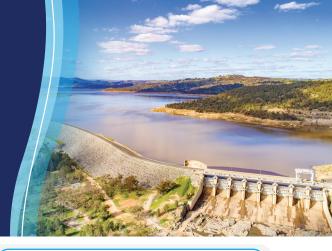


WYANGALA DAM WALL RAISING

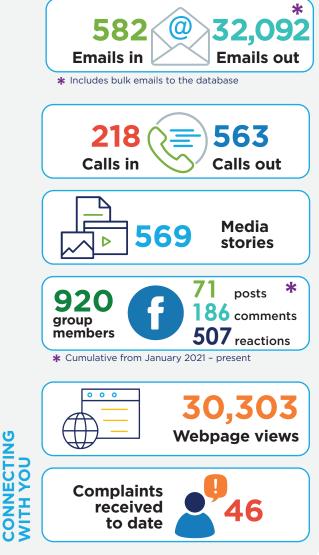
Community Dashboard

DECEMBER 2021









Unless stated otherwise, all stats are cumulative totals from January 2020 and are updated at the end of each month.

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OPPORTUNITIES

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businesses registered















