



WYANGALA DAM WALL RAISING PROJECT

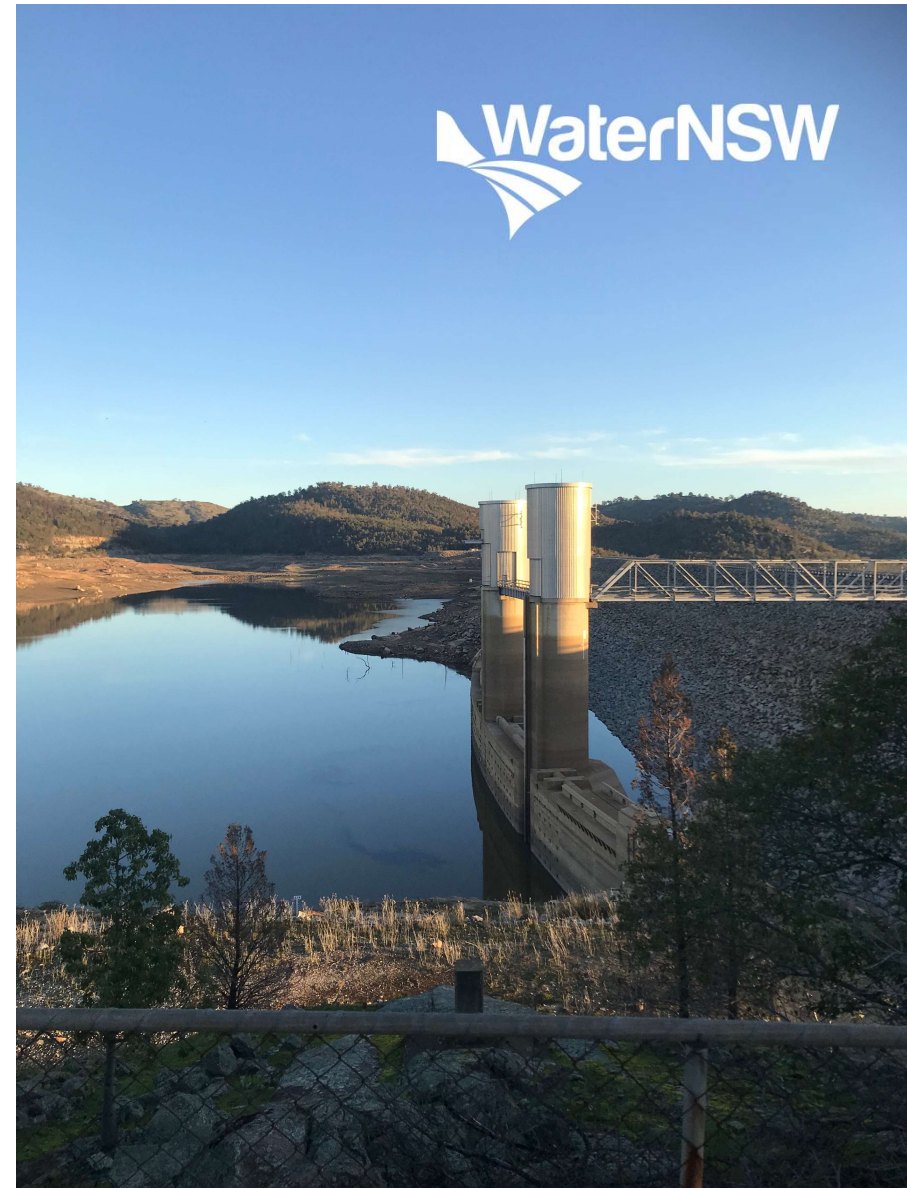
Project update
April 2021



Agenda

- Acknowledgement of Country
- Introductions
- Project update
- Environmental assessment update
- Engagement
- Connect with us
- Questions

WaterNSW



The background of the slide is a close-up photograph of numerous spherical water treatment media, likely anthracite or similar granular activated carbon. The spheres are densely packed and show a variety of colors, including dark brown, reddish-brown, and yellowish-brown, indicating different stages of use or different types of media. Some spheres are cracked open, revealing a porous, yellowish interior. In the bottom right corner, there are several long, green, pointed leaves, possibly from a plant like a lily or iris, partially overlapping the media.

Acknowledgement of Country

Background

Since late 2019 we have been developing the project:

- Finalising the concept design
- Field work almost complete
- Procurement for a new Wyangala Water Treatment Plant
- Shortlisting of main construction proponents
- Preparation of inputs for final business case
- Engaging with stakeholders, communities and Aboriginal parties
- Establishing a project office



Background: Raising Wyangala Dam



Key benefits:

- Increase storage capacity of the dam by 53%
- Significantly improves:
 - **drought resilience**
 - **Water reliability**
 - **flood attenuation**
- Increases capability to manage high inflow/flood events



Confirmed FSL



Confirmed 10m Full Supply Level will inform:

- Environmental Impact Statement
- Final business case
- Concept design
- Holiday Park planning work



2021 activities



Environmental field surveys and investigations continue



Landholder engagement continues



Community information sessions and webinars continue



Environmental Impact Statement public display for consultation



Final business case developed



Construction partner procurement



Detailed design starts



Construction of Water Treatment Plant at Wyangala starts



Construction planning for Holiday Parks finalised

Procurement process

- Shortlisted two separate contractors, Acciona and Seymour Whyte for main construction work
- Appoint successful main construction work contractor
- Start main construction delivery



Construction



Construction staging program:

- Dam must remain operational
- Manage operation and construction safety
- Construction is expected to take up to four years

Clay and rock required:

- Materials to be sourced locally and as close to project site as possible
- Considering expanding rock quarry used for previous dam construction



Stage 1 - Preparing downstream foundation

Stage 2 – Placing downstream rock fill

Stage 3 – Removing existing dam crest

Stage 4 – Start raising dam wall

Stage 5 – Finish raising dam wall

Construction

Due to the large workforce and isolation of the site, we are considering:

- Dedicated local construction workforce accommodation
- Investigating former dam construction workforce accommodation site
- Dedicated workforce between 100 and 300 – additional indirect workforce



Previous construction workforce accommodation

New Water Treatment Plant



- 'No regrets' project
- Planning pathway
- Procurement - Enviropacific
- Construction & commissioning
- Benefits



Environmental assessment

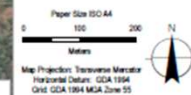


Key features include:

- 10m increase in Full Supply Level
- Modify spillway to suit new FSL and embankment
- Modify intake towers to suit new FSL
- New saddle dam near the entrance of Wyangala Waters Holiday Park



Further detail



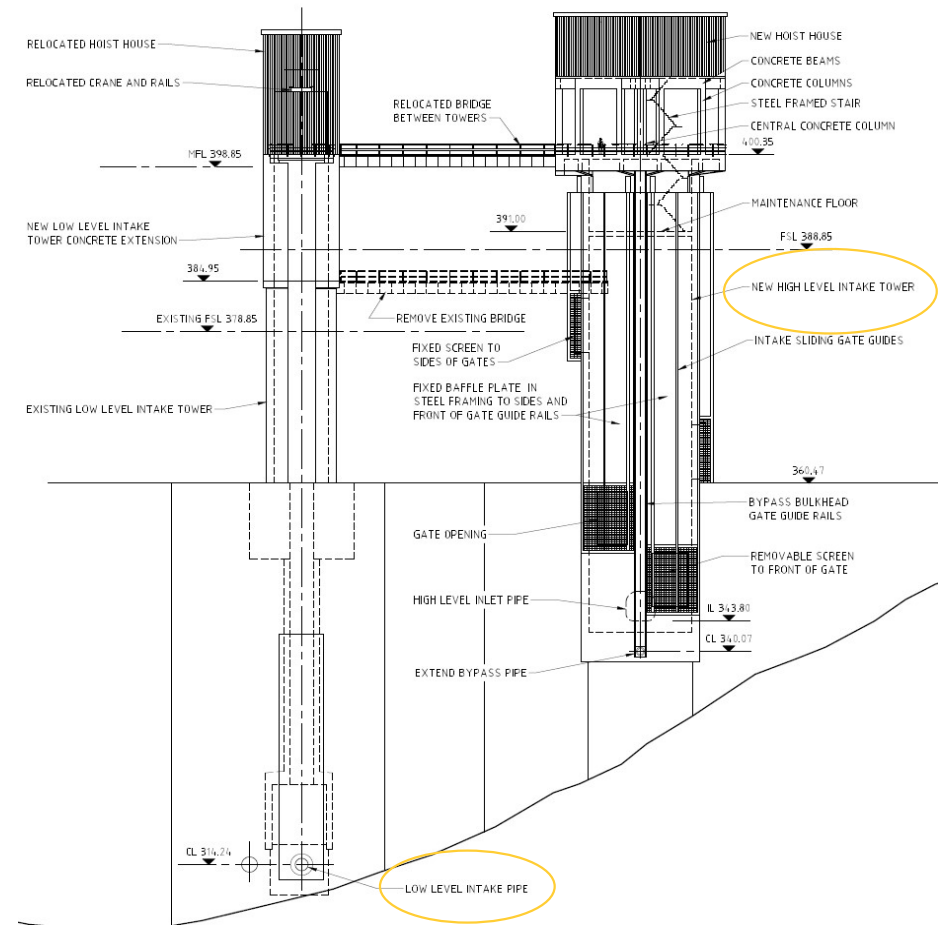
Operation

Flood:

- Enhanced operational flexibility to manage flood events

Water quality, cold pollution and algae:

- Modify existing towers to provide multiple intake points
- This reduces impacts from cold water pollution



Environmental update



Specialist studies update



Terrestrial biodiversity
fieldwork completed,
assessment underway



Aquatic ecology
fieldwork complete,
assessment underway



Aboriginal Cultural heritage
fieldwork complete,
assessment underway



Non-Aboriginal heritage
assessment underway



Traffic and transport
assessment underway



Noise and vibration
assessment underway



Air quality
assessment underway



Health impacts
assessment underway



Contamination and soils
assessment underway



Hydrology
modelling and assessment
underway



Flood
modelling complete,
assessment underway



Environmental Sustainable Development (ISCA)
assessment underway



Landscape and visual impact
assessment underway



Social impacts
Assessment underway



Waste
assessment underway



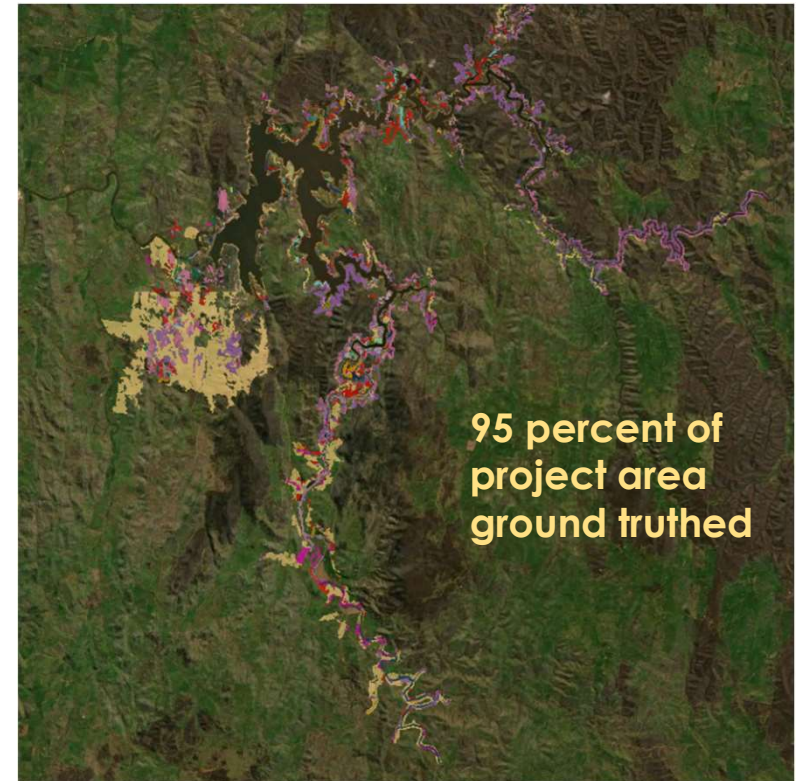
Climate change risk and greenhouse gas
assessment underway

Biodiversity



Our approach:

- NSW Biodiversity Assessment Method (BAM)
- Producing a Biodiversity Development Assessment Report (BDAR)
- Assessing impacts to listed threatened species and ecological communities, migratory species, and wetlands of international importance
- Targeted flora and fauna seasonal surveys (between April 2020 – January 2021)
- Biodiversity offset strategy – investigations underway
- Department of Agriculture, Water and Environment (DAWE) has determined controlled action (EPBC Act) and assessed under the Bilateral Agreement

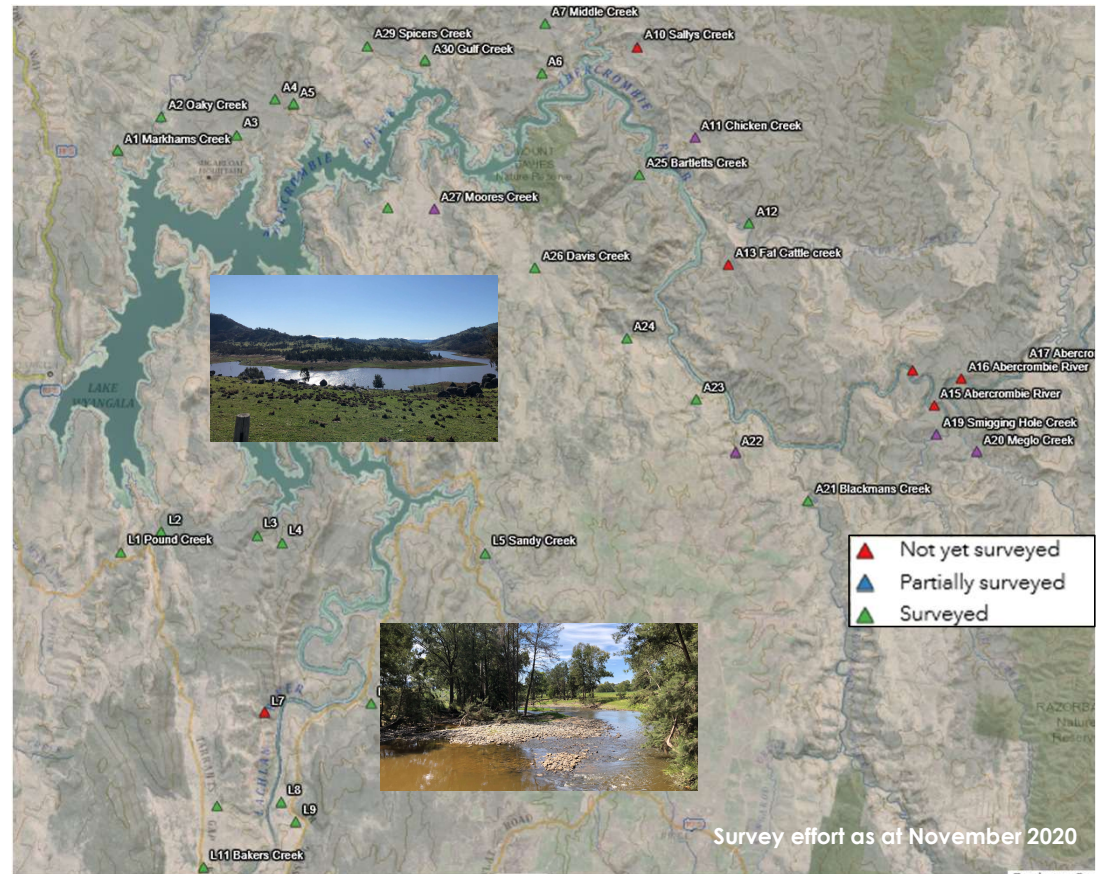


Aquatic Ecology



We have:

- Carried out targeted fish habitat surveys
- Identified the importance of habitat likely to be impacted
- Considered design options to minimise or mitigate impacts to aquatic fauna
- Prepared a detailed assessment
- Developed an offset strategy based on residual impacts
- Ongoing engagement with DPI Fisheries



Heritage and Cultural Values



- Cultural heritage in accordance with DECCW 2010 process
- 12 Registered Aboriginal Parties (RAPs)
- Update on Aboriginal Cultural Heritage Assessment Report (ACHAR) progress is:
 - Project methodology consultation with RAPs – completed
 - Subsurface test excavations upstream with RAPs – completed
 - Field surveys with RAPs – to be completed mid 2021
 - Analysis of materials – underway
 - Preparation of an ACHAR – underway
 - Ongoing consultation with RAPs and Aboriginal Stakeholders - ongoing
- Cultural heritage questionnaire prepared. Survey focuses are cultural values associated with:
 - Landform immediately surrounding the existing reservoir
 - Areas downstream of the dam
- Cultural values interviews with downstream Local Aboriginal Land Councils (LALC), reservoir LALCs and 10 RAPs – to be completed mid-2021

Social impact



Social Impact Assessment will:

- Describe existing social environment
- Involve targeted interviews
- Assesses impacts and benefits during construction and operation
- Recommend measures to mitigate and manage identified impacts
- Be prepared in line with leading practice

Note: Cumulative impacts being considered (two construction workforces - the dam and Cowra Hospital)



Hydrology and Flooding



River System Modelling

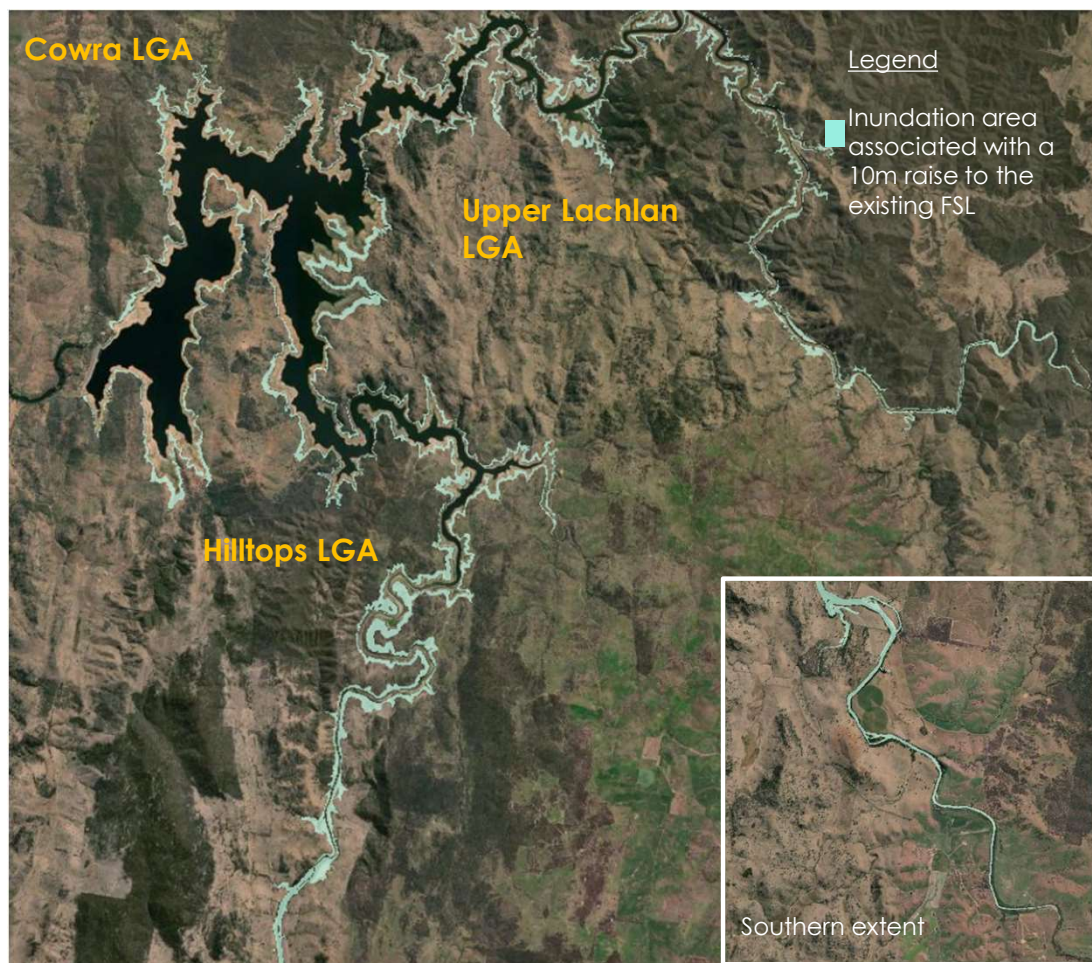
- Daily time step continuous simulation – ‘what is the day to day behaviour of the river basin system, including the dam, under both existing and proposed
- Numerous inputs: irrigator behaviour, rainfall/runoff, evaporation, interaction between surface and groundwater, translocency releases, environmental water holders
- Outputs relevant to the project: Yield, environmental flows, dam water levels, regulatory compliance

Flood Modelling

- Design storm event based
- Focuses on flood events
- Quantifies downstream hydraulics in more detail
- Represents up to extreme flood events
- Uses field survey
- Includes downstream and upstream



Inundation levels to date

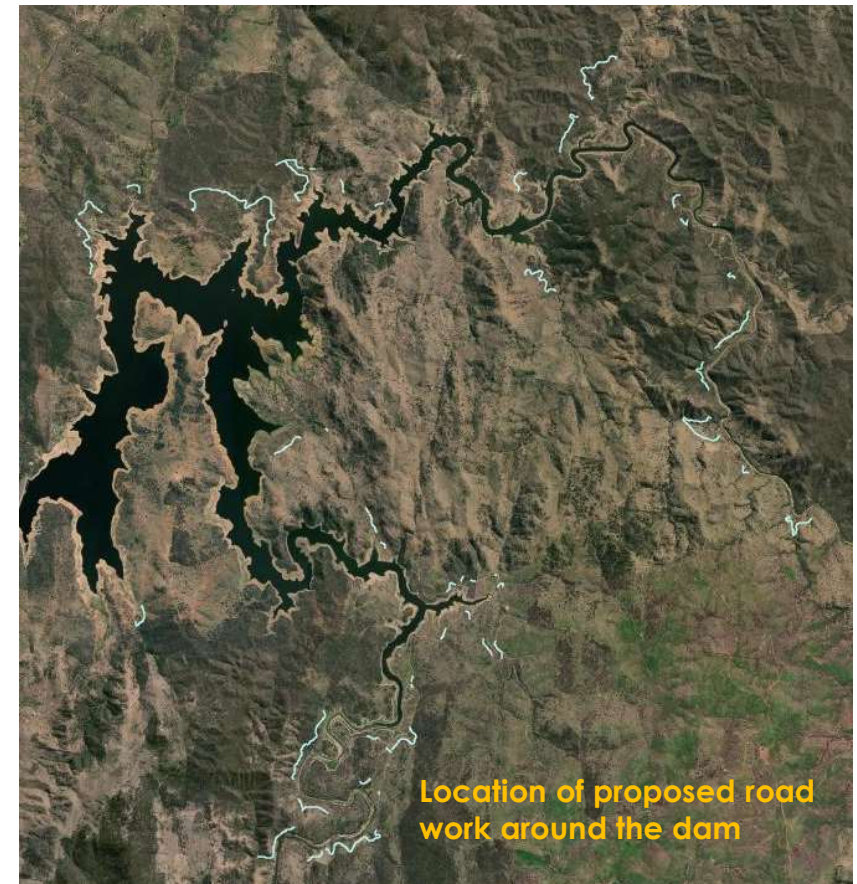


Ancillary work



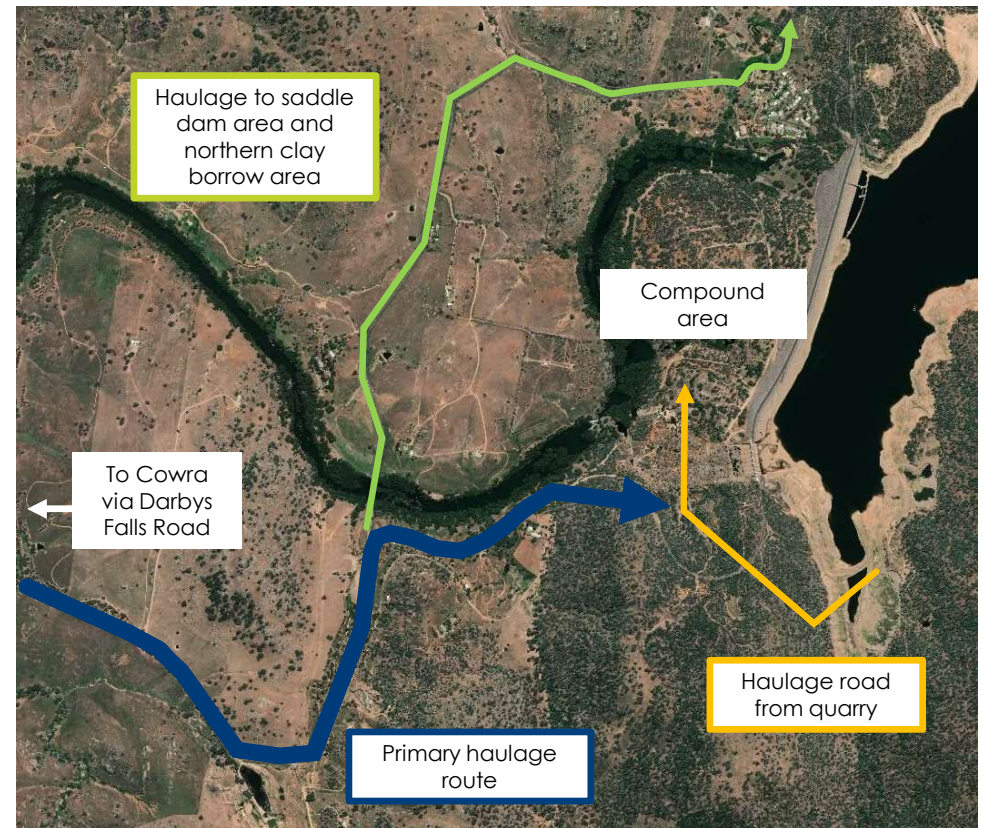
Ancillary work impact areas and activities include:

- Relocating existing public and private roads and infrastructure (**blue**)
- Relocating facilities within both Wyangala Waters and Grabine Lakeside Holiday Parks



Traffic and transport

- Site set up, materials (clay and rock) haulage, delivery of equipment and materials
- Majority of construction traffic between Cowra and site via Darby Falls Road (**blue**) with access to compound area via new dedicated route for heavy vehicles (**orange**) with some movements along local roads (**green**)
- Several unsealed public and private roads and access tracks need to be realigned
- Public access to be maintained to:
 - Wyangala Dam Public School
 - Wyangala Country Club
 - Wyangala Waters Holiday Park
- Traffic Control Plans (TCPs) and Construction Traffic Management Plan (CTMP) prepared before construction starts



Noise and Air Quality



Key construction activities used to develop our report include:

- Site establishment
 - Quarry activities
 - Clay borrow area work
 - Embankment
 - Spillway work
 - Intake work
 - Road work
 - Construction compound
 - Workforce construction camp
 - Vegetation removal work
 - Demolition work
- The construction noise study area has been defined as approximately two kilometres from the construction footprint
 - Noise logging conducted in August and September 2020
 - Quantitative assessments of potential noise and vibration impacts and air quality, dust and odour impacts



Wyangala Dam Wall Raising



 Improving long term water security and drought resilience in the Lachlan Valley

April 2021

ENGAGEMENT TO DATE

 Local community sentiment
84% support

25 Community events
attendees **251**

 Registered Aboriginal Parties **12**

 **86** Stakeholder briefings

107  Landowner meetings

LOCAL OPPORTUNITIES

312  Local businesses registered

 **10** Local businesses engaged

CONNECTING WITH YOU

329 Emails in  **3,290** Emails out

268 Calls in  **349** Calls out

 **293** Media stories

Facebook group members  **759**

24,100 Webpage views 

 **19** Complaints received to date

WHAT'S HAPPENING IN APRIL?

- Our quarterly project newsletter will be published for the community, stakeholders and businesses
- Wyangala Waters and Grabine Lakeside Holiday Park onsite pop-up information sessions are on Thursday 8, Friday 9 and Saturday 10 April
- Local business webinars on 15 and 16 April. To RSVP, visit the website

Connect with us



Wyngaladamproject
@waterNSW.com.au



1800 735 822



Wyngala dam wall raising
project community group



WaterNSW.com.au



Thank you

Questions

