



Water Infrastructure NSW Industry Briefing

Presented in Sydney 25 November 2021. More up to date information may be available.

November 2021

Department of Planning, Industry and Environment

Aunty Ann Weldon

Welcome to Country



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Acknowledgement of Country

We acknowledge that today we meet on many Aboriginal lands

We acknowledge the traditional custodians of the lands and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work.



Planning,
Industry &
Environment

Nikita Ridgeway

Presented in Sydney 15 November 2024. More up to date information may be available.

Jeff McCarthy - MC

Head of Development and Delivery

Water Infrastructure NSW



Presented in Sydney 25 November 2021. More up to date information may be available.

The Hon. Melinda Pavey

Minister for Water, Property and Housing



Department of Planning, Industry and Environment

Presented in Sydney 24 November 2021. More up to date information may be available.

Abigail Goldberg

Chair, Water Infrastructure NSW Advisory Board

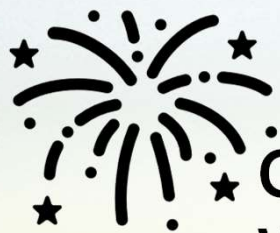


Anissa Levy

CEO Water Infrastructure NSW



Department of Planning, Industry and Environment



One year anniversary of Water Infrastructure NSW

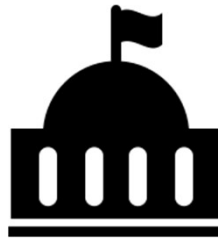
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may be available.

Communities at the centre of what we do



Working with partners



Introducing Water Infrastructure NSW

We are responsible for development and delivery of key government water infrastructure projects in NSW



Increase the state's long-term water security



Build drought resilience into our regional water supply



Provide greater access to safe and sustainable water and wastewater services through co-funding new treatment plants and reservoirs in regional areas



Expand ground water supplies in regional areas



Improve outcomes for the environment by more effectively and efficiently delivering water to where it is needed in our rivers, creeks and wetlands



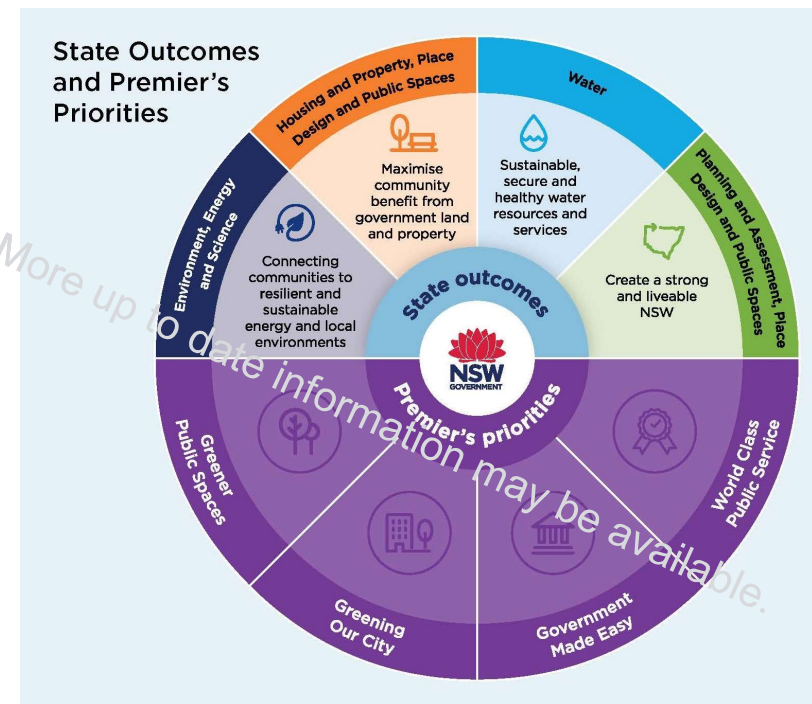
Achieve better outcomes for Aboriginal communities, improving cultural water flows and delivering broad benefits via our projects.



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WINSW Purpose & Vision

DPIE's State Outcomes and Premier's Priorities are our key priorities for the NSW Government. WINSW has developed a vision and purpose to guide our work in the delivery of these outcomes and priorities.



Water Infrastructure NSW leadership team



CEO Water
Infrastructure NSW
Anissa Levy

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Director
Infrastructure
Portfolio Policy &
Governance
Mia Garrido



Director Strategy,
Community
Stakeholder
Engagement
Lisa Chikarovski



Executive Director
Project Interfaces
& Program
Management
Ingrid Emery



Head of Portfolio
Management
Office
Paul Wade



Director Financial
& Commercial
Management
Owen Walker



Head of Water
Infrastructure
Development &
Delivery
Jeff McCarthy



Head of Technical
& Advisory
Services
Jason Gordon



Executive Director
Commercial and
Strategy
Donna Awad



Director Manly
Hydraulics Lab
Ed Couriel

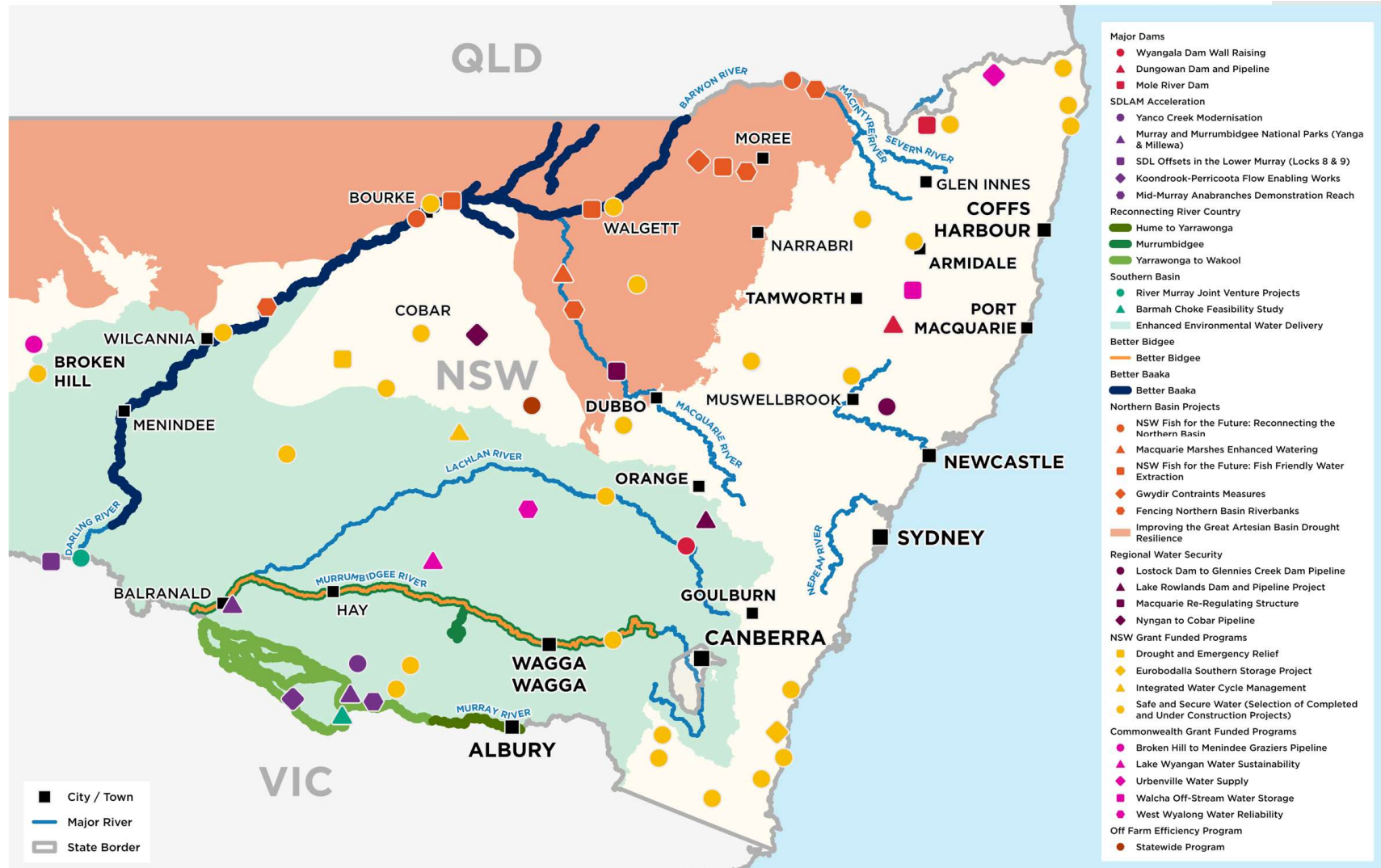


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WINSW – Functional Structure

Portfolio Management Office	<ul style="list-style-type: none"> Finance and Commercial Management Portfolio Delivery Services Work Health and Safety Delivery and Capability 	Project Interfaces and Program Management	Water Infrastructure Development and Delivery		
		Programs and Grants	Dam	Southern	Northern
Technical and Advisory Services	<ul style="list-style-type: none"> Water Investment and Planning Manly Hydraulics Laboratory Geospatial Services Technical Services Environment and Planning Water Modelling 	<ul style="list-style-type: none"> Safe and Secure Water Program SDLAM Northern Basin Toolkit Off Farm Efficiency Major Water Infrastructure Drought Recovery Snowy Hydro Legacy Fund Restart 	<ul style="list-style-type: none"> Wyangala Dungowan Mole River 	<ul style="list-style-type: none"> Locks 8 and 9 Yanco Offtake & Modernisation National Parks Murray Anabranches Menindee Koondrook/ Perricoota Joint Venture Programs 	<ul style="list-style-type: none"> Western Weirs Lostock to Glennies Macquarie ReReg Great Artesian Basin Drought Resilience Wilcannia Weir
Infrastructure Portfolio Policy & Governance	<ul style="list-style-type: none"> Portfolio Risk and Assurance Infrastructure Policy Portfolio Governance Office of the CEO 				
Strategic Community & Stakeholder Engagement	<ul style="list-style-type: none"> First Nation Project Engagement Community and Stakeholder Engagement Community and Stakeholder Project Engagement 				

Our program of work



Major Dams

- Dungowan Dam
 - New Dam, 22.5 GL, rock / earth construction
 - Associated 55 km pipeline (stage 1 already in construction)
 - Concept design complete, detailed design underway
 - Construction contracting / procurement model under consideration
 - Final Business Case in preparation.
- Wyangala Dam
 - 10 m wall raising, 53% more storage
 - Rock / earth construction
 - Concept design complete, Construction Alliance process underway
 - Final Business Case in preparation
- Mole River Dam
 - Strategic Business Case in preparation.



Project outcomes

- Dungowan – town water security
- Wyangala – agriculture water security
- Town access to water – community impact
- Environmental water

SDLAM Acceleration

- More than \$330 million over 2-3 years
- Locations on the Murray /Murrumbidgee rivers and associated waterways
- 5 projects all with multiple packages of work and sites
- Weirs, fishways, flow structures, low level bridges
- Concept Designs underway
- 12- 24 months of construction work in each project
- Contracting / procurement approach under consideration
- Starting to come to market in the next 6 months and estimated for completion by 2024.



Construction
procurement
first half
2022



Project outcomes

- Improved river flow
- Fish passage
- Environmental water flow control

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Reconnecting River Country Program

Works across the Murray (Hume to Wakool) and the Murrumbidgee to remove constraints to river flows, including:

- physical structures
- river management practices
- operational limits.

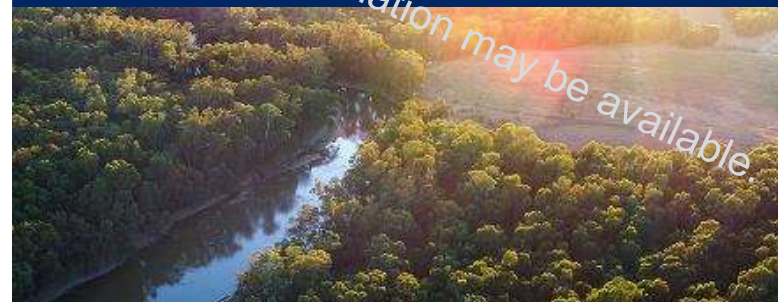
Constraints will be removed by mitigating inundation impacts on public and private land through:

- creation of easements
- new or modified access roads
- new or modified road crossings and bridges
- infrastructure and equipment relocation
- riverbank works
- drain removal or installation.



Program outcomes

- Improving wetland and floodplain connectivity through increased delivery of water for the environment
- Saving 60 GL of potential water purchases
- Enhancing outcomes for river habitats, native fish and other fauna.



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Southern Basin Projects

- River Murray Joint Venture – annual program of works carried out to support NSW's responsibilities under the Murray-Darling Basin Agreement valued at around \$10 million
- Barmah/Millewa Choke Project - Feasibility Study investigating options to take pressure off the choke to support future system capacity and reduce the risk of shortfalls in water delivery
- Enhanced Environmental Water Deliver (or EEWD) project - a suite of potential changes to how we operate the river to deliver environmental water more effectively in the southern-connected basin.



JV: Ongoing
Others: in
consultation



Project outcomes

- Meet commitments under the Murray Darling Basin Agreement
- Support future system capacity and improve environmental water delivery
- Deliver environmental water more effectively

Better Bidgee Program

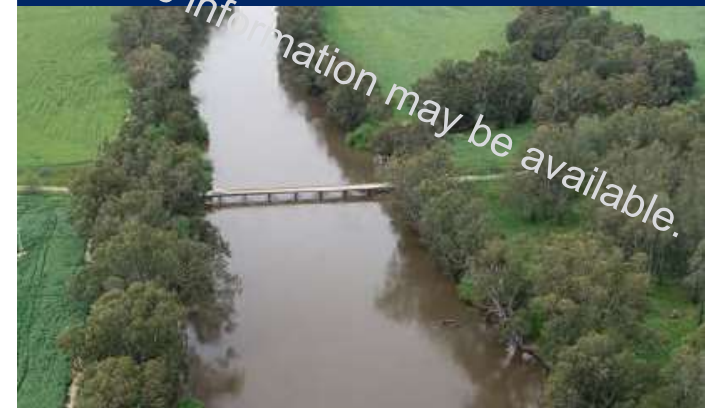
Works may include:

- Upgrades/modifications for weirs on the Murrumbidgee River
- Pipelines
- Fish passage structures
- Cold water pollution mitigation works on two major dams
- Installing fish screens on major irrigation offtakes
- Environmental works
- Currently in consultation with the community.



Program outcomes

- Increased environmental flows
- Reinststate over 1,200km of fish passage on the Murrumbidgee River
- Recovery of native fish populations
- Expansion of National Parks estate.



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Consultation
and early
options

Yanco Offtake

- Substantially rescope Yanco Creek Offtake SDLAM project
- Moving away from the original plan that proposed to raise the existing water level upstream of Yanco Weir by up to 2.5 m (under normal operating conditions)
- Now considering a range of smaller scale options
- These options range between a 0 to 1.2 m rise to the existing water level upstream of Yanco Weir (under normal operating conditions).



Early options investigation and consultation

Project outcomes

- Improved operational flexibility
- improved fish passage and environmental outcomes
- a better balance of outcomes between Yanco Creek System and the Murrumbidgee River.

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Better Baaka Program

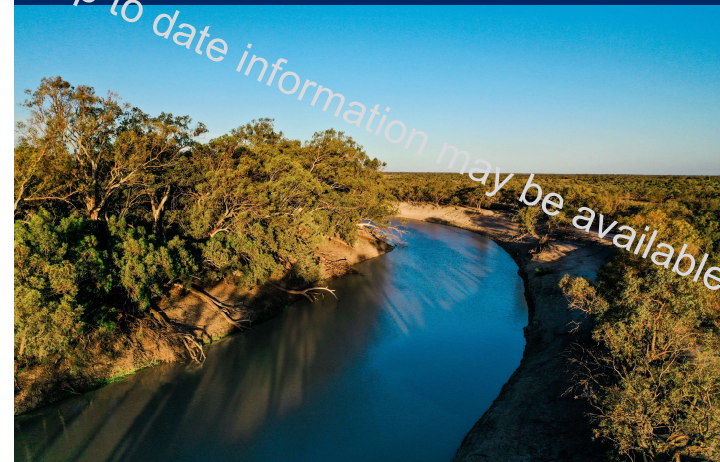
Works may include:

- Upgrades/modifications for up to 20 weirs on the Darling River
- Pipelines
- Fish passage structures
- Block bank works
- Community centre
- Minor roadworks
- Town water supply upgrades
- Environmental works
- Currently in consultation with the community.



Program outcomes

- Saving 15 – 20 GL of potential water purchases
- Re connecting the Darling River through reinstating over 2,000km of fish passage
- Traditional owners water outcomes
- Community outcomes.



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Strategic
Business
Case and
early
scoping

Wilcannia Weir Replacement

- **Over \$30 million** over 2 years
- Double town storage capacity, gated weir, fish passage structure
- New 'automated gate' design
- Concept Design complete, detail design awarded
- GC21 Contracting / procurement model
- Procurement to commence Q2 2022
- Construction to commence in end of Q3 2022 following EIS approval.



Final
Business
Case and
EIS



Project outcomes

- Town water security
- Town access to water community benefit
- Fish passage
- Environmental water flow control.

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NBTK: in
consultation
and
assessment
IGABDR:
ongoing

Northern Basin Projects

- Northern Basin Toolkit
 - Fish for the Future: Fish Passage
 - Macquarie Marshes Enhanced Watering Project
 - Fish for the Future: Fish Friendly Water Extraction
 - Gwydir Constraints Measures
- Fencing Northern Basin Riverbanks Program
- Improving Great Artesian Basin Drought Resilience program (IGABDR)



Project outcomes

- Delivery of water back to the environment
- Improve fish and ecological outcomes
- Improve drought resilience and water security and supply

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Regional Water Security Projects

- Final business case for the new 30 km Lostock Dam to Glennies Creek pipeline in the Upper Hunter
- Final business case for the Lake Rowlands to Carcoar Dam pipeline in the state's Central Tablelands
- Final business case for the proposed Macquarie Reregulating Storage project in the Central West
- Final business case for a new pipeline between Nyngan to Cobar, also in the Central West



Project outcomes

- Increase town water security
- Increase water availability for industry and energy production
- Responsive to changing supply and demand
- Drought response.

Final
Business
Case

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Lostock Dam to Glennies Creek Dam Pipeline

- New two-way water transfer pipeline up to 30km in length
- **Approx. more than \$250 million**
- New pumping stations at each dam
- Concept design development commence early 2022
- Flow modelling, landowner impact assessments underway
- Final Business Case currently in development – completion early/mid 2023
- Collaboration with Hunter Water on Patterson River elements.



Final
Business
Case

Project outcomes

- Increase town water security
- Increase water availability for industry and energy production
- Responsive to changing supply and demand
- Drought response.

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NSW Grant Funded Programs

- **Safe and Secure Water Program** to improve water quality and security for regional town water.
- **Integrated Water Cycle Management Plans** to assist Local Water Utilities develop long-term strategies and business plans for water operations.
- **Drought and Emergency Relief Funding** for emergency work and water carting during periods of severe drought.



Ongoing
NSW grant
funding

Program outcomes

Contribute to delivering secure, affordable and reliable water for rural and regional NSW.



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Safe and Secure Water Program

\$1 billion NSW grant funding program

Funding for Local Water Utilities to improve water quality, water security and environment.

Over 220 projects committed or approved including:

- Water treatment facilities
- Filtration systems
- Sewerage treatment facilities
- Sewerage collection systems
- Pipelines
- Reservoirs
- Strategic planning – Integrated Water Cycle Management Plan
- Dams.



Program outcomes

Safe, secure and sustainable water and wastewater services to high-risk areas in regional NSW



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Rolling
program
delivered by
Local Water
Utilities

S&S: Finley Water Treatment Plant

Construction
underway

Project outcomes

The project will deliver significant benefits to the town of Finley including:

- securing plant capacity under all raw water conditions
- providing the required redundancy for reliable and secure operation of the plant
- providing a treatment plant that will meet the need to produce safe drinking water for the next 25 years
- reduced operating costs for Finley WTP.



The project involves upgrading Finley WTP to a 2 ML/d Dissolved Air Flotation Filtration water treatment plant.



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Commonwealth Grant Funded Programs

National Water Grid Authority Connections Pathway

Funding for smaller projects to improve regional water supply and security:

- \$1.5 million Urbenville Water Supply Project in Tenterfield
- \$7 million Lake Wyangan Water Sustainability Project in Griffith
- \$11.5 million Broken Hill to Menindee Graziers Pipeline in Far West NSW
- \$9 million West Wyalong Water Reliability Project
- \$11 million Walcha Off-stream Project

Off-farm Efficiency Program

- Grants to water delivery networks for infrastructure projects



Program outcomes

Contribute to delivering secure, affordable and reliable water for rural and regional NSW.



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State led
applications
opened
August 2021

Off-farm Efficiency Program

\$1.54 billion Australian Government grant funding program.

Funding to water delivery networks for infrastructure (including feasibility and construction work).

- Example projects:
 - Channel upgrades or replacement with pipelines
 - System automation e.g Telemetry
 - Decommissioning and removal of existing infrastructure
 - Rationalisation through replacement of irrigators with Stock and Domestic schemes
 - Upgrades of existing Stock and Domestic schemes
 - Utilising water more efficiently through stormwater harvesting and re-use, alternative supplies.



Program outcomes

- Improves efficiency of water delivery infrastructure
- Reduces water losses in the Murray Darling Basin
- Increases volume of water available for irrigators and communities



Strategy for delivering Aboriginal Community Outcomes



Working with WINSW



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Projects Overview

Presented in Sydney 25 November 2021. Mo





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Thank you

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