Yanco Creek and Tributaries Advisory Council Inc.

Strategic Plan 2020-2030

Yanco Creek System

"And out again I curve and flow, to join the brimming river,
For men may come and men may go, but I go on forever."
(Alfred Lord Tennyson, The Brook)

DEDICATION

Vale - Mark Wettenhall, Vice President

This Strategic Plan 2020-30 is dedicated to the memory of Mark Wettenhall, vice president of YACTAC, who passed away just before the publication of this plan, after an agricultural accident on his farm.

Mark was a dedicated and active defender of the Yanco Creek System for over 20 years. He grew up in the heart of the creek country near Jerilderie. Mark and his wife Fiona raised their family at their property named 'Cara' and were part of the fabric that binds this great community. Mark lived and breathed the 'quadruple bottom line' of social, economic, cultural and environmental values.

He was an inspirational leader and friend to YACTAC staff who relied on him heavily for guidance and moral support. Mark was dedicated to serving the Yanco Creek community. He committed himself to attending endless meetings and information sessions, conducting interviews, bringing bureaucrats and politicians out from their city offices to visit the creek in person and chat by the waterside about why our creek must be protected.

Mark provided drive and enthusiasm whilst communicating a clear and positive direction for the future of our environment. He always stated that our creek is not an irrigation channel and we need to make sure everyone else knows this and treats it with the respect it deserves.

The enormous void that Mark leaves within YACTAC and our community is a reminder of the extensive personal investment and dedication given by the volunteer board members of YACTAC. Without the effort of committed locals like Mark the future of the Yanco Creek System would be left in great uncertainty.

Mark will be greatly missed but his spirit will remain central to all that YACTAC strives for in the future.

Publication Information

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Acknowledgements

The footprint of this plan includes the traditional homelands of several Aboriginal Nations including the Bpangerang, Wamba Wamba, Barapa Barapa and Wiradjuri people. YACTAC acknowledges the sense of ownership and connection to the landscape held by Traditional owners and aboriginal people, past and present. We hope to improve the natural values of the Yanco Creek System in a way that benefits aboriginal places and people.

The authors would like to thank the Board of YACTAC for support and guidance in preparing this strategic plan. The plan builds on a platform created by the past efforts of many individuals and groups to whom we are indebted.

The personal support, contributions, and efforts of the community across the Yanco Creek System are central to all that we do at YACTAC. We thank the landholders and water users in the creek system for financially supporting the development and delivery of our strategy.

We acknowledge the support and guidance provided by our funding and delivery partners across both public and private sectors.

Contents

Foreword

The people that live along the Yanco Creek System have a longstanding relationship with the water resources and natural environment. Before colonisation, aboriginal people lived all around the creek system utilising the food, fibre and other abundant natural resources.

At the end of the 19th Century famous locals like Sir Samuel McCaughey and Sir John Monash focused on the development of permanent water resources throughout the creek system. Initially the system was developed by diverting water from the Murrumbidgee River and storing water for their stock and homesteads in dams and weir-pools. The Yanco Creek Trust was formed in 1921 providing collaborative and equitable management for those living along the creek system. Co-operative water sharing evolved, one which stands today as a model for sustainable and fair water resource management.

By the 1970s, care and concern for the natural environment became inseparable from water resource management. Communities who lived, worked and raised families along the creek system loved their flourishing creek environment and were increasingly committed to ensuring environmental values were protected and supported, as well as agricultural activity.

The trust transitioned in 1980, into the Yanco Creek and Tributaries Advisory Council Inc. - YACTAC. YACTAC brought the sustainability of the creek environment to the fore, forming strong partnerships with government departments and various agencies. This led to the development of the first Yanco Creek System Natural Resources Management Plan in the early 2000s. To implement the plan, a unique levy was volunteered for the environmental management of the system. Water Access Licensees now paid for activities to protect and improve the aquatic ecosystems.

With this new Strategic Plan, YACTAC continues the long-standing dedication of our community to sustainably use water in a flourishing environment. In challenging times, under a controversial Murray-Darling Basin Plan, YACTAC renews the community's commitment to conserve and restore the Yanco Creek System. YACTAC continues to engage with key government agencies to ensure the best possible outcomes for the Yanco Creek System from an environmental, social, economic and cultural aspect.

I believe through a rigorous and thorough process the environmental worthiness of the Yanco Creek System will be recognised, and its unique and threatened biosphere will be conserved.The Board and I are proud to present this ten-year strategic plan and commit to the delivery of objectives and outcomes that it sets out. We hope that the people of the Yanco Creek System can, in 2030, look back with pride on the achievements gained under this Plan.

Robert Crawford

President

YACTAC Board

Robert Crawford (President)

For over 50 years Robert (Bob) has been actively involved in the management of the Yanco Creek System, attending meetings and functions of YACTAC (and its previous iterations) including the trials and tribulations during the late 1960s and early 1970s; the creation of a levy on members to facilitate natural resource management in the mid-2000s; and the issues with the current Murray-Darling Basin Plan. Bob became a Local Government representative in 1983 – including 5 years as President of Wakool Shire Council. He was the inaugural chairman of the Murray Total Catchment Management Committee, served on the NSW State Catchment Management Co-ordinating Committee, the Community Consultative Committee of the MDBC and was Chairman and CEO of the Hawkesbury-Nepean Catchment Management Trust. Bob has been a YACTAC Board member since 1990 and owns and runs Windouran Pastoral Company on the lower section of the Billabong Creek.

Geoff Ham (Secretary\Treasurer)

Geoff is a passionate irrigator, together with his brother Neville and their two sons, they farm upstream of Jerilderie. They have land and water entitlements on both the Billabong Creek and Murray Irrigation Ltd, producing canola, wheat, barley, oats, sheep and wool. Geoff has been growing rice for 50 years but can now only grow it when water entitlements permit. He has been a board member since 2000.

Sam Armytage (Vice President)

Sam has been farming on the Yanco, Billabong and Forest Creeks for 25 years and is the 3rd generation to farm his property. He has improved his cropping systems and infrastructure to be highly efficient in water use. He has access to both the Murrumbidgee Valley via Yanco, Billabong and Forest Creek and the Murray Valley via Murray Irrigation Ltd.

Russell Ford

Russell is a former Chairman of YACTAC and a Board member since 1997. He is a researcher, project manager and aviator who cares about soil, NRM, water and regenerative agriculture. Russell implemented a Vegetation Management Plan for the property “Old Coree” near Jerilderie in 1988. Today, the property boasts some of the broadest range of natural vegetation in the Riverina.

Glen Baxter
Glen is an active member of the Jerilderie community and has been a board member since 2018. He often voices not only the environmental and economic benefits that the YCS brings to our footprint but the social implications the system has on our local communities. He has a Diploma of Farm Management.

Sally Dye
Sally owns Murgha Station between the Billabong Ck and Edward River. She has an extensive history in community-based water and NRM. Sally was a CMA board member and Deputy Chair for many years and successfully completed AICD board member training. She has a Diploma in Farm Business Management and a Grad Certificate in Conflict Resolution and has been a board member since 2003.

Lawrence Simpson
Lawrence runs a cropping and sheep business east of Jerilderie along with his brother James and his father Lawry. He has a Bachelor of Business (Agriculture) and has been a board member since 2017. He has two young sons and is passionate about protecting the sustainability of the Yanco Creek System for future generations.

Colin McCrabb
Colin is former vice president of YACTAC and has been a board member since 1993. He is a keen sheep producer who owns and runs Avenel merino stud at Wanganella and holds a Bachelor of Engineering. As one of the landholders responsible for managing the Wanganella Swamp, he sees the need for a sustainable combination of biodiversity and commercial reality within our unique system.

YACTAC Staff

Tanya Thompson – Executive Officer
Tanya has lived in the district since 1990 and holds various qualifications in teaching, business, management, and Australian Institute of Company Directors - director training. Tanya joined YACTAC in 2016 and overhauled all administration processes to ensure current governance practices were followed and to increase the capacity of the organisation. Tanya works closely with Board Members and represents YACTAC at: NSWIC, WaterNSW, DPIE – Water SDLAM, Water Resource Plans – SAP, EWAG, IPART, Billabong Yanco Project and others. Tanya will be responsible for delivering the executive functions of the Strategic Plan 2020-30.

Dr Dale McNeil – Environmental Officer
Dale has an extensive background in scientific research and natural resource management across the Murray-Darling Basin, Lake Eyre Basin, and other catchments of south eastern Australia. Dale joined YACTAC in 2019 to develop and deliver a program of environmental management in the Yanco Creek System and to apply his ecological expertise to protect and improve our creek and wetland environments. Dale's responsibilities will include the delivery of environmental projects and programs outlined under the Strategic Plan 2020-30.

Tour group: state elected members, councillors, departmental staff, YACTAC and community members.

Executive Summary

This Strategic Plan sets out YACTAC's vision, focus areas and objectives for the ten-year period 2020-2030. It builds upon the significant work carried out under the 2006 The Yanco Creek System Natural Resources Management Plan and the strategic planning undertaken for the 2015 Billabong-Yanco Creek System Project.

The Strategic Plan 2020-30 sets out a comprehensive vision for the future of the Yanco Creek System (YCS) including floodplains, distributary creeks, anabranches, and wetlands.

> ***YACTAC will faithfully represent the people of the Yanco Creek System to secure a vibrant natural environment that enhances the wellbeing of our people and protects the socio-economic needs of our communities for this and future generations.***

To deliver this vision YACTAC has set out six Strategic Focus Areas:

- **Governance and administration:** The YACTAC Board and staff will be responsive and reliable and act with integrity and transparency in financial management and decision making.
- **Community consultation and representation:** YACTAC will engage and empower the Yanco Creek System community and represent their values, concerns, and needs in all environmental and natural resource management activities.
- **Environmental protection, restoration, and management:** YACTAC will actively protect our wetlands and creek environments from impacts of threatening processes, and lead the restoration of a complex, connected, and resilient natural environment.
- **Water resources management:** YACTAC will faithfully represent the community on important water resource management issues, and will drive negotiations, partnerships, and planning activities in the interests of our environment and socio-economic values.
- **Partnerships and strategic adaptive management:** YACTAC will work under a framework for strategic adaptive management and work with partner organisations to maintain a process of community and stakeholder driven adaptive management to address threats and strategically restore the environment of the Yanco Creek System.
- **Knowledge, research, and monitoring:** YACTAC will be a welcoming and facilitative partner in research that improves our understanding of our natural systems and water resource requirements. It will develop strategic monitoring and assessment programs ensuring high level science-based decision making.

YACTAC will pursue activities that deliver against the strategic priorities set out for each of these focus areas. Strong partnerships, collaborations and a co-management approach will set the foundation for achieving these objectives.

YACTAC will continue to drive a program of community-based environmental and water resource management that will prevent our creek system being managed only as an irrigation channel. Rather, we will promote and build the value of our magnificent creeks, floodplains, wetlands, the native flora, and fauna that abounds and the invaluable natural beauty of this amazing part of world.

YACTAC Strategic Plan 2020-30 Summary

YACTAC vision	**YACTAC will faithfully represent the people of the Yanco Creek System to secure a vibrant natural environment that enhances the wellbeing of our people and protects the socio-economic needs of our communities for this and future generations.**				WATER=LIFE	
Strategic value statements	The YACTAC Board and staff will be responsive and reliable and act with integrity and transparency in financial management and decision making.	YACTAC will engage and empower the YCS community and represent their values, concerns and needs in all environmental and natural resource management activities.	YACTAC will actively protect our wetlands and creek environments from impacts of threatening processes, and lead the restoration of a complex, connected, and resilient natural environment.	YACTAC will faithfully represent the community on important water resource management issues, and will drive negotiations, partnerships, and planning activities in the interests of our environment and socio-economic values.	YACTAC will work under a framework for strategic adaptive management and work with partner organisations to maintain a process of community and stakeholder driven adaptive management to address threats and strategically restore the environment of the YCS.	YACTAC will be a welcoming and facilitative partner in research that improves our understanding of our natural systems and water resource requirements. It will develop strategic monitoring and assessment programs ensuring high level science-based decision making.
Strategic focus areas	**Governance and administration**	**Community consultation and representation**	**Environmental protection, restoration and management**	**Water resources management**	**Partnerships and strategic adaptive management**	**Knowledge, research and monitoring**
Strategic priorities	Financial management and reporting	Member and levy payer engagement	Environmental flows assessment	Water resource development	Stakeholder analysis	Water resources research and knowledge
	Board meetings and directorship	Community values and needs	Species and ecosystem recovery plans	Water for the environment	Water industry partnerships	Biodiversity monitoring and threatened biota assessments
	Strategic planning	Community participation in YACTAC projects	Riparian and wetland protection and restoration	Efficient water use	Murray-Darling Basin Plan	Flow response monitoring
	Business planning	Aboriginal cultural heritage	Instream habitat restoration	Water quality	NSW State partnerships	Invasive species assessments
	NRM Implementation planning	Aboriginal agriculture	Pest plant and animal control	Cultural flows	Strategic adaptive management framework	Water quality monitoring
	Monitoring evaluation, reporting and improvement (MERI)	Cultural ecology and water requirements	Restocking and translocation of native biota	Extreme events management	Strategic adaptive management implementation	Agricultural landscape improvement
	Staff and contract management	Broader community engagement and representation	Ecological database development		Participation in external management processes	Aboriginal water values
	Project management	Open and inclusive political engagement	Weir review and removal			Research partnerships

1 Introduction

The Yanco Creek System (YCS) is a complex network of creeks that link the Billabong Creek with the Murrumbidgee and Murray River systems in the heart of the NSW Riverina (see map). The major creeks in the system include the Yanco Creek, lower Billabong Creek, Colombo Creek and Forest creek. These creeks create a web of anabranches, and floodplain channels that feed interconnected wetlands.

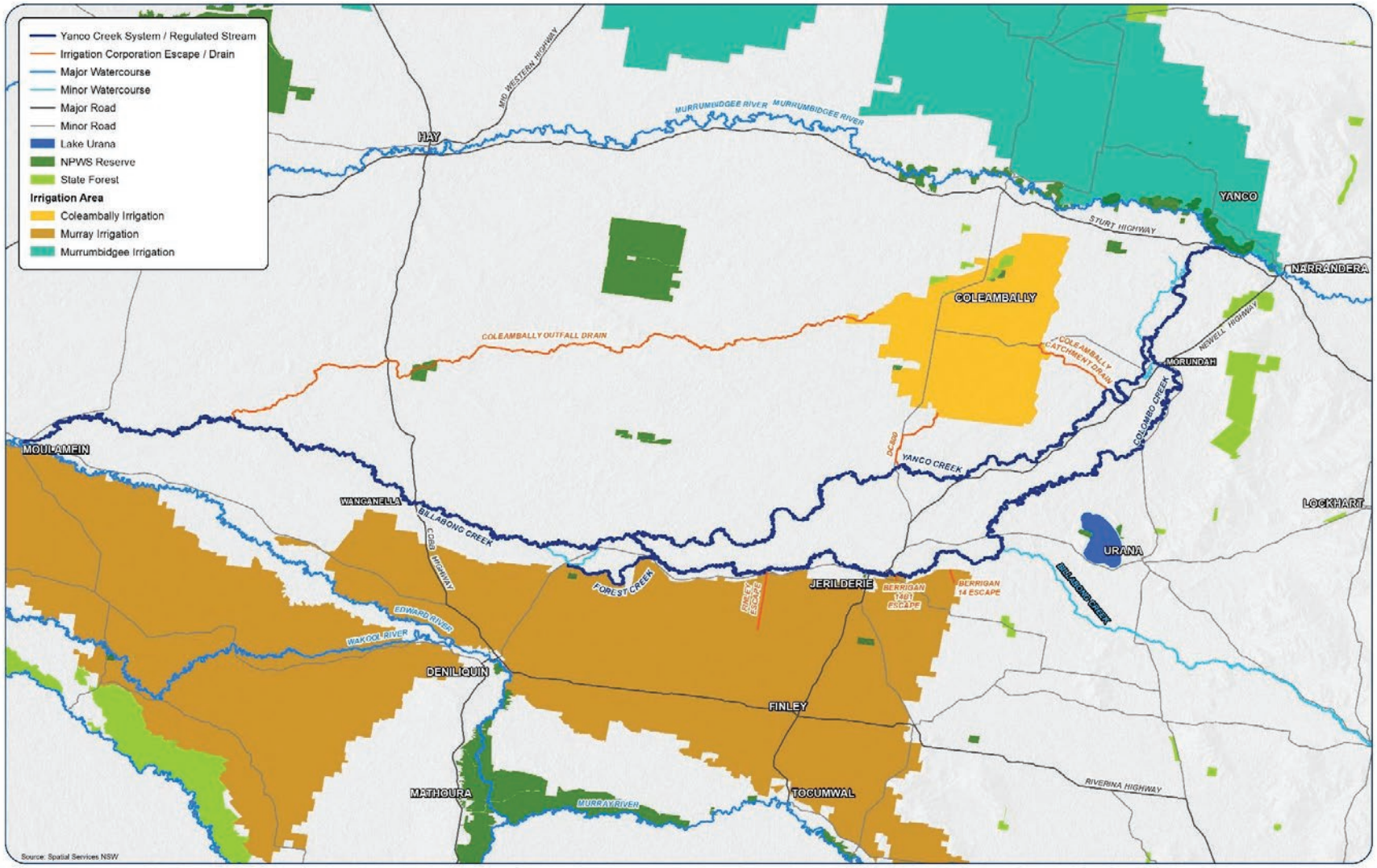
At the time of British expansion into the area, the abundant natural resources provided by the creeks and wetlands supported Aboriginal people of the Bpangerang, Wamba Wamba, Barapa Barapa and Wiradjuri. These resources were soon appropriated by the colonists who moved large flocks of sheep into the country, attracted by the abundant vegetation within the creek lines and wetlands. Very quickly however, by the mid 1850's, the abundance of vegetation was gone, soils eroded and compacted, and sheep had moved out of the creeks onto the saltbush plains that were similarly denuded. The structure and function of the natural ecosystems were changed irreversibly.

Adapting to that change settlers began a century long process of developing the water resources of the region, cutting in new channels to provide perennial flows, weirs, and irrigation infrastructure. The landscape emerged as a productive and valuable agricultural asset for the nation.

The creek system adapted with the changing land use, new impacts and opportunities were presented to the ecosystem which emerged as an increasingly rare and valuable type of habitat for native species. The way the creek system evolved created new habitat for native species that were disappearing from the bigger river systems. Permanent, shallow, and relatively warm waterways became increasingly rare across the Murray-Darling Basin. The remaining habitat structure and native vegetation saw the creek system become a refuge for threatened native fauna.

However, a new era in water resource management saw huge volumes of water taken out of the creek system. It became low hanging fruit for agencies that needed to return water to other damaged ecosystems such as the Snowy River. Creek systems such as the Forest Creek were shut down, their thriving ecosystems and threatened fauna wiped out – in the name of environmental conservation.

Today, government agencies continue to look to the creek system to meet their resource management commitments. For those of us that live here, the imperative to protect and rebuild the creek environment has become paramount. The Yanco Creek and Tributaries Advisory Council Inc. (YACTAC) offers this Strategic Plan to provide a local voice to help guide natural resource managers in commonwealth and state agencies to improve our environment. Building on The Yanco Creek System Natural Resources Management Plan (YCS-NRMP), the Strategic Plan 2020-30 sets out a local vision and a program of objectives and activities that YACTAC believes can drive ecosystem improvements and create an increasingly improving natural environment for future generations of Australians.



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0 20 40 60 km

Scale: 1:750,000 (A3)
Coordinate System: GCS GDA 1994
Date: 23/06/2020

Disclaimer
The information contained in this publication is based on knowledge and understanding at time of writing (June 2020). Because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date.

The information contained in this publication may not be or may no longer be aligned with government policy nor does the publication indicate or imply government policy.

Yanco Creek System

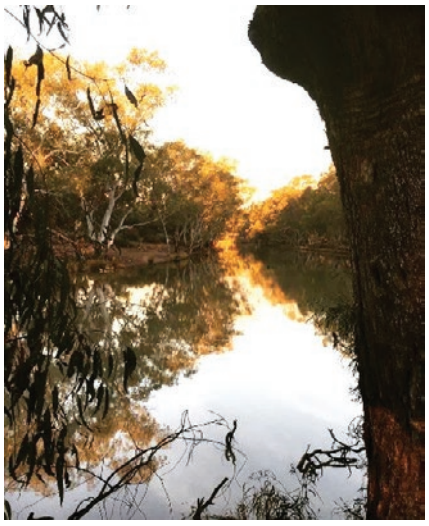
2 Background to strategic planning in the YCS

2.1 The Yanco Creek System Natural Resources Management Plan - 2006

The YCS-NRMP was built upon a strong foundation of community engagement. This engagement and community driven management extends well back to the late 19th century, with co-operative management and resource sharing evolving from conflict and decades of development.

The YCS-NRMP was developed between 2002 and 2006 to advise and guide integrated catchment management and improve the sustainability of natural resource use in the Yanco Creek System. At the time, NSW Catchment Management Authorities directed investment into on-ground improvements through comprehensive 10-year Catchment Action Plans (CAPs). CAPs were built on strong community consultation and helped to coordinate natural resource management activities across state agencies, including the NSW Department of Infrastructure, Planning and Natural Resources and State Water. Importantly, CAPs had a strong focus for on-ground outcomes to physically improve the condition of land at catchment scale.

The YCS-NRMP provided a local focus for management of the Yanco Creek System to guide implementation of environmental and socio-economic outcomes, consistent with the CAP framework. The objectives and activities in the plan reflected those set out and prioritised in the Murray and Murrumbidgee CAPs which included riparian areas of the creek system. The duration of the NRMP covered a ten-year period, matching the duration of the CAPs.



The NRMP set out a $23.4 million program that would combine investment from local landholders (40%) and government resources (60%), with a mid-term review scheduled for 2011. Its four key *Objectives* were:

1. To maintain and improve the riparian habitat along the creek system.
2. To improve the overall deliverability and efficiency of supply for the entire creek system.
3. To maintain and improve the health of the creek and mimic natural flooding events where possible.
4. To develop community ownership, participation, and empowerment for managing the system's natural resources.

The YCS-NRMP set out relevant actions from the Murray and Murrumbidgee Catchment Action Plans (CAPs) and was aligned with each objective. It should be noted that these actions were not inherently commitments of the YCS-NRMP, rather they provided direction to guide delivery under CMA-based partnerships.

To deliver against these *Objectives*, four measurable *Outcomes* were set out to quantify the cumulative benefit provided by the listed activities. The intent was to provide measurable targets against which progress on the YCS-NRMP could be assessed.

1. Water delivery losses, as defined in the NRMP, will be reduced to an acceptable level of 20% taking into account key factors such as accession losses to the groundwater system, overbank escapes in times of high flow and flood, evaporation and pilfering.
2. Through the benefits of all actions undertaken as part of the NRMP, a net saving of 36 GLs of water will be achieved for alternate purposes such as environmental flows, and off sets for funding to undertake on-going maintenance and increased understanding of the system through more extensive scientific and technical investigations.
3. That riparian health including native endangered flora and fauna species would improve by 8% by the year 2010.
4. That predetermined and measurable water quality parameters at established monitoring sites would improve by 5% by the year 2010.

2.1.1 Community driven engagement and advice

The YCS-NRMP has been successful in delivering a bottom up, community driven model for natural resource management investment and advice that serves as a model to communities across the Murray-Darling Basin and beyond.

Under the YCS-NRMP, the community established a self-imposed water levy, in addition to their existing Water Access License fees, to drive delivery of the YCS-NRMP. This levy is unique in the Murray-Darling Basin with water users paying to protect and restore their creek and wetland environments. The levy has a 100% acceptance rate by water users and is the only levy of its kind endorsed by the NSW Independent Pricing and Regulatory Tribunal.

Managed by YACTAC, this levy has been instrumental in leveraging government investment into the region. The levy enables YACTAC to deliver advice on

environmental, social, and economic aspects of water resources and environmental management of the creeks.

In partnership with Local Land Services (LLS), the Billabong Yanco Creek Project Steering Committee was formed to involve the community in prioritising and driving the delivery of activities set out in the YCS-NRMP, the aligned CAPs and local strategic plans for Murray CMA and LLS.

2.1.2 Aquatic environment and water resources management

The YCS-NRMP has been an extremely successful driver for building knowledge and understanding of our environment, water resources management and for the protection and restoration of our environments.

Under the YCS-NRMP we have identified a crucially important population of the endangered trout cod, (which is a rare self-sustaining population in the NSW Murray-Darling), and a robust population of Murray catfish, part of the endangered population of the species.

We have built a foundation of knowledge around our wetlands, their responses to flow and inundation and their importance as a habitat for native flora and fauna like the threatened southern bell frog. Moreover, we as a regional community have taken ownership of this knowledge and begun to fight to protect what we have.

Under the YCS-NRMP, we have mapped out our riparian vegetation, measured the health of native vegetation along our creeks, and identified where riparian and aquatic weeds had become an issue. This led to successful programs in controlling willows, *Sagittaria* and waterlilies greatly reducing the negative impact of weeds on our creeks. Riparian revegetation projects have been developed to enhance and link up remnant native vegetation and restore degraded areas.

Through the endeavours of our partners, we have learned of the importance of rice-wetlands in supporting endangered Australasian bitterns and southern bell frogs whilst discovering the importance of our native pasturelands in supporting the critically endangered plains wanderer in our region.

We have learned a tremendous amount about our physical creek systems; how they flow, what flows are needed for the environment and what information needs to be taken to government and integrated into water management planning processes.

We have learned about possibilities for wetland management, including how we can save water by changing the way we fill and dry out wetlands.

This knowledge is supporting us in optimising the use of the creeks water resources to protect our environment, communities, and livelihoods. This community driven bottom-up model provides government agencies with a degree of technical information and knowledge that they would not otherwise have access to when creating Water Sharing Plans and environmental watering strategies; or designing infrastructure projects such as the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) under the Murray-Darling Basin Plan.

2.1.3 Quantitative review

An independent review of the YCS-NRMP was conducted in 2018. The high-level review reflected positively on the successful implementation of the YCS-NRMP and its *Objectives* and highlighted that a detailed review of activities was not warranted or useful.

This approach is reasonable considering the YCS activities were completely aligned with the CMA Catchment Action Plans (CAPs) for Murrumbidgee and Murray and by necessity reported against the CMAs targets, which were independently evaluated by the NSW Natural Resources Commission, and the Commonwealth's funding programs. Quantifying these *Outcome* targets would require a detailed and well-funded Monitoring and Evaluation Plan that is beyond the capacity of YACTAC and its partners to conduct. Therefore, reporting against the measurable *Outcomes* set out in the YCS-NRMP at this stage is too difficult without a detailed investigation of quantitative delivery of CAPs within the YCS.

Whilst measurable 'SMART' targets (setting out timeframes, areas, and percentages to be improved) were set out to provide accountable investment returns, and were required of CAPs, their usefulness in guiding the delivery of *Outcomes* for the YCS is limited. Instead, a new Strategic Plan 2020-30 will set out clear objectives, strategies and priority actions and leave the quantification and reporting of investment against commonwealth and state investment targets to the government agencies with which we partner. Objectives of the Strategic Plan 2020-30 can be assessed qualitatively with the activities delivered within the YCS reported against each of the key *Objectives* to demonstrate delivery of strategic priorities.

2.2 Billabong Yanco Creek System project

A steering committee was formed for the Billabong Yanco Creek System Project under investment from Murray Local Land Services. This steering group developed a strategic plan to further guide social, economic, and natural resource management investment in the region. YACTAC was represented by two Board members and one staff member with Murray LLS leading. In 2014 the committee undertook a program of developing a strategic plan to underpin their objectives culminating in a 2015 Strategic Plan.

The purpose of the 2015 Strategic Plan was to drive '*A resilient, productive Billabong Yanco System, with healthy ecosystems and communities*'. The committee considered social, environmental, and economic aspects of natural resource management and identified six priority assets for the YCS:

- Healthy waterways supporting communities, riparian vegetation, wildlife, and production
- Populations of fish including threatened species such as trout cod and freshwater catfish, and other non-threatened species
- Terrestrial native vegetation including grasslands, roadsides, and reserves
- Connectivity provided by the creek system for wildlife, flows and fish
- Wetlands and the vegetation and wildlife they support
- Iconic wildlife including brolgas, bush stone-curlews and plains wanderers.

The 2015 Strategic Plan presented several community-based objectives:

- To support innovation in agriculture to improve profitability
- To support development of industry, such as tourism, to diversify the economic base of the region
- To improve flow management, reduce pests and weeds and reduce impacts of grazing and livestock
- To foster a shared sense of identity and belonging
- To increase the population of the Billabong region through improving retention of people and increasing settlement of new people in the region.

The 2015 Strategic Plan set out strategies for achieving these objectives and presented several complex conceptual models and priority pathways to guide delivery. However, changes to the National Landcare Program and the scope of Local Land Services activities left this initiative hanging, with limited government programs for delivering its objectives.

Many of the detailed models reflect the approaches of government, demonstrating the initial high level of government support given to the project. There was also a comprehensive level of detail for ecological connectivity, integrity, and diversity.

3 The future: Strategic Plan 2020-30

Following the implementation and review of the YCS-NRMP, YACTAC has embarked on a new phase to strategically set out a vision, objectives, and approach to deliver natural resource management improvements over the coming decade. We aim to strategically redesign our approach to achieving environmental, social, and economic objectives that were identified through detailed community and stakeholder consultation undertaken in developing the YCS-NRMP.

The Strategic Plan 2020-30 will sit alongside the YCS-NRMP as a modernisation rather than a wholesale replacement. Many of the *Objectives* of the YCS-NRMP remain relevant today and this new Strategic Plan will set out new objectives and actions to reflect the current natural resource management framework in NSW.

The Strategic Plan 2020-30 incorporates a more focused approach to natural resource management to guide YACTAC's business which reflects the link between environmental, social, and economic factors. These three values equally guide the vision of YACTAC, our members, Water Access License (WAL) holders, as well as Aboriginal people, local councils and townships that rely on strong agricultural economies to remain viable.

It will also encompass governance and administration aspects of YACTAC, to provide objective operational clarity and set out mechanisms through which the ongoing delivery of strategic management can continue. The Strategic Plan 2020-30 will also provide a guide to how YACTAC will communicate with its members, WAL holders and the broader community, in addition to the coordination of stakeholder partnerships to achieve our strategic goals. Through these inclusions, the Strategic Plan 2020-30 will comprehensively represent the role of YACTAC in shaping the future of natural resource management in the YCS with less dependence on changing and uncertain government funding models.

The Strategic Plan 2020-30 is set out as a Strategic Adaptive Management Plan (SAMP) in that it will not prescribe strict quantities of set natural resource management improvements that was the core of the YCS-NRMP. Rather it will set out a vision, focus, priorities, and objectives for the next decade, and outline a range of actions to enable success. It will set out an approach for engaging with the community and key stakeholders to ensure a role for the YCS community in planning and implementing natural resource management improvements in our catchments.

In 2019, the future of natural resource management investment at both commonwealth and state levels became uncertain to say the least. A SAMP will, therefore, be more flexible to enable engagement with partners, projects, and opportunities as they arise, under the guidance of a clear framework that reflects our vision and objectives.

3.1 Vision and strategic focus

The YACTAC Board has set out a clear vision for the future of the Yanco Creek System:

> *'YACTAC will faithfully represent the people of the Yanco Creek System to secure a vibrant natural environment that enhances the wellbeing of our people and protects the socio-economic needs of our communities for this and future generations'.*

The Strategic Plan 2020-30 will deliver this vision over the next decade. YACTAC acknowledges the creek environment is central to the social and economic health of our region and will be at the heart of all that YACTAC endeavours to achieve. There is an intrinsic and inseparable link between the creek environment, its precious water resources and the people who live in and visit the region which is expressed by the formula:

ENVIRONMENT=COMMUNITY=ECONOMY

For YACTAC, the role of water underscores this equation at all points and is central to delivering YACTAC's vision. To express this, YACTAC has developed a short slogan:

YACTAC
Water=Life

Water = Life will drive the strategic direction of the Board. We will endeavour to fight for the right balance for our community – to protect our water, our environment, and our way of life.

3.2 Strategic focus areas

To achieve YACTAC's vision, the Board has identified six strategic focus areas to guide what we do. These are:

- Governance and administration
- Community consultation and representation
- Environmental protection, restoration, and management
- Water resources management
- Partnerships and strategic adaptive management
- Knowledge, research, and monitoring

Each strategic focus area is governed by a clear policy statement that will direct our activities in these areas.

3.2.1 Strategic focus area 1: Governance and administration

The YACTAC Board and staff will be responsive and reliable and act with integrity and transparency in financial management and decision making.

YACTAC is a professional community organisation that strives for excellence in all aspects of governance, financial management, business planning, contract, and staff management. It is overseen by a Board of local community members who live and work on the creek system.

Nine Board Members represent the geographical spread of the Yanco Creek System with members representing the upper-, mid- and downstream sections. Each Board member is committed to the social, environmental, and economic welfare of the system, with members holding (or representing) a Water Access Licence and living within the YCS community.

Funding for YACTAC comes through three avenues:

1. Full membership is available to YCS riparian landholders and/or Water Access License (WAL) holders or their representatives, while an associate membership is available to community members whose values are aligned to those of the organisation.
2. A voluntary Yanco Colombo System Levy: The YCS Levy is collected through WaterNSW and controlled by the Independent Pricing and Regulatory Tribunal (IPART) to ensure the highest standards of accountability and governance are adhered to.
3. External partnerships and funding institutions: YACTAC aims to use membership and levy funding to leverage additional investment from other private and public funding sources.

The expenditure of funds has been guided in the past by the YCS-NRMP and in the future by the Strategic Plan 2020-30. The Board will be responsible for overseeing the ongoing delivery of environmental and business activities of the organisation and ensuring activities are consistent with the vision, values, and objectives set out in this plan. This includes the approval of annual NRM implementation plans which includes work plans, programs, and projects.

3.2.2 Strategic focus area 2: Community consultation and representation

YACTAC will engage and empower the Yanco Creek System community and represent their values, concerns, and needs in all environmental and natural resource management activities.

YACTAC was created as a voice for the community who believed that more needed to be done to protect the precious environment of our creek system and to secure the water resources that are essential for protecting and sustaining the flora and fauna communities that we love.

YACTAC is committed to representing the farming communities, service providers and townsfolk that make the social fabric of the region so great. We will do this through regular communications including our quarterly newsletter and through regular updates on important issues, threats, developments, and opportunities.

When significant issues do arise (e.g. the current Sustainable Diversion Limit Adjustment Mechanism proposals) we will meet with community members throughout the catchment to listen to their values, needs and ideas so that we can effectively represent them in our activities and pass vital information back to them. It is important YACTAC continues to represent its members at various stakeholder meetings to provide a forum for formal feedback and advice to the community.

This Strategic Plan 2020-30 sets out how we aim to represent community views to government, universities, and a wide range of stakeholders. It also contains ways to improve management.

YACTAC has traditionally focussed on representing our farming communities, but we will strive to engage and nurture enduring partnerships with our Aboriginal community members and stakeholders. This means looking back to learn how Traditional Owners – Bpangerang, Wiradjuri, Barapa Barapa, and Wamba Wamba people, and other aboriginal communities used to manage and protect our environment and natural resources; but importantly, it means supporting contemporary aboriginal communities to stand with us and fight for a common cause – protecting the country we love.

3.2.3 Strategic focus area 3: Environmental protection, restoration, and management

YACTAC will actively protect our wetlands and creek environments from impacts of threatening processes, and lead the restoration of a complex, connected, and resilient natural environment.

The natural environment of the YCS abounds in a diversity of aquatic ecosystems. Densely vegetated creeks, floodplain billabongs and anastomosing anabranch systems are gloriously full of life. The system represents an enormous corridor of well-connected riparian vegetation including river red gum and black box forests linked to woodlands of grey box, yellow box, bull oak, myall/boree, and native pine. They provide excellent habitat for native biota including fish, frogs, reptiles, and woodland birds, as well as the invertebrate fauna that drive food webs.

From these creeks spring seasonal marshes and wetlands that inundate enormous areas of land during high flows, attracting migratory waterbirds from across the world where they can breed and raise their young. A diversity of wetland vegetation emerges from the newly wetted soil and sets the table for an abundance of native animals which thrive in these boom periods.

The YCS is somewhat unique in the NSW section of the Murray-Darling Basin in that its creeks provide permanently flowing, warm and shallow water. This combination would have been ubiquitous across the basin before irrigation development, especially during summer and autumn periods.

Today however, major rivers run abnormally deep and cold due to cold-water releases from dams and reservoirs. It is most likely due to this colder water that remnant populations of threatened trout cod and Murray catfish thrive in the YCS, along with Murray cod, Murray crayfish and a diversity of small bodied fishes including galaxias and Murray rainbowfish.

The creek is also home to the endangered southern bell frog and the iconic platypus, both of whom rely entirely on permanent flowing water for survival. These populations represent islands of biodiversity, holding on in the YCS as their broader populations collapse and disappear in the cold river water.

Our creeks do not flow the way they did 200 years ago, nor the way they did 80 years ago or even 15 years ago. The valuable combination of permanently flowing, warm waters is in fact a by-product of the irrigation development, which elsewhere has caused the broad scale collapse of native biota in the Basin. But how did the creeks flow before European settlement? We know from Aboriginal knowledge and explorer/settler accounts that the creek system provided patches of permanent water throughout much of the region enabling permanent settlements and the year-round production of woven products from abundant reed beds. The YCS is therefore lucky to have maintained at least some of its former environmental value despite permanent flow periods occurring more regularly.

Because of this, YACTAC is aware that returning to a pre-European condition is simply not possible, especially due to the social and economic livelihood that the system provides to its current community, just as it did for traditional owners in the past. However, while large scale water resource development is not something that occurred hundreds of years ago, it happens today, and we are in the middle of it. For our creek system, we can still hope to stop unnecessary developments before the contemporary environmental values of our creeks are destroyed. Yet it is increasingly difficult to secure enough water to keep these habitats alive and functioning. The climate is drying, and water resource developments increasingly take water away from the YCS to be used elsewhere in the Murray-Darling Basin.

The lessons of the past must be remembered. The drying of Forest Creek to meet Snowy River targets killed off large sections of a population of threatened catfish that were supposedly ‘protected’ by NSW legislation. Wetlands like Wangenella Swamp used to hold water almost permanently, providing essential habitat for fish, frogs, water- and woodland birds, small mammals, reptiles – the oasis in an arid landscape that kept life going.

Looming challenges under the Murray-Darling Basin Plan present an extreme threat to our creek environments right now. Water Sharing Plans and water savings measures (such as

the Sustainable Diversion Limit Adjustment Mechanism - SDLAM) program do not prioritise the creek environment.

Perhaps the principal challenge for YACTAC is to stand up and protect our environment from these threats and to sustain and improve our ecosystems, habitats, flora, and fauna for generations to come.

Controlling pest plant and animal impacts has been a primary focus of YACTAC for several years and remains at the forefront of our strategic focus. An extensive willow removal program has seen the vast majority of this pest tree removed from the entire system. Isolated patches of willows, as well as emerging weed problems such as *Sagittaria* and water plantain will continue to be a priority under this Strategic Plan 2020-30.

3.2.4 Strategic focus area 4: Water resources management

YACTAC will faithfully represent the community on important water resource management issues and will drive negotiations, partnerships, and planning activities in the interests of our environment and socio-economic values.

The management of the water that flows down the YCS is the outstanding priority issue at present for YACTAC, our members and the community in general.

The YCS is a forgotten system in the broader scope of the Murray-Darling Basin, even though creek flows keep thousands of families and businesses alive and working in the area, producing an agricultural economy worth over $200 million.

The Murray-Darling Basin Plan and its subsidiary ecological and hydrological modelling make no mention, at all, of the environmental values or social economic importance of our whole system.

The YCS is an easy target for those who wish to attract more water resources for their own use. Irrigation interests in the lower Murrumbidgee can benefit a great deal by reducing flows through the Yanco Creek which could then be reallocated to those users. Without having our environmental, social, and economic values represented in water resource planning, these interests can stake a claim to water flagged as 'losses' to be recuperated to the Murrumbidgee Valley water account.

One thing that is clear from YACTAC's history and our community advice, is that the people of the YCS value our creek environment above all else. Irrigators are less concerned with losing water for industry and more concerned about seeing the creek they love (where cod abound under shady banks, their flourishing wetlands, with creek-side towns and villages), die and disappear before their eyes.

To sustain environmental social and economic viability in this landscape, reliable creek flows, wetland filling and a minimum flow regime are essential. That is, adequate flow volumes that are timed to enable water-dependant ecosystems and native flora and fauna to survive, reproduce and flourish.

Our community has already 'given back' an enormous volume of water to help governments achieve their environmental and resource management ambitions such as the Water for Rivers program that took over 34,000 ML from the YCS for environmental use to restore the damaged Snowy River. More water was taken from our creek system to restore the Snowy River than any other source. But we are now experiencing first-hand, that taking water away from our environment has caused extensive damage to our wetland environments. The loss of water from the YCS adds to the burden that environmental water allocations must carry, to meet the environmental needs of our creeks and wetlands. Why take our water away and then spend additional money buying it back and returning it under the Commonwealth and State Environmental Water Offices?

YACTAC, through this Strategic Plan 2020-30, commits to representing our community in water resource management issues. We have stood up and engrained ourselves in the delivery of the Murray-Darling Basin Plan, Water Sharing Plans (WSP) and Sustainable Diversion Limit Adjustment Mechanism (SDLAM) programs and will continue to advise politicians, governments and agencies to secure and protect the water resources we need to keep every inch of our system functioning and flourishing.

3.2.5 Strategic focus area 5: Partnerships and strategic adaptive management

YACTAC will work under a framework for strategic adaptive management and work with partner organisations to maintain a process of community and stakeholder driven adaptive management to address threats and strategically restore the environment of the YCS.

Increasingly, the government aims to devolve its environmental obligations and funding. That is, they want the community to shoulder more and more of the burden in delivering natural resource management. YACTAC, with our well-informed and active Board members, outstanding executive and environmental staff and an active and motivated membership, is in an excellent position to step up and help facilitate a community driven natural resource management approach.

Gone are the days when well-funded catchment management authorities had a clear strategy for engaging with and supporting community members to manage rivers and wetlands and improve on-farm sustainability. Today's natural resource management approach provides relatively little investment for diminished government agencies and Regional Local Land Services. The investment opportunities that do get through require a great deal of capability and capacity within the community to bid successfully for funds, to manage projects and programs effectively and to provide accountability for financial processes and expenditure.

These are the strengths that YACTAC aims to foster and develop through this Strategic Plan 2020-30 so that we can serve as the principal community stakeholder for natural resource management in the Yanco Creek System. To be successful in this, YACTAC must actively foster relationships with a vast range of stakeholders to build strong, enduring partnerships that can get the job done.

Consistent with strategic adaptive management principles, YACTAC will pursue our activities by continuing our close stakeholder partnerships to collectively deliver advice, develop projects and implement natural resource management activities and will work with partners to deliver beneficial outcomes for our whole community.

To do this effectively, YACTAC must identify and engage with each of our stakeholders independently, and where possible drive collective discussion and collaboration. A stakeholder analysis will be developed to provide a clear understanding of who our stakeholders are, what they do and what they want to achieve. The stakeholder analysis will also identify how YACTAC might best develop partnerships and what our role might be in delivering collaborative outcomes. A brief example of how YACTAC will work within this context to deliver advice and support is outlined below in Figure 1.

Even in the time it took to draft this strategy, some of our closest departmental partners have merged and/or changed names and functions. YACTAC will continue to engage and build relationships as this 'fluid' landscape of government changes.

STRATEGIC ADAPTIVE MANAGEMENT

Strategic Adaptive Management (SAM) describes the practice of including these stakeholders in the management process. SAM is an often confusing, vacuous, and overcomplicated approach that means community, experts and government agencies all work together to assess the issues and devise solutions.

At its best, SAM leads to community influencing what the priority issues are, what we collectively should do, at what point do we need to act, how do we monitor and assess issues and at what point do we need to reconsider our options. Importantly, the decision-making process is long term and can adapt as new issues or priorities arise.

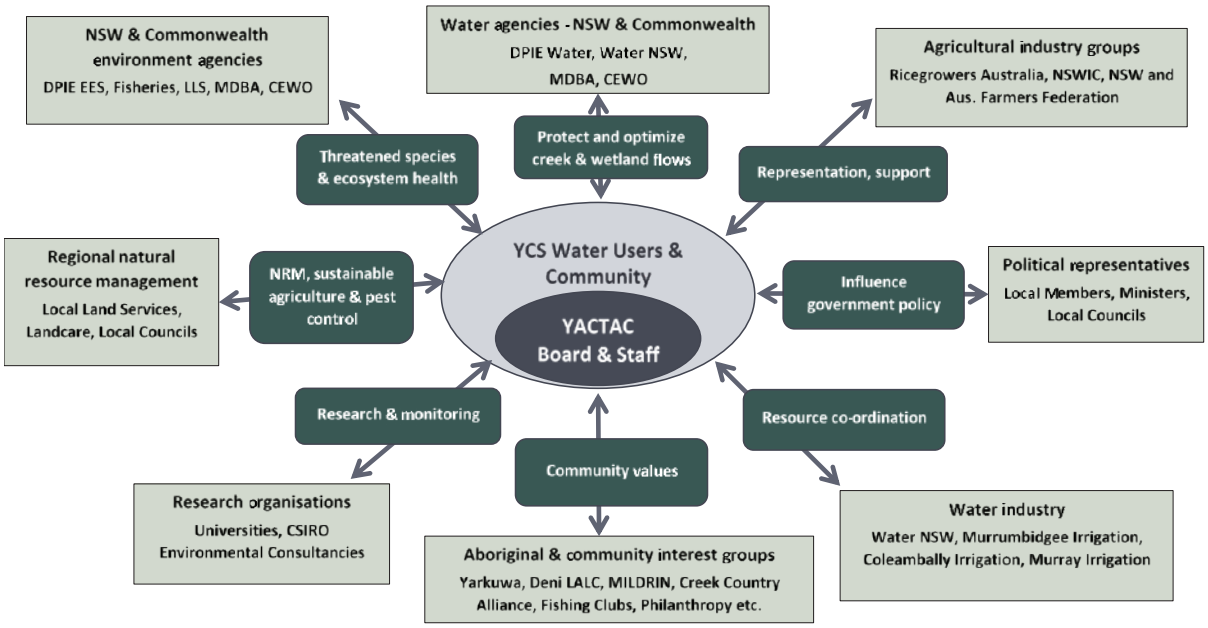


Figure 1. Brief example of stakeholder interactions through which strategic management priorities and activities are coordinated.

3.2.6 Strategic focus area 6: Knowledge, research, and monitoring

YACTAC will be a welcoming and facilitative partner in research that improves our understanding of our natural systems and water resource requirements. It will develop strategic monitoring and assessment programs ensuring high level science-based decision making.

YACTAC is committed to increasing our knowledge and understanding of our natural environment and resources and is committed to engaging with any knowledge that enables us to act to protect and improve our environment, as well as the social fabric it supports. Over the years, YACTAC has supported a range of research and monitoring activities to collect knowledge about our creeks. This work has provided critical knowledge about our creeks, their hydrology and ecology, enabling government to develop an informed Murrumbidgee Long Term Environmental Water Plan for the system. This knowledge base continues to inform our advice and interactions on environmental and water resource issues. It also guides our 'next steps' for informing key knowledge gaps.

YACTAC will continue to build partnerships with researchers in academia and government agencies who can apply knowledge and understanding to meet the objectives set out in this Strategic Plan 2020-30. YACTAC will continue to further develop partnerships established with Charles Sturt University, Australian National University and Melbourne University and seek new relationships with other institutions to diversify our knowledge base.

YACTAC will pursue a data-based approach to informing our objectives, understanding the power of scientific analysis in guiding our understanding and honing the advice we can provide. YACTAC will continue to drive the collection of new data through supporting scientific monitoring programs and addressing key questions with applied scientific methodology.

Citizen Science – community-based monitoring and assessment – is high on our agenda. Through this Strategic Plan 2020-30 YACTAC aims to bring the community into this space. We will support, train, and facilitate community members involvement in local monitoring and knowledge collation including using community sightings and local knowledge to inform our scientific understanding and provide data. We will bring in experts, trainers, and academic support to turn our community into a reliable, skilled and informed source of local knowledge and data.

4 Strategic priorities and objectives

Several strategic priorities have been identified for each of the six Strategic Focus Areas (see 4.1 on next page). Each strategic priority is defined by clear *Objectives* to set out what it is that we want to achieve in that area, and a range of *Activities* are identified through which we aim to meet our objectives (see 4.2-4.7). Activities undertaken to address these priorities are adaptable and will vary depending on the nature of our funding pathways and the priorities of our stakeholders and partners.

Under the framework for strategic adaptive management, the activities under this Strategic Plan 2020-30 should be adaptable; the priorities that we address will change based on what YACTAC and our stakeholders see as the most critical, urgent, or addressable issues at that point in time, whilst Our *Strategic Priorities* and *Objectives* will not change, the *Activities* we focus on and the priorities that we address will be flexible. Each year, an annual implementation plan will set out activities prioritised by the YACTAC Board and staff to address the strategic priority areas.

4.1 Strategic priorities for each focus area

Governance and administration	Community consultation and representation	Environmental protection, restoration and management	Water resources management	Partnerships and strategic adaptive management	Knowledge, research and monitoring
Financial management and reporting	Member and levy payer engagement	Environmental flows assessment	Water resource development	Stakeholder analysis	Water resources research and knowledge
Board meetings and directorship	Community values and needs	Species and ecosystem recovery plans	Water for the environment	Water industry partnerships	Biodiversity monitoring and threatened biota assessments
Strategic planning	Community participation in YACTAC projects	Riparian and wetland protection and restoration	Efficient water use	Murray-Darling Basin Plan	Flow response monitoring
Business planning	Aboriginal cultural heritage	Instream habitat restoration	Water quality	NSW state partnerships	Invasive species assessments
NRM implementation planning	Aboriginal agriculture	Pest plant and animal control	Cultural flows	Strategic adaptive management framework	Water quality monitoring
Monitoring evaluation, reporting and improvement (MERI)	Cultural ecology and water requirements	Restocking & translocation of native biota	Extreme events management	Strategic adaptive management implementation	Agricultural landscape improvement
Staff and contract management	Broader community engagement and representation	Ecological database development		Participation in external management processes	Aboriginal water values
Project management	Open and inclusive political engagement	Weir review & removal			Research partnerships

4.2 Strategic Focus Area 1: Governance and administration

Strategic Priorities	Objectives	Activities
Financial management and reporting	To undertake all financial management activities in a transparent and timely manner to comply with relevant Australian legislation.	All bookkeeping and financial records are compiled by the executive office or nominated person with the support of Treasurer.
		End of financial year reports are compiled by a registered accountant.
		Required financial records are submitted to the Office of Fair Trading and/or relevant government authorities.
		Independent auditing of financial records is undertaken as required.
		Collection and spending of YCS levy funds follow due diligence, as required under the IPART determination.
Board meetings and directorship	Ensure that Board members are engaged and informed to effectively represent the community and that each Board member is valued, and their inputs respected and considered.	Consistent with the terms of the constitution.
		Board elections are held every three years.
		Executive are elected by the Board.
		Role descriptions and skillsets of Board members are regularly reviewed.
		Training to cover identified skill gaps is facilitated.
		Regular board meetings are held with relevant documentation issued prior to the meeting and all matters voted on appropriately.
Strategic planning	Develop and approve a ten-year Strategic Plan.	A Strategic Plan is developed, setting out clear vision, values and objectives.
		The Strategic Plan is approved by the Board and affords consultation with members and stakeholders.
Business planning	Develop and approve 3-5-year Business Plans.	Business plans are written, approved and reviewed, and set out clear objectives and activities to be undertaken for each strategic priority set out in the Strategic Plan.
		Revised Business plans are reviewed and approved every 3-5 years.

Strategic Priorities	Objectives	Activities
NRM Implementation planning	Set out and approve annual NRM Implementation Plans.	Annual NRM Implementation Plans are written and approved to prioritise investment in projects and activities for each financial year.
		Plans and budgets are approved "in principal" by the Board – acknowledging the flexibility of the SAM process and external funding uncertainty.
MERI	Write a Monitoring Evaluation, Reporting and Improvement (MERI) plan for the YCS.	A comprehensive monitoring evaluation reporting and improvement framework is developed to guide the SAM process and to inform members, regulators, funding bodies and partner organisations on monitoring and evaluation priorities.
Staff and contract management	Engage and manage staff and contracted positions to deliver strategic and business plan objectives.	Position descriptions and advertisements are developed to engage key contract and direct staff appointments, prioritising long term engagement for corporate knowledge efficiencies.
		Undertake interview and reference check consistent with best practice to select key contractors and staff.
		Develop and sign employment and contract agreements.
		Regularly review performance of staff and contractor positions within the performance indicators set out in position descriptions and contracts.
		Ensure all legal requirements and Human Resources protocols are followed in all dealings with staff and contractor positions.
Project management	Formalise project partnerships and contracted deliverables to deliver Business and NRM plan activities.	Develop and sign Memoranda of Understanding (MOU) to set out partnership agreements and cost sharing activities, as required.
		Develop and sign Service Agreements for the delivery of externally contracted activities wholly or partially funded by YACTAC.
	Manage all partnerships and projects using best practice project management.	Undertake on-going assessment and review of all milestone deliverables, timelines and budgets for all contracted activities.
		Ensure all project deliverables are adequately delivered in line with service agreements.
		Ensure all costed milestone payments are made on delivery of project milestones in a timely manner.

4.3 Strategic Focus Area 2: Community consultation and representation

Strategic Priorities	Objectives	Activities
Member and levy payer engagement	Improve engagement and participation of existing members and levy payers, whilst building upon our membership base and community of practice.	Encourage membership renewal and expansion.
		Actively foster landholder partnership in projects, build a network of active participants to collaborate in NRM programs.
		Support members and community groups in identifying and accessing NRM funding opportunities.
		Undertake Strategic Plan consultation to ensure the support of members and stakeholders.
Community values and needs	Clearly identify the human values that make the YCS an important place for people and represent these values in YACTAC planning, policy, and activities.	Identify community cultural water values and requirements and actively promote and integrate these values into the SAM process.
Community participation in YACTAC projects	Engage and partner with community members in delivering NRM projects.	Maximise the number and diversity of local community members engaged with and participating in all NRM projects run or partnered by YACTAC.
Aboriginal cultural heritage	Build enduring partnerships with local Aboriginal stakeholders, groups and individuals acknowledging that Aboriginal people are integral in representing the values and objectives of the YCS community.	Work with Aboriginal groups to identify cultural heritage issues and needs that can integrate with this YACTAC Strategic Plan.
		Represent local Aboriginal values and priorities into ongoing lobbying and engagement with agencies, projects, and programs in the YCS – ensuring Aboriginal representation in SAM.
		Develop linkages with Aboriginal groups to deliver environmental and pest management projects providing employment opportunities and facilitating on-country activity.
Aboriginal agriculture	Develop Aboriginal agricultural systems, products, and markets in the YCS landscape to value add and expand upon contemporary agricultural practice and increase sustainable productive native vegetation.	Pursue opportunities to promote the extension and implementation of Aboriginal agriculture to benefit existing agricultural activities.
Cultural ecology and water requirements	Identify and represent our Aboriginal people's environmental values and needs within our own NRM activities.	Actively engage across aboriginal community groups and organisations to incorporate Aboriginal values, assets and values into planning and management of the YCS.

Strategic Priorities	Objectives	Activities
		Support Aboriginal communities to engage in water resource management.
Broader community engagement and representation	Promote and communicate YACTAC's vision, activities, and achievements outside of our catchment and stakeholder community including national and international media and forums.	Undertake external communications and media activities to share our message and gain support.
Open and inclusive political engagement	Build and maintain open and honest communication with elected local state and federal representatives and relevant ministers to provide high level advice on issues and objectives, regardless of political affiliations and persuasions.	Actively pursue regular engagement with all political parties, local members and ministers to lobby for support on YCS issues and to represent our members on political issues.

4.4 Strategic Focus Area: 3 Environmental protection, restoration, and management

Strategic Priorities	Objectives	Activities
Environmental flows assessment	Understand how environmental water is protecting and enhancing wetland ecosystems in the YCS.	Work with environmental agencies to monitor ecological responses to wetland watering programs including threatened species.
Species and ecosystem recovery plans	Create local recovery plans to protect and enhance populations of threatened species and ecosystems.	Develop local recovery plans for threatened species and ecosystems in the YCS.
Riparian and wetland protection and restoration	Protect and improve native riparian and wetland vegetation communities.	Implement wetland revegetation and construction projects on private land to drive ecosystem processes and maintain water quality and habitat for local biota.
		Implement riparian fencing, bank protection and off channel watering works to enhance aquatic ecosystems and restrict threatening processes.
		Implement large-scale riparian and terrestrial revegetation projects to connect remnant native vegetation, link riparian and terrestrial habitats and to protect and restore threatened native vegetation communities and threatened species habitat.
Instream habitat restoration	Protect and improve structural habitat for aquatic species within wetlands and creek channels.	Undertake instream habitat restoration works to improve the quality of structural habitat for native biota. Includes the removal of structural impacts (e.g. barriers, willows) the improvement of woody debris, aquatic vegetation, and streambed structure including riffles, runs and deep pools to serve as refugia during times of drought and dry climate.
Pest plant and animal control	Reduce the variety, distribution and abundance of pest plants and animals.	Undertake plant and animal control activities privately and in partnership with major pest control programs such as LLS strategic pest management plans, the carp herpes virus and *Sagittaria* beetle programs.
Restocking and translocation of native biota	Reintroduce threatened and locally extinct species back into the YCS targeting protected and/or restored habitats.	Support restocking programs (recreational fishing clubs, DPI fisheries) and develop new projects (e.g. southern bell frog, small bodied fish) to re-introduce or expand the range and genetic diversity of native aquatic biota prioritising threatened species, ecosystems and communities.
Environmental database development	Create YACTAC ecological database.	Create and maintain an ecological database of species distribution and habitats.
Weir review and removal	Reduce the impact of dams and weirs on the ecology of the YCS.	Prioritise weirs (using the weir review), dams and water resource infrastructure for modification or removal to reduce barriers to dispersing aquatic biota and provide free movement of all native fish species into and out of the YCS.

4.5 Strategic Priority Area 4: Water resources management

Strategic Priorities	Objectives	Activities
Water resource development	Represent the YCS in water resource planning and development.	Work through EWAG, CAG, and direct engagement with water resource agencies, policies, plans and projects to advise management of water resources in the YCS.
	Advise water efficiency projects in the YCS.	Work with DPIE, WNSW, politicians and other stakeholders to protect YCS from impacts of SDLAM and other infrastructure projects.
		Advise government agencies, ministers, and other politicians in protecting YCS water resource access from buybacks and providing water saving alternatives.
		Support and implement appropriate water efficiency projects that benefit YCS.
	Support detailed water resource assessment and modelling of flows in the YCS.	Support/undertake modelling, research, and assessment projects to accurately assess hydrology, water-use and environmental water needs in the YCS.
	Secure flows to protect requirements for the YCS environment.	Work closely with DPIE, CEWO, and industry partners to ensure end of system flows are protected throughout future infrastructure and water resource management programs.
		Work with all agencies and political parties to have whole of system environmental watering requirements integrated into all levels of water resource planning to maintain the required flow levels to protect environmental assets and systems throughout the catchment.
		Ensure that creek flows are prioritised over water delivery via irrigation company infrastructure, to optimise environmental benefit from ordered irrigation water.
	Outside connectivity.	Ensure our needs are represented in connectivity and constraints management outside of the YCS.
	Plan for climate change impacts.	Work with all partners to plan for climate change impacts and develop adaptation actions to minimise impacts to the YCS and community.
	Protect community water rights.	Advise and influence water resource management to protect the social, economic and environmental water needs of the creek community.
Water for the environment	Optimise e-flow planning and management in the YCS.	Develop clear environmental water targets and strategies through community engagement, research, monitoring and partnerships.
		Draft a realistic and well-informed long-term environmental watering plan for the YCS to define and inform YACTAC policy and guide interactions with agencies and stakeholders.
	Hydrological modelling.	Support and advise agencies to develop high quality modelling that can link LTWP to WSP and can be used to identify realistic on-ground water targets and volumes.

Strategic Priorities	Objectives	Activities
	Develop local wetland management plans.	Engage with landholders and conduct site visits. Collect information about environmental values, delivery options and infrastructure, estimated volumes etc.
		Develop a wetland inventory and information document to guide environmental watering and wetland management in the YCS.
	Deliver environmental flows to wetlands in the YCS.	Work with state government regional operations group to plan and deliver environmental flows in the YCS.
	Attract Commonwealth e-water to the YCS.	Work with CEWO to attract commonwealth environmental water to ensure that current flow requirements of ecosystems and native biota are protected under all future government programs and water savings from the YCS are used to protect local assets.
Efficient water use	Optimise agricultural water use for efficiency and environmental purposes.	Investigate ways of aligning agricultural and community water use with the environmental watering regimes or using water when surpluses are available through adaptive ordering/cancelling.
		Support agencies in delivering water efficiency projects and represent landholder values and requirements to influence a positive outcome for the YCS community.
Water quality	Maintain excellent water quality.	Develop a program of community water quality monitoring to support existing programs.
		Work with agencies to ensure adequate blackwater and algal bloom monitoring, management and response plans are implemented.
		Identify salinity and nutrient sources and guide ameliorative investment into those parts of the landscape, including linking to the unregulated Billabong Creek management plans.
Cultural flows	Identify aboriginal and non-aboriginal cultural water requirements.	Conduct workshops and questionnaires to assess priority cultural water requirements for the YCS and represent these priorities for inclusion into water resource plans.
Extreme events management	Provide water resources to meet drought water requirements and identify measures to mitigation inappropriate flooding.	Undertake drought refuge identification and critical management plans to protect biota despite the halting of Water Sharing Plans during extreme drought. Integrate drought protection into the Long-Term Environmental Watering Plans and identify alternative arrangements to protect the creek in drought disasters.
		Support councils and LLS in flood mitigation and response activities, including water quality impacts.

4.6 Strategic Focus Area 5: Partnerships and strategic adaptive management

Strategic Priorities	Objectives	Activities
Stakeholder analysis	Undertake a stakeholder analysis for delivery of the Strategic Plan 2020-30.	Identify key stakeholders in government, community, and industry. Assess their role, capabilities, and capacity. Identify partnership opportunities and engagement strategies.
Water industry partnerships	Develop water industry partnerships.	Improve and maintain professional relationships with strategic industry partners: Murray Irrigation Limited, Coleambally Irrigation, Murrumbidgee Irrigation, NSWIC, Rice Growers Australia etc through an industry partnership model.
Murray-Darling Basin Plan	Develop partnerships with the MDBA and Commonwealth Environmental Water Holder etc.	Deliver environmental water programs in partnership with federal government bodies.
		Prevent negative local impacts and ensure appropriate infrastructure development.
		Investigate conservation status of the YCS to explore opportunities for listing the YCS under the International Ramsar Convention.
NSW state partnerships	Engage in state water resource planning.	Actively negotiate Water Resource Plans, Water Sharing Plans and Water infrastructure development with state agencies including Water NSW, DPIE and Infrastructure NSW.
	Engage in state regulatory processes.	Prevent negative local impacts and ensure appropriate development through NSW DPIE and other departments.
	Develop environmental water partnerships.	Work through EWAG and collaboratively with DPIE to build wetland knowledge, protect and enhance flow regime, secure connected wetland habitats, and deliver water and infrastructure projects that enhance and protect the YCS environment.
	Engage in regional NRM delivery.	Build strong partnerships with Riverina and Murray Local Land Services to deliver pest plant and animal control, protection, and restoration of habitat for threatened species and ecosystem function.
	Become active in threatened species protection.	Build strong partnerships with NSW DPIE, commonwealth agencies, NGOs (Australian Wildlife Conservancy, WWF, IUCN, UNESCO) to protect threatened flora and fauna and to build a resilient, diverse, and connected populations of threatened species throughout YCS catchment.
Strategic adaptive management framework	Develop a framework that sets out how YACTAC will operate in a broader SAM process.	Building on the stakeholder analysis, draft a SAM framework that includes community values, ecological assets and processes, threats, impacts and ecological response pathways and government and stakeholder processes for NRM interventions and regulation.
	Develop a SAM program for the YCS.	Identify threatening processes and likely impacts to the YCS using locally informed pressure-stressor response models, identify long term environmental trajectories and key thresholds that require action and intervention.

Strategic Priorities	Objectives	Activities
Strategic adaptive management implementation	Run a SAM steering group for the YCS.	Investigate the opportunity to form and fund an ongoing SAM group such as the old advisory group under Murray LLS.
Participation in external management processes	Attend meetings, report back to the Board and members, and actively represent the YCS.	Continue to represent the YCS on EWAG (Environmental Water Advisory Groups), SAP (Stakeholder Advisory Panels), Landcare (Murrumbidgee Landcare Inc. and Murray Landcare Collective).
		Identify external opportunities for representation in emerging advisory panels, technical and management groups, and committees.

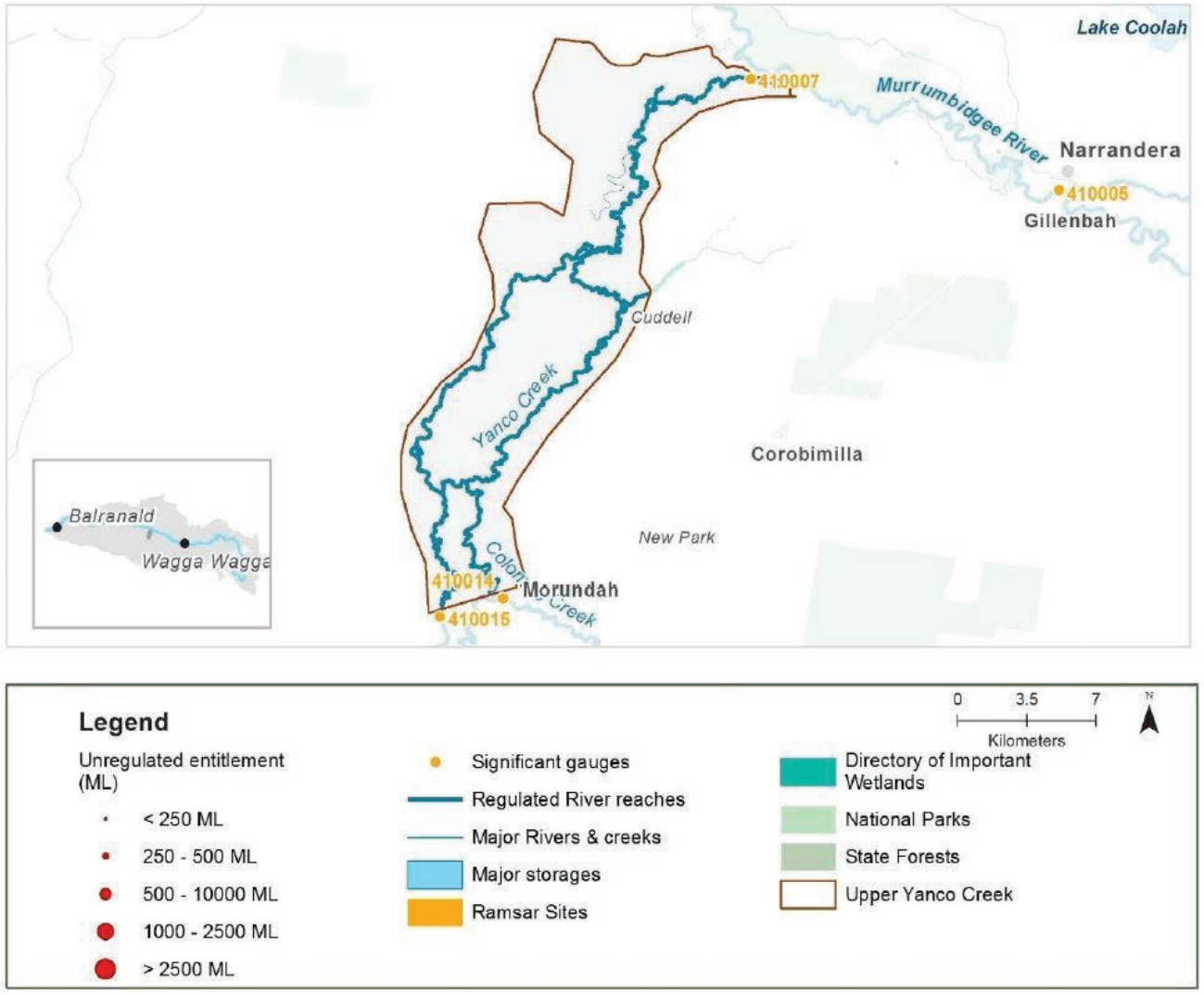
4.7 Strategic Focus Area 6: Knowledge, research and monitoring

Strategic Priorities	Objectives	Activities
Water resources research and knowledge	Build knowledge to inform water resource management decisions more accurately.	Provide new research into the assessment and modelling of hydrology and water resources in the YCS to supplement agency programs that rely on incomplete or inadequate data (e.g. the assessment of real-volume water losses using the creek system verses water moved through extensive irrigation company infrastructure).
Biodiversity monitoring & threatened biota assessments	Better understand our ecosystems and the ecology of creeks and wetlands in the YCS.	Support and undertake ongoing monitoring and assessment of biodiversity in the YCS.
	Better understand our native flora and fauna to protect and restore local populations of threatened species.	Secure funding (e.g. Environmental Trust, national Landcare program, conservation NGOs, philanthropic sources) to undertake assessments and monitoring of threatened species as informed by recovery plans, agency priorities and international conservation agencies (WWF, IUCN, UNESCO).
		Develop partnerships with university and research institutions to bring research, assessment, and monitoring activities into the YCS connecting research programs with people and sites on-ground.
		Undertake status assessments of known threatened species, ecosystems, and communities to provide post-drought status of population health.
		Work to integrate the YCS into monitoring programs conducted by government agencies.
		Undertake surveys of novel biota and sites to improve knowledge of threatened species presence and distribution (e.g. small-bodied fish, migrating birds, aquatic vegetation stands).
Flow response monitoring	Ensure adequate monitoring of environmental watering outcomes.	Support agencies and universities in monitoring of ecological responses to flow.
		Undertake monitoring and flow response assessments to fill local gaps in external monitoring programs.
	Collate current knowledge around the existing ecological benefits afforded by the current and recent historical flow regimes.	Support and undertake research into the role of the current flow regime in protecting threatened species and ecosystem function in the YCS as a way of arguing against modifying flow regimes.
Invasive species assessments	Continue to eliminate and control pest plants and animals using best science.	Assess the type and distribution of invasive plants and animals in the region, research control mechanisms and partner with delivery programs.
Water quality monitoring	Expand the current water quality monitoring for the YCS.	Assess the need for community-based water quality monitoring, assist with government water quality monitoring programs.
		Identify agricultural landscapes, properties, and sites for targeted environmental improvements.

Strategic Priorities	Objectives	Activities
Agricultural landscape improvement	Improve agricultural sustainability and increase the environmental and cultural benefits of our farming practices.	Identify environmental initiatives and actions that protect and enhance socio-economic standing of the local agricultural industry.
		Support the understanding and uptake of conservation farming strategies (e.g. increasing perennial cover, improving soil health, reducing salinity impacts, increasing local native vegetation cover on-farm) and better understand and promote the benefits of investing in on-farm NRM projects.
	Support on-farm wetland restoration research.	Engage in innovative research to drive investment on private land to enhance ecological values of farms and water infrastructure (e.g. construct refuge wetlands, connect irrigation and ecological systems to maintain habitats for aquatic biota).
	Conduct habitat connectivity assessments.	Identify potential vegetation corridors to reconnect high value habitats and ecosystems in the YCS. Undertake spatial and on-ground assessments of habitat connectivity to guide and prioritise investment in habitat restoration and revegetation strategies.
Aboriginal water values	Build a knowledge base upon which Aboriginal cultural values can be used to secure water and flows for the YCS.	Identify the Aboriginal values, processes and assets that need protecting/restoring in the YCS.
Research partnerships	Actively create and maintain strong partnerships with key academics, institutions and research programs.	Develop partnerships with universities and research agencies to bring student and research programs into the YCS, improving academic knowledge and understanding of the YCS.

5 Yanco Creek System – Section maps

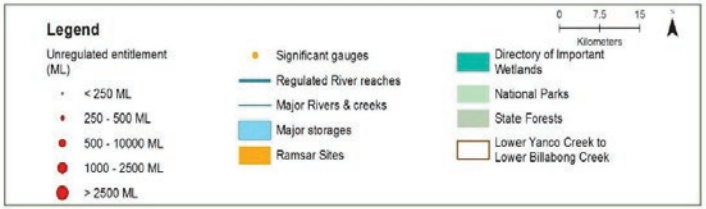
Upper section



Mid section


Four Corners
Coleambally Outfall Drain
Argoon
Gala Vale
410014
410015
Bairanald
Wagga Wagga
Mabins Well
Widgiewa
Colombo Creek
Coonong
Moonbria
410169
Yanco Creek
Bundure
Wilson
Lake Urana
Billabong Creek
Carnerney
Forest Creek
Jerilderie
Urana
Hartwood
Coree
410016


Four Corners
Coleambally Outfall Drain
Corobimilla
Argoon
410014
Morundah
410015
Gala Vale
Bairanald
Mabins Well
Widgiewa
Colombo Creek
Coonong
Moonbria
410169
Yanco Creek
Wilson
Bundure
Lake Urana
Urangeline Creek
Billabong Creek
Carnerney
Forest Creek
Jerilderie
Urana
Hartwood
Coree
410016
Mayrung
Logie Brae


Legend
Unregulated entitlement (ML)
< 250 ML
250 - 500 ML
500 - 10000 ML
1000 - 2500 ML
> 2500 ML
Significant gauges
Regulated River reaches
Major Rivers & creeks
Major storages
Ramsar Sites
Directory of Important Wetlands
National Parks
State Forests
Lower Yanco Creek to Lower Billabong Creek
0 7.5 15
Kilometers

Lower section