CONJOLA CONNECTED COMMUNITIES

Masterplan 2020

prepared by

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Introduction

This masterplan document is a summary of the various ideas that have emerged from the community after the devastating bushfires of 2019/2020. These are ideas about how the rebuilding of a special place like Lake Conjola could become a key part of the recovery and healing process. It is a vision of a community that becomes more resilient, more inclusive and more sustainable than it ever has been.

It is a collection of perceived needs, urgent adaptions required and potential opportunities. An overarching plan that can be used to identify important improvements, and to develop the story about a collective of community places and connections. All to revitalise Lake Conjola's villages and to care for the lake and bush.

This is a reframing of the catastrophe as a previously unimagined opportunity. A chance to rebuild, with a purpose, and for an improved way of life in this place.

From the Recovery Association

The impact of the New Year's Eve 2019 bushfires on the Conjola area was both unexpected and catastrophic. Even before the size of the disaster was known, residents and holiday makers streamed into the village of Lake Conjola seeking refuge and emergency relief: water, food and support. A volunteer emergency relief effort began at the Lake Conjola Community Centre. After a few days the exhausted relief team handed over to another group of volunteers who began a major, community led, recovery operation. The area was effectively cutoff from the outside world. No organised assistance arrived for over eight days and without communications, the new recovery team had to rely on its own community to support those that had suddenly been left with nothing but the clothes they stood up in.

The Community Centre became the hub of the Conjola area. Shocked residents and tourists connected with old and new friends alike. People realised the value of what had been lost in the devastating fires. The residents realised that the lack of community infrastructure in the Conjola area had contributed to the danger they had experienced as nothing existed to assist evacuation and the subsequent recovery in the villages around the lake. Residents expressed a wish for a more connected and responsive community with infrastructure to support it. The residents also realised that the Lake, central to the very existence of many small Conjola communities, had saved many lives. With these experiences at the top of the minds of Conjolans, an idea grew for an infrastructure plan to connect lakeside communities and make the Conjola area a safer place to live and visit.

Conjola Community Recovery Association, July 2020

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The Process

Initially, all ideas generated from the community were collected, discussed and mapped generally to their relevant locations. This ideas concept plan was shared, and support for the intention of the project was demonstrated by the community, authorities, and private philanthropists, leading to this document.

This more detailed version of the Masterplan is aimed at articulating the guiding principles, and identifying component pieces of infrastructure so they can be developed with further detail for delivery as urgently as possible, once funding becomes available.

Site analysis involved on the ground review of all areas proposed. Research was undertaken to understand the numerous influences on the project. Previous studies of the area provided valuable background information enabling this project to proceed on the strength of earlier findings.

These included climate data, flood studies, lake management plans, forestry information, indigenous cultural history resources, historical documentation, community and university planning papers, previous bike path proposals, sewerage and water system reports, bushfire assessments, and first hand observation and listening.

Shoalhaven City Council set up a team lead by their Community and Recreation Manager to support the project, with a series of project control meetings. SCC have provided invaluable input into the project from identification of priority projects, feedback to assist a smooth process, contacts to relevant Fisheries and Transport NSW staff, to a detailed site survey for the first key project area identified in Conjola Park.

Community members from the Community Consultative Body (CCB) and the broader community have also been included in this forum for input.

While the overarching masterplan has been developed, in an effort to demonstrate real outcomes, the first key module, the Conjola Park Community facilities, has been prioritised and its concept design has been developed in parallel.

Conjola District Strategic Plan

In 2013-15 researchers from Griffith University collaborated with members of the community in a series of workshops to develop an articulated vision and strategic plan for the district, to help guide future development.

The intent of this action plan was to allow the community to consider long term strategic issues and opportunities, to build resilience to future impacts from natural hazards and to engage with the various planning processes of local, state and federal government and non-government agencies.

It identified four focus areas, which together with the vision developed by the community, are as relevant as ever: Community Wellbeing; Natural Beauty and Environment; Disaster Management; Economic Development.

"Lake Conjola District will continue to be acclaimed by its natural beauty. It will become an inspirational model of a community living and working together to adapt and respond to natural hazards and reach common and sustainable solutions which protect and conserve the lake and its catchment for future generations.

The District's congenial character is retained within the footprint of the existing settlements to serve the needs of residents and visitors within the area's sustainable limits."

Vision Statement Conjola District Strategic Action Plan 2015









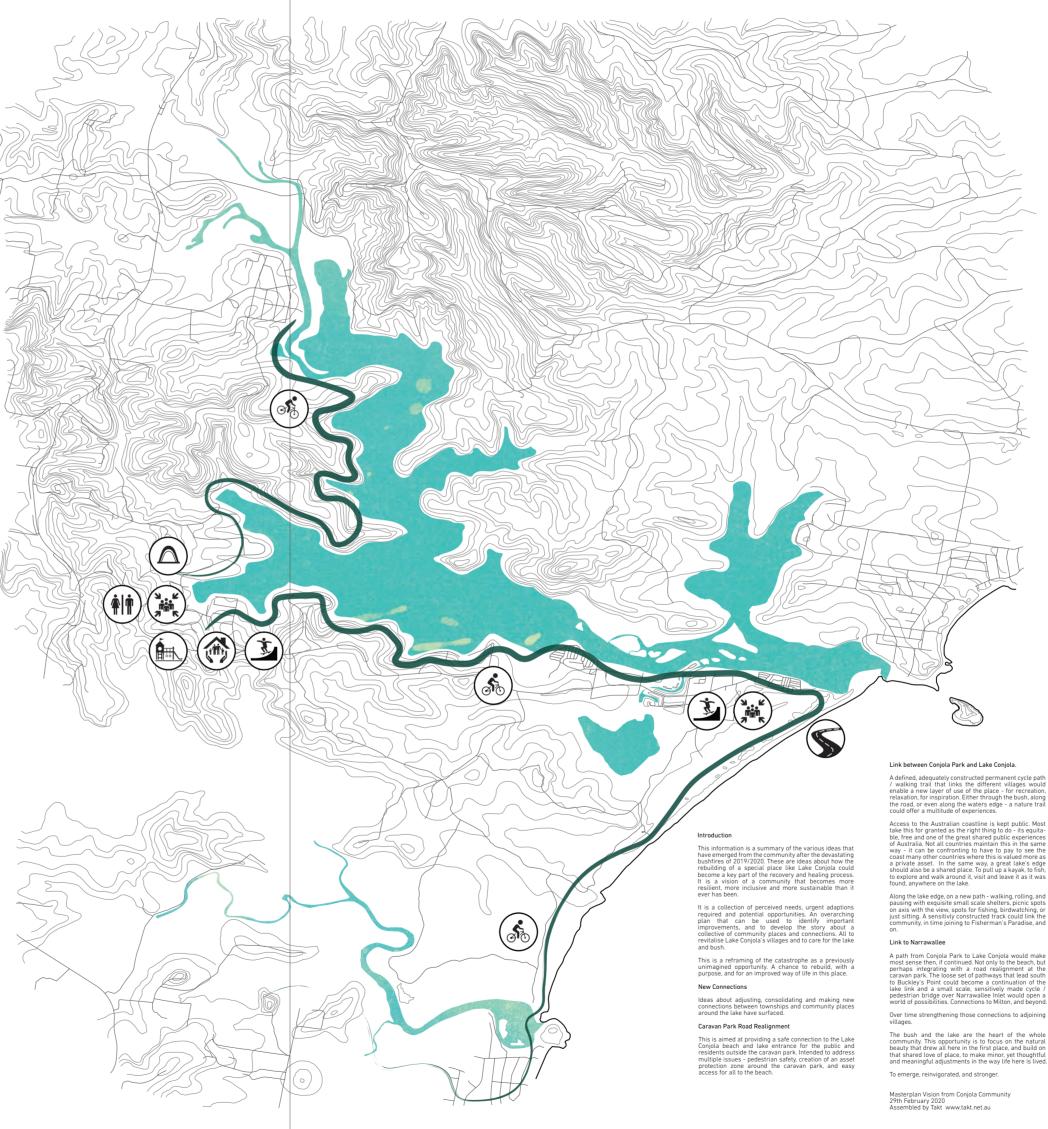
nuch. Something of a personal tribute ivors. Moving. Uplifting. Though liates between the past and







Initial Ideas Plan - February 2020 - Takt Studio







A new connection between parts of the community. A new tourist magnet beyond the summer months. A way to connect to neighbouring



Mountain Bike Track A new tourist attraction lack of facilities for you and opportunity for exercise. Addressing issue of







multi-functional outdoor space that functions as emergency assembly point, information board, picnic area etc

along the waters edge - a natur s to the Australian coastline is kept public. M

a asset. In the same way, a great lake's ec

t sense then, if continued. Not only to the beach aps integrating with a road realignment at van park. The loose set of pathways that lead s



Place

Lake Conjola lies 220 km south of Sydney, on the east coast of New South Wales, Australia.

While the areas this masterplan primarily focuses on are the townships of Conjola Park and Lake Conjola, it also considers Yatte Yattah and Fisherman's Paradise as part of the Conjola community with a total permanent population of about 1400 people.

The surrounding natural beauty makes the area a popular destination for tourists, which means the local population, particularly at Lake Conjola, can increase significantly by approximately 5000 people during the peak tourism season. Consequentially the region has a range of services, facilities and activities to support the tourism industry.

A large proportion of the tourist facilities are currently focused along Lake Conjola Entrance Road near the beach.

CLIMATE

The Lake Conjola district experiences a seasonal subtropical, but mostly temperate climate characterised by warmer summers and cooler winters.

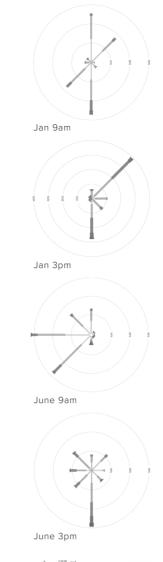
The average yearly rainfall is 1076mm, the majority falling from February to June. East coast lows that form over the ocean during winter can cause intense rainfall within the catchment area.

Summer winds, particularly during the afternoon are predominantly from the North-East bringing relief after hot days, while winter is dominated by westerly and southerly winds carrying cold air.

Landscape

The Conjola district is defined by the interface between the lake and the surrounding forests.

A flooded river valley, the lake is 4.3 square kilometres, with a catchment area of 145 square kilometres. It is a small and steep catchment, partially within the Morton and Conjola National Parks, the McDonald State Forest and across private rural properties.



0 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

0 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Mean Maximum Temperature

Average Rainfall

Mean Maximum Temperature



Conjola Catchment Landscape

FLORA + FAUNA

The coastal forests that surround Lake Conjola define its unique character. One is immersed in nature when boating or paddling along the lake. Native wildlife is abundant, the surrounding estuarine and catchment ecosystems attracting numerous native mammals, marsupials, birds reptiles, insects and fish.



Flood 1974 - Congenial Coniola, Mc Andrew 1991



Flood 1974 - Congenial Conjola, Mc Andrew 1991



Flood 1986 - Congenial Conjola, Mc Andrew 1991

FLOOD

Extreme rainfall events often raise the water levels of Lake Conjola, sometimes flooding low-lying areas. Many parts of the Conjola District have been developed on low-lying lands adjacent to the coast and in river valleys. In times of non-flood, these areas offer lifestyle opportunities highly sought after by permanent and temporary residents alike. However, significant flood risk with the potential for frequent and severe inundation from a number of flooding sources is very high.

The main causes of flooding in the District are: significant catchment rainfall, oceanic inundation and low-level persistent flooding from elevated lake water levels, particularly when the lake entrance is closed. (BMY WBM 2013)



Flood 2020



ENVIRONMENTAL RISK

Access to Conjola Park and Lake Conjola is via the Lake Conjola Entrance Road - a single road through thick bush. Similarly, Fisherman's Paradise has a single road access from the highway. Recent events have demonstrated, that these townships remain at serious risk of being cut off in a bushfire emergency.

The features that make the Conjola District so attractive to the community and visitors alike, are also the reasons that the area is at such high risk from environmental hazards.

Part of the joyful remoteness that it enjoys, unfortunately is due to a single access road from highway to beach, through the bush. Once cut, evacuation options are severely limited.

During the last bushfire season the lake itself became a key evacuation route, particularly for the residents to the west of the lake who took to boats to reach the relative safety of the beach front. This evacuation route in the event of bush fire is likely to be reused.

Any connections, paths, shared bikeways etc that can be made into the future, both around the edges of the lake, and connected to neighbouring communities, can be of great benefit in emergency situations.

PROTECTING THE ENVIRONMENT

The lake is affected by introduced species of exotic weeds, seagrass habitat damage, bank erosion, flooding and requires a careful management in order to mediate between multiple human impacts and natural processes, in order to maintain the integrity of the waterway and improve its health.

"Now about my favourite pastime, fishing. The Lake used to be full of fish. Today, because of netting, they are far, far fewer. Time was when you could fish in the one place for an hour and a half and catch 40-50 good-size fish. Today the big snapper have gone, as have the flying gurnard and also the catfish. Gone are the mussels that used to abound on the northern side of the Entrance and it must be ten years since I caught a jewfish....

There used to be a man we called Wormy Mick (Mick Glanville) who lived on Chinaman's Island and who was a pastmaster at getting worms. He used to sell them to the tourists for a bob a jam tin. People used to leave their tin out and he would come by and leave the juice worms with a coverage of sand.

After fishing for whiting near the Entrance, I'd be coming back up the Channel at night and quite often as the boat disturbed the calm of the waters two or three mullet would jump out from the surface and fly into the boat. This was a bonus gained without any effort."

Secrets of an experienced fisho - George Kirby talking about the lake in the 1950's - Congenial Conjola, Mc Andrew 1991

CLIMATE CHANGE

Coastal settlements located in low-lying coastal areas are vulnerable to climate- related impacts, including sea-level rise, storm surges and coastal and riverine flooding, drought and bushfire.

Unusually low rainfall across the Conjola catchment in the last few years resulted in high levels of tinder dry vegetation and ground. Low lake levels may have played a part in the latest closure of the lake, which in turn was responsible for the flooding after the bushfires, when a low pressure system dumped rain on a damaged catchment.

Surrounded by steep catchment banks, national park and state forests, the closeness of natural landscape to the residential communities of Lake Conjola, resulted in severe bushfire impact, and tragic loss of life.

ECONOMIC CHALLENGES

The economy of smaller communities such as this one, relies heavily on tourist visitors for income. The disastrous New Years Eve 2019 bushfires, the early 2020 flooding, and the global COVID-19 pandemic, add to the immense economic and social stress on a population both directly and through the lack of visitors. Many people and businesses in this area have suffered immensely from this barrage of environmental hazards.

Into the future, while the increasing severity of climate-related events affecting those areas may lead to more widespread damage and disasters, there are also opportunities for change to occur within the socio-ecological systems to improve resilience and adaptation to natural hazards.

This community may become an example of a region that utilises adaption and resilience strategies to also improve social connection and economic outlook through longterm strategic planning.





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SINGLE ROOD ACCESS

EVACUATION DUTERNATIVE ROUTE

SOFE PLACE

DWORLINGS

GREEN OVERLOT OVER BUSH

SEWER WORCH

TROINLINE

FERRY

PODDLE STERMER RODDS.

(OLD CIRCULISTANI POTTERNS.

Traditional Pathways

D

History

When approaching a project of this nature, before generating new ideas, it is vital to appreciate the vast wealth of knowledge that already exists. Some of the most difficult of solutions have been already found, although possibly forgotten. Solving the challenge of living well within the environment, minimising human impact, reducing risks, often have answers in history.

Reminders of the continuous relationship between the landscape and the Yuin people is to be found in numerous locations around the lake and within the catchment. Artefacts, camp sites, middens and significant rock art are recorded. Land to the west of the lake in Conjola Park is owned by the Jerrinja Aboriginal Land Council.

Initial relationship building with local indigenous communities has begun, gently, and the continuous development of this relationship with all interested local organisations is required as a matter of deep importance for this project, in order to understand, integrate, and connect with the ancient knowledge of this place.

The first recorded visit by Europeans was by Alexander Berry in 1822, who took his boat from the mouth deeper into the lake.

Likely a fire management plan was already in place at this time, for reducing fuel loads with cultural burning practices. Although outside of the scope of this plan this may form part of the set of solutions for risk management.

"At first the water was very shallow. At the distance, however, of several miles, we found deep water surrounded by high land giving the idea of a very ancient harbour, whose entrance had been blocked by sand. the north side was of the Trap formation (dark igneous rock stair like in appearance) and consisted of forest land with good grass."

Alexander Berry, February 10, 1822



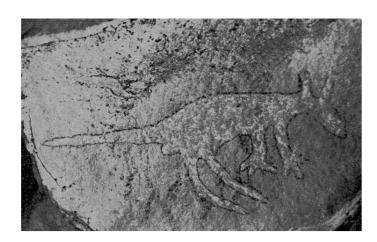
Pony Tramway 1925 - Congenial Conjola, Mc Andrew 1991



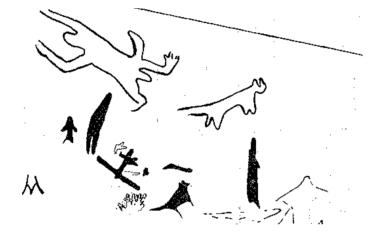
Paddle Steamer 1920s - Congenial Coniola, Mc Andrew 1991



Redhead Sawmill 1880 - Congenial Conjola, Mc Andrew 1991







Indigenous rock Art within the Conjola District

TIMBER

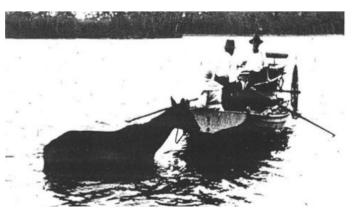
By late 1870's the timber industry had begun - first extracting all the red cedar then other hardwoods from the forests around the lake, mostly for use in tramways and railway sleepers throughout the state.

Before decent roads, connections were made through the district with a great deal of human inventions and ingenuity. The water has always been a convenient transport method.

A paddle steamer was used to transport timber logs from dumps around the lake - there was one at Roberts Point and Leaning Oak Point, to Chinaman's Island, where on the north side a timber tramway powered by ponies, was used to transport the logs to the sawmill by Boat Harbour.

A lake crossing in 1922 on the journey from Manyana to Milton - is shown here with horse swum behind, buggy in the boat, crossing to the landing where the general store is now.

Buildings built with the local hardwoods were strong, yet simple, and of materials found close at hand. Large timber sections feature prominently.



Lake Crossing 1922 - Congenial Conjola, Mc Andrew 1991

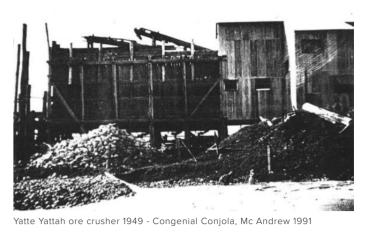
SILICA MINING

In the 1920s huge deposits of Silica (quartzite) were discovered by European settlers. It was found in great quantities on the North and South sides of the lake.

When split, its pieces are extremely sharp. It was traditionally used by indigenous people as cutting tools, as axeheads, scrapers, and handheld cutters. Very hard and capable of deflecting heat, is was and still is used in the manufacture of refractory bricks, firebricks, for the furnaces of BHP in Newcastle and Port Kembla.

The Lake Conjola Silica was found to be the purest in the world. From 1918 to 1924, almost the entire deposit on the North side of the lake, being the flinty headland itself, was removed.

By 1925, a second deposit on the South side of the lake near Pattemore's Lagoon was discovered and exploited, which required further transport routes to be established southwards. A light gauge railway track, the Narrawallee Express, was established from Pattemore's Lagoon, across a timber bridge over Narrawallee inlet, along the sand hills to a sturdy wharf at Bannister Head, from where it was transported to other parts of the country.





Narrawallee Express 1928 - Congenial Conjola, Mc Andrew 1991





Narrawallee Bridge 1925 - Congenial Conjola, Mc Andrew 1991



Killarney Beach 1960s - Congenial Conjola, Mc Andrew 1991

TOURISM

As early as 1881 the land on either side of Yooralla Bay (Hoylake Grove Park), and West of Kidgee Point were dedicated as a reserve for public recreation. These places were near the population of the farming communities at Yatte Yattah + Conjola.

In 1915, Mr Roberts (Roberts Point) ran a ferry services across to the North side of the lake. In 1928 boats made for pleasure cruising crossed the lake.

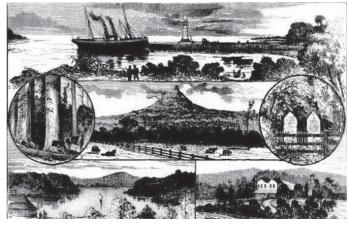
From the 1920's Killarney, a private property between Roberts Point and Pryor Street, was run as a tourist park and beach. Tourists had either hessian tents, or cabins set up for them, and up to 60 people would visit at any one time.

The land at the entrance to the lake - Holiday Haven, was dedicated for public recreation a little later in 1930.

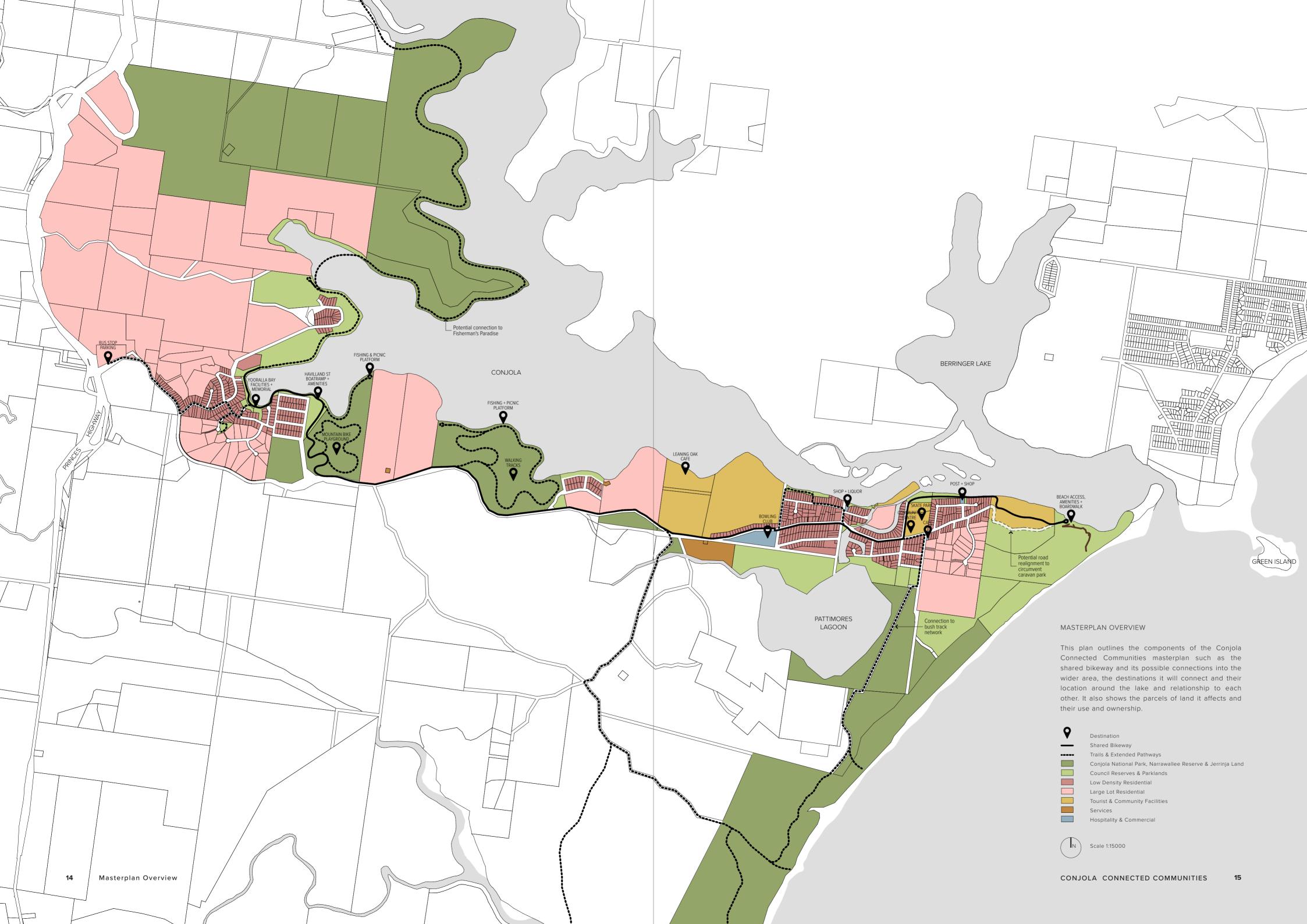
The 1940s saw the establishing of an open air picture theatre and the community hall held dances, parties and singalongs.

A number of community events ran regularly such as the Festival of the Lakes, the Burrill Tabourie and Conjola Fishing competitions, and the Great Raft Race of 1954 on the October long weekend.

Electricity was connected in 1952, the entrance road sealed in 1958 and in 1979 the bowling club opened



Postcard 1883



Project Components

The entire scope of the masterplan is made up of the below components that are then grouped into project modules to be implemented at different stages and according to their priority as funding becomes available.



SHARED PATHWAY CONNECTION HIGHWAY TO BEACH AND POSSIBLE EXTENSION TO NARRAWALLEE





Precedent - Bike Belgium + Darebin Yarra Trail Link



COMMUNITY FACILITIES AT CONJOLA PARK



Precedent: Regatta Foreshore Amenities by DayBukh



MEMORIAL AT YOORALLA BAY



Precedent: ACT Bushfire Memorial by Tess Horwitz, Tony Steel and Martyn Jolly

SHELTER AT CONJOLA BEACH



Precedent: Lizard Log Shelter by Chrofi

A defined, adequately constructed permanent shared cycle path / walking trail that links the different villages would enable a new layer of use for both residents and visitors for recreation, relaxation, for inspiration. Either through the bush, along the road, or even along the waters edge - a nature trail could offer a multitude of experiences.

Access to the Australian coastline is generally kept public. Most take this for granted as the right thing to do - its equitable, free and one of the great shared public experiences of Australia. Not all countries maintain this in the same way - it can be confronting to have to pay to see the coast many other countries where this is valued more as a private asset. In the same way, a great lake's edge should also be a shared place. To pull up a kayak, to fish, to explore and walk around it, visit and leave it as it was found, anywhere on the lake.

Along the lake edge, on a new path - walking, rolling, and pausing with exquisite small scale shelters, picnic spots on axis with the view, spots for fishing, birdwatching, or just sitting. A sensitively constructed track could link the community, in time joining to Fisherman's Paradise, and on.

A concept design for a number of community facilities at Yooralla Bay has been developed and includes a multifunctional covered outdoor space that functions as assembly point, information board, picnic area for gathering, sharing, celebrating, and for refuge in case of future threats. In conjunction with this community storage areas and a community kitchen are being discussed.

This facility will build community resilience to future disaster events by providing a location for generator and emergency supply storage, water supply etc., and also create new opportunities for both residents and visitors to come together and shape their community.

On the lake loved so much. Something of a personal tribute, not only for those lost but also for the survivors. Moving. Uplifting. Thoughtful. Beautiful. A marker in time that mediates between the past and nods to the possibilities of the future. More than just a sign post and a seat. An event of such scale requires an appropriately scaled response.

A proposed multi-purpose facility used as emergency assembly point, information exchange and shelter during natural disasters, while providing a shaded spot for picnics and for the many fisherman at the lake front.



PLAYGROUNDS BOTH AT YOORALLA BAY / CONJOLA PARK AND AT LAKE CONJOLA



Precedent: Pod Playground at the Arboretum Canberra



SKATE PARK





MOUNTAIN BIKE AREA



A new playground to replace the fire-damaged facility at Yooralla Bay (partially under construction) and renewed play facilities at Lake Conjola to service the younger families now moving to the area and the many children spending their holidays at the lake. Adventure play and alternative designs are very much requested by the community.

A place for young people to come together. Family friendly, small scale and suitable for all ages to bring scooters, skateboards and roller skates. Equipped with opportunities to gather and enjoy picnics.

A new tourist attraction and opportunity for exercise while also allowing a different experience of the natural beauty of the area. Addressing issue of lack of facilities for young people while being smal and family friendly enough to be enjoyed by all.



FISHING PLATFORMS



UPGRADED ENTRANCE & SIGNAGE



LINKAGES AND REALIGNMENTS

Small scale platforms making the lake front accessible and directing boat traffic into controlled areas where environmental impact is minimal. These platforms may form destinations along the pathway between townships.

As part of this plan upgrades at the entrance to the lake area and the installation of interpretive signage are proposed. This includes a parking area near the bus stop at the Entrance Road, welcome signage at the entrance and interpretive signage relating to the history, particularly also the indigenous connection to the landscape along the new connections made

Lake Conjola Caravan Park Road Realignment

This proposal at Lake Conjola is aimed at providing a safe connection to the Lake Conjola beach and lake entrance for the public and residents outside the caravan park. Intended to address multiple issues - pedestrian safety, creation of an asset protection zone around the caravan park, and easy access for all to the beach, particularly in an emergency.

Link to Narrawallee and Fishermans Paradise

A path from Conjola Park to Lake Conjola gains value if continued further to expand on the potential of making the lakes beautiful surroundings accessible. The loose set of pathways that lead south to Buckley's Point could become a continuation of the lake link and a small scale, sensitively made cycle / pedestrian bridge over Narrawallee Inlet would open a world of possibilities for connections to Milton, and beyond. Equally a connection to Fishermans Paradise may be possible.



DESIGN PRINCIPLES

All future modules and projects that are part of this masterplan will follow common guiding design principles derived from the research contained in this plan.

All projects commenced as part of this plan will need to consider five themes and ask the question if the project will benefit and improve all of the following areas:

COMMUNITY WELLBEING

Does the project improve the community generally and benefit a large section of community members? Does it offer ways for the community to come together, to share, to enhance lives?

NATURAL BEAUTY AND ENVIRONMENT

Does the project offer sustainability benefits? Can it help to improve and heal the environment? Matters to consider are flooding, bank stability, environmental corridors, biodiversity amongst many others.

RESILIENCE

Does the project contribute to building community resilience both in terms of natural disasters as well as future community development?

ECONOMIC DEVELOPMENT

Can the project assist the economic development of the area and deliver benefit beyond its immediate use?

BEAUTY AND DELIGHT

Is the project enhancing everyday life? Does it contribute, compliment and not detract from the natural beauty of the Conjola area?

Projects that answer the above questions positively will ensure that Conjola continues to be acclaimed for its stunning environment and natural charm. The area will become an inspirational model of a community living and working together to adapt and respond to natural hazards and reach common and sustainable solutions which protect and conserve the lake and its catchment for future generations.

BIBLIOGRAPHY AND RESOURCES

The following documents have been an invaluable resource in creating this masterplan and Takt is grateful for the extensive work that has gone into them.

Congenial Conjola One of the great lake districts of the Milton Ulladulla area Alex Mc Andrew 1991 ISB 0 959 6744 5 4

Lake Conjola Flood Study BMY WBM Pty Ltd - prepared for Shoalhaven City Council July 2007

Lake Conjola Floodplain Risk Management Study and Plan BMY WBM Pty Ltd - prepared for Shoalhaven City Council February 2013

Conjola District Strategic Action Plan 2014-2030 Issued Feb 2015

Improving adaptation of coastal communities through bottom-up approaches: a case study of the Conjola District, Shoalhaven, NSW S. Serrao-Neumann, G. Schuch, O. Koschade and D. Low

Choy Urban Research Program, Griffith University, Nathan, QLD

AHIMS Web Services (AWS)

Extensive search - Lake Conjola- 103 sites recorded in immediate vicinity of the lake and more in catchment area

Fire Management Strategy Conjola National Park Narrawallee Creek Nature Reserve NSW National Parks + Wildlife September 2007

Boating Plan of Management Lake Conjola Estuary NSW Maritime March 2005

Various reports on Lake Conjola Estuary management refer Lake Conjola CCA / CCB website

Previous Bike / Shared way plans

City of Shoalhaven Pedestrian Access + Mobility Plan May 2006

Village Cycleway / Shared way proposal 2011 Shoalhaven City Council

Shoalhaven Bike Plan December 2013 City of Shoalhaven

RAIA Submission to Royal Commission into Natural Disaster Arrangements May 2020

