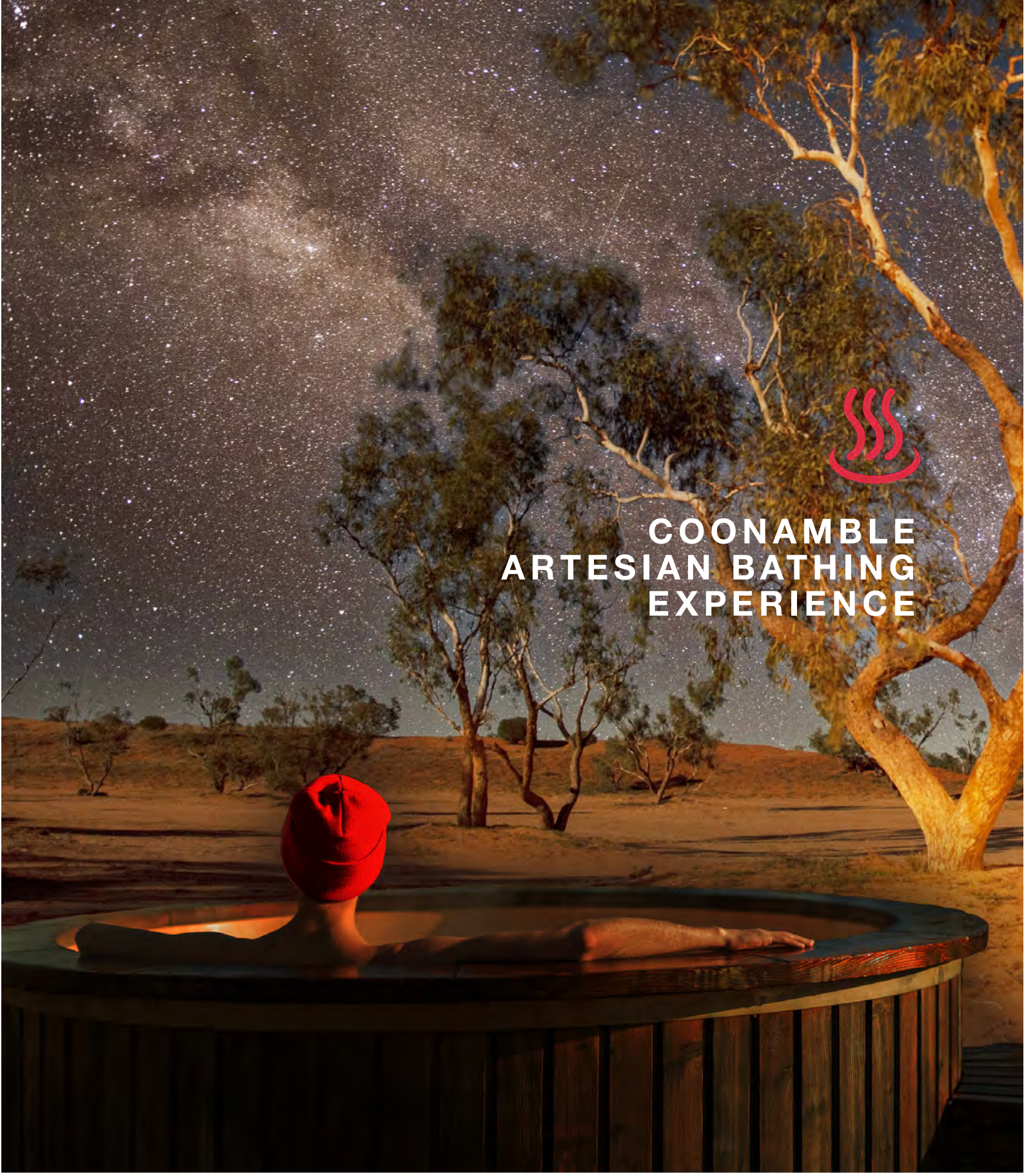

COONAMBLE ARTESIAN BATHING EXPERIENCE

FEASIBILITY, BUSINESS CASE & CONCEPT DESIGN

MARCH 2022

HELLO AND WELCOME.

Belgravia Leisure acknowledges the Kamilaroi and Weilwan people as the Traditional Custodians of the Country on which Coonamble is located, we pay our respects to Elders past, present and emerging.

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1. EXECUTIVE SUMMARY

OVERVIEW

The Coonamble Artesian Bathing project is an initiative of Coonamble Shire Council to investigate the development of an Artesian bore bath, with complementary tourism products.

The experience will incorporate communal bathing with a bore bath type pool, smaller private bathing areas, massage treatment rooms, a central reception and amenities area. On-site accommodation options will include eco cabins, glamping and facilities for RVs. The project will also include sedimentation ponds which will allow the wastewater from the bathing experience to be utilised for aquaculture.

The development has been identified as providing increased tourism visitation, increased employment and a valued community facility for the Local Government Area (LGA).

To realise the project a total of $5.5 million is being sought from the NSW Regional Tourism Activation Fund, with the Coonamble Shire Council providing a further $1.25 million if the State funding is received.

CONTEXT AND PURPOSE

This project was first identified a number of years ago as a priority by the Coonamble Shire Council with the aim to develop and grow tourism, which, in turn, will provide further flow on effects to the community.

Coonamble Shire Council engaged Belgravia Leisure to develop a business case for a financially and environmentally sustainable model to operate an artesian spa and accommodation.

EXPECTED BENEFITS

In addition to servicing the growth in regional tourism visitation the proposed Artesian Bathing Experience will act as a major wellness facility for local residents. This new facility will provide benefits beyond regional economic growth as identified in this document. There are various layers of economic and social benefit to the implementation of this project and investment from all three levels of government and possibly third party/ private investors is proposed.

This project offers strong visitor appeal, large area economic returns and accessibility.

It provides a unique hero attraction as the most upmarket and modern take on outback spa tourism in Australia. This project promises to boost drive tourism to a 63,000 square kilometre area of the northern outback area of NSW, which has a population of nearly 40,000 people and so far unrealised tourism growth potential. The current Great Artesian Drive is an underperforming asset for this region. On Tripadvisor three of the current five baths featured on the visitnsw expert guide to the Drive had a total of only 79 reviews.

This project promises to reboot and revitalise the appeal of this Drive, by starting it from a new upmarket facility that is far more accessible and appealing than the current starting point recommended by the expert guide on the visitnsw website. The rebooted Drive would proceed from Coonamble via basic and rustic bore baths at Pillaga and Burren Junction in Narrabri Shire, through Narrabri township to the well-known Moree Artesian baths. From Moree the rebooted drive would go via the Walgett baths to conclude at the Lightning Ridge baths. This rebooted Drive would improve the quality of roads used on the Drive and be a total driving time of under seven hours. The case study of the Victorian Art Silo Trail highlights how an innovative drive tourism initiative led the remote outback region of Wimmera to have double the growth in domestic visitor nights over the three years pre-COVID of the next best performing region in Victoria.

This project is both affordable and highly deliverable. It promises to operate with high commercial and environmental sustainability while minimising capital costs.

A robust and detailed cost benefit analysis for the project found a benefit to cost ratio for the NSW community with this project of nearly five to one and net present value of $25 million, and significantly higher returns when assessed from the perspective of the Coonamble Shire community and this Shire with the three other Shires featuring in a rebooted Great Artesian Drive.

COMMUNITY ENGAGEMENT

As part of this project a public meeting was held at the Coonamble Golf Club on the 7th of April 2021 with approximately 50 local residents in attendance. A feedback form was available at the meeting and was distributed widely following the meeting, which resulted in 210 community members providing their feedback.

The key themes raised by the community include:

- This project should include an investigation of a free flowing bore bath
- Affordability for Council and the community of the capital cost
- Inappropriate and incompatible design resulting in a white elephant facility
- Acknowledgement that any development needs to be financially and environmentally sustainable.
- Concern was raised that the proposed location would see tourists by pass the town centre and therefore not contribute to the local economy.
- 85% of the responses were supportive to the development.
- 85% of the respondents said they would use the new facilities.
- 87% felt the new facilities would have a positive effect on the community.

A consistent pattern in the feedback was not over capitalising on the building of the facilities and to keep it rustic and simple.

> **"I drive to Pilliga to use the boat bath there as often as I can, I would much rather be able to have the use of one in Coonamble"**

TOURISM TRENDS

The current tourism trends were analysed and it was identified that the impacts from the COVID-19 pandemic have create massive changes in the industry. The Australian Regional Tourism industry has never had as much focus or such an opportunity to build awareness and promote its unique experiences.

Current tourism trends identified include:

- Wide open spaces
- Self drive
- Authenticity
- Experience/adventure travel
- Wellness tourism
- Sustainable/regenerative/ECO travel

A number of these experiences have been examined in greater detail for this project.

Tourism Trends - Self Drive

Complementing Wide Open Spaces, self-drive tourism is growing. The benefits of a self-drive holiday:

- You decide the overall pace of the holiday.
- Regardless of the car type you choose, you have the total freedom and flexibility to get to places off the beaten track, and then spend as much time as you want there.
- You can enjoy greater comfort and privacy.
- You control social distancing

Tourism Trends - Authenticity

Also trending in tourism is travellers wanting more authentic experiences. Travellers are looking for ways to experience a new place to the fullest by making a real connection — a genuine, local, and authentic connection - engaging and meaningful experiences as close to 'the real deal' as they can get.

The authentic tourism experience can include:

- Engaging with local culture and people
- Being in the moment (digital detox)
- Eating local food
- Making friends
- Taking time - travelling slow

Authentic, indigenous encounters should comprise as part of the Coonamble Artesian Bathing Experience. The Coonamble Shire Council, Coonamble Local Aboriginal Land Council and Coonamble Aboriginal Health Services (and associated groups) will each be engaged to assist with the development of this significant core component.

Tourism Trends - Experience/ Adventure Travel

The most significant, systemic trend in tourism today is the demand for “experiential travel,” typically meant to convey the idea of more immersive, local, authentic, adventurous and/or active travel.

Consumers are demanding more enriched lives and personal fulfilment through experience and learning.

This is proven with the growth of authentic tourism experiences such as farm stays, cooking schools, adventure escapes in New Zealand and wellness tourism.

For the purpose of this project the Wellness sector was examined and confirmed that it is one of the fastest growing segments in tourism, valued at an impressive $639 billion a year in global visitor spend, with Australia receiving 10 million wellness trips a year from local and international visitors, according to research carried out by the Global Wellness Institute (GWI).

The thermal/mineral springs industry is positioned for an uplift in investment and growth, as consumers increasingly seek out the healing and relaxing properties of water and nature. The Coonamble township is in advantages position to take advantage of the growing wellness tourism market. COVID-19 has seen people value their own well-being more and are travelling with this in mind.

There is a clear opportunity for economic growth in this tourism segment.

MARKET ANALYSIS, VISITOR FORECASTS & LOCAL & STATE ECONOMIC BENEFITS

Karl Flowers of Decisive Consulting Pty Ltd worked with Belgravia Leisure and provided an analysis of the current market, visitor forecasts and local and state economic benefits to project.

The outcomes to this report include the following:

MAXIMISING OPERATOR AND SHIRE ECONOMIC RETURNS FROM THE ARTESIAN BATHING PROJECT BY COMPLETING THE PROJECT IN TWO STAGES.

The first stage is proposed as mid-market public bathing and a small number of mid to upper market accommodation units with private bathing and further services to compliment the public and private bathing such as massage and spa treatments.

A second stage might involve increases in accommodation units once visitor night numbers to Coonamble reach a specified threshold.

WHO IS EXPECTED TO COME TO THE COONAMBLE ARTESIAN BATHING?

The key potential markets for the prospective artesian baths are:

- Local residents
- Friends and relatives staying with local residents
- Groups of women
- The over 55 market
- Millennials may visit as an addition to existing events such as the rodeo or dog trials
- Families
- Celebration groups for weddings/anniversaries
- Visiting friends and relatives is important as many parents leave their farms to children who they then visit
- Spa enthusiasts

VISITATION

Two visitation forecasting estimates have been provided. The first forecasting estimates are the core expectation based on the available data and industry expertise. The second set of forecasting estimates are made more conservative by 30% for visitation to the artesian baths experience and by 15% for the accommodation experience, as the latter can be more reliably forecast. These more conservative forecasts are provided to build in a margin of safety in setting expectations for financial returns for the owner/operator and regional economic benefits for the Shire.

INCREASING VISITATION AND EXTENDING VISITOR STAYS IN COONAMBLE

Coonamble is currently commonly a brief stopover on the way to somewhere else, a place to visit and stay with friends and relatives or a place visited for business purposes with few visitors staying in Coonamble for holiday purposes.

The proposed Coonamble Artesian Bathing Experience will put Coonamble on the map for holiday visitors, especially high spending holiday visitors. This investment in its impact on visitation to Coonamble leverage's previous visitor experience investment in its region as it will:

- Tie Coonamble into a revitalised Great Artesian Drive touring route, that also features stops in the Narrabri, Moree Plains and Walgett Shires
- Give a strong motivation for the growing number of visitors to Lightning Ridge and the proposed new Australian Opal Centre to stop-over and stay in Coonamble
- Give visitors to the Warrumbungles a strong reason to extend their trip to Coonamble using the recently sealed direct road to make this trip extension in well under an hour of driving.

We forecast the project will receive 37,000 bathing visitors from the second year of operation of which:

- 5 out of 6 are from outside the Shire and
- Just over 60% of these non-local bathing visitors come on overnight, rather than day trips, staying an average of 2 nights.

HOW MUCH WILL THE VISITOR SPEND IN THE SHIRE OUTSIDE THE PROJECT?

As the baths will attract on average more higher yielding visitors to Coonamble this business case assumes:

- $85 per adult night for overnight visitors staying outside the accommodation (domestic and international attracted by the Artesian Bathing Experience, who would not otherwise have stayed in Coonamble) – and these visitors spend an average of 2.0 nights in the town on this visit;
- $85 per adult night for the assumed higher spending overnight visitors staying in the Artesian Bathing Experience accommodation, who stay an average of 2.0 nights at the facility; and
- $70 per adult domestic day trip attracted by visiting the Artesian Bathing Experience – often for food/ beverage, fuel and groceries.

HOW MUCH WILL THE STAGE 1 COST?

The design principals used in this project have been driven by an emphasis on the natural aspects of the site including its bushland setting. Therefore the use of outdoor spaces and providing a natural outback experience lens itself to lower on-site construction.

For the purpose of this analysis, we assume that of the total construction costs $6.75 million for Stage 1. Of the total project, $2.7 million will flow through to locally employed workers or suppliers. This represents 40% of the total cost.

HOW WILL THE ATTRACTION BENEFIT THE COMMUNITY?

As outlined on page 10, approximately 10% of the community took part in a survey which provided valuable input to this project.

From this feedback we identified the local community's interest and commitment to the project. Of those who took part, 85% said they would use the facilities with 40% saying that they would use the facilities weekly.

60% of residents have friends and family visit a few times a year and 23% accommodate visitors at least once a month. Locals were asked how they believe the addition of the new facility would impact the visitation by their family and friends. 35% felt that their family and friends would visit more often and 21% believe that their visitors would increase the length of their stay in Coonamble.

These figures show that the local community see benefit to the Artesian Bathing Experience and a commitment to use. The additional visits from family and friends will increase local business downstream including local accommodation providers, hotels, supermarkets, petrol stations etc.

The wellbeing benefits to soaking in the waters is also of great advantage to the local community. Page 16 outlines a brief history and health benefits to soaking in the mineral rich waters. Important in this are the benefits to an ageing community.

DESIGN

The concept design of this iconic facility has been based on the following principles:

- Create destination competitiveness and authenticity
- Cross market appeal with other regional destinations. Eg. Warrumbungle National Park
- Accommodation options must be different from current provision and improve length of stay in Coonamble
- Compatible with existing products Eg. Outback Arts
- Enhances community health and well-being

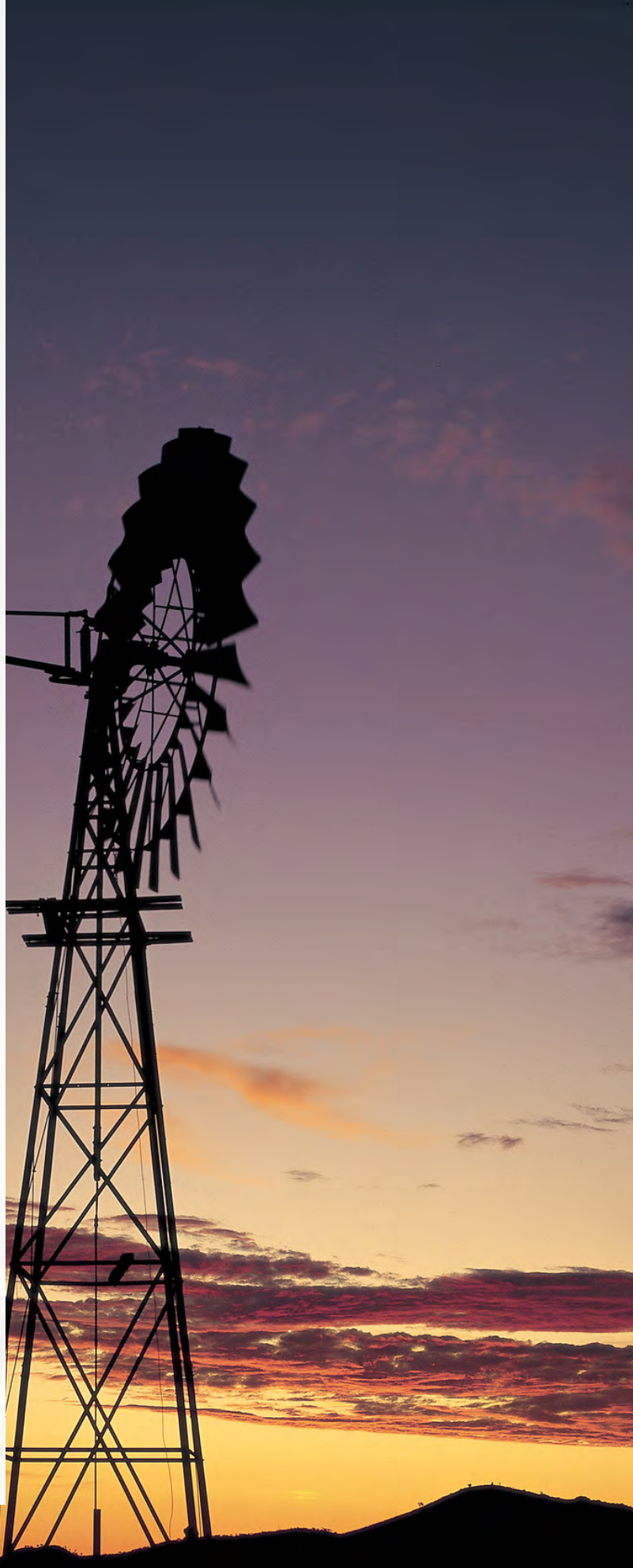
FINANCIAL SUSTAINABILITY

This project can achieve financial sustainability if the cost of enabling infrastructure is financed by State, Federal and Council grant funding that does not necessitate any debt repayment. This is commonly essential for regional visitor attractions to be built, but does not mean that the project cannot be highly valuable to the community. A key challenge with visitor attractions is that they tend, as in this case, to have much better economic returns for the local area than financial returns for the owner and operator. With this project there are large economic returns to other providers of visitor accommodation, food and beverage and other visitor services in the Coonamble Shire and the wider region that result from increased visitation to the new attraction.

The demand assessment has identified a market exists for this outback tourism product and at a price point that makes the business model cash flow positive. It can be operated under a self sustaining model and delivered according to a long-term plan without the need to create a cost impost on Council

MANAGEMENT MODEL

This Destination Tourism asset needs to offer high quality services and quality customer experiences. Given that Council is only ever going to operate one of these facilities, it is recommended that the Shire opts for an “Outsourced Management Model” in order to achieve the best value financial outcome for the local community. This could see the management company either operate under a management contract or a lease. The recent announcement of restructuring the governance of the Moree Artesian baths highlights the specialist challenges in running a visitor and community focussed attraction.



2. PROJECT INTENT & OBJECTIVES

The Coonamble Artesian Bathing project is an initiative of Coonamble Shire Council to investigate the development of an Artesian bore bath, with complementing tourism products similar to those seen within the Great Artesian Basin.

The development has been identified as a possibility to provide increased tourism visitation to the region, to increase tourism revenue for the Local Government Area.

Coonamble Shire Council engaged Belgravia Leisure to develop a business case that proposes sustainable model for operating an artesian bathing experience.

The objectives of the analysis are:

1. To establish the level of demand and need for an Artesian Spa Bathing Experience.
2. To understand the provision of Spa & Wellness facilities in similar tourist locations and their financial performance.
3. To explore and recommend the facility elements and overall facility development that will best fit within the available spaces at the identified site.
4. To provide a clear understanding of the financial implications for the ongoing operation of the facility including asset maintenance and life-cycle.
5. To provide clarity on the impact of location within the Shire on potential usage of services.
6. To provide concept plans and an upper level view of the potential capital costs for the development of the facility

CONSULTATION AND STAKEHOLDER ENGAGEMENT

COMMUNITY MEETING

A public meeting was held at the Golf Club on the 7th of April with approximately 50 local residents in attendance. A feedback form, was available at the Community consultation meeting.

Key themes raised include:

- This project should include an investigation of a free flowing bore bath
- Affordability for Council and the community of the capital cost
- Inappropriate and incompatible design resulting in a white elephant facility
- Acknowledgement that any development needs to be financially and environmentally sustainable.

Concern that the proposed location would see tourists by pass the town centre and therefore not contribute to the local economy.

COMMUNITY SURVEY

A community survey was distributed via direct mail to each household in the Shire as well as being available on line and in hard copy at various Council facilities. There were 216 survey responses, which indicates a very strong interest in the project.

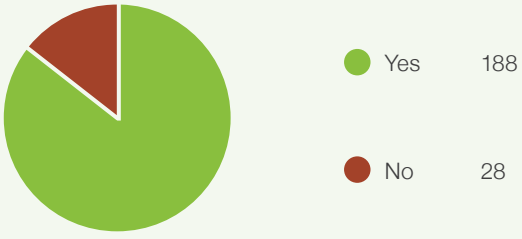
The key survey responses to the questions posed are as follows:

1.

The first question of the survey identified if the community was supportive of an Artesian Bath development in Coonamble?

85% of the responses were supportive to the development.

Feedback provided for non-supporters detailed the concern for 'over capitalising', affordability, the size of the proposed investment, artesian water wastage and the lack of investment in local infrastructure, more specifically the quality of local roads.



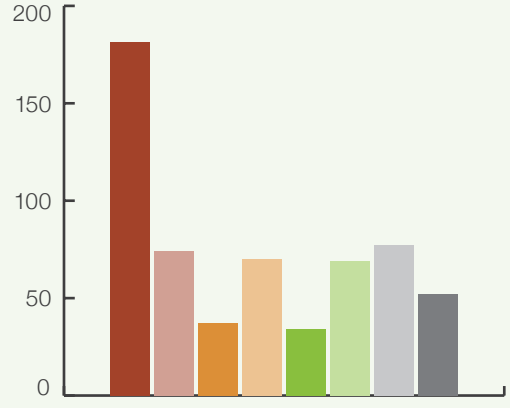
"Building a Bore bath facility in Coonamble has been A years long discussion. I am in favour of a bore bath for Coonamble but not on the scale as proposed. Start simple!"

2.

The second question identified what the community believe a Coonamble Artesian Bath experience should include?

The top 5 results were Family Bathing, Community Gardens, Adult Bathing Areas, a Hydrotherapy experience and Tourism Accommodation. Health Services and Private Wellness experiences were also rated highly with a number of people also recommending BBQ, picnic, and camping facilities.

Family Bathing	180
Adult Bathing Areas	74
Private Baths and Spa Treatments	37
Hydrotherapy	70
Health Services	34
Tourist Accommodation	69
Community Gardens	77
Other	52

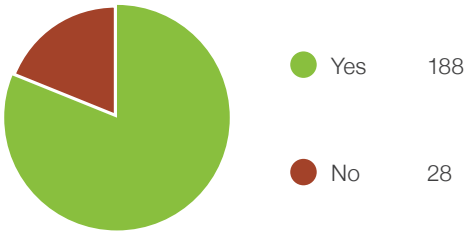


CONSULTATION AND STAKEHOLDER ENGAGEMENT CONTINUED

3.

We asked the community if they would visit or use the services of this facility? 85% of the respondents said they would. When asked what made them consider their decision the majority listed health benefits, an all-year activity because the pool is closed in winter and a great opportunity to increase visiting friends and family as a "reason to visit".

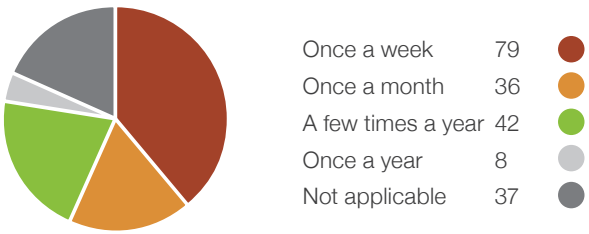
It was highlighted that the premises must be affordable, kept clean and secured to reduce vandalism.



"I drive to Pilliga to use the boar bath there as often as I can,I would much rather be able to have the use of one in Coonamble"

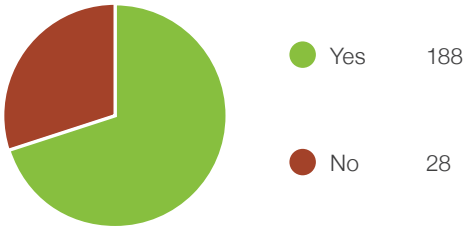
4.

If the respondent answered "yes" to the question above, we asked how often they would use the facility. 40% responded with a weekly visit showing strong commitment to the facility. The remaining community members who said that they would visit the facility envisage doing this once a month (18%), or a few times a year (21%).



5.

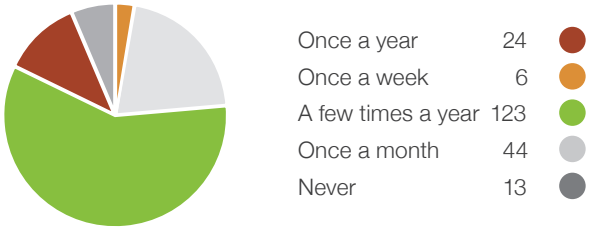
The cost for a local resident to use the facility has been identified as an contentious subject. In the community survey we specifically asked "as a resident of the Coonamble Local Government Area, do you think you should receive a discounted entry price?" 14% said no and remaining 85% suggested discount rates from 100% to 20%. A number of respondents asked why they should pay when other local bathing is free of charge. A number of respondents suggested only charging tourist and others, providing pensioners rates.



"It should be free to locals. You don't pay anything at Pilliga or Lightning Ridge"

6.

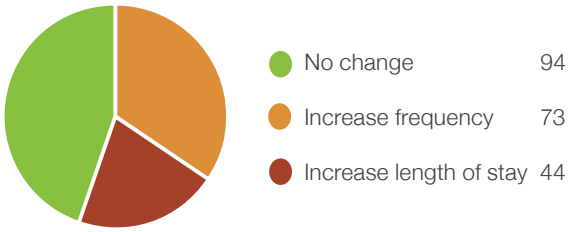
We asked how often each respondent has friends and relatives visit for an overnight stays. Almost 60% of residents have friends and family visit a few times a year. 23% accommodate visitors once a month.



CONSULTATION AND STAKEHOLDER ENGAGEMENT CONTINUED

7.

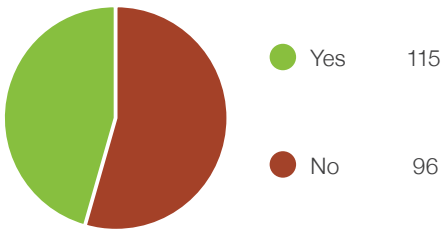
When locals were asked how they believe the addition of the new facility would impact the visitation by their family and friends, 44% of respondents felt that there would be no change. 35% felt that their family and friends would visit more often and 21% believe that their visitors would increase the length of their stay in Coonamble.



8.

Given that there is a shortage of skilled and unskilled labour in Coonamble at present (eg: Doctors, Teachers, Hospitality, Farm hands, etc), we asked if respondents thought that the addition of the new facility would enhance the desirability of Coonamble to potential workers?

The results from this question were split with 54% being of the opinion that the facility will enhance the desirability and 46% believe it will not.



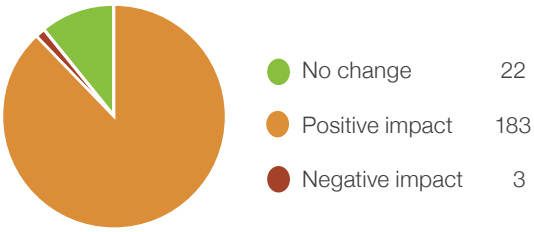
"Tourism supporting the local economy should stimulate growth and development. Improved economy would improve the whole town through a flow on effort."

"Suitable housing and services such as doctors are much more important considerations for prospective residents."

9.

We completed our survey asking respondents how their idea of the facility (as per question 2) would impact the local economy. An overwhelming 87% felt that the facility would have a positive impact, with 10% suggesting there no change and 3% a negative impact.

Feedback for this question included many positive comments but in general the response was to focus on keeping the new facility authentic and simple, focusing on the health benefits of the bore water.

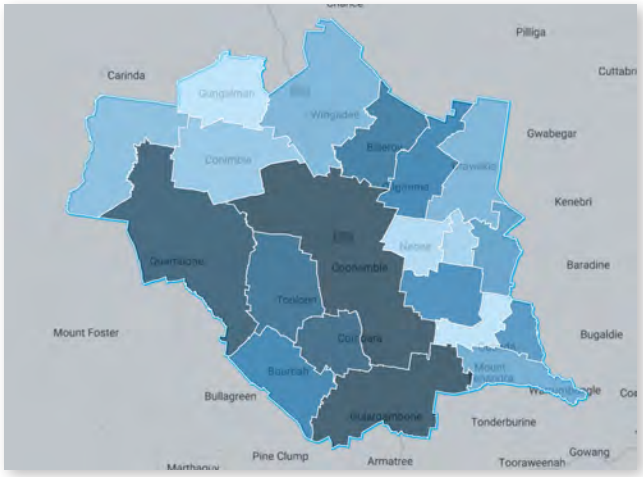


"A nice friendly, different and simple bore baths where people can camp and look at nice garden will create a get away. Help tourist stay and spend in our little town."

"Positive impact if managed well, maintained, marketed and promoted. Localised tourism deals and promotions."

"We just need a simple bore baths not a TAJ MAHAL."

ABOUT THE AREA



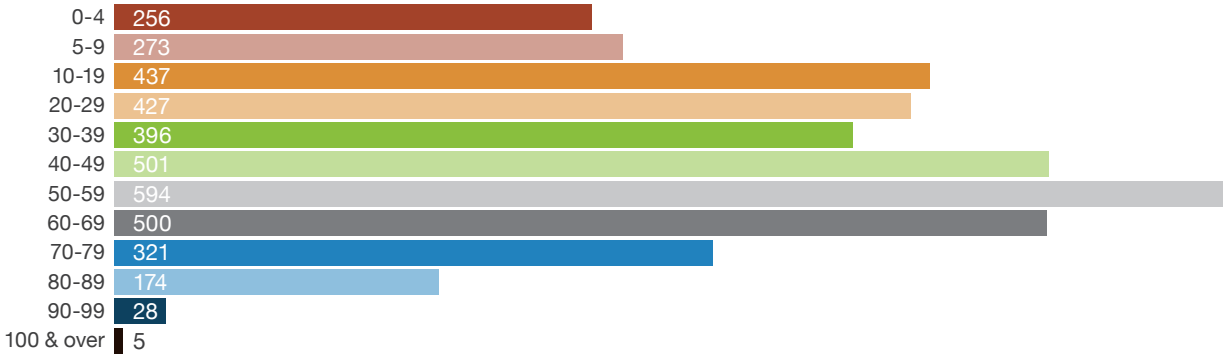
The Coonamble Shire comprises the towns of Coonamble and Gulargambone with the village of Quambone. Less than two hours drive by road from Dubbo, six hours from Sydney and 8 hours from Brisbane.

Home to 3,907 people, Coonamble's median age is 50 - 59 years and supports 1,416 jobs with an annual economic output of $400.401 million.

The Coonamble area was once home to over 30,000 indigenous people. The Gamilaroi, Kawambarai and Wailwan people all moved through the area and the name Coonamble is derived from the word 'gunambil' meaning 'full of dirt' in one of these language groups. The tribal boundaries were made up of geographical landmarks such as mountains and rivers but boundaries were crossed in times of drought and for trading tools, weapons and stories. Coonamble has many culturally significant artefacts, scarred trees, bora grounds, burial grounds, fish traps and paintings located along the Castlereagh River. The Wailwan people are the traditional custodians of the land. The first Europeans arrived in the area in 1818 with the explorer, John Oxley. The first 'run' in the area was established in 1840 and was called Koonamble Station.

Coonamble Shire population by age group

The 50-59 years cohort is the most common with 594 people.



COONAMBLE

Coonamble is located 536 km north-west of Sydney via Mudgee, 97 km north of Gilgandra and 180m above sea-level with a stable population of around 3000 people.

It is well known for its various farming industries such as cattle, sheep, wool and wheat production. The town is located between the Warrumbungle Mountains and the Macquarie Marshes, on the Castlereagh River, which is an underground river where water only flows when floods occur in the region.

The township of Coonamble is the commercial and social hub of the Coonamble Shire. The town is dependent on the Artesian water found in the area. The town of Coonamble was officially established in 1861 and the railway between Dubbo and Coonamble opened in 1903 which was a convenient method of transporting wool.

Coonamble is famous for being the place where the last of the Ben Hall bush ranger gang was captured in a gun fight in 1865. These days it is known for holding the largest combined Rodeo and Campdraft in the Southern Hemisphere. This event is held every June long weekend and attracts around 1000 cowboys and cowgirls along with about 4000 spectators.

In the 2016 Census, there were 2,750 people in Coonamble.

Of these 49.4% were male and 50.6% were female.

Aboriginal and/or Torres Strait Islander people made up 34.2% of the population.

People	**2750**
Male	49.5%
Female	50.6%
Median Age	42

Families	**630**
Avg Children per family (families with children)	2
For all families	0.7

All private dwellings	**1354**
Average people per household	2.4
Median weekly household income	$1,015
Median monthly mortgage repayments	$921
Median weekly rent	$178
Average motor vehicle per dwelling	1.7

THE GREAT ARTESIAN BASIN

The Great Artesian Basin in Australia is the largest and deepest aquifer (artesian basin) in the world. It stretches over 1,711,000 square kilometres, which is 22% of the surface area of Australia. This includes most of Queensland, the south-east corner of the Northern Territory, the north-east part of South Australia, and northern New South Wales. The basin is 3,000 metres deep in places. Its water temperature ranges from 30°C to 100°C.

The basin is the only reliable source of freshwater through much of inland Australia and this natural, mineral-rich thermal water is what paved the way for rural communities in an otherwise inhospitable landscape.

Kamilaroi Aboriginal people used the natural springs from the Great Artesian Basin as a source of water in times of drought and European settlers realised the potential of accessing flowing waters when bores were drilled into the basin, near Bourke in 1878. The ensuing reliable water supply paved the way for developing rural communities, a valuable stock industry and enhancing the prosperity of agricultural production within the rich black soils of the North West NSW.

Scattered over the Great Artesian Basin are mound springs where groundwater discharges naturally to the land surface.

Tourism NSW have created a driving tour of the NSW bore springs in the Great Artesian Basin. It is a destination route embracing eight distinctive and unique Hot Artesian Spa facilities of North West New South Wales.

Explore The Great Artesian Drive and experience the warm and friendly country hospitality along with a multitude of attractions and therapeutic hot artesian pools which are dappled throughout the North West. Need any more reasons to journey our way? Travel the Great Artesian Drive and be pleasantly surprised as you discover the jewelled havens of the North West!

The Great Artesian Basin

This map shows the location and size of the worlds largest and deepest aquifer (artesian basin).

TAKING THE WATERS

'Taking the waters', is a very ancient practice where people consumed and/or bathed in water high in mineral content. It has a long history especially in Europe. The practice was usually a quest for healing waters: hot waters, mineral-impregnated waters, cold waters or holy waters.

Sometimes invalids sought healing muds and gases. By the nineteenth century, the search for a healing climate could also be part of the ritual, with different parts of the globe (such as the Riviera, southern Italy, California and southern Australia) being promoted as places where invalids would find a cure for various maladies, including the dreaded consumption or tuberculosis.

Benefits of immersing yourself in mineral-rich waters today:

- Rejuvenate and re-hydrate your skin
- Assist with detoxifying your body's lymphatic system
- Replenish the body's cells
- Relax muscles and ease joint pains – renowned benefits for those with muscular and arthritic problems
- Provide weightlessness and ease rheumatic complaints
- Assist in the management of sciatica and nerve troubles
- Provide analgesic and sedative effects
- Great for those who have trouble sleeping
- Provide relief of symptoms of psoriasis, eczema and other common skin complaints.

The waters can be taken in a the following locations on the Great Artesian Drive:

- Pilliga Pools in Narrabri Region
- Moree Artesian Aquatic Centre,
- Boomi Pools
- Mungindi Pools in Moree Shire
- Lightning Ridge
- Burren Junction
- Walgett
- Brewarrina Shire Goodooga
- Collarenebri

3. CONSULTATION FINDINGS AND DEMAND ASSESSMENT

This section of the business case is set out under the headings of:

TOURISM TRENDS

- Wide open spaces
- Self Drive - Self Drive Case Study
- Authenticity - Aboriginal Tourism Snapshop
- Experience and adventure tourism
  - Attracting Millennials to regional NSW
  - Wellness Tourism
- Sustainable/regenerative/ECO Travel

MARKET ANALYSIS OF EXISTING TOURISM OPPORTUNITIES

- Analysing existing markets to Coonamble Shire alongside that of Coonabarabran, Lightning Ridge and Moree including for their origin, purpose of visit, travel party, activities and seasonality
- Reviewing existing tourism development strategies in the Shire and neighbouring region
- Assessing the impact of COVID shifts in tourism markets to the prospects for a new artesian baths product at Coonamble

FORECASTING VISITATION TO THE PROPOSED NEW COONAMBLE HOT SPRINGS PROJECT

- Forecasting the “counterfactual” or base case for Coonamble visitation if this project does not proceed, allowing for other projects expected to be delivered
- Assessing the potential of an upgraded artesian baths bathing trail including the proposed Coonamble Artesian Bathing Experience as a core regional attraction
- Assessing visitation to the attraction and separately to the accommodation components

TOURISM TRENDS

Tourism trends are changing every year, and impacts from the Covid-19 pandemic have not failed to create massive changes in the industry. This being said, the Australian Regional Tourism industry has never had as much focus or such an opportunity to build awareness and promote its unique experiences.

Spencer Yeo, development and commercial director at Campbell GRAY Hotels, says: “Travel has always had intrinsic value, but from now on it will hold even more importance. As soon as it’s possible to get away, everyone will be rebooking their missed trips from 2020, and looking for the dream holidays they have been thinking about while quarantined at home. Family holidays, bucket-list trips, adventure travel and wellness retreats are likely to be particularly popular.”

WHAT PEOPLE WANT:

WIDE OPEN SPACES

Post COVID, a natural tendency will be to avoid popular highly trafficked destinations which draw big crowds. People are going to have a preference for places with wide open spaces and natural beauty rather than urban settings. Not only because they seem to have a very safe travel environment from a health perspective but are particularly interested in places where they can soak up natural beauty, get some exercise and social distance with ease.

This provides a great opportunity for the Coonamble Shire and local community to position and promote its brand and experiences to future travellers, planning their post lock-down travel dreams.

SELF DRIVE

Complementing Wide Open Spaces, self drive tourism is growing. As highlighted in the DNCO DMP, camping and caravanning continue to increase in popularity, including increasing demand of the use of RVs over the last decade. This is not restricted to the 55+ demographic. It is also popular with younger travellers and is often intergenerational. In 2017, 30 to 54-year-olds made up 47% of the market while visitors aged 55+ represented 30% and those aged 20 to 29, 16%. CCIA Australia recently reported that it was the 20-29 year-olds who showed the strongest growth for year-end September 2018.

In the **July 2021 Caravan Industry Association of Australia** stakeholders report Tourism Research Australia data indicates that 1.2 million caravan and camping trips were taken in March 2021. This marks a +44% increase from March 2020 which was impacted by lock downs.

- 4.4 million nights were spent caravan and camping around the country with 93% of these in regional areas.
- 15% of all trips taken in Australia in March were caravan and camping.

The manufacturing data from this report identified that the manufacturing of recreational vehicles in Australia continues to grow, with 7700 built to April 2021, a +28% increase from last years YTD figures and a +15% from 2017.

One of the drawbacks of an organised tour is being shunted along with lots of other people to tourist attractions but then only having a limited amount of time to appreciate them, or spending time in the confined quarters of a coach, bus or train with people you have little or nothing in common with.

The benefits of a self-drive holiday:

- You decide the overall pace of the holiday.
- Regardless of the car type you choose, you have the total freedom and flexibility to get to places off the beaten track, and then spend as much time as you want there.
- You can enjoy greater comfort and privacy.
- You control social distancing

ROAD TRIP ITINERARIES

Itineraries and road trails have been in place throughout Australia for many years, providing regional tourism dispersal and viable income for remote tourism operators.

The Great Southern Touring Route was created over 20 years ago for the International tourism market and is promoted internationally to 15 core tourism markets. This itinerary travels through 6 of Victoria's tourism regions including the Great Ocean Road, central Victoria and Melbourne.

Western Australia Tourism have branded their state as the "Home of the Road Trip" where nature, food and epic scenery awaits. Hitting the road in Western Australia means the murmur and melody of a good conversation, your favourite playlist, and progressive discoveries through some of Australia's most iconic landscapes.

Discover Tasmania suggest that making a detour can be a mistake, a time-waster, an inconvenience. But in Tasmania, a detour is an adventure. Self-drive journeys offer the freedom to find the things you need – natural wonders, inspiration, calm, great fish and chips – and much you never expected.

SELF DRIVE CASE STUDY

THE VICTORIAN SILO ART TRAIL

The Victorian Silo Arts Trail is a highly effective new touring route in a remote regional area.

SUMMARY

The development of the Silo Art Trail has led to a dramatic increase in domestic overnight visitors to the Wimmera region and Yarriambiack Shire. It is rare to find so obvious a regional tourism product success and it highlights the power of developing regional touring routes around a strong theme. The existing Great Artesian Drive is, as yet, to make a similar contribution to North West NSW but with a new and more upmarket facility at Coonamble is better positioned to do so.

DEVELOPMENT OF THE VICTORIAN SILO TRAIL OVER 2016 & 2017

The Silo Art Trail was conceived in 2016 after the success of the first silo artwork in Brim. What started as a small community project by the Brim Active Community Group, GrainCorp, Juddy Roller and artist, Guido van Helten resulted in widespread international media attention and an influx of visitors to the region and the idea for a trail was born.

The Silo Art Trail was created as a partnership between Yarriambiack Shire Council, international street art agency Juddy Roller, Victorian Government, Australian Government and GrainCorp, who donated the silos as canvases for the artists' work.

The Silo Art Trail is Australia's largest outdoor gallery. The trail stretches over 200 kilometres, linking Brim with neighbouring towns Lascelles, Patchewollock, Rosebery, Rupanyup and Sheep Hills. Providing an insight into the true spirit of the Wimmera Mallee, the trail recognises and celebrates the region's people through a series of large-scale mural portraits painted onto grain silos, many of which date back to the 1930s. The project saw a team of renowned artists from Australia and across the world visit the region, meet the locals and transform each grain silo into an epic work of art; each one telling a unique story.

The Yarriambiack Shire Mayor said that the project in his Shire started with a happy confluence of interests. The town of Brim was looking for a beautification project for their main bus stop. Van Helten was looking for a rural silo to paint. The Shire was able to raise some money for the Brim silo but it was really done on a shoestring. Van Helten completed it in January of 2016. The Brim silos were so popular that the shire funded an additional five silos with $400,000 raised from state, federal and local sources. The final silo was completed in 2017.

The Wimmera region has become the outstanding tourism region growth story in Victoria since the Silo Art Trail came into existence over 2016 to 2017.

The very strong growth performance of the Silo Art Trail in the Wimmera Region is highlighted by comparing the three-year average number of domestic visitors staying overnight and number of domestic visitor nights in Victoria's regions in the three years to end 2019 with this 3 year average to the end of 2015.

LOCATION OF THE VICTORIAN SILO ART TRAIL IN REGIONAL VICTORIA

As shown by comparing the three maps in Figure 1. “The Silo Art Trail” is in the Wimmera tourism region and Yarriambiack Shire of Western Victoria for which Tourism Research Australia collects detailed visitation statistics. This relatively remote tourism region has few other tourism attractions of note and therefore the data on domestic overnight visitation provides an indication of the success or otherwise of the Silo Art Trail.

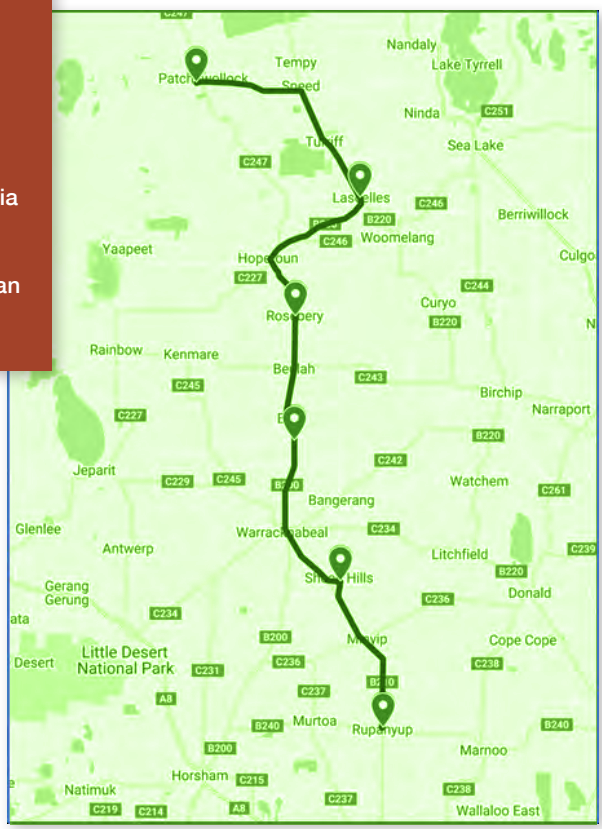
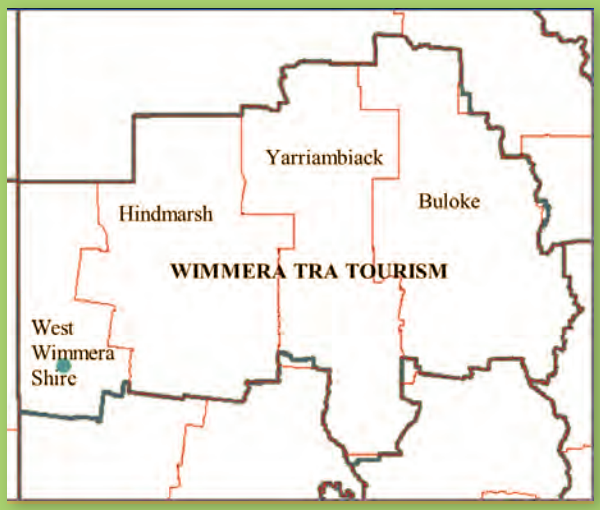
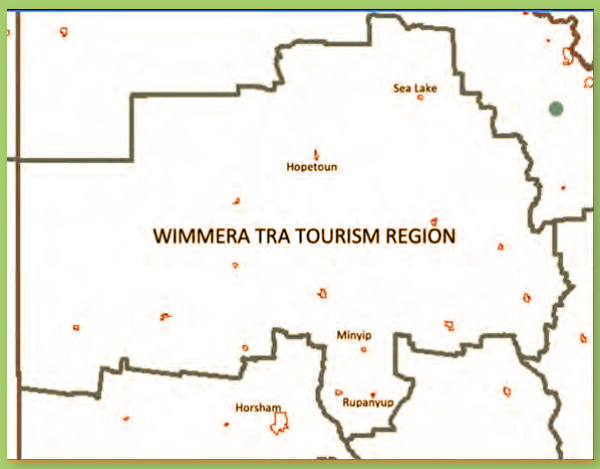


Figure 1.





Domestic visitor nights are the dominant form of visitor spending in regional Victoria and estimated by Tourism Research Australia to provided 69% of total visitor spending in the Wimmera Region in 2018-19. Three-year averages are used to reduce impact of sampling variability to less visited tourism regions including the Wimmera region.

Growth in domestic overnight visitors and domestic visitor nights to the Wimmera region is double the next best performing region in Victoria. This growth is also around three times the growth in domestic overnight travel to its neighbouring regions of the Mallee and Western Grampians.

The growth in the economic benefits for the Wimmera Tourism Region over 2016/17 to 2018/19 compared to 2012/13 to 2014/15 equated to $19 million in extra annual regional visitor spending and 160 extra direct jobs in the regional visitor economy (source: TRA Regional Satellite Account). It appears that around two-thirds of this growth in regional economic benefits is attributable to the Silo Art Trail.

This is about as close to “smoking gun” evidence as we get for the effectiveness of a regional tourism product development strategy.

LGA level benefits provide further evidence of the success of the Silo Art Trail with benefits extended beyond the Yarriambiack Shire to neighbouring Shires.

SELF DRIVE CASE STUDY CONTINUED

IMPLICATIONS OF THE SUCCESS OF THE SILO ART TRAIL FOR THE COONAMBLE HOT SPRING PROJECT

It appears that the existing Great Artesian Drive and its seven public hot pools has not, as yet, made a similarly large difference to tourism in the region. Considering that the major hot pool attractions at Moree and Lighting Ridge receive strong visitation, collectively they are not providing a wider economic benefit to Walgett, Brewarrina and Narrabri Shires.

This conclusion is supported by comparing domestic overnight visitation to these Shires over the three years ending 2019 with the three years ending 2015. Over the six TRA local statistical areas visited by the Great Artesian Drive there was growth in domestic overnight visitors of 42% and in domestic visitor nights by 26% over the three years ending 2019 with the three years ending 2015.

In part, due to the greater driving distances of the Great Artesian Drive it needs to be anchored by stronger visitor attractions to have similar impacts on touring visitor flows. The Great Artesian Drive is a touring route of just under 1,100 kilometres which is significantly longer than the Silo Art Trail of just over 200 kilometres.

Currently the anchor attraction of the Great Artesian Drive is the Moree Artesian Aquatic Centre and its two outdoors mineral rich hot Artesian pools and a private wellness Artesian pool, hydrotherapy pool, 50m FINA standard pool and 7 treatment rooms providing beauty and therapeutic treatments from manicure, massage to acupuncture. This facility receives around 200,000 annual visits and is the number one attraction in the Moree Plains LGA with 290 Tripadvisor reviews and a 4.5 rating. The Lightning Ridge Artesian Baths is the number three attraction in the busier tourism centre of Lightning Ridge with 682 Tripadvisor reviews and a 4.5 rating. In contrast, Pilliga Artesian (near Narrabri), Burren Junction, Goodooga, and Walgett Bore Baths, and Mungindi Pools, had 43, 31, 0, 5 and 1 Tripadvisor reviews respectively.

To foster a strong regional touring route based on a theme it is necessary to have more than two major attractions 260 kilometres apart – and this is where the proposed Coonamble Artesian Bathing Experience project promises to lift visitation and visibility to the Great Artesian Drive and the economic benefits it brings to the larger region.

Destination NSW in promoting the Great Artesian Drive developed an extended expert guide that is posted on their key consumer facing website of visitnsw.com. This expert guide had its first stop at a basic bore bath at Pillaga after 100kms of “slow going because of the rutted, gravel road” at the end of a long 620kms drive from Sydney that involved a completed driving time of 9 hours. After this stop the expert guide recommends visiting Burren Junction (which unfortunately was closed on the day the expert guide visited). After Pillaga and Burren Junction, the expert guide suggests visiting hot baths at Moree, Walgett and finishing at Lightning Ridge – so only five of the seven public hot pools promoted by the four local Councils are visited in the Destination NSW expert guide.

It would obviously be far more effective in fostering visitor engagement with and commitment to start an updated and rebooted Great Artesian Drive at a new premier facility at Coonamble. Coonamble is closer to Sydney, being 529kms and a more doable just over 6 hours 25 minutes from Sydney on far better roads, than driving from Sydney to Pillaga.

After a minimum overnight stay at Coonamble the visitor would be encouraged to take a day to drive to stay the next night at Moree, travelling via visits to the Pillaga and Burren Junction baths. After staying overnight in Moree the visitor would be encouraged to drive from Moree via a visit to the Walgett bore bath to stay at Lightning Ridge. This would allow a return to Sydney or the Hunter via Coonamble and the Warrumbungles on the recently upgraded road. This minimum three night Great Artesian Drive would visit six Artesian baths and require a drive of 587 kilometres long, but only require a total driving time according to Google Maps of six hours and forty minutes from its start at Coonamble.

AUTHENTICITY

Ask any traveller these days what kind of experiences they want when they travel and you're likely to hear the word "authentic" dropped more than once.

Travellers want more than the manufactured kind of tourism that doesn't feel real or even diminishes the cultural narrative of a place. Instead, they're looking for ways to experience a new place to the fullest by making a real connection — a genuine, local, and authentic connection - engaging and meaningful experiences as close to 'the real deal' as they can get.

The authentic tourism experience:

- Engaging with local culture and people
- Being in the moment (digital detox)
- Eating local food
- Making friends
- Taking time - travelling slow

Travelling in outback NSW is an authentic experience that if consistently promoted as a core component of the region's brand will attract travellers searching for the "real deal".

ENGAGING WITH LOCAL CULTURE & PEOPLE

Local indigenous groups offer the unique experience to share the area rich Aboriginal culture making the destination a great place for visitors to learn about the natural and historic area. To achieve this, we will bring education, adventure and Aboriginal culture together in a respectful, fun and commercially viable way including dream time storytelling, which will be weaved through each experience in a seamless way using a unique blend of awesome guides complimented by cutting-edge technology.

Our vision is to design an experience that explores and celebrates Aboriginal Culture, not exploit it, that connects the past, present and future in an authentic and respectful manner. It is our goal to champion young Aboriginal people and inspire them to view tourism as a career path, give Aboriginal people the opportunity to pass down culture to future generations, increase the level of respect for Aboriginal people, culture and knowledge, strengthen pride in Aboriginal communities by empowering people to work and share, and to make the experience authentic.

Authentic, indigenous encounters will be part of the Coonamble Artesian Spa and Accommodation experience. The Coonamble Shire Council, Coonamble Local Aboriginal Land Council and Coonamble Aboriginal Health Services (and associated groups) will each be engaged to assist with the development of this significant core component.

ABORIGINAL TOURISM SNAPSHOT

A key finding from the annual Visitor Experiences and Expectations Research (VEER) in 2018-19 found that visitor interest in an Aboriginal activity or experience continued to far outweigh participation, which indicates a clear opportunity to capitalise on the increased interest in Aboriginal tourism.

Social Impact

Aboriginal tourism businesses (in Western Australia) are providing a range of social benefits to individuals and community by way of:

- Giving Aboriginal people the opportunity to pass down culture to future generations;
- Increasing the level of respect for Aboriginal people, culture and knowledge;
- Having a positive impact on the way Aboriginal people consider their future opportunities;
- Delivering authentic cultural experiences;
- Inspiring young Aboriginal people to view tourism as a career path; and
- Giving Aboriginal people the option to live within their chosen community.

Employment

Aboriginal tourism businesses bring employment opportunities to the community. Of particular importance are the increased opportunities for youth employment.

It is anticipated that The Coonamble Shire Council, Coonamble Local Aboriginal Land Council and Coonamble Aboriginal Health Services (and other associated groups) will be engaged to assist with the develop of tourism employment opportunities. Together these leadership groups will work in conjunction with local businesses and tourism operators to create these employment pathways.

Strengthens Pride

Aboriginal tourism businesses bring pride to the community by empowering people to work and to share their knowledge and culture.

Brings Culture Together

Aboriginal tourism businesses bring different cultures together. This provides an opportunity to educate non-Aboriginal people about Aboriginal culture, by sharing cultural pride and stories.

EXPERIENCE/ADVENTURE TRAVEL

Arguably the most significant, systemic trend in tourism today is the demand for “experiential travel,” typically meant to convey the idea of more immersive, local, authentic, adventurous and/or active travel.

Technology has created an environment where we can watch people in our social networks visiting amazing places, every minute of every day. For many travellers, seeing so many other people accomplish their travel goals, it inspires them to imagine and purchase their own travel experiences often aligned with those of their network peers.

This social media envy is some-times referred to as the “Instagram Effect,” and provides an opportunity for tourism operators to marketing it-self as an experience versus a productised travel experience.

In a recent American Express survey, consumers illustrated their demand for more enriched lives and personal fulfilment through experience and learning. Over 72% of respondents said they would rather spend money on experiences than things. Further, 88% said travel is the number one dream on their life’s bucket list, ranking higher than family or wealth.

Examples of experience activities for the visitor travelling in the Coonamble Shire:

Farm stays
Retreats
Wildlife experiences
Subject specific walking tours and hikes - Architecture - Art - History - Nature - Gardens - Bush
Star Gazing
Events - Festivals - Rodeos - Markets
Helping others and volunteering
Wellness - Detox - Spa experience

EXPERIENCE/ADVENTURE TRAVEL - ATTRACTING MILLENNIALS TO REGIONAL NSW

In November 2017, DNSW and TRA released a report, Attracting Millennials to Regional NSW.

Millennials are aged between 15 – 29 years old although for this study, the age range was extended to 15 – 34 years. While this is highly segmented across age groupings within the wider age band, there are some insights that are highly relevant to Country and Outback NSW.

Importantly, they define themselves by their **experiences** rather than by their jobs as older generations have done. This is significant in regard to focusing on the growing domestic market for younger adults, who are increasingly interested in short breaks, festivals and events as well as more **immersive nature-based experiences.**

To attract their attention, it is important to create experience-rich imagery (photos and video), highlight the uniqueness of destinations and provide options for them to see and do.

Millennials are heavily influenced by digital and social media; WIFI access is important and they are seeking experiences with the ‘bragability’ factor.

What do they want from a destination?

Connect:
Build authentic relationships with other travellers and locals

Escape:
Break the monotony and ties of everyday life

Discover:
Learn something new about the world, or about themselves

Brag:
Use experience to create social identity

Wellness Tourism

Wellness is one of the fastest growing segments in tourism, valued at an impressive $639 billion a year in global visitor spend, with Australia receiving 10 million wellness trips a year from local and international visitors, according to research carried out by the Global Wellness Institute (GWI). These figures continue to grow and the GWI estimates it will be a $919 billion market by 2022 – growing more than twice as fast as tourism overall.

People around the world are embracing Wellness as an antidote to stress and unhealthy lifestyles, as a positive, proactive and aspirational way to live.

According to The Global Wellness Tourism Economy Report, Wellness is defined as a proactive attitude and approach to improving one's state of health, enhancing one's quality of life and encouraging optimal levels of wellbeing, as opposed to simply the absence of disease or infirmity.

Wellness Tourism is defined as travel associated with the pursuit of maintaining or enhancing one's personal wellbeing and includes International Wellness Tourism and Domestic Wellness Tourism.

Global Wellness Tourism includes revenue from Primary Wellness Tourists where wellness is the sole purpose or motivating factor for travel and Secondary Wellness Tourists, who seek to maintain wellness or participate in wellness experiences whilst taking any kind of trip. These Primary Wellness tourists account for 13% of wellness tourism visits and 16% of expenditure. Secondary Wellness Tourists account for the majority of Wellness Tourism trips (87%) and expenditure (84%).

Wellness tourism is also a high yield tourism segment, increasing its attractiveness to host cities and governments. In addition to an increase in the number of people taking wellness trips to/in Australia, it is interesting to note that both domestic and international wellness tourists spend more than the average tourist.

> "COVID-19 has seen people value their own well-being more and are travelling with this need in mind. Our research shows Wellness travellers tread lightly, respect local communities, spend more and enjoy travelling in shoulder seasons."
>
> **Katherine Droga,**
> **Chair of the Global Wellness Institute**

THE WELLNESS TOURIST

TRENDS & THEMES INFLUENCING GROWTH IN THE WELLNESS ECONOMY

Health and wellness tourism has now become one of the biggest growing sectors of the travel industry, and will continue to grow in popularity with projected growth of more than 7.3% during the period 2021-2026.

This growth not only directly impacts the spa industry and its customers, but also opens up new opportunities for spas to play a leading role in a paradigm shift toward more proactive ways of taking care of ourselves. The most commonly touted reasons for an explosion in this industry (both in terms of revenue growth and active participation) are related to:

- Increasingly older, unhealthy people.
- Failing medical systems.
- Globalisation and connection.

The consumer market for wellness is large and growing, and the potential market is even larger.

INCREASED RECOGNITION OF GROWTH IN THERMAL & MINERAL SPRINGS INDUSTRY

The thermal/mineral springs industry is positioned for an uplift in investment and growth, as consumers increasingly seek out the healing and relaxing properties of water and nature. The industry's solid growth trajectory is projected to ramp up over the next 5-10 years, driven by:

- The growing desire of people to reconnect with their heritage and experience the therapeutic and wellness-enhancing properties of what nature has to offer.
- The accessibility of thermal/mineral springs bathing experiences to all ages (children through senior citizens), to people of all fitness levels, at a variety of price points, and to people who may be new or inexperienced with wellness experiences and spas.
- The ease of participating in thermal/mineral springs bathing as a complementary activity to other recreational, cultural, and leisure activities during travel.
- The wide variety of experiences that can be pursued with thermal/mineral springs bathing - social or solitary/meditative; modern or traditional/cultural; and recreational, wellness-enhancing, or therapeutic/curative.

CHANGING ROLE OF WELLNESS

Spas have become a pertinent cultural force, influencing not only how consumers manage their health, appearance, and stress, but also how consumers socialise, spiritualise, travel, and work. The trend of combining the benefits of a wellness centre visit with a holiday has increased. Awareness regarding the benefits of healthy eating, nutrition, exercise, beauty, relaxation and pampering is increasing and people love to include those elements in their holidays or purposefully travel to achieve wellness.

There is also an increasing trend amongst wellness facilities to assume more responsibility for providing a "soft" but conscientious, results-oriented and educational experience that is integrated into and balanced with the corner stone of the spa experience which is rest and relaxation. Nowadays, the remit of many wellness operations is to help people focus on "personal sustainability" in terms of taking responsibility for one's health and well-being; instilling a sense of balance and control; and learning and practicing new skills for personal and professional growth, happiness, fulfilment and purpose.

SUSTAINABLE/REGENERATIVE/ECO TRAVEL

Ecotourism is a form of tourism involving responsible travel to natural areas, conserving the environment, and improving the well-being of the local people.

53% of global travellers want to travel more sustainably in the future, we expect to see a more eco-conscious mindset in 2021 and beyond. It's clear that Coronavirus has amped people's awareness about their impact on the environment and local communities. More than 69% expect the travel industry to offer more sustainable travel options and travellers will consequently visit alternative destinations in a bid to avoid travelling during peak season and overcrowding. This desire also means that 63% will stay away from crowded tourist attractions, indicating that destinations will need to adapt new, smart crowd management measures to appease travellers visiting their country.

Regenerative travel is the latest evolution of sustainable travel and eco-tourism, and highlights the importance, not just of avoiding damaging destinations we visit, but of making positive contributions to leave them better than when we arrived. It is particularly important in the wake of the economic disaster that the pandemic has wrought on communities around the world.

There are also strong signals for travel operators to be more transparent about how travellers' money is being used to rebuild a community, paving the way for more regenerative tourism.

A unique travel offering that encourages eco-friendly habits is glamping. For those unfamiliar, glamping is "glamorous camping". From comfortable cabins to luxury safari tents, there are many ways that this form of travel encourages sustainability.

- Glamping structures often are not permanent and therefore leave minimal impact on the environment.
- These accommodations do not deliver constant damage as a major resort would.
- A lot of glamping accommodations have no electricity or use it minimally. This means less overall energy use.
- Some glamping sites have shared rest rooms and facilities which serves for consolidation of waste.
- Glamping can even be considered less impactful than regular camping since most amenities are already available such as a bed, linens, or even food, which allows for less waste left behind because less is brought in.
- Glamping accommodations can be built from refurbished structures such as campervans, sheds, or shipping containers.

Finally, glamping allows people to interact and immerse themselves in nature and respect the area around them. We believe this is a perfect fit for the wellness tourist looking for an authentic experience in Coonamble.

MARKET ANALYSIS, VISITOR FORECASTS & SHIRE ECONOMIC BENEFITS

FINANCIALLY VIABLE REGIONAL VISITOR ATTRACTION INVESTMENTS ARE RARE, BUT MANY BRING STRONG REGIONAL ECONOMIC BENEFITS.

A key challenge with visitor attractions is that they tend, as in this case, to have much better economic returns for the local area than financial returns for the owner and operator. In economist language, there is a market failure in development of visitor attractions, which explains why so many only exist due to investments by the public sector and are often run by governments at a loss.

Typically, economic benefits spread to other businesses, beyond the operator of the attraction, who free ride on the attraction investment. In the case of Coonamble the spread of economic benefits is expected to be mainly to other business in the town of visitor accommodation providers and sellers of food and beverage, fuel and groceries.

Commonly, where visitor attraction investments are profitable, they tend to have a very large neighbouring market, be highly unique, or be in a destination with many other existing visitor attractions. Unfortunately, only the uniqueness condition applies at Coonamble.

This makes developing a new Artesian Bathing attraction at Coonamble more challenging. For this reason, the development needs to be well matched to the potential markets and all methods of increasing rate of return to the owner and operator need to be exploited. This also encourages a conservative investment proposal with capital costs carefully rationed to aim at both local resident demand and the mix of six traveller markets identified for this project rather than purely the highest yielding potential travellers.

In addition to offering lower cost public bathing, by providing some visitor accommodation with more private artesian baths bathing there is an opportunity to improve the project's viability as well as "braggability" and profile on social media.

In addition to servicing visitors the proposed artesian baths will act as a major new facility for local residents. This suggests a reason beyond regional economic development for greater support from the Shire and State and Federal Governments for investment in the project.

ACCESS ISSUES ARE HIGHLY INFLUENTIAL IN MARKET POTENTIAL

Coonamble is not advantaged by a large local population, being adjacent to a major capital city as with successful artesian baths projects in Victoria or being on a major touring route. Coonamble is off the main route from Victoria to Queensland (the Newell Highway). It does benefit from some through traffic heading to the Lightning Ridge destination, which with the new Opal Centre major investment should have growing tourism in coming years. The sealing of most of the road from the Warrumbungles to Coonamble also provides an increased opportunity for consumers to link these destinations and Lightning Ridge in a touring route.

The primacy of access issues for this project led to forecasting visitation on the basis of seven distinct visitor markets. This approach is expected to provide more robust forecasting and provide more guidance to how to most effectively market the property.

AVAILABILITY OF COMPETING PRODUCT – THERE IS A GAP IN THE MARKET!

Existing artesian bathing in the surrounding region is more at the rustic end, in some cases being in remote settings and free of charge. There is a lack of a more mid-market or premium experience with the existing products on the Artesian Bathing Trail, which would foster greater consumer interest in the trail as a whole. Similarly, there is no bathing at the existing sites offered with mid to upper-market accommodation and greater privacy than available to the public market. A review of the Moree Artesian Aquatic Centre case study provided insights of use in forecasting demand for a Coonamble artesian baths, but reinforced the belief that the proposed Coonamble project addresses a gap in the market.

This gap in the market provides strong potential for the combination of an artesian baths attraction and compatible visitor accommodation to attract the following markets:

- Local residents
- Friends and relatives of those living in the Coonamble area, who dominate existing visitation to Coonamble
- Country NSW residents from neighbouring LGAs, looking for a different and new experience
- Grey Nomads – traditionally low spending long stayers
- Baby boomer superannuants – older visitors who are far higher per day spenders than grey nomads
- Business travellers looking for a different experience
- Girlfriends – groups of women, who are looking for a pampering and "braggable" experience
- Young people/couples – looking for a very different and more luxurious experience on an outback adventure
- Families looking for an outback journey from major urban centres– education and something very different for the children and parents.

In contrast, weddings and conferences are not likely major markets, given their reliance on food and beverage service, a larger venue and preference for closer destinations.

Geographically, the major market potential for attracting new visitors to Coonamble is with:

- Surrounding LGAs
- Other Regional NSW, including the Hunter as well as other areas in the Country and Outback Region
- Melbourne/Regional Victoria/Southern NSW travellers heading to Qld in cooler months
- Sydney and Brisbane/Gold Coast travellers taking an outback tour international wellness enthusiasts and internationals looking for a very different outback experience.

Visitation to Coonamble for artesian bathing is expected to be highly seasonal and this reduces expected visitation, average occupancy rates and financial rates of return to the operator/owner.

- Summer is terribly hot and the low season for tourism to Coonamble – often over 30 degrees at night in mid-summer
- Winter has a steady flow of tourists to Coonamble, even if spring and autumn are stronger. Availability of an artesian baths experience is likely to boost winter visitation to Coonamble proportionally more than for the other seasons even as autumn and spring remain the peak seasons for visitation.

MAXIMISING OPERATOR & SHIRE ECONOMIC RETURNS FROM THE PROJECT

The low level of existing visitation to Coonamble, suggests that a conservative approach be taken by staging development of the artesian baths project. **The first stage** is proposed as mid-market public bathing and a small number of mid to upper market accommodation units with private bathing and further services to compliment the public and private bathing such as massage and spa treatments. **A second stage** might involve increases in accommodation units once visitor night numbers to the Shire as a whole not including those visiting friends and relatives, reach a specific growth threshold, such as doubling.

For the Coonamble economy to get maximum benefits from a new attraction, it is critical that the attraction provide a sunset, night-time and potentially also sunrise/early morning experience. This encourages more of the visitors to the bathing to stay overnight in Coonamble rather than visit on a day trip. Overnight stays provide a much higher economic yield to the town visited than do day trips. Often there are many competing activities during the daytime, but very few experiences available in the evening when doing regional touring, while around sunrise and sunset are not safe times to be travelling due to increased risks of kangaroos being on the roads.

As noted by Lucy White, CEO of Destination Country NSW and Outback the Coonamble artesian baths cannot be similar to a Sydney spa experience – it needs to be something more authentic to the region. Lucy also noted that the artesian baths project will be more financially successful if other complimentary experiences can be created in Coonamble. This might include: yabby catching; yabby cooking classes; fishing in the river or waterholes, and floating down the river on rubber tyres when it is flowing. It is also expected that the artesian baths project will boost the viability of town food and beverage providers giving strong financial incentives for investment in delivering improved quality, hours of opening and service to visitors and residents.

FORECASTING VISITATION

How forecasting in this report was done.

Two forecasting estimates are provided. The first forecasting estimates are the core expectation based on the available data, industry expertise and expected capture rates of the full range of available visitor markets. Forecasts are provided separately for the total visitation to the artesian bathing experience and secondly for the share of these visitors who are expected to use the accommodation on the property with the artesian bathing experience.

The second set of forecasting estimates are made more conservative by 30% for visitation to the artesian baths experience and by 15% for the accommodation experience, as the latter can be more reliably forecast. These more conservative forecasts are provided to build in a margin of safety in setting expectations for financial returns for the owner/operator and regional economic benefits for the Shire.

The approach to forecasting considers demand from seven distinct and non-overlapping markets.

FORECASTS FOR VISITATION TO THE ARTESIAN BATHING INCLUDING BY THOSE STAYING ON THE PROPERTY

These forecasts by market segment for seven years of operation are shown in table below. In the first full year after opening the awareness of the potential visitor awareness of the project grows rapidly. The total reflects the conservative assumption that the visitation stabilises rather than continues to grow from the second to the 7th year. Currently in this continuing COVID period there is strong attention on regional tourism options and tourism hunger for new experiences in these areas.

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Local residents	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Existing overnight visitors	6,000	7,000	7,000	7,000	7,000	7,000	7,000
Visitors from neighbouring LGAs	5,500	7,000	7,000	7,000	7,000	7,000	7,000
Visitors on the way to or from Lightning Ridge	3,500	5,000	5,000	5,000	5,000	5,000	5,000
Visitors extending their visit to the Warrumbungles and Coonabarabran	2,000	3,000	3,000	3,000	3,000	3,000	3,000
Visitors extending their visit to Dubbo	2,000	3,000	3,000	3,000	3,000	3,000	3,000
International visitors to Australia who are spa enthusiasts	2,000	3,000	3,000	3,000	3,000	3,000	3,000
Domestic spa enthusiasts who would not otherwise visit the region	2,000	3,000	3,000	3,000	3,000	3,000	3,000
TOTAL visitors	**29,000**	**37,000**	**37,000**	**37,000**	**37,000**	**37,000**	**37,000**
TOTAL visitors under more conservative scenario	**20,300**	**25,900**	**25,900**	**25,900**	**25,900**	**25,900**	**25,900**

FORECASTS FOR VISITATION TO THE ASSOCIATED ACCOMMODATION

The occupancy rates for the proposed accommodation are very much influenced by whether they encourage stays of visitors to the project in Coonamble that might otherwise stay in other centres like Dubbo, the Walgett and Warrumbungles Shires and come to the artesian baths on day trips.

Strong seasonality away from the summer months is expected to impact the accommodation at the bathing experience more than the motel/hotel accommodation in the township. This is because the town's motels have a heavier reliance on guests staying for business or temporary employment reasons who tend to come more consistently in summer.

If we assume a conservative 62.5 per cent annual average occupancy rate for the Eco Cabins and Glamping Tents in the second and successive years this represents a total of 21 visitor nights per day or 7,500 annual visitor nights. These forecasts alongside the more conservative (15% lower scenario) are shown below.

Visitors to the project's proposed Stage One accommodation represent one in six of the total visitors to the artesian baths – ensuring an overflow for other forms of visitor accommodation such as to motels around the town and the caravan park in Coonamble.

	OCCUPANCY		NUMBER OF ANNUAL VISITOR NIGHTS	
	CORE FORECASTS	CONSERVATIVE FORECASTS	CORE FORECASTS	CONSERVATIVE FORECASTS
Eco Cabins & Glamping tents	62.5%	53%	7,619	6,461
RV Camping Spaces	40%	34%	5,840	4,964
TOTAL	52%	44%	13,549	13,549

SHIRE ECONOMIC & COMMUNITY BENEFITS

Economic and community benefits, spread well beyond the boundaries of the artesian baths project. Significant benefits accrue to other visitor economy businesses in the town and the Shire Council from increased prosperity in the town. Local residents are major beneficiaries with a new facility for their use and increased job opportunities in construction of the project, its operation and the businesses beyond the project that benefit from the visitors it attracts.

This initiative also promises benefits to neighbouring LGAs and their communities as it significantly upgrades the appeal of the Great Artesian Drive by providing the anchor attraction for this drive that it has been lacking to date.

IMPLICATIONS FOR OTHER COONAMBLE VISITOR ACCOMMODATION BUSINESSES

While many of the remaining five out of six visitors to the artesian baths who don't stay in the project's accommodation will be local residents or visitors on day trips or passing through Coonamble, many others will be seeking out visitor accommodation in the township.

This analysis suggests that the proposed Stage 2 accommodation and other investments to extend visitor accommodation by other town businesses might occur quite quickly following the achievement of forecast visitation to the artesian baths experience.

In addition, as the accommodation at the baths is not proposed to provide food and beverage support the extent of spending leakage into the surrounding town businesses is likely to be much higher than at other resorts.

BACKGROUND

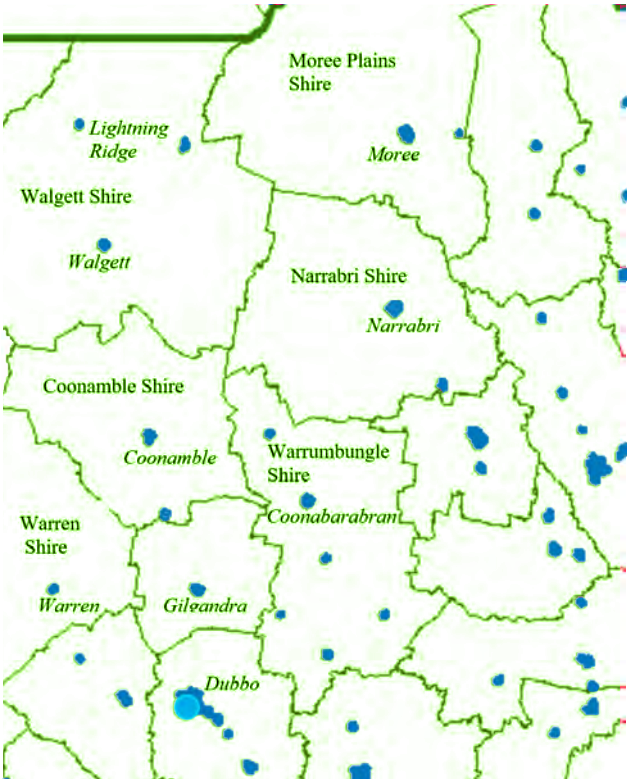
This report was drafted by Karl Flowers of Decisive Consulting Pty Ltd as an input to the development of the business case for this proposed project.

This report benefited from a range of feedback including Coonamble Shire Council, as well as from Lucy White and Fleur Pors at the regional tourism organisation (Destination Country and Outback NSW (DNCO)). This report also was developed using a wide range of official data sources from Tourism Research Australia, the Australian Bureau of Statistics, and the Caravan Parks Association.

MARKET ANALYSIS OF EXISTING TOURISM OPPORTUNITIES

Understanding the potential of a new visitor attraction in regional areas is heavily influenced by its location, neighbouring populations, passing visitors and the presence of complimentary as well as competing experiences.

A new attraction in an existing busy visitor destination is easier to assess than one in a centre like Coonamble with a currently limited destination profile. Similarly, a new attraction on a major touring route even if not in a high-profile destination has a far easier path to viability than a standalone destination requiring a diversion.



ANALYSING EXISTING MARKETS TO COONAMBLE SHIRE ALONGSIDE THAT OF COONABARABRAN, LIGHTNING RIDGE & MOREE

Local residents and visiting friends & relatives (VFR)

A key market for the proposed artesian baths will be local residents and visiting friends and relatives of these residents.

However, the population of Coonamble at only 30% of that of Moree, makes it more difficult to justify a larger facility and develop the critical mass of visitation necessary to support financial viability.

This table shows the populations of the towns and LGAs in the area around Coonamble in the 2016 Census. Coonamble and its Shire has around 4% of the population within a three-hour driving distance. This suggests the major market opportunity is to grow visitation to Coonamble, rather than rely on local residents.

Currently over a full year there is around one domestic adult overnight visitor for each seven local residents on average in the Coonamble Shire.

In the existing visitor markets to Coonamble, the major form of domestic overnight visitation is by visiting friends and relatives at 48% of all domestic overnight visitors over the 2016-19 period.

Coonamble has a much higher reliance on friends and relative visitors than do neighbouring towns as shown in bar graph below.

On the basis, of the ratio of holiday overnight visitors to visiting friends and relative visitors Lightning Ridge-Walgett was the most tourism focussed destination (a ratio of four holiday to one VFR visitors) and Coonamble the least tourism focussed destination (a ratio of only 0.7 holiday to one VFR visitors) of those shown.

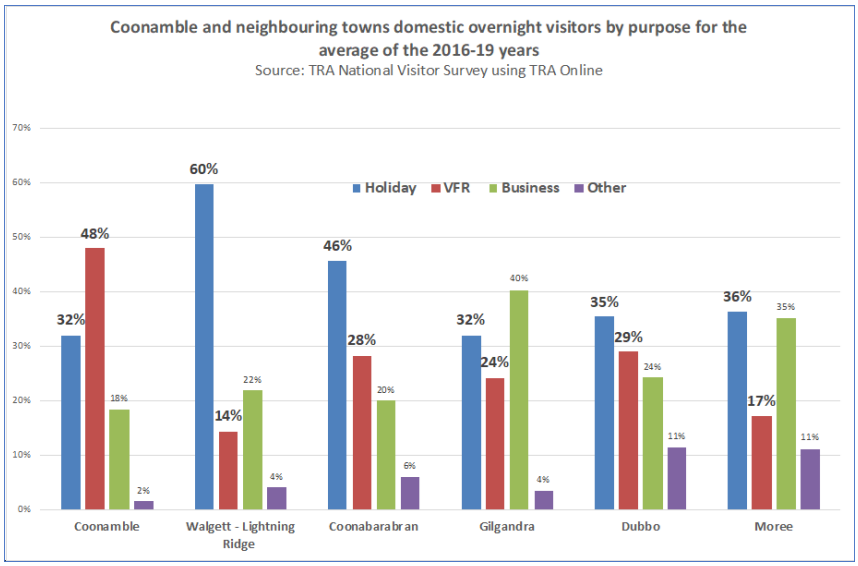
Finding 1.
Based on population analysis attracting visitors rather than relying on local resident demand will be more important for a Coonamble artesian baths than for example the Moree Artesian Aquatic Centre in the more populous Moree township and LGA

Towns near Coonamble	Population (2016)
Coonamble	2,749
Coonabarabran	3,290
Gilgandra	3,129
Warren	1,391
Walgett	2,148
Lightning Ridge	2,282
Dubbo	38,943
Narrabri	7,610
Moree	9,311
TOTAL	**70,853**

LGAs near Coonamble	Population (2016)
Coonamble	3,919
Warrumbungle	9,380
Gilgandra	4,234
Warren	2,730
Walgett	6,112
Dubbo Regional	50,075
Narrabri	13,083
Moree Plains	13,158
TOTAL	**102,691**

Source: ABS Census (2016)
Note: Town populations calculated using State suburb Census data

Finding 2.
Winning support of local residents for a new Coonamble hot spring product will also be important for attracting the largest pre-existing visitor market of those visiting (and often staying with) their friends and relatives.



Coonamble has less reliance on tourism than competing destinations

The table below shows the share of employed persons in the major ABS level 1 tourism industries of: Accommodation and Food Services, and Arts and Recreation Services in the 2016 Census results.

This comparison highlights that Coonamble is far less reliant on tourism focussed employment than neighbouring towns of Lightning Ridge, Coonabarabran and Dubbo. Coonamble and Warren are the towns with the lowest reliance on tourism employment of the nine towns analysed. This conclusion is also based on the reliance on VFR as against holiday visitors.

	ACCOMMODATION & FOOD SERVICES	ARTS & RECREATION SERVICES	TOTAL
Coonamble	4.5%	0.3%	4.8%
Coonabarabran	9.4%	1.3%	10.7%
Gilgandra	7.5%	0.8%	8.3%
Moree	6.5%	0.8%	7.3%
Narrabri	7.6%	0.6%	8.1%
Lightning Ridge	14%	3.3%	17.3%
Dubbo	7.8%	1.7%	9.5%
Warren	4.3%	0%	4.3%
Walgett	6.9%	1.0%	7.9%
Total	**7.6%**	**1.3%**	**8.9%**

Source: Census of Population and Housing, 2016

Coonamble's current tourism opportunity

The current strengths of Coonamble from a tourism perspective, as noted by Lucy White and Fleur Pors from the regional tourism organisation (DCNO), are:

- River an asset, when as now currently running
- Very flat lands, that when green, as now, are quite attractive broad acreage
- Family friendly
- Prettier town than many in Western NSW
- The new visitor information centre will provide a more appealing first experience of Coonamble for many visitors, but there remains little tourism product in the adjoining area available to promote.

Coonamble has a marked low season, October to February as very hot, though evenings are better. Mid-winter is ok for travel to outback NSW and not the low season.

Lucy White noted that a surprisingly high 38% of overnight visitation within the Country and Outback region are intra-regional visits. There is also a migration north from Melbourne and Victoria in Autumn and return south in Spring.

On the way to Lightning Ridge

Visitors travelling through Coonamble are often heading to Lightning Ridge, as the main route north from Victoria to Queensland bypasses Coonamble on the Newell Highway going through Dubbo and Coonabarabran.

Lightning Ridge is expected to get fast growing tourism with The Opal Centre being constructed at a cost of $33m involving the leading architect, Glenn Murcutt. The Australian Opal Centre houses the world's most significant collection of opalised fossils and is building a collection of precious opal, cultural artefacts, artworks, photographs, archival and research materials. This new attraction is expected to bring more frequent visitation through Coonamble in coming years.

Finding 3.
A new attraction and reason to visit Coonamble appears required to lift this town's economy to take similar advantage from the visitor economy as do other towns in the region

Links to the Warrumbungles visitor experience

The major current tourism destination in the immediate Coonamble region is the Warrumbungle National Park – being around 76kms from Coonamble to the Visitor Centre in the Park. It is currently connected by a mostly unsealed road that Google Maps suggests would take 58 minutes to drive. However, this road is now being upgraded with sealing for the vast majority of its distance with a $23 million investment. On the basis of an average speed of 95 kilometres, instead of just under 80 kilometres an hour as currently, the upgraded road should see travel times reduce from 58 minutes to 48 minutes. This road upgrade will make a Warrumbungles-Coonamble-Lightning Ridge touring route itinerary more attractive.

In a tourism audit for DNCO, the Warrambungles Hub had two very strong offerings identified.

Firstly, Coonabarabran is recognised as the Astronomy Capital of Australia with the presence of Siding Spring Observatory making this an internationally renowned location. Home to Australia's first Dark Skies Park in Warrumbungles National Park places this Hub as pivotal in attracting Night Skies tourism and so the Unlimited Horizons theme is paramount to this Hub. While other hubs in the DNCO can support the Night Skies initiative, only the Warrumbungles Hub has the reputation, dark night skies and astronomy infrastructure that sets it apart as a premier 'Nigh Skies' destination.

Secondly, the spectacular landscapes of the Warrumbungles National Park and Pilliga National Park with Dandry Gorge and Coolah Tops all contribute to this destination having a strong claim to the theme Exploring our Nature. The Grand High Tops Walk and the Breadknife enable this Hub to position itself as an iconic nature-based destination and particularly suitable for adventurous Millennials. The Visitor Centres at Baradine and in the Warrumbungles National Park provide a depth of supporting 'park' infrastructure that encourages more intrepid adventures as well as more passive interaction with nature, in particular for families.

Visitor accommodation provided in Coonamble compared to competing regional destinations

Associated with the pre-COVID dominance of visiting friends and relatives as a purpose of visit for domestic visitor nights to Coonamble, this town has a higher reliance on use of friends and relatives homes for domestic visitor nights. This is not unusual in destinations with a limited base of visitor attractions that are important for drawing holiday visitors to an area.

In Coonamble hotels/motels/serviced apartments and commercial caravan parks or camping grounds only provided 7% and 6% respectively of total domestic visitor nights over the four years from 2016-19. In contrast, the homes of friends and relatives and non-commercial caravanning or camping provided much higher 49% and 33% respectively of these domestic visitor nights. This also suggests a shortage of affordable hotel/motels and commercial caravan/camping capacity.

The significant 33% share of non-commercial caravanning and camping suggests that illegal camping is a problem in the Coonamble area as is presumably the associated problem of illegal dumping of wastes and rubbish.

The contrast with the shares of domestic visitor nights in other regional competing destinations highlights the relatively low reliance on commercial forms of visitor accommodation in Coonamble. This comparison is shown in table below.

Finding 4.
Extra commercial visitor accommodation whether hotels/motels or caravan park facilities in Coonamble appears warranted to make their shares of total visitor nights more comparable with that in competing regional towns. This will be particularly the case if a new major attraction of the artesian baths project brings in more holiday visitors to the town.

	Coonamble	Coonabarabran	Dubbo East	Gilgandra	Moree	Walgett Lightning Ridge
Hotels and similar accommodation	7%	29%	41%	24%	33%	13%
Caravan Park or commercial camping ground	6%	15%	10%	9%	26%	28%
Friends or Relatives Property	49%	27%	35%	20%	27%	19%
Caravan or Camping non-commercial	33%	13%	5%	15%	9%	25%
Other	5%	15%	9%	31%	4%	16%

Reviewing existing tourism development strategies in the Shire and neighbouring region

Destination Network Country and Outback NSW as the regional tourism organisation is responsible for a vast area, covering 61.2% of the State. This region offers an incredible diversity of visitor experiences, precincts and places to attract visitors from across Australia or overseas.

DNCO's destination management plan (2018) strategy is to maintain existing markets while also targeting new higher-value markets. This reinforces the importance of motivating new people to visit the region as well as encouraging repeat visitation.

The destination management plan identified six potential game-changing initiatives, which would strengthen the appeal of Country and Outback NSW, including but not limited to:

- Aboriginal cultural tourism experiences;
- Experientially-led touring routes and trails;
- An Unearth the Fossils initiative;
- A Night Skies experience development initiative;
- Export-ready wine packages and experiences; and
- A Flying Tours and Private Charters initiative.

This report recognises that the region's touring routes have relatively low awareness in the market. A key opportunity is to refocus touring routes through adopting a stronger experientially-led approach, including the development of contemporary, high-quality content and itineraries.

This can be delivered in two key ways:

- Connecting individual experiences, tourism products and events within each strategic theme, including at a local or Network scale; and
- Creating cross-regional, cross-boundary and cross-theme experiences that bring the stories, places and characters of Country and Outback NSW to life.

Coonamble is adjacent to the Warrambungles which is promoted as a night sky National Park destination. The Regional Tourism Authority (RTA) considers there is a need for more use of storytelling to make "big skies" regional brand a reality and more interesting beyond the science. She noted that "night-time skies" talks at the artesian baths could be a worthwhile feature.

The RTA's Lucy White also noted that the link of Coonamble and Lightning Ridge could strongly support the project. Lightning Ridge is a destination with, in Lucy's words "real eccentricity" and, a host of distinctive stories to tell. With the Opal Centre the route through Coonamble will become more frequently patronised and Coonamble tourism should have the opportunity to grow from its current low base.

Lucy noted that Indigenous tourism in the Western NSW region is very little developed.

Lucy emphasised that the regional tourism organisation has very limited marketing funding from Destination NSW, so they have limited capacity to support new attractions with marketing funding support.

A more prospective source of State Government funding for the project is for capital investment in attractions/experiences. Angela Shepherd, is the key contact in this department and her details are: Business Development Manager, Department of Regional NSW, 0429 833 131 - angela.shepherd@regional.nsw.gov.au

EXISTING MARKETS

Touring market, esp. 55+; Visiting Friends and Relatives (VFR); Event participants (including sports); Nature and Cultural tourism; Short breaks, esp. Food and wine

NEW MARKETS

Active families; Younger adults; More active 55+; Niche markets including meetings and conferences, and international, esp. Linked to nature and cultural tourism and food and wine

Assessing the impact of COVID shifts in tourism markets to the prospects for a new artesian baths product at Coonamble

It now appears that even once all Australians are fully vaccinated (perhaps by early 2022) there will be a need for quarantine facilities for at least a further year to two years from now. This was the view of Jane Halton, as reported on 29 May 2021. Halton had recommended the Commonwealth build more special purpose quarantine facilities last year. Halton is uniquely qualified to provide this estimate as she was the former secretary of the federal Department of Health and co-chair of the international vaccine distribution facility for poor countries, COVID. (Source: The Age 29 May 2021)

This extended discouragement for international travel is likely to see a continued focus on domestic tourism and particularly to regional areas.

New focus on regional tourism to lead the recovery

In a report on "5 ways rural communities can leverage the current surge in domestic tourism (thanks to COVID)" Linda Tilman noted that there is a current post-COVID surge in domestic particularly intrastate regional tourism. She also noted there has been significant growth in caravan, RV and camper trailer sales. According to Tourism Australia, desired road trip experiences:

- Visit regional areas
- New destinations
- Explore small towns
- Undertake food and wine experiences
- Focus on outdoor activities – getting a nature fix

Caravan Parks and caravans and RV users lead the COVID tourism recovery

Since COVID began, the strongest element of the Australian tourism industry has been the caravan park sector. Sales of caravans have grown strongly resulting in excellent prospects for long term growth.

Caravan Industry Association of Australia recently released their calendar year to May manufacturing report highlighting volume is +36% compared to the same period in 2020 and just over 10% ahead of the four pre-COVID years. At the same time, imports of caravans and RVs are booming. Comparing the three months ending February 2021 with the same period in the previous year (which was pre-COVID) shows a growth of over 50%. In January 2021, imports were just under 50% of total caravan and RV sales.

Tourism Research Australia Monthly data continues to highlight the rebound of caravan and camping with 1.8M trips in April 2021 and 6.3M nights spent nationally. This was a 900% increase over the lockdown period of April 2020.

FORECASTING VISITATION TO THE PROPOSED NEW COONAMBLE ARTESIAN BATHING PROJECT

Forecasting the "counterfactual" or base case for Coonamble visitation if this project does not proceed, allowing for other projects expected to be delivered.

Visitation growth to Coonamble is expected to be very low in the absence of a new key attraction. That a quick look at the mural on the water tower is the number 1 thing to do in Coonamble and had only 13 reviews on TripAdvisor, compared to the 289 overwhelmingly favourable reviews of the Moree Artesian Aquatic Centre emphasises this fundamental problem.

At the same time, it is recognised that three recent developments have improved the prospects for development of a new visitor attraction in Coonamble:

- The investment of $23m in sealing most of the road from the Warrumbungles
- The investment of $1.2m in a new Coonamble Visitor Centre
- The investment of $33m in the Australian Opal Centre at Lightning Ridge

Assessing the potential of an upgraded hot springs bathing trail including the proposed Coonamble Artesian Bathing Experience as a core regional attraction.

The number of public thermal pools and their growing popularity in North West NSW has inspired a touring route which highlights the shires of Narrabri, Walgett and Moree as backed by these Shire Councils. Called the Great Artesian Drive it focuses on seven public artesian hotspots that range from rustic open-air baths serviced by rehabilitated 100 year-old bores, to a modern aquatic centre (Moree) complete with Olympic-size pool and waterslides.

I think it important to give more detail on the failures of the current Great Artesian Drive and what the revitalised drive starting in Coonamble would look like. This builds directly on the Silo Art Trail case study as provided earlier in the document and helps to explain why this case study was included.

EVALUATION OF THE VISITATION IMPACT OF THE CURRENT GREAT ARTESIAN DRIVE

It appears that the existing Great Artesian Drive and its seven public hot pools has not, as yet, made a similarly large difference to tourism to the Walgett, Moree Plains, Brewarrina and Narrabri Shires as the Silo Art Trail has made to the Wimmera Region. This is the case even as the major hot pool attractions at Moree and Lighting Ridge receive strong visitation by visitors coming to these towns for other reasons than the Great Artesian Drive. When the route recommended by Destination NSW for the Great Artesian Drive is evaluated this is not surprising.

This conclusion is supported by comparing domestic overnight visitation to these Shires over the three years ending 2019 with the three years ending 2015. Over the six TRA local statistical areas visited by the Great Artesian Drive there was growth in domestic visitor nights by 26% over the three years ending 2019 compared with the three years ending 2015. In contrast, the Silo Art Trails region of Wimmera saw 93% growth in domestic visitor nights in the same comparison.

Lucy White from DNCO also noted that the existing Artesian Bathing Trail is an average experience which does not motivate much travel. This trail is not supported by marketing funding from her regional tourism board.

Currently the anchor attraction of the Great Artesian Drive is the Moree Artesian Aquatic Centre and its two outdoor hot Artesian pools, a private wellness Artesian pool, hydrotherapy pool, 50m FINA standard pool and 7 treatment rooms providing beauty and therapeutic treatments from manicure, massage to acupuncture. This facility receives around 200,000 annual visits and is the number one attraction in the Moree Plains LGA with 290 Tripadvisor reviews and a 4.5 rating. The Moree facility is about to enter a major maintenance overhaul of the main pool and after it fully re-opens it will be managed as a more new more tourism oriented facility. The more modest facility at the Lightning Ridge Artesian Baths is the number one attraction in the busier tourism centre of Lightning Ridge with 682 Tripadvisor reviews and a 4.5 rating. In contrast, the other five bore baths on the current full Great Artesian Drive of Pilliga Artesian, Burren Junction, Goodooga, and Walgett Bore Baths, and Mungindi Pools, have only 43, 31, 0, 5 and 1 Tripadvisor reviews respectively. That five of the seven potential stops on the Great Artesian Drive have very few reviews, indicates that the current Great Artesian Drive is not encouraging touring the route.

PROBLEMS WITH THE ROUTING OF THE CURRENT GREAT ARTESIAN DRIVE

Destination NSW in promoting the Great Artesian Drive, developed an extended expert guide that is posted on their key consumer facing website of visitnsw.com. This expert guide had its first stop at a basic bore bath at Pillaga after 100kms of "slow going because of the rutted, gravel road" at the end of a long 620kms drive from Sydney that involved a completed driving time of 9 hours. After this stop the expert guide recommends visiting Burren Junction (which unfortunately was closed on the day the expert guide visited). After Pillaga and Burren Junction, the expert guide suggests visiting hot baths at Moree, Walgett and finishing at Lightning Ridge – so only five of the seven public hot pools promoted by the four local Councils are visited in the Destination NSW expert guide.

WHAT A MORE POPULAR GREAT ARTESIAN DRIVE WOULD LOOK LIKE WITH THE COONAMBLE HOT SPRING INCLUDED

It would obviously be far more effective in fostering visitor engagement with and commitment to start an updated and rebooted Great Artesian Drive at a new premier facility at Coonamble. Coonamble is closer to Sydney, being 529kms and a more doable just over 6 hours 25 minutes from Sydney on far better roads, than driving from Sydney to Pillaga.

After a minimum overnight stay at Coonamble the visitor would be encouraged to take a day to drive to stay the next night at Moree, travelling via visits to the Pillaga and Burren Junction baths. After staying overnight in Moree the visitor would be encouraged to drive from Moree via a visit to the Walgett bore bath to stay at Lightning Ridge. This would allow a return to Sydney or the Hunter via Coonamble and the Warrumbungles on the recently upgraded road. This minimum three night Great Artesian Drive would visit six Artesian baths and require a drive of 587 kilometres long, but only require a total driving time according to Google Maps of six hours and forty minutes from its start at Coonamble. The distances of each stage of this journey from Google Maps are shown in the table below and the average speeds on each stage imply quite good road conditions.

MOREE CASE STUDY

THE MOREE ARTESIAN AQUATIC CENTRE AS A CASE STUDY

The Moree Artesian Aquatic Centre received a $7 million upgrade in 2011-2012 and houses a range of pools for the public. The renovated outdoor facility boasts a new FINA standard Olympic pool, two Hot Artesian Pools which are both naturally heated to temperatures between 38 - 40 degrees Celsius, a program pool which is heated to approximately 30 degrees Celsius suitable for hydrotherapy, aqua aerobics and learn-to-swim classes. There is also a splash pad areas for the littlies, and a 10m high waterslide, as well as a gym which hosts a number of fitness classes each week but is versatile enough to cater for private functions and conferences.

Coonamble (2,750 people) and Moree (7,383 people) face similar access challenges for the major sources of visitors, though Moree benefits from more through traffic. These two towns are separated by a driving distance of 300kms or 3.5 hours through the Pillaga National Park (which has the largest native forest west of the Great Dividing Range in NSW).

While there were around 60,000 domestic day trips, very few or 500 per year had this activity in Moree. It can be assumed that a larger proportion of the annual 3,400 international overnight visitors to Moree also visit this facility.

MOREE CASE STUDY CONTINUED

THE MOREE ARTESIAN AQUATIC CENTRE AS A CASE STUDY

There was an annual average of 19,000 (60 per day) domestic overnight visitors with this activity in Moree. A surprisingly high 21% of domestic overnight visitors to Moree had an activity of "Visit a health spa / sanctuary / well-being centre" if we only consider holiday or VFR domestic overnight visitors over the four years to 2019.

Allowing for an average of 1.5 multiple visits on the same overnight stay in Moree for domestic and international overnight visitors and around 16,000 annual domestic day trip visitors to this facility by either domestic or international visitors who are staying outside Moree but driving through (not captured in TRA data) it seems reasonable to conclude that average annual visitor to this facility is around 50,000 or 137 per day.

Stronger interest of international visitors

One aspect of Moree's visitation that is unusual in the region, is its higher level of reliance on international visitors.

While around 3,400 adult international visitors on average came to Moree over the four years to 2019, this was nearly 40 times the number of international overnight visitors to Coonamble over the same period. Though this share of overall visitors to Moree is still small, the impact on visitor nights is stronger. International visitor nights were nearly 20% of domestic visitor nights to Moree in the four years to 2019, as compared to only 1% of domestic visitor nights in Coonamble.

It is expected that the more up-market artesian baths retreat proposed for Coonamble would have a strong potential to attract international visitors, including from the more basic facilities at Moree.

TripAdvisor ratings

The Moree Artesian Aquatic Centre received a very high number of 289 reviews on Tripadvisor.com while the next two top rated attractions in Moree were well behind with the Visitor Centre with 59 reviews and the Bank Art Museum with only 17 reviews.

The Moree Aquatic Centre also received a very high average rating of 4.5 out of 5. With 194 excellent ratings of the 289 ratings. Helping these ratings is fairly low pricing at $20 for visitors for artesian bathing, as shown in the following table (Source: https://www.maacltd.com/fees---charges.html)

WELLNESS RETREAT - SOAK & SAUNA 2 HOURS

Finding 5.
Moree's Artesian Aquatic Centre is popular with visitors to the town with an estimated (Pre Covid) 50,000 per annum or 137 visits per day from out of town on the basis of using TRA data. However, this facility is a lower-level experience that does not compete directly with the facilities proposed for Coonamble, with fairly low prices based on being more of an add-on to a community swimming pool than a artesian bathing retreat.

Prospects for increased visitation to the Great Artesian Drive as anchored by the Coonamble project

The current Great Artesian Drive is urgently needing new investment if it is to meet its potential to lift visitation to its region. This was the view of Lucy White at DNCO.

The proposed Coonamble project would provide a major lift to this trail, as it would include a much higher quality experience than currently offered. For this reason, existing stops on the Drive are likely to benefit from increased visitation, rather than falling visitation following the Coonamble proposed investment. In particular, it is likely to see increased diversion from the Newell Highway trek to and from Queensland with a stop in Coonamble and thence to Moree and its Aquatic Centre.

The Coonamble project is also likely to foster further investment in improvements to other artesian baths experiences on the Greater Artesian Drive. Most obviously, the strong visitor market, range of other attractions available and increased visitation expected at Lightning Ridge make an investment in the existing artesian baths project there an obvious market opportunity.

If investment occurs at other sites along the Great Artesian Drive this is likely to benefit the Coonamble project, as it would remain the logical starting point for most of the increased participation on this touring route. However, a major artesian bathing development at Lightning Ridge could have a detrimental impact on visitation to the Coonamble project.

Who is expected to come to the Coonamble Artesian Bathing Experience?

The key potential markets for the prospective Artesian Baths are:

- Local residents
- Friends and relatives staying with local residents
- Groups of women (the girlfriends market), will be attracted to an aspirational experience unavailable from existing artesian baths in regional NSW
- The over 55 market is now very different to the traditional "Grey Nomads" who travelled widely but spent very little. The new over 55s have significant spending on travel, look for braggable experiences and are seeking to behave as someone much younger and live as such (Bronwyn White research)
- Millennials may visit as an addition to existing events such as the rodeo or dog trials
- Families including with the possibility the mother may visit the spa (Mum's relief) while the rest of the family does other activities – likely that mothers will be the key decision maker for the family to visit the artesian baths.
- Celebration groups for weddings/anniversaries
- Visiting friends and relatives is important as many parents leave their farms to children who they then visit
- Spa enthusiasts

The New Young seniors' market – as a key market for higher value regional product

Lucy White noted the relevance of recent research by Bronwyn White at New Young Consulting on the high potential of the "new young, senior travellers" market for the Coonamble Hot Springs project. Lucy emphasised that higher yielding products in regional areas are most dependent on this market.

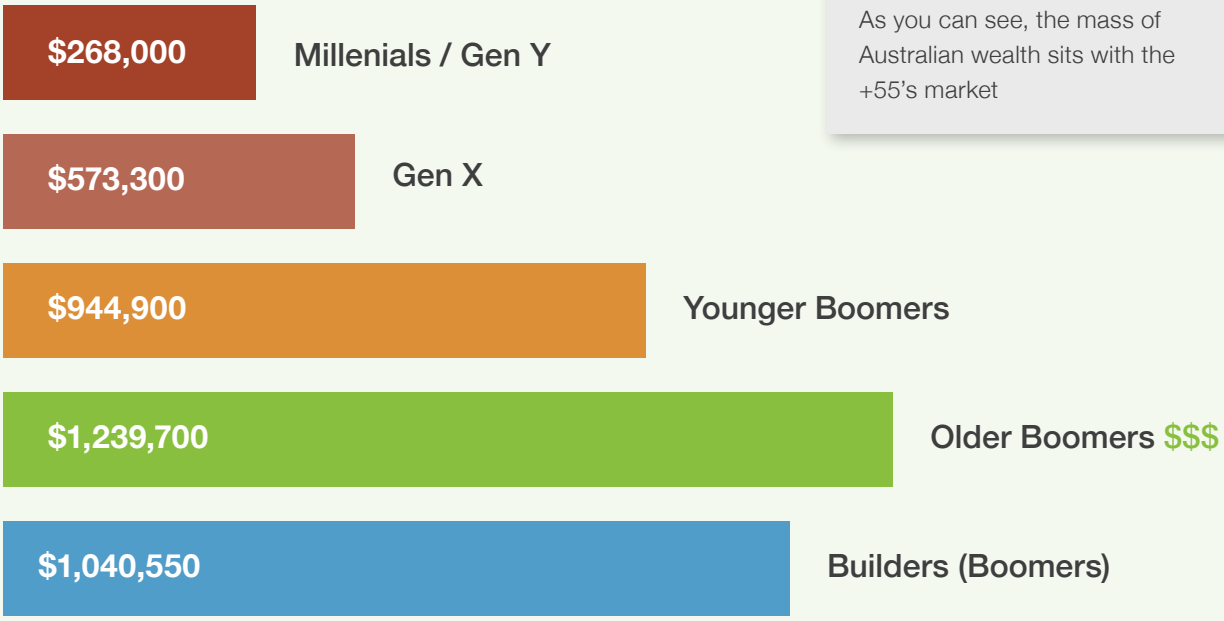
Bronwyn White noted the ten key aspects of the "new young, senior travellers" market:

1. They have way more money than any other generational cohort. Millennials may be 'sexy', but they have no money, or maybe money for 1 holiday a year.
2. They have way more time than anyone else. They may be fully retired, semi-retired, more flexible in their workplace or more likely to have plans to travel between jobs.
3. They will fill your low season and solve your over-tourism problems, they don't like the crowds.
4. Those who travel, have grand plans to do so. Planning multiple trips domestic and international per year.
5. New Young Consulting research shows that 40% of Australian travellers over 55 plan to spend between $10k – $50K per person per annum on travel.
6. They want to hear from you and are receptive to email marketing. Especially 'deals that pop into my inbox'.
7. They will tell everyone what a great time they had on your tour, at your hotel or at your destination. They are brilliant advocates.
8. No one else wants to market to them because they think that seniors don't spend money…this couldn't be further from the truth. In fact, less than 10% of marketing dollars are aimed at the 50+.
9. We will never again see a more cashed-up and time rich demographic cohort in our lifetimes.
10. According to Tripadvisor in 2019, millennials spend less than half on accommodation than baby boomers.

To this list of factors, can be added the greater COVID problems with cruising and rail touring as other high value tourism options undertaken by this market. This market is looking for new experiences, that are also COVID safe and away from crowded destinations. The longer international borders stay closed the more this market will look for high value and innovative regional touring options.

HOUSEHOLD WEALTH

This bar chart represents wealth of households in Australia by age bracket. As you can see, the mass of Australian wealth sits with the +55's market



FORECASTING VISITATION TO THE ATTRACTION AND SEPARATELY TO THE ACCOMMODATION COMPONENTS

The approach to forecasting visitation to Stage 1 of the proposed Coonamble artesian bathing project

Two forecasting estimates are provided. The first forecasting estimates are the core expectation based on the available data, industry expertise and expected capture rates of the full range of available visitor markets. Forecasts are provided separately for the total visitation to the artesian bathing experience and secondly for the share of these visitors who are expected to use the accommodation on the property with the artesian bathing experience.

The second set of forecasting estimates are significantly more conservative by 30% for visitation to the artesian baths experience and by 15% for the accommodation experience, as the latter can be more reliably forecast. These more conservative forecasts are provided to build in a margin of safety in setting expectations for financial returns for the owner/operator and regional economic benefits for the Shire.

The approach to forecasting considers demand from seven distinct and non-overlapping markets. These markets were chosen to recognise that for a remote regional artesian bathing property in contrast to one near a major city, the location of potential visitors and how they are most likely to access the site becomes a key guide to effective marketing. By considering seven markets more robust forecasts are expected.

This forecasting approach also provides guidance for how the operator/owner should monitor business performance and fine tune marketing on a seasonal basis to appeal to the different markets.

Forecasting visits to the proposed artesian baths (including those staying on the property)

Forecasts are heavily influenced by intended pricing. Compared to upmarket spa resorts such as Hepburn Springs, pricing needs to be lower reflecting the greater access challenge and lower incomes in the potential visitor markets. We have suggested preliminary pricing on the following basis:

Bathhouse entry (main pool)

- Coonamble Shire Resident entry $12
- General entry for non-Shire Residents
  - 2 hrs $30
  - 3 hrs 40
  - 4 hrs 50
  - Private Bathing - up to 2 people $90

Massage and Mud Treatment

- Price: $119 (30min)
- Price: $149 (60min)
- Price: $219 (90min)

It is also expected that accommodation plus packages will be offered to guests staying on the property that provide 30% discounts on bathhouse entry and treatments.

Local resident demand:

This is one of the harder areas to forecast and most subject to local pricing and promotions.

It might be expected that most local residents will be keen to have a look at the new facility and might be a particularly important market in the first year the project is open. We might also expect that many of these residents might become regular users, assisted by local pricing at particular times of the week.

If local pricing extends more generously when they bring visiting friends and relatives staying with them to the facility this would also boost local resident demand by encouraging more locals to have their first visit to the facility.

After the first year or two we expect the number of local resident visitors to the hot spring project to stabilise and the growth in visitation to the facility to come entirely from increased visitor demand.

The Coonamble Shire had 3,120 residents 15 years and older in the 2016 Census. On average, after the first year we expect that the average Shire resident will make just under two visits annually to the facility, despite around 60% of residents being assumed not to make any visits. We expect around 10% of the Shire's population to become regular visitors of at least monthly. The resulting forecasts for this market are shown below.

Forecasts for visitation to the artesian baths experience by local residents

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Local Residents	6,000	6,000	6,000	6,000	6,000	6,000	6,000

The existing domestic visitor market who stays in Coonamble Shire

It is expected that compared to the Moree facility the Coonamble project will receive visits from a similar proportion of Coonamble's smaller market of existing domestic overnight visitors to the Shire, despite the higher pricing of the Coonamble artesian baths experience. Moree is commonly visited as an overnight stop on the route from Victoria and Southern NSW to Queensland along the Newell Highway. When in transit on a long drive there is commonly less time allowed for visiting attractions than when the intention is to stay for a longer period at the destination. Moree's artesian baths receives 19,000 annual visits from this market or around one in eight of total domestic overnight visitors. For these visitors we expect on average they make 1.5 trips, and this creates just under 30,000 visits a year to the Moree facility.

We expect that given the paucity of other attractions in the Coonamble Shire, that the proposed artesian baths will also receive 12% of the annual average of 50,000 existing domestic overnight visitors to Coonamble and these visitors will average 1.5 trips each after the first year. The resulting forecasts for this market are shown below.

Forecasts for visitation to the artesian baths experience from the existing overnight visitor market to Coonamble

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Existing overnight visitors	6,000	7,000	7,000	7,000	7,000	7,000	7,000

Tapping the regional population market of neighbouring LGAs

There are approximately, 100,000 residents in LGAs neighbouring Coonamble Shire within a three-hour drive, most obviously the Dubbo Regional Council area of around 50,000 residents. Visitors from these Shires provide only around 10% of the existing overnight visitation to Coonamble.

This will be a key source market for girlfriends groups, families and "new young" visitors to the new up-market attraction in Coonamble. This market is expected to build more slowly than the first two markets reviewed.

Forecasts for visitation to the artesian baths experience from near LGAs to Coonamble

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Visitors from neighbouring LGAs	5,500	7,000	7,000	7,000	7,000	7,000	7,000

Increased stop overs of longer touring trips on the way to Lightning Ridge

Lightning Ridge/Walgett in the four years ending 2019 on average received 100,000 overnight domestic visitors. Lightning Ridge is a 2-hour drive north of Coonamble, with Walgett around two thirds of this distance on the way from Coonamble. Most of these visitors will have driven through Coonamble on the way, passing by the new facility. Only around 12% of these visitors to Lightning Ridge/Walgett come from the Shires neighbouring Coonamble.

We also expect visitation to Lightning Ridge to pick up strongly with the opening of the new Australian Opal Centre. If we conservatively allow for one in thirty of these adult visitors to stop off as they pass by the artesian baths from the second year of operation this creates the forecasts shown below.

Forecasts for visitation to the artesian baths experience from visitors on the way to overnighting in Lightning Ridge

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Visitors on the way to or from Lightning Ridge	3,500	5,000	5,000	5,000	5,000	5,000	5,000

Increased visitation to a new touring itinerary of the Warrumbungles and Coonamble

The Warrumbungles area including Coonabarabran receives around 140,000 annual overnight domestic visitors. The sealing of the direct route from Coonabarabran is expected to increase visitation to Coonamble by these visitors including to visit a new artesian baths experience. We assume that one in fifty of these overnight visitors to the Warrumbungles area extend their trip to Coonamble in order to visit the artesian bathing experience as shown below.

Forecasts for visitation to the artesian baths experience from visitors extending their overnight trip to the Warrumbungles/ Coonabarabran

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Visitors extending their visit to the Warrumbungles and Coonabarabran	2,000	3,000	3,000	3,000	3,000	3,000	3,000

The opportunity for gaining a share of Dubbo visitors from outside neighbouring shires to Coonamble

Dubbo is the major visitor destination in the vicinity of Coonamble. Coonamble is 160 kilometres north of Dubbo which takes around 1 hour forty-five minutes of driving. Dubbo received around 625,000 annual domestic overnight visitors over the four years to 2019. If only one in two hundred are attracted to visit Coonamble for the artesian baths experience, and were not intending to go to Lightning Ridge or the Warrumbungles this would still be a worthwhile market for the artesian baths project as shown below.

Forecasts for visitation to the artesian baths experience from visitors extending their overnight trip to Dubbo

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Visitors extending their visit to Dubbo	2,000	3,000	3,000	3,000	3,000	3,000	3,000

Visits by domestic and international wellness enthusiasts

We expect that international visitors will be attracted to a new artesian baths project in Coonamble, as they are to the less luxurious opportunity at Moree. Without knowing how many of the (Pre Covid) 3,400 average international visitors who stay overnight in Moree visit the Aquatic Centre it would seem reasonable to expect that the new artesian baths in Coonamble would also act as a magnet to bring international visitors to the Shire. We conservatively assume that international overnight visitors to Coonamble go from a very low average of 365 in the four years ending 2019 to 1,500 from the second year in which the facility is open and each of these visitors has an average of two visits to the facility.

Belgravia and the other major artesian baths resort operator in Australia have extensive mailing lists of Australian spa enthusiasts. It is expected that these mailing lists provide a marketing tool for encouraging these enthusiasts to visit Coonamble. However, as most of these enthusiasts are based in Victoria, there is less prospect of the conversion of these 100s of thousands of contacts into visits to Coonamble.

The forecasts for visits by international and domestic spa enthusiasts to the Coonamble facility are shown below, though inclusion of this market depends on the operator of the facility being one of the two major artesian baths operators nationally.

Forecasts for visitation to the artesian baths experience from domestic and international spa enthusiasts

Financial year ending	2024	2025	2026	2027	2028	2029	2030
International visitors to Australia who are spa enthusiasts	2,000	3,000	3,000	3,000	3,000	3,000	3,000
Domestic spa enthusiasts who would not otherwise visit the region	2,000	3,000	3,000	3,000	3,000	3,000	3,000

The sum of these various forecasts is shown in table below

- 37,000 artesian baths visitors are expected by the third year of operation at Coonamble or 101 visitors per day.

The more conservative 30% lower forecast is therefore for 26,000 annual visitors by the third year of operation at Coonamble.

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Local residents	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Existing overnight visitors	6,000	7,000	7,000	7,000	7,000	7,000	7,000
Visitors from neighbouring LGAs	5,500	7,000	7,000	7,000	7,000	7,000	7,000
Visitors on the way to or from Lightning Ridge	3,500	5,000	5,000	5,000	5,000	5,000	5,000
Visitors extending their visit to the Warrumbungles and Coonabarabran	2,000	3,000	3,000	3,000	3,000	3,000	3,000
Visitors extending their visit to Dubbo	2,000	3,000	3,000	3,000	3,000	3,000	3,000
International visitors to Australia who are spa enthusiasts	2,000	3,000	3,000	3,000	3,000	3,000	3,000
Domestic spa enthusiasts who would not otherwise visit the region	2,000	3,000	3,000	3,000	3,000	3,000	3,000
TOTAL visitors	**29,000**	**37,000**	**37,000**	**37,000**	**37,000**	**37,000**	**37,000**
TOTAL visitors under more conservative scenario	**20,300**	**25,900**	**25,900**	**25,900**	**25,900**	**25,900**	**25,900**

Forecasting visitor nights to the proposed accommodation at the artesian baths experience

The occupancy rates for the proposed accommodation are very much influenced by whether they encourage stays of visitors to the hot spring project in Coonamble that might otherwise stay in other centres like Dubbo, the Walgett and Warrumbungles Shires and come to the artesian baths on day trips.

Strong seasonality away from the summer months is expected to impact the accommodation at the artesian baths more than the motel/hotel accommodation in the township. This is because the town's motels have a heavier reliance on guests staying for business or temporary employment reasons who tend to come more consistently in summer.

Accommodation proposed in Stage 1

	Number	Maximum Sleeping Capacity	Average maximum sleeping
Eco Cabins	10	24	20
Glamping Tents	5	10	9
RV Camping Spaces	20	80	60

If we assume a conservative 62.5 per cent annual average occupancy rate for the Eco Cabins and Glamping Tents in the second and successive years this represents a total of 21 visitor nights per day or 7,750 annual visitor nights.

This would also only represent 21% of the total visitors to the artesian baths – ensuring an overflow for other forms of visitor accommodation such as to motels and the caravan park in Coonamble.

Hotels/motels/serviced apartments provided an average of 13,000 domestic visitor nights in Coonamble over the four years to end 2019. This is only an average of 35 adult visitors per night.

If we assume that the Eco Cabins and Glamping Tents only compete with the existing hotel/motels/serviced apartments in Coonamble that average 55% occupancy, then they represent an increase in capacity of 53% over that currently in Coonamble.

If we assume that the RV camping spaces have a 40% average occupancy this would provide a further 20 visitor nights per day or 5,840 annual visitor nights in the second and successive years. However, by providing an RV camping facility outside the usual caravan park situation it is hoped to attract more of this high-end market to Coonamble and reduce the very high level of often "illegal" caravanning and camping in the Shire. That the number of domestic visitor nights in the Shire in non-commercial caravanning and camping is nearly five times (30.1% Vs 6.5% of total visitor nights in the Shire) the nights in commercial caravan parks and camping grounds highlights the opportunity to bring more of these nights into the township economy.

The resulting forecasts for visitation with this analysis and the more conservative scenario of 15% lower visitation are summarised in the table below.

	OCCUPANCY		NUMBER OF ANNUAL VISITOR NIGHTS	
	Core Forecasts	Conservative Forecasts	Core Forecasts	Conservative Forecasts
Eco Cabins, Glamping tents	62.5%	53%	7,619	6,461
RV Camping Spaces	40%	34%	5,840	4,964
TOTAL	52%	44%	13,459	11,425

Implications for other accommodation and other businesses in Coonamble

If we assume an average 2 night stay in Coonamble by all visitors staying at the artesian baths project and that these visitors each make two trips to the baths, then the number of visitors to the baths who use the artesian baths accommodation sums to 2*(7,619+5,840)/2=13,459 visitors on average in the seven years from 2024 to 2030. This equates to 39% of expected visitors to the artesian baths experience, which highlights the importance of the accommodation to the project's overall success.

While many of the remaining 61% of visitors to the artesian baths experience who don't stay in the project's accommodation will be local residents or visitors on day trips, many others will be seeking out visitor accommodation in the township.

This analysis suggests that the proposed Stage 2 accommodation and other investments to extend visitor accommodation by other town businesses might occur quite quickly following the achievement of forecast visitation to the artesian baths experience.

In addition, as the accommodation at the artesian baths is not proposed to provide food and beverage support the extent of spending leakage into the surrounding town businesses is likely to be much higher than at most attractions.

WATER AND ENVIRONMENTAL ASSESSMENT

Our consultant hydrologist, Chris Jewell, conducted a site visit and has held meetings with Council Officers and the Water Authority. Following his investigations has provided the below status of the hydrogeological work for the Coonamble Artesian Spa and Bathing experience business case. The full Hydrogeological Report is included in this Report as Appendix 1.

GROUNDWATER SOURCE & AVAILABILITY

The existing town water supply bores obtain groundwater from the Great Artesian Basin (GAB). This part of the GAB is known as the Coonamble Embayment, which is a southward extension of the Surat Basin, which extends to the north and north-east past Lightning Ridge and Moree, and on to Roma in Queensland.

On the basis of the data available from the existing town bores, a new bore completed in the Pilliga Sandstone at the proposed bore-bath site should comfortably yield 1ML/d which will meet the facility requirements.

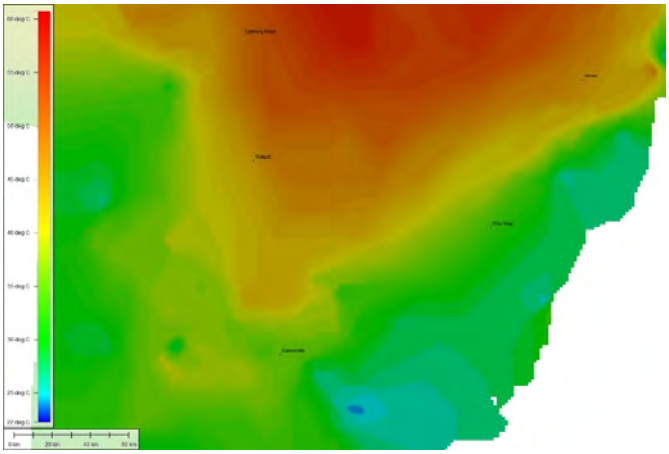
GROUNDWATER TEMPERATURE & QUALITY

Coonamble is relatively close to the southern recharge zone of the GAB, which lies to the south-east. Groundwater flow occurs in a north-westerly direction and the base of the aquifer also dips in that direction. Consequently, compared with areas further north, the aquifer is shallower, groundwater temperatures are lower, and the water is less saline and less sodic.

Data available from the town bores indicates that sodium-calcium bicarbonate water with a salinity (as total dissolved solids, TDS) of about 350 mg/L and a sodium absorption ratio of less than 2.5 will be available.

This water is of potable quality and is suitable for irrigation onto most soils.

The mapping above (compiled using a gridded dataset for the whole GAB) shows the temperature of groundwater in the Coonamble Embayment and southern Surat Basin. The reported temperature of 37oC for groundwater from the town bores is consistent with this data. This may necessitate heating of some quantities of water and additional plant room equipment.



FREE FLOWING BORE

As part of the Business Case process, advice was sought from “The Natural Resources Access Regulator” (NRAR) Their advice was that due to environmental constraints it would be unlikely that a permit would be issued for a Free Flowing Bore that draws hot artesian groundwater for baths. Because, to remain hot the baths have to be constantly replenished by the bore and open bores like this are not looked upon favourably.

The NRAR will require a plan for the disposing of the waste water from the baths without it being wasted in order for a license to be issued

WATER VOLUMES

As per the advice from have based our water use assumptions on the basis that the artesian hot pools are not free flowing, but rather filled from on site water stored and treated and then reused back into the pools.

Each body of water will be backwashed and its water turned over three times per day. The table below shows the estimated waste water discharge volumes

	Month kilolitres	Per annum kilolitres
Waste Water Discharge Volume	216	2500

WATER AND ENVIRONMENTAL ASSESSMENT CONTINUED

FEASIBILITY OF WATER RE-USE AFTER BORE-BATHS

It has been proposed that following use in the bore-baths, the groundwater would be:

- Passed though ponds that would be used for adjacent aquaculture, then
- Passed into a constructed wetland / storage area, then
- Irrigated onto the golf course / racecourse.

On the basis of the water quality, there is no reason why this should not be technically feasible. Obviously, the commercial feasibility and regulatory compliance issues will be matters for the proponent to assess. The re-use of the waste water significantly reduces operating costs for the Artesian Spa and will add to the viability of the business, in addition to the environmental sustainability benefits.

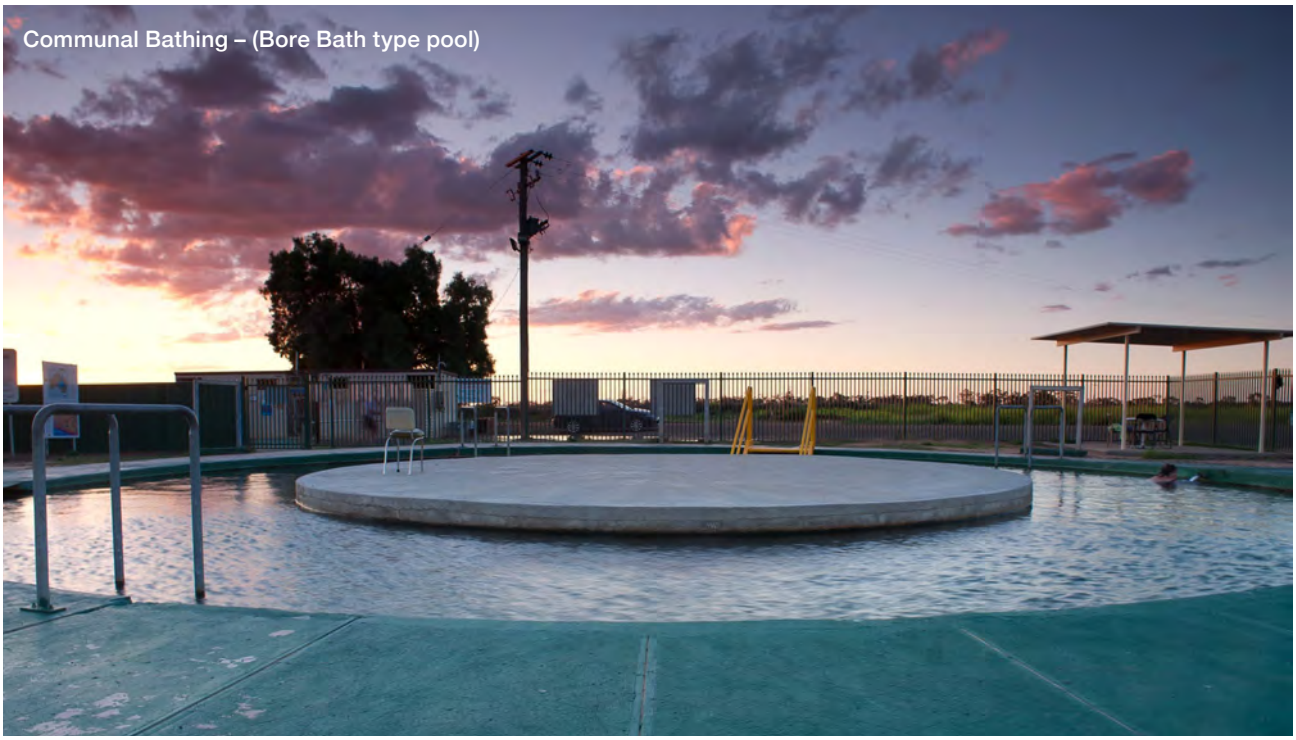
The next steps for the hydrologist are to validate his work with current data by :

- Obtaining up-to date yield and quality data from Council records
- Obtaining bore water samples for additional analysis
- Obtaining soil samples from the racecourse and golf course for irrigation compatibility testing.

4. PRODUCTS & SERVICES IDENTIFIED

In consideration of the inputs to the business case so far, we believe that there is demand for the following mix of components:

- Communal Bathing – (Bore Bath type pool)
- Smaller Outdoor Hot Pools
- Private Bathing areas
- Massage treatment rooms
- Central Reception & Amenities area
- Eco Cabin accommodation and Glamping
- Parking and facilities for RV Campervans overnight stays

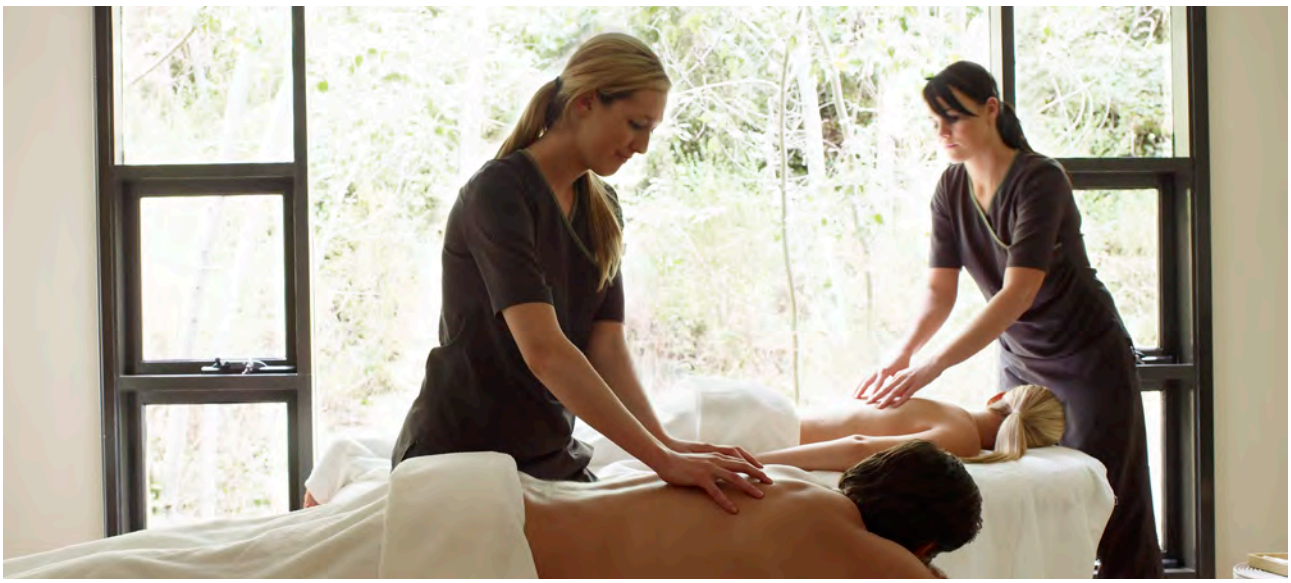


Communal Bathing – (Bore Bath type pool)

Smaller Outdoor Hot Pools

Private Bathing Areas

Massage Treatment Rooms




Central Reception
& Amenities area


Eco Accommodation & Glamping

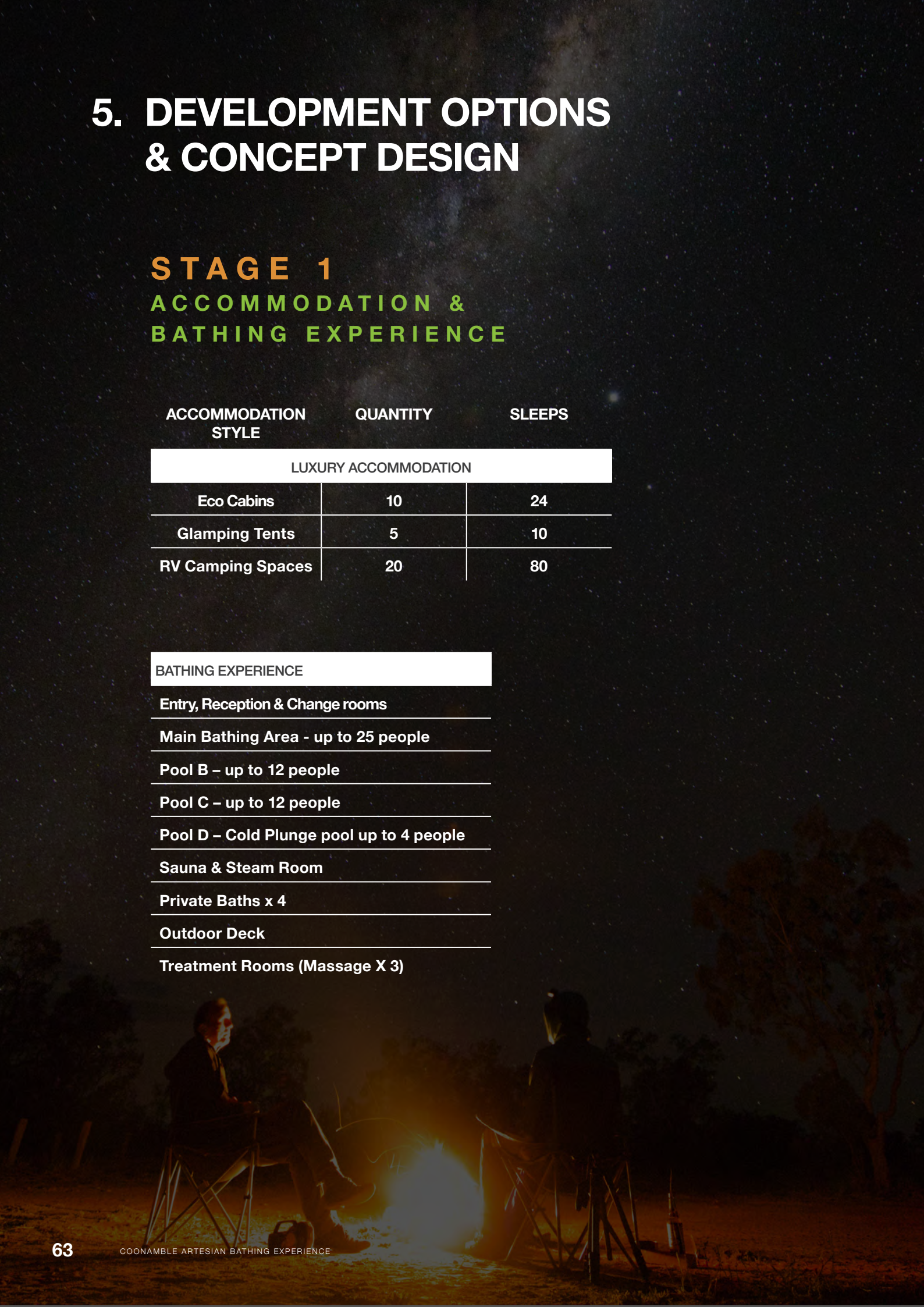

Parking and facilities for RV
Campervans overnight stays

5. DEVELOPMENT OPTIONS & CONCEPT DESIGN

STAGE 1
ACCOMMODATION & BATHING EXPERIENCE

ACCOMMODATION STYLE	QUANTITY	SLEEPS
LUXURY ACCOMMODATION		
Eco Cabins	10	24
Glamping Tents	5	10
RV Camping Spaces	20	80

BATHING EXPERIENCE
Entry, Reception & Change rooms
Main Bathing Area - up to 25 people
Pool B – up to 12 people
Pool C – up to 12 people
Pool D – Cold Plunge pool up to 4 people
Sauna & Steam Room
Private Baths x 4
Outdoor Deck
Treatment Rooms (Massage X 3)



STAGE 2
ACCOMMODATION

Our thinking on the staging of the accommodation offering is mindful of scaling this up after we have established demand.

The concept design for the accommodation components of this project have been informed by the Market Analysis report provided by “Sustainable Park Solutions”. This report is attached as Appendix 3 to this Business Case

To ease concerns of accommodation providers we might want to also look at including some trigger conditions necessary before Stage 2 is considered warranted, for example:

- Visitor nights in commercial accommodation in Coonamble to double over pre-COVID levels; and
- Annual caravan park occupancy rates to be 10 % points above pre-COVID levels.

ACCOMMODATION STYLE	QUALITY
Powered Sites	40
Unpowered Sites	20
On Site Retro Vans for Hire	6
Additional Eco Cabins	5
Additional Glamping Tents	5

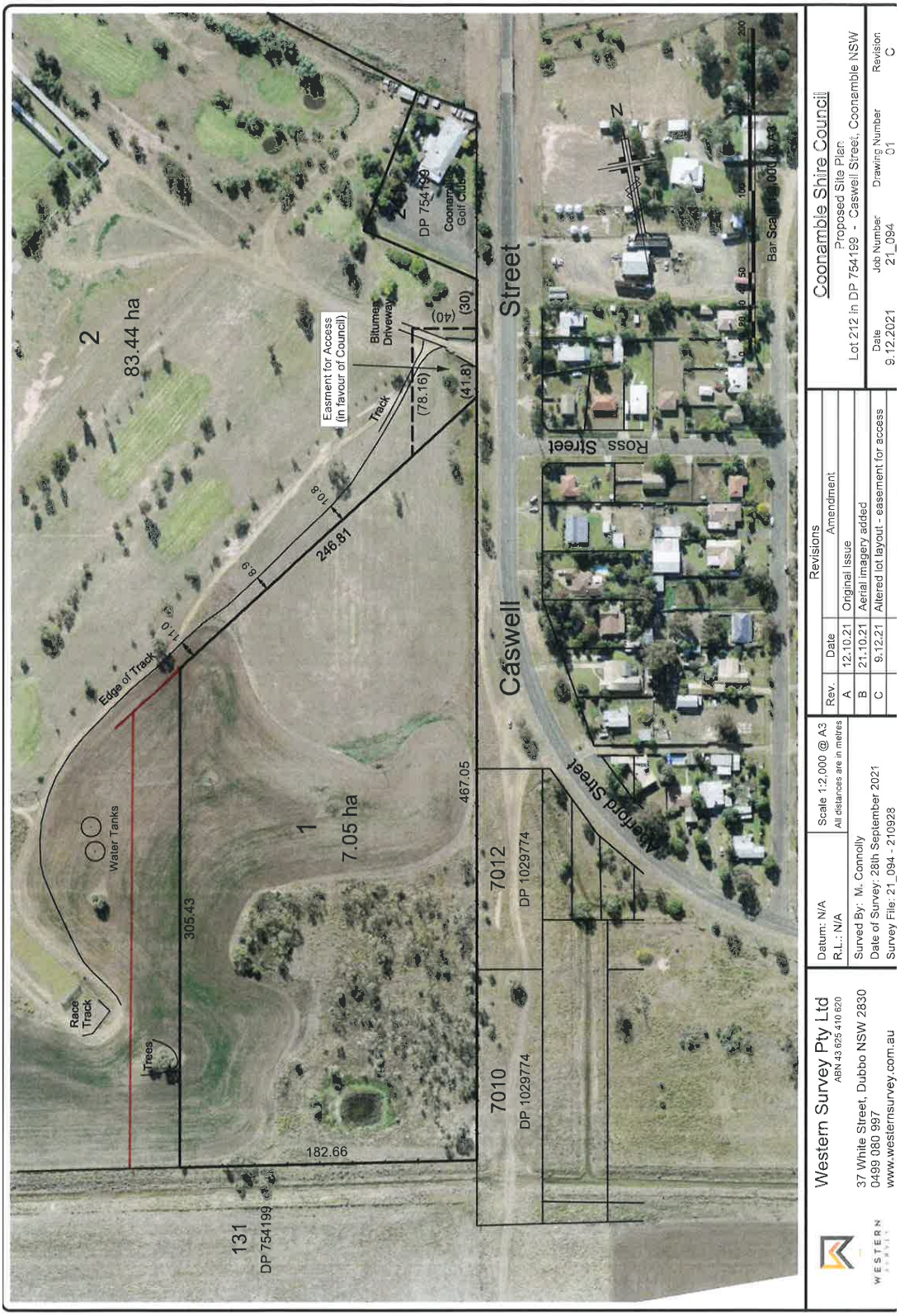
THE COONAMBLE ARTESIAN BATHING EXPERIENCE CONCEPT

SITE ANALYSIS

CONTEXT

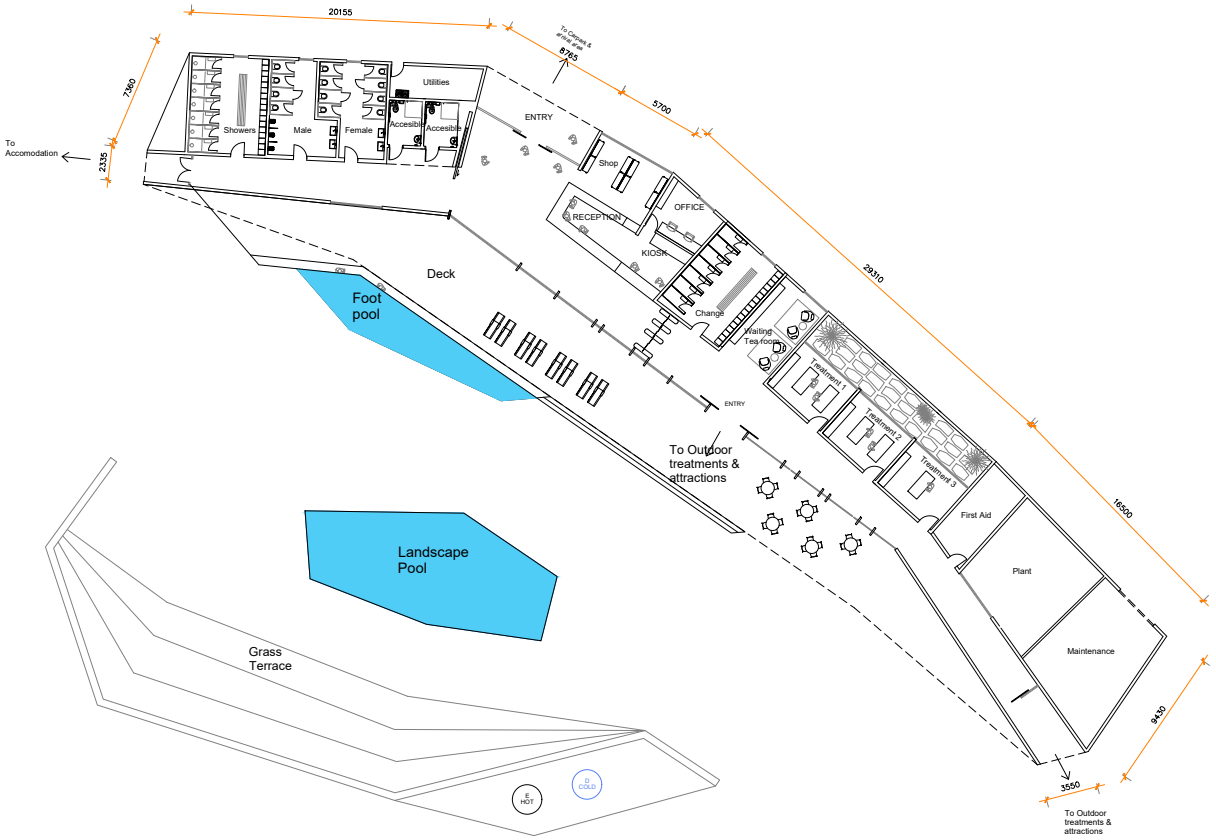
SITE

The below site plan defines the boundaries. The concept design as depicted on page 74 wil be updated to ensure that the proposed accommodation fits within the site boundaries.

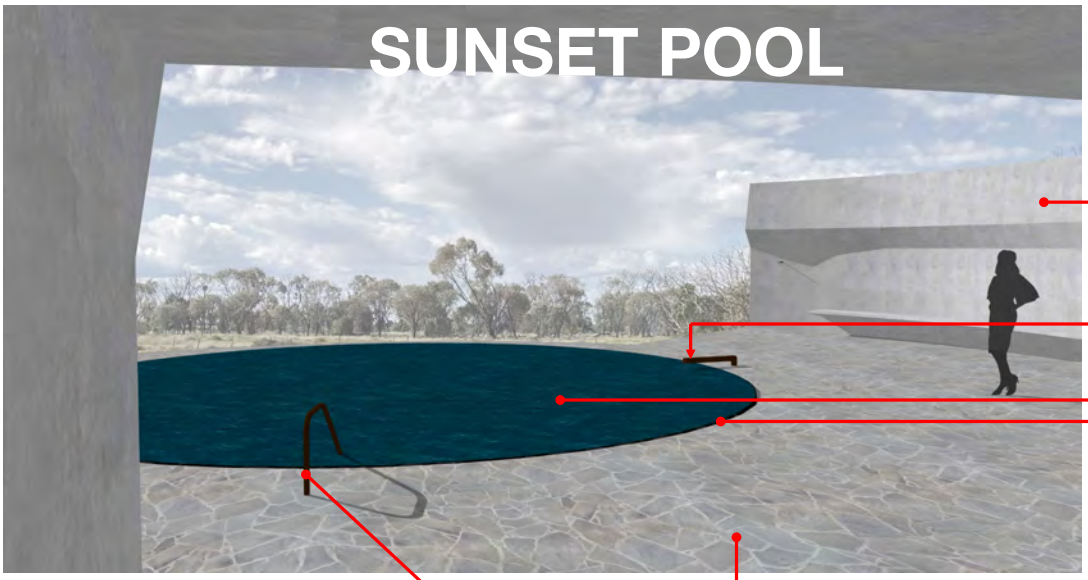


EXPERIENCE

MAIN BUILDING LAYOUT



SUNSET POOL


Smooth off form concrete
Show water gushing from spout (water surface would be rippled)
Similar dark water colour
Smooth/shiny black lip
Rust patina to metal fittings (handrail, pipe towel hook)
Grey crazy paving

SUNSET POOL

RECEPTION

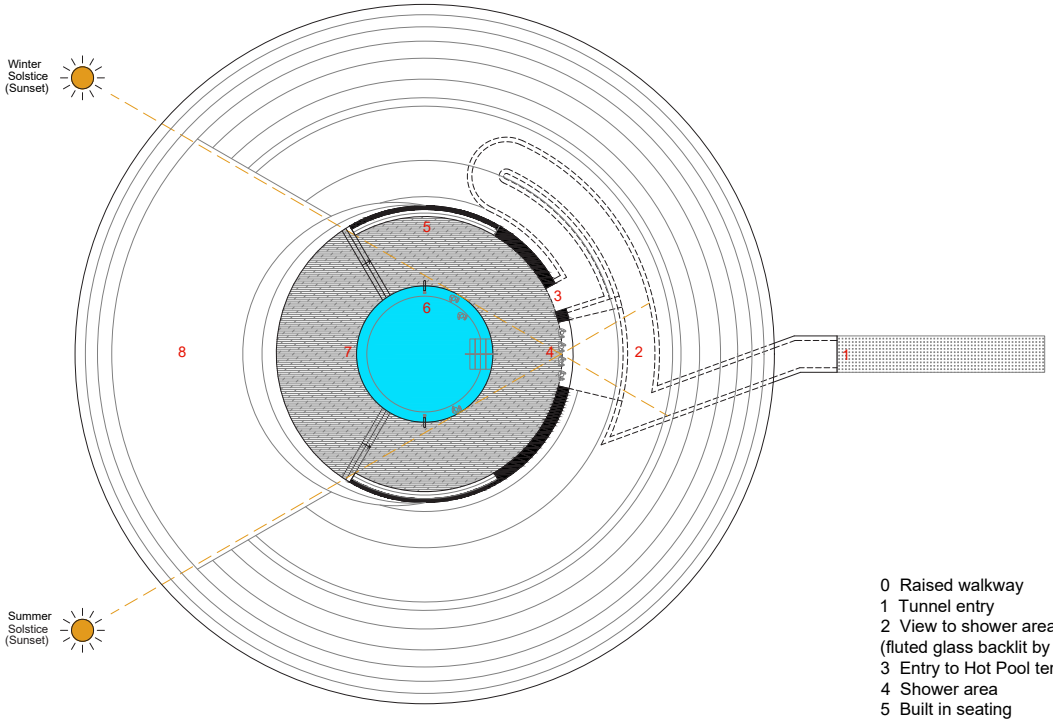

Coonamble Artesian Spa
development boundary
Coonamble Golf Club
powered RV/caravan sites x 10
Stage 2 RV/Caravan Precinct
new entry statement
amenities
entry road
Stage 2 Ecocabin Precinct
ecocabin precinct carparking
dump point
boom gate entry/exit
layby 3
bus bay 3
bus bay 2
bus bay 1
layby 2
layby 1
property boundary
drop off
entry court
day use & staff carpark 75 carparks + 2 pwd carparks
Stage 2 Glamping Tents Precinct
amenities
shop/ office
foot pool
main facilities building
treatment
social/ gathering pool
seating terrace
maintenance /service area
planted mounding behind tents for privacy
glamping tent precinct carparking
2 person private pools
Stage 2 Coonamble Artesian Spa
mud facility
Stage 2 Coonamble Artesian Spa
stem/sauna cold plunge
raised boardwalks/ pathways
earth mounding around main sunset pool
2.0 Stage 1 Masterplan
accommodation legend
5 glamping tents
10 eco-cabins
20 RV/caravan powered sites
1 RV/caravan amenities block (4 + 1 PWD + Laundry)
STAGE 1 TOTAL SITES: 35
Stage 1 Masterplan
1:500 @ A1
N
4
2654 | Masterplan [B] | 06-08-2021
SUSTAINABLE PARK SOLUTIONS
GUYMER BAILEY landscape
atelier andy carson


Coonamble Artesian Spa
Coonamble Golf Club
development boundary
powered RV/caravan sites x 10
amenities
recreation space
Stage 1 RV/Caravan Precinct
unpowered RV/caravan sites x 10
property boundary
recreation space
Stage 1 Ecocabin Precinct
recreation space
Stage 1 Glamping Tents Precinct
planted mounding behind tents for privacy
Stage 1 Coonamble Artesian Spa
bushland plunge pool
Stage 1 Coonamble Artesian Spa
main sunset pool
raised boardwalks/ pathways
earth mounding around main sunset pool
3.0 Stage 2 Masterplan
accommodation legend
5 glamping tents
5 eco-cabins
25 RV/caravan powered sites
10 RV/caravan unpowered sites
1 RV/caravan amenities block (4 + 1 PWD + Laundry)
STAGE 2 TOTAL SITES: 45
Stage 2 Masterplan
1:500 @ A1
N
5
2654 | Masterplan [B] | 06-08-2021
SUSTAINABLE PARK SOLUTIONS
GUYMER | BAILEY landscape
atelier andy carson


Coonamble Artesian Spa
Coonamble Golf Club
development boundary
powered RV/caravan sites x 10
amenities
recreation space
new entry statement
unpowered RV/caravan sites x 10
entry road
amenities
ecocabin precinct carparking
dump point
boom gate entry/exit
layby 3
bus bay 3
bus bay 2
bus bay 1
layby 2
layby 1
property boundary
recreation space
recreation space
drop off
entry court
day use & staff carpark 75 carparks + 2 pwd carparks
amenities
shop/ office
foot pool
main facilities building
treatment
social/ gathering pool
seating terrace
maintenance /service area
planted mounding behind tents for privacy
glamping tent precinct carparking
2 person private pools
bushland plunge pool
mud facility
stem/sauna cold plunge
main sunset pool
raised boardwalks/ pathways
earth mounding around main sunset pool
4.0 Overall Masterplan
accommodation legend
10 glamping tents
15 eco-cabins
45 RV/caravan powered sites
10 RV/caravan unpowered sites
2 RV/caravan amenities block (4 + 1 PWD + Laundry)
TOTAL SITES: 80
Overall Masterplan
1:500 @ A1
N
6
2654 | Masterplan [B] | 06-08-2021
SUSTAINABLE PARK SOLUTIONS
GUYMER BAILEY landscape
atelier andy carson

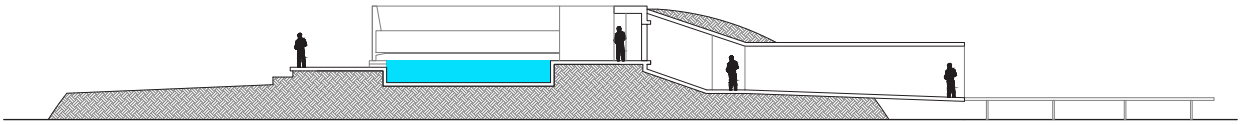
ECO CABINS

STAGE 2 - SUNSET POOL DESIGN

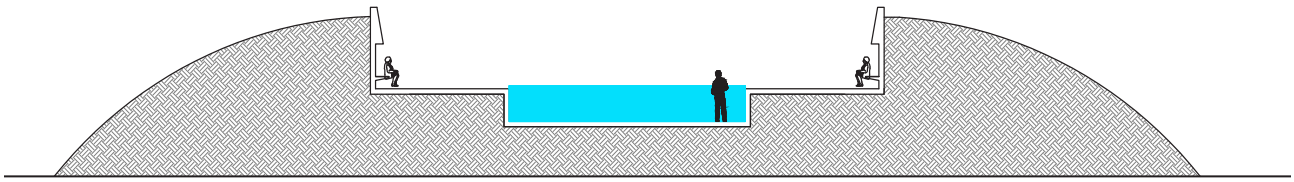


0 Raised walkway
1 Tunnel entry
2 View to shower area
(fluted glass backlit by sun)
3 Entry to Hot Pool terrace
4 Shower area
5 Built in seating
6 Hot Pool with exposed pipe outlets
7 Stepped down infinity edge
8 Earth mound

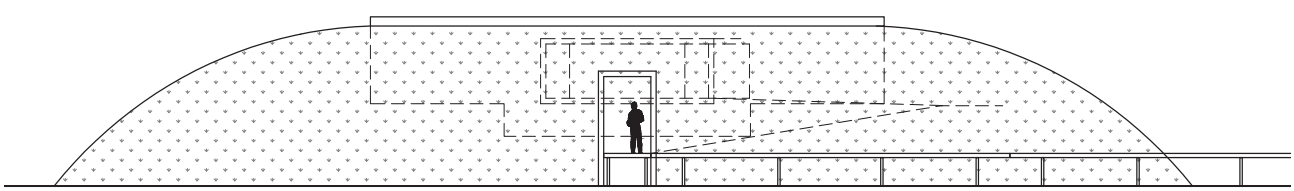
- PLAN VIEW
Scale: 1:250 @ A3



S1 EAST - WEST SECTION
Scale: 1:250 @ A3



C NORTH - SOUTH SECTION
Scale: 1:250 @ A3



C EAST ELEVATION
Scale: 1:250 @ A3

6. CAPITAL COST ESTIMATE

The estimated capital costs for the Stage 1 is $6.75 million and Stage 2 is an additional $3.2 million based on the design options provided. Capital costs encompass building works and other site-specific works, including car parking.

FINANCING ASSUMPTIONS

The financial model for Stage 1, assumes $5.5 million in State grant funding and a contribution of $1.25 million of Council funding, with the Stage 2, possibly to come from the Commonwealth.

The balance of any funding shortfall has been modelled to come from a management company capital contribution over a 20 year lease. The Council may also consider asset sales for project financing.

The estimates of capital cost shown below include an increased allowance for exceeding DDA Compliance and Access Standards, the cost allowances of which include built form elements that total $500,000

In addition we have provisioned for the inclusion of fit out items including:

- Aquatic wheelchairs, 2 standard, 1 bariatric = $12,000
- Access Key = $10,000
- Video captioning with languages other than English = $10,000
- Cerge annual licence = $500
- Marketing asset production reflecting diversity and disability= $10,000

	COMPONENT	AREA SQ/M	ESTIMATED COST
ARTESIAN POOL AREAS	Foot Pool	50	$70,000
	Private Hot Tubs	72	$106,000
	Main Pool	180	$486,000
	Concourse /Circulation	100	$170,000
	Steam & Sauna	60	$45,000
	Seating & Deck Area	80	$40,000
	Pool Plant & Bore	Allow	$800,000
	Sub Total		$1,762,000
MAIN BUILDING	Building Structure	750	$800,000
	Waiting Room	30	$40,000
	Toilets & Showers	140	$300,000
	Change rooms	45	$100,000
	Treatment Rooms	100	$150,000
	Shop, Reception & Office	70	$100,000
	Circulation/Entry	100	$180,000
	Sub Total		$1,670,000
ANCILLARY COMPONENTS	First Aid Room	30	$45,000
	Storage area	90	$140,000
	Entry Canopy	Allow	$50,000
	Hoist	Allow	$25,000
	Sub Total		$260,000
ACCOMMODATION STAGE 1	Glamping	X 10	$75,000
	Eco Cabins	X 10	$500,000
	RV Powered Sites	Allow	$120,000
	Landscaping	Allow	$75,000
	Plumbing and Services	Allow	$100,000
	Construction Cost	Allow	$60,000
	Sub Total		$930,000
	Construction Cost $4,622,000		
EXTERNAL WORKS	Car park & Road	Allow	$300,000
	Landscaping & Ramps	Allow	$180,000
	External services	Allow	$150,000
	Site Preparation	Allow	$100,000
	Sub Total		$730,000
OTHER	Professional Fees	9.5%	$439,090
	Contingency	15%	$693,300
	Cost Escalation	Allow	$240,000
	Sub Total		$1,372,390

TOTAL ESTIMATED CAPITAL COST $6,724,390

7. FINANCIAL

FINANCIAL ASSESSMENT

The estimated capital costs for the Stage 1 are $6,750,000 and Stage 2 is an additional $3.2 million based on the design options provided. Capital costs encompass building works and other site-specific works, including car parking .

Projected revenue and costs, including financing costs and depreciation, have been modelled over 10 and 20 year periods for the design options for each stage.

The financial modelling is based on industry benchmarking data from three regional Victoria centres with equivalent facilities and tourist catchments. A breakdown of costs and revenues has been undertaken for each of the facility areas, including communal bathing, private bathing, ECO cabins, spa treatments and RV park sites.

Estimated Capital and Operating costs for the nominated design and staging options, are shown in the table below

The figures above are based on an outsourced management model that will contractually include an additional capital injection of $300,000 every 7 years for a program of building refurbishment works.

The financial analysis indicates that Stage 1 will result in a $148,850 surplus per year.

The total annual operating cost, which includes depreciation and interest on fit out items, is estimated to be $2,828,150 per year.

PROJECT FUNDING OPTIONS

Generally the development of this type of facility infrastructure is funded through a combination of four different sources:

- Council Funding
- Other Government Grants
- Commercial Investment
- Community Fundraising

The following funding options have been used by other Councils in the development of their tourism and aquatic facility infrastructure.

STATE GOVERNMENT

The type of facility we have identified would be eligible for up to $5.5 million under the “Regional Tourism Activation Fund” on the basis of a Council 25% contribution. The Regional Tourism Activation Fund provides an incentive for projects that include accessible design features.

FEDERAL GOVERNMENT GRANTS

Whilst there is no ongoing Grant Scheme that exists in the Federal Government budget, there is an expectation within the industry that a post COVID-19 tourism led recovery will need Federal Government support.

MANAGEMENT COMPANY CONTRIBUTIONS

In more recent years, the tendering out of the management rights to facilities for a 10 to 20 year period has seen contributions of up to $2 million from management groups. In the case of this facility, the financial contribution offered is likely not to amount to any more than $1,300,000 dollars in return for a 20 year management contract or lease.

	CAPITAL COST	ANNUAL OPERATING INCOME	ANNUAL OPERATING EXPENSE
Stage 1	$6,750,000	$2,700,000	$2,977,000
Stage 2	$3,200,000	$4,327,000	$3,959,205

8. COST BENEFIT ANALYSIS

Economic and community benefits, spread well beyond the boundaries of the artesian baths project. Significant benefits accrue to other visitor economy businesses in the town and in neighbouring LGAs.

Few regional tourism projects offer a NSW-wide community benefit/cost ratio of nearly five to one, without including benefits from NSW resident spending. This high return from a whole of state perspective is in-part due to a cost-effective investment approach and that the project capitalises on previous artesian bathing investments in the region. But it is also due to the uniqueness in Australia of a modern and upmarket outback artesian baths experience that will draw often high yielding international and interstate visitors.

Local residents are major beneficiaries with a new facility for their use with concessional pricing to locals and increased job opportunities in:

- Construction of the project;
- Project operation; and
- Visitor economy businesses beyond the project that benefit from spending outside the project by visitors it attracts.

This initiative promises to significantly upgrade the appeal of the Great Artesian Drive by providing the overdue foundation attraction for this drive. The resulting regional benefits are highly relevant to any approach for State or Federal Government funding.

Figures 1. Summarises this cost benefit analysis (CBA) and results for net present value, benefit/cost ratio and ongoing jobs.

This CBA is valued from three perspectives.

1. The Coonamble Shire community, only including as costs the capital contribution of $1.25 million by the Shire:
    - The benefit/cost ratio from a Shire perspective is 29:1.
    - The net present value of the project is $37.2 million.
2. The larger region's community including Coonamble, Narrabri, Moree Plains and Walgett Shire, but with all capital costs included ($6.75 million) and discounting for visitor spending from within the region:
    - The benefit/cost ratio from the perspective of the community in the four northern outback Shires is 9 to 1.
3. The NSW community, with all capital costs included and not valuing the benefits from visitor spending by NSW residents at the project as per Treasury guidelines:
    - The benefit/cost ratio from the perspective of the NSW community is 4.7 to 1 with fewer incremental jobs created as only jobs in the visitor economy due to international or interstate spending are counted..

The project promises to create 53 ongoing jobs and 36 ongoing full time equivalent positions in the Great Artesian Drive region, 22 of which are in Coonamble Shire.

Figure 1. Project net present value, extra ongoing jobs and benefit/cost ratio from the three perspectives of this CBA

PERSPECTIVE	COONAMBLE SHIRE	THE FOUR NORTHERN OUTBACK	NSW
Benefit/Cost Ratio	31 to 1	9 to 1	4.7 to 1
Net Present Value (2023/24 $m)	$37.21	$56.92	$25.0
Ongoing Jobs	33	53	24
Ongoing Jobs (Full Time Equivalent)	22	36	18

Source: Karl Flowers, Decisive Consulting Pty Ltd, August 2021
Notes:
- Dollar values shown are in FY 2024 dollars
- Discounting of benefits is at 4% per annum from FY 2024

ASSESSING ECONOMIC BENEFITS FOR THE SHIRE OF COONAMBLE

Setting the scene for forecasting economic benefits

Beyond expected profits to the operator of the project, there are larger both direct and indirect economic benefits from the project to the Shire. Direct benefits include the projects staff costs and local purchases at both the construction stage and when operating. Indirect economic benefits include other visitor spending within the Shire beyond the project that only arise because visitors come to the Shire for the Artesian Bathing Experience.

For this project the indirect economic benefits are expected to be mainly to other businesses providing visitor accommodation to the large, expected increase in visitors to the Artesian Bathing Experience and to the local sellers of food and beverage, fuel and groceries. Average visitor spend in Coonamble is expected to increase significantly due to this project.

Currently, average per day visitor spending for the dominant market of domestic overnight trips in Coonamble Shire is only around half the average in the Outback NSW and Central NSW regions.

To be conservative it is assumed that the operator of the facility only makes a 5% margin on sales revenue after all costs, including for: staffing; marketing; financing (at an assumed cost of capital of 8% per annum); maintenance; operations and management. This conservative assumption is in line with the mixed history of financial returns for operators of attraction businesses well pitched to their available markets in regional areas remote from major population centres.

DIRECT ECONOMIC BENEFITS FROM CONSTRUCTION

The proposed construction approach is aimed at a highly cost-effective investment. This results in use of more prefabricated buildings and lower onsite costs in construction.

For the purposes of this analysis, we estimate that of total construction costs of $6.75 million for Stage 1 of this project, $2.7 million goes to local Shire workers or suppliers or 40% of the total cost. This share due to local procurement in part reflects the project focus on drilling and landscaping as well as the isolation of Coonamble from competing suppliers. In 2019/20 across Australia around $200bn in construction work was done with 1.1 million workers, so each job (not full time equivalent (FTE) job) in the sector was supported annually by just over $180,000 in spending which is slightly lower spending per job than for jobs due to visitor spending. The estimate of $2.7 million in local spending therefore suggests around 15 jobs are created for one year within the Shire.

DIRECT ECONOMIC BENEFITS FROM OPERATING THE FACILITY

Ongoing annual staffing costs of the project are assumed to be $750,000 per annum. This was for a 14 positions, of which four are full time and ten part time.

Total direct and indirect non-staff expenses are estimated to be $1,500,000 per annum. These expenses include: insurance, marketing, power, laundry, consumables among others. It is assumed that of this spending $720,000 per annum or just under half is spent on Shire goods and services. This spending is expected to generate 4 further ongoing jobs in the Shire.

ESTIMATED NET PROFIT FROM THE OPERATION

This is expected to be a quite small contributor to total regional economic benefits. The estimated net profit from the operation is estimated at $134,000 on annual revenues after GST of $2.7 million per annum - in line with the assumption that the operator of the facility makes a 5% margin on sales revenue after all costs. The calculation of estimated net profit for the operator is shown in Figure 2, that also indicates the key sources of revenue. The shares of revenue are estimated at 32% from accommodation operation, 18% from treatment services and the balance of 50% from entry charges for the main pool and private bathing.

Figure 2. Forecast project operating revenues and operator net profit from the second year of operation

	NUMBER	OCCUPANCY RATE	PRICE	TOTAL REVENUE INC GST
Accommodation				
Eco Cabins (en-suite)	3	62.5%	$ 280	$ 191,625
Eco Cabins (no en-suite)	7	62.5%	$ 220	$ 351,313
Glamping Tents	5	62.5%	$ 149	$ 169,953
RV Camping Spaces	20	40.0%	$ 40	$ 116,800
Total Accommodation				$ 931,663
Treatment Rooms	3	4 hours per day	$ 145	$ 518,000
Entry charges				
Main pool - Local resident visits	5,500		$ 12	$ 66,000
Main pool - guests in project accommodation	8,076		$ 28	$ 226,118
Main pool - other guests	14,910		$ 40	$ 596,381
Private bathing - Local resident visits	500		$ 50	$ 25,000
Private bathing - guests in project accommodation	5,384		$ 63	$ 1,062,163
Private bathing - other guests	2,631		$ 90	$ 400,134
Total Entry Charges	37,000	101 av per day		$ 2,375,796
Total Revenue				$ 2,977,959
Total Revenue ex GST				$ 2,707,236
Net Profit for operator at 5% of total revenue ex GST				$ 135,362

Source: Karl Flowers, Decisive Consulting Pty Ltd, August 2021

Notes:

Assume average of 1.8 people per cabin or glamping accommodation option and 2 per RV space for an average two night stay
If staying on the property assumed that guests also pay for main pool, private bathing access and treatments with 30% discount
Of visitors in accommodation 60% assumed to pay for main pool and 40% private bathing
Of non locals or visitors in accommodation 85% assumed to pay for main pool and 15% for private bathing

ESTIMATING VISITOR ECONOMIC BENEFITS FROM THE PROJECT TO THE SHIRE

It is necessary to provide some background information on visitor spending in the Shire to explain estimation of incremental visitor spending benefits to the Shire from but beyond the boundaries of the project.

Tourism Research Australia publishes visitor spending estimates for most local government areas in Australia. These provide a starting point for making assumptions on visitor spending within the Shire.

Published key TRA data on visitor spending for the Coonamble Shire pre-COVID (average 2016-19 data) were limited to estimates of: average Shire domestic overnight visit spending of $85 per night for the 164,000 domestic visitor nights per year on an average three-night stay. This produced total annual domestic overnight visitor spending in the Shire estimated at $14 million over the 2016-19 period. Data was not published in the TRA profile information for this local government area on domestic day trip spending or international visitor night spending but can be approximated using a range of assumptions. In the Coonamble Shire the average annual number of domestic day trips and international visitor nights over the 2016-19 period was 34,000 and 1,383 respectively. For the neighbouring Central West region, the average spend per domestic day trip in 2015 was a high $175, while in the Outback Region this average trip spend was not published by TRA. For international overnight visitors the average per night spend was only $37 in the Outback Region and $50 in the Central West region.

If we assume conservatively an average spend per domestic day trip of $150 and international visitor spend per visitor night of $50 over 2016-19 this leads to pre-COVID annual estimates of visitor spending in the Coonamble Shire of:

- $5.1 million for domestic day trips; but only
- $70,000 for international overnight visitors.

In total annual visitor spending pre-COVID in Coonamble Shire was therefore estimated at around $20 million per annum. Of this total 70% was due to domestic overnight visitor spending, 26% due to domestic day trip spending and the remaining 4% due to international overnight visitor spending.

In the regional tourism satellite account for the Outback NSW region in 2018-19, there was $380 million of visitor spending that directly supported 1,800 jobs. This implies that each job in the visitor economy in this region was supported by $211,000 in visitor spending. The sources of this spending by type of visitor for the NSW Outback region were different than those estimated for the Coonamble Shire with a greater reliance on domestic overnight visitors (87% Vs 70%) and smaller reliance on domestic day trips (9% Vs 16%) as shown in Figure 3. The Artesian Bathing Experience project is forecast to boost the Coonamble Shire reliance on domestic overnight visitor spend to closer to the stronger reliance of the NSW Outback region.

TOURISM CONSUMPTION BY VISITOR TYPE

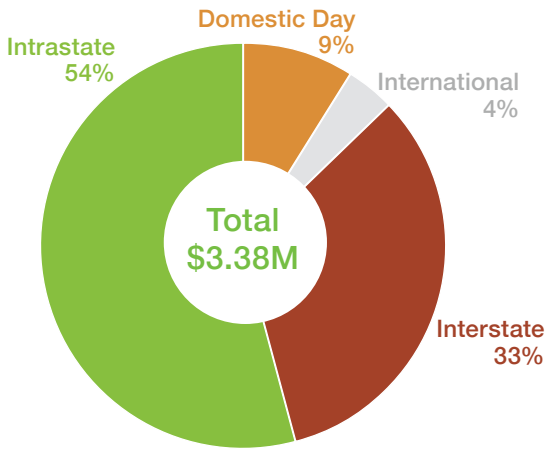


Figure 3. Shares of visitor spending by type of visitor – NSW Outback TRA region

Reflecting the distances people travel to come to Coonamble, it is assumed that 80% of the visitors to the artesian baths from outside the Shire and who were not visitors to Coonamble for other reasons (and who were coming anyway) who visit the artesian baths stay overnight in the Shire, while 20% are on domestic day trips.

It is also assumed in the light of TRA data on visitor spending that the visitor spending outside the project that go to businesses in the Shire sum to:

- $85 per adult night for overnight visitors staying outside the project accommodation (domestic and international attracted by the Artesian Bathing Experience, who would not otherwise have stayed in Coonamble) – and these visitors spend an average of 2 nights in the town on this visit;
- $85 per adult night for the assumed higher spending overnight visitors staying in the Hot Springs accommodation, who stay an average of 2 nights at the facility; and
- $70 per adult domestic day trip attracted by visiting the Artesian Bathing Experience – often for food/ beverage, fuel and groceries.

These assumptions lead to an increase of $25.5 million in visitor spending but outside the artesian baths project in Coonamble over the seven years to 2030 as calculated in Figure 4. This incremental spending has a net present value of $21.7 million when discounted at 4% per annum.

This is estimated to create an average of 15 ongoing incremental jobs (or 10 FTE jobs) in the Shire by additional visitor spending due to the project but outside the project. This calculation uses data from the regional tourism satellite account for the Outback region implying an average annual visitor spend per associated job of $211,000.

Figure 4. Forecasts for incremental visitor spending in the Shire due to the project but outside the project

FINANCIAL YEAR ENDING	2024	2025	2026	2027	2028	2029	2030	TOTAL 2024-2030
Number of incremental domestic day trip visitors to the Shire	3,000	4,400	4,400	4,400	4,400	4,400	4,400	29,400
Number of incremental overnight visitors to the Shire who stay outside the project	9,000	13,870	13,870	13,870	13,870	13,870	13,870	92,220
Incremental visitor nights who stay outside the project	18,000	27,740	27,740	27,740	27,740	27,740	27,740	184,440
Number of incremental overnight visitors to the Shire who stay inside the project	5,000	6,730	6,730	6,730	6,730	6,730	6,730	45,380
Incremental visitor nights who stay inside the project	10,000	13,460	13,460	13,460	13,460	13,460	13,460	90,760
Value of incremental domestic day trip spend in the Shire outside the project (@$90 each)	$ 210,000	$ 308,000	$ 308,000	$ 308,000	$ 308,000	$ 308,000	$ 308,000	2,058,000
Value of incremental overnight trip spend in the Shire outside the project of those staying outside the project(@$90 each)	$ 1,530,000	$2,357,900	$2,357,900	$2,357,900	$2,357,900	$ 2,357,900	$2,357,900	15,677,400
Value of incremental overnight trip spend in the Shire outside the project (@$90 each) by those staying inside the project	$ 850,000	$1,144,100	$1,144,100	$1,144,100	$1,144,100	$ 1,144,100	$1,144,100	7,714,600
Total Value of incremental visitor spend in the Shire outside the project of those staying in or outside the project	$ 2,590,000	$3,810,000	$3,810,000	$3,810,000	$3,810,000	$ 3,810,000	$3,810,000	25,450,000
Net present value (2023$s) of Total Value of Incremental Visitor Spend in the Shire outside the project - after 4% discounting	$ 2,490,385	$3,522,559	$3,387,076	$3,256,804	$3,131,542	$ 3,011,098	$2,895,287	$21,694,751
Number of incremental visitor economy jobs in the Shire outside the project	12	17	16	15	15	14	14	Average of 15

Source: Karl Flowers, Decisive Consulting, August 2021.

VALUE OF THE STAGE 1 ASSET IN 2030

A key final benefit of the project within the Shire is the continuing value of the initial construction at the end of the forecast period, at the close of 2030.

It is conservatively assumed that the value of this asset retains the after-inflation value of its initial cost of construction rather than appreciate in value. However, after discounting at 4% per annum, the original cost of the facility of $6.75 million, is discounted to a present value of $5.13 million.

ASSESSING OTHER COMMUNITY BENEFITS AND COSTS FOR THE SHIRE-

Benefits to local residents

In a cost-benefit analysis it is common to estimate the consumer surplus for local residents as a direct benefit of the project. This involves comparing the expected willingness to pay to use the facility with the average price paid. With strong local pricing (average of $12) versus $40 entry charges for the main pool for other visitors – this consumer surplus is expected to be significant. To be conservative this consumer surplus is estimated at half the difference between local pricing ($12) compared to the average charge for other visitors to the main pool ($40). Figure 5 shows this calculation of this economic benefit.

This benefit can also be viewed from the alternative (and less economically rigorous) perspective that in a remote destination like Coonamble there is high leakage from the local economy as residents buy goods and services outside the Shire including for visitor experiences. Having the facility will keep more of the money of locals in the town.

Figure 5. Forecasts for local's economic benefit from use of the facility

Financial year ending	2024	2025	2026	2027	2028	2029	2030
Local residents	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Economic benefit from savings of 50% of $12 locals charge Vs $40 other visitor charge for main pool	$84,000	84,000	$84,000	84,000	84,000	84,000	84,000

Source: Karl Flowers, Decisive Consulting, August 2021.

However, social benefits for locals are expected to go well beyond this economic benefit as the artesian baths provides a new meeting place within the town for locals and helps the town project a unique identity.

Benefits to the Shire Council

This project promises both direct and indirect benefits to the Shire Council. It promises direct financial benefits from increased economic activity in the Shire. Indirectly, it promises to give a different headline for Coonamble, that helps it attract follow-on business investment in areas such as visitor accommodation and food and beverage. Overall, it helps increase the justification for and build returns from earlier Shire investments in upgrading the road from the Warrumbungles and the new visitor information centre. Calculating the value of these benefits is not attempted in this cost benefit analysis.

Benefits and costs from environmental management of the project

These will be influenced by the environmental policies including for wastewater implemented by the project.

Preliminary indications are that the wastewater will be used by a neighbouring business as an input to yabby production and for agriculture – leading to valuable by-products and implementation of a near closed cycle environmental management of the project. Within this cost benefit analysis, no direct environmental costs and no value of the by-products made possible with the wastewater are included in this assessment.

TOTAL NET BENEFIT FOR THE SHIRE

The net benefit for the project for the Shire economy includes:

- Construction benefit of $2.7 million in 2023/24, that is estimated to provide 15 jobs (12 FTEs) for a single year;
- Ongoing labour costs of the project of $550,000 per annum from 2024 to 2030 providing 14 ongoing jobs (9 FTEs);
- Shire share of non-labour operating costs of the project of $720,000 per annum from 2024 to 2030 providing four (3 FTEs) ongoing jobs;
- Net profit for the operator is estimated at $135,000 per annum from the second year of the project;
- Visitor economy benefits outside the project of $2.6 million to $3.8 million per annum between 2024 and 2030 – leading to 15 (10 FTEs) ongoing jobs.
- Benefits to local residents from subsidised use of the facility that are estimated at $84,000 per annum from 2024 to 2030.
- Value of the asset at the end of 2030, is conservatively assumed to be $6.75 million, so no appreciation in after inflation value.

Across these 7 categories of economic benefit for the Shire, Figure 6 estimates the net present value of the project for the Shire, estimated jobs and FTE jobs, as well as the benefit cost ratio from a Shire perspective using the Shire contribution to the project capital cost.

Some other Shire economic benefits were not estimated of:

- Increased revenues for the Shire Council;
- Value of follow-on visitor economy investment in construction and operation outside the project but within the Shire, as a result of increased visitor spend (this type of wider economic benefit is commonly used in CBAs by State Governments in valuing infrastructure projects);
- Value of construction or operations of a mooted Stage 2 to the project; and
- Net benefit of environmental benefits and costs of the project.

Looking longer term to the end of 2030, the major economic benefit of the proposed Artesian Bathing Experience project is to provide the missing anchor attraction to ensure much greater participation of the Coonamble Shire in a far busier regional touring network. Conversely, the major social benefit is a shift to Coonamble people becoming more confident in the town's economic future and having a new core venue for coming together that forges an enhanced sense of community.

Figure 6. Forecasts for Shire project net present value, extra jobs and benefit/cost ratio

Benefit	Present Value (over FY 2024 to 2030 $m)	Ongoing Jobs	Ongoing Jobs FTE
Shire contribution to capital	-$1.25		
Construction	2.70		
Project labour	3.30	14	9
Project non-labour expenses	4.32	4	3
Net profit for operator	0.81		
Visitor economy benefits outside the project	21.69	15	10
Consumer surplus benefit to local resident use	0.50		
Terminal value of the asset in June 2030	5.13		
Total NPV	37.21	33	22
Benefit/cost ratio from Shire perspective	30.8		

Source: Karl Flowers, Decisive Consulting, August 2021.
Notes:
- Dollar values shown are in financial year 2023/24 dollars
- Discounting of benefits is at 4% per annum from 2023/24

ECONOMIC BENEFITS FROM THE COONAMBLE PROJECT AS ASSESSED FROM THE PERSPECTIVE OF THE NORTHERN OUTBACK REGION (FOUR LGAS)

In the northern outback area of NSW, the economies of the Narrabri, Moree Plains and Walgett LGAs as well as Coonamble Shire are all set to be significant beneficiaries of a relaunched and revised Great Artesian Drive.

Around 40% of the visitors to the Coonamble baths who are not Coonamble shire locals or locals of these neighbouring LGAs are expected to undertake at least part of the relaunched Great Artesian Drive. This implies an estimated 10,000 annual visitors from the second year of operation of the Coonamble bathing experience who are expected to visit at least one of the other baths on the Great Artesian Drive and most commonly the larger baths at Moree and Lightning Ridge.

If we assume these 10,000 annual visitors to the Coonamble baths who undertake the relaunched Great Artesian Drive spend an average of only two nights doing so outside their stay in Coonamble, then at an above average per person spend of $160 per night, this implies a direct injection of visitor spending to these LGAs of $3.2m per annum. This impact will be most obvious to these LGAs in a greater number of high spending international visitors to their destination.

In addition, a further benefit for these other LGAs is the greater consumer attention the Coonamble project and the relaunched Great Artesian Drive gives to their existing artesian bathing experiences. Many potential visitors to these other LGAs are likely to encounter marketing for the Coonamble bathing experience and the relaunched Great Artesian Drive without contemplating visiting Coonamble or undertaking much of the Drive. This greater publicity of the artesian bathing opportunity is expected to see a share of the 400,000 annual domestic and 8,000 international overnight visitors (pre-COVID estimate over four years) to the three LGAs allow more time for their visit and spend more in these LGAs. If only 2% of these visitors increase their length of stay across the three LGAs by one night this implies an extra 8,000 visitor nights and just under $1.0 million per annum in additional spending at an average spend of $120 per night.

This calculation of an additional $4.2 million of incremental visitor spending in the LGAs of Narrabri, Moree Plains and Walgett Shire is a worthwhile increase to the visitor economies of these LGAs. However, this forecast appears highly conservative when assessed against the economic contribution made by high performing drive touring routes such as the Silo Art Trail in Victoria.

As shown in Figure 7. This estimate of $4.2 million in annual incremental visitor spending in the neighbouring LGAs has a net present value after discounting of $25.2 million. This is around two-thirds of the sum of all discounted economic benefits ($35.8 million) for the Coonamble Shire of the project.

The benefit/cost ratio from the perspective of the northern outback region after allowing for the full capital cost of $6.75 million is 9 to 1.

Figure 7. Forecasts for project net present value, extra jobs and benefit/cost ratio from the perspective of the four LGAs

Benefit	Present Value (FY 2024-2030 $m)	Ongoing Jobs	Ongoing Jobs FTE
Benefits due to increased visitor spending in neighbouring LGAs	$25.2	20	14
Total benefits in Coonamble Shire	$38.5	33	22
Total project benefits	$63.7	53	36
Net Present Value	$56.92		

Source: Karl Flowers, Decisive Consulting, August 2021.
Notes:

- Dollar values shown are in financial year 2023/24 dollars
- Discounting of benefits is at 4% per annum from 2023/24

ECONOMIC BENEFITS FROM THE COONAMBLE PROJECT AS ASSESSED FROM THE PERSPECTIVE OF THE NSW COMMUNITY

NSW State Treasury insists that CBA evaluations from a State-wide perspective be calculated excluding the visitor spending by NSW residents. The Treasury logic is that this reflects that NSW residents have the option of spending on other goods and services produced in NSW, but ignores that if they are seeking an upmarket hot spring experience they and their money will leave the state. The impact of this approach is to significantly reduce estimated net benefits, and hence benefit/cost ratios and the net present value created by tourism projects from the NSW community perspective.

An estimated 50% of the visitor spending in the Coonamble project is expected from either international or interstate visitors over the forecast period. This reflects that these travellers are more likely to take expensive project accommodation, treatment and bathing options than will NSW residents visiting the project who are also more likely to stay with friends and relatives.

A lower 33% share of visitors' spending resulting from but outside the project in Coonamble Shire and in the three neighbouring Shires is expected to be due to international and interstate visitors. Reflecting the uniqueness of the Coonamble project and the revitalised Great Artesian Drive this contribution is still much higher than that for most regional NSW tourism development projects.

This reduces the impact in the CBA from a NSW perspective of the visitor spending benefit outside the project and the benefits of ongoing spending within the project.

On the other hand, a larger share of project construction costs is spent in NSW (above 90%) compared to the assumed 40% spent in the Coonamble Shire. The estimate of $6.1 million in NSW spending suggests around 34 jobs are created for one year in the State.

Total valuation of benefits after discounting from a NSW perspective is 50% lower than from a large region perspective (the four LGAs) which included benefits from spending by residents outside the LGAs but within other areas of NSW.

Total benefits after discounting from this NSW perspective sum to $31.7 million (2023/24 $s) compared to costs of $6.75 million. This implies a benefit to cost ratio of 4.7 to 1.

The net present value of the project from a NSW community perspective is therefore $25.0 million (2023/24 $s).

9. RISK ANALYSIS

This project demands a robust approach to risk management that includes the development of comprehensive risk register and risk management framework that recognises and assesses risks that might create, enhance, prevent, degrade, accelerate or delay the achievement of the objectives and outcomes intended by the development of this facility.

This risk management framework also identifies appropriate strategic responses, management and mitigation strategies.

A risk assessment for the Coonamble Bathing Experience Facility was undertaken at the Concept Design stage for and will inform the preferred delivery approach.

As risk management is a dynamic process, it will require review and management throughout the project life cycle. This will confirm that key project risks have been adequately captured and identify any new or emergent risks, which feed into project cost.

It is also recommended that the finalised project design consider safety in design principles, to identify potential hazards early in the design process as well as appropriate strategies to minimise or eliminate these hazards.

The risk assessment approach has utilised Belgravia Leisure's Risk Assessment and Quality System Framework.

Project design risks and project impacts were categorised under the following areas:

- Financial – Capital Cost
- Safety
- Reputation to Council
- Operational Risk

RISKS IDENTIFIED, RISK MANAGEMENT STRATEGIES AND RISK IMPLICATIONS AND LIKELIHOOD

Risk 1. Local community opposition to the project

What has been done to reduce the risk

1. Long-standing discussion of this project in the community
2. Extensive consultation process undertaken by Coonamble Shire Council
3. Public meeting held by Council to give proponents and those with questions or preliminary objections the opportunity to put their queries or concerns
4. A feedback form was circulated widely following this meeting and 210 responses received, of which:
    - 85% of the responses were supportive of the development.
    - 85% of the respondents said they would use the new facilities and 40% saying they would use it weekly.
    - 87% felt the new facilities would have a positive effect on the community.
5. Economic analysis of the project in a cost benefit analysis concluded that local visitor economy businesses in accommodation and food/beverage would be major beneficiaries, as many more overnight visitors would come for the attraction than stay in the project's accommodation and no food/beverage services would be available at the project.
6. By revitalising the Great Artesian Drive with the Coonamble project, the cost-benefit analysis for this project also found major economic benefits would flow to Narrabri, Moree Plains and Walgett Shire businesses and communities. This project promises to revitalise road touring in the northern areas of the NSW outback region and prompt further investment in this visitor economy.

Significance and likelihood

As with all regional tourism projects this is a significant risk to the project, but given the preparations done so far one that is considered to have a low likelihood.

Risk 2. Cost overruns on construction

1. Detailed design work, feasibility study and business case completed by Australia's most experienced hot springs operator/investor (Belgravia Leisure)
2. Inclusion in the project budget of a prudent 15% contingency allowance
3. Construction management by Public Works Advisory (see Q67)
4. Intensive and high-level executive client oversight of the project

Significance and likelihood

This is a significant risk to the project but one that is considered to have a low likelihood if Council uses the Early Contractor Involvement method of engaging expertise, together with the inclusion of a of a healthy contingency budget. Compared to many Council projects, this one will be very closely monitored by the Shire, given its importance to its stakeholders.

Risk 3. Safety risks in construction

This project involves drilling a bore and extraction of hot but not scalding water (at around 37 degrees), so there are a range of safety risks unique to this construction project.

What will be done to reduce the risk

1. Detailed design work completed by Australia's most experienced hot springs operator/investor (Belgravia Leisure).
2. Use of experienced crew in the drilling of the bore will be pursued.
3. Construction management by Public Works Advisory (see Q67).
4. Intensive and high-level executive client oversight of the project.

Significance and likelihood

This is a moderate risk to the project but one that is seen to have a low likelihood given the experience we have in the project design and involvement of a specialist construction manager.

Risk 4. Failure to reach visitation forecasts

What will be done to reduce the risk

1. Detailed design work completed by Australia's most experienced hot springs operator/investor (Belgravia Leisure).
2. Visitation forecasts were deliberately done on a conservative basis.
3. Total visitation forecasts to the baths were aggregated from forecasts for eight non-overlapping visitor categories. This minimises the risk of over optimistic forecasting of visitation.
4. Separate forecasts were developed for bathing, treatment and accommodation services. This allowed more detailed analysis of which bathers are more likely to use other services and ensured more robust forecasting.
5. Forecasts were developed by a highly experienced tourism economist drawing extensively on data resources of Tourism Research Australia and the ABS.
6. Consultation on the market opportunity included with the Destination Country and Outback Tourism Region and intensive review of market analysis by this regional tourism authority.
7. The identification of key project outcomes is supported by active ongoing monitoring of project delivery. The following approach to producing monthly intelligence should provide the operator and Shire Council early warning of a failure to reach visitation forecasts:

    - Surveying of users of bathing, accommodation and treatment will be a major management KPI. Incentives will be offered for survey responses.

    - Detailed surveying of a sample of guests will supplement routine data collection on origin of guests, services used and duration of use and spend in the project. These more detailed surveys will seek information on location of stay when visitors didn't stay in the resort, length of stay and spend outside the resort, whether would have come to Coonamble anyway, whether taking other stops on the Great Artesian Drive and on these itineraries and feedback on resort services.

Significance and likelihood

This is a significant risk to the project but one that is seen to have a moderate llikelihood. This reflect the use of Belgravia experience in project design, a conservative approach to forecasting visitation and active monitoring of visitation to fast track management responses to deliver visitation forecasts.

Risk 5. Failure of the operator to deliver financial or environmental sustainability, visitor safety, promised accessibility

What will be done to reduce the risk

1. As a key aspect of the business case Belgravia Leisure has provided a comprehensive operator risk management plan for operating this facility. This plan provides a wealth of detail on how this risk can be reduced and actively managed including:

    - Risk & Hazard identification
    - Risk Assessment
    - Risk Controls
    - Incident Reporting

Significance and likelihood

- The recent experience of the Moree Artesian Aquatic Centre with management challenges highlights the importance of managing this risk. The Moree facility's management was recently discontinued by the Shire Council and a fresh approach to put more emphasis on attracting and servicing visitors from outside the local resident user group is set to be implemented.
- This is a significant risk to the project but one that is seen to have a moderate likelihood if an experienced external operator with sophisticated risk management plans and systems is appointed to manage the facility.

10. MANAGEMENT MODEL OPTIONS

The Coonamble Shire has three options in terms of a of management model:

1. Go to tender to seek a contract management company.
2. Manage the facility In house
3. Manage the facility in house with additional contracted management support

OPTION 1
OUTSOURCED CONTRACT MANAGEMENT OR LEASE MODEL

This option would see at least the two main contract management companies tender to provide management services on a lump sum fixed price contract or a lease arrangement.

The management of specification or lease terms under this scenario is all important in order to obtain the best result for the Shire and from a fiscal and community benefit aspect.

OPTION 2
IN HOUSE MANAGEMENT MODEL

The “in house” option will give Council greater control over the management of their asset, but may come at a greater cost initially and require the Shire to increase its internal resources across, supervision, HR, payroll, and finance departments.

OPTION 3
FEE FOR SERVICE MANAGEMENT MODEL

This option involves the Shire taking responsibility for managing the facility with the assistance of an external management support agency. Under this option the Shire may choose to manage the facility themselves but contract an external agency for the supply of staff and other services. There are several variations of this option and it is best used as a short term option rather than a longer term solution.

The section to follow summarises the advantages and disadvantages of each option.

IN HOUSE MANAGEMENT MODEL

Advantages of this option are:

- Full control- This option will give the Shire greater control over the management of their asset.
- No profit share/management fee
- Facility focused branding
- Focus on providing services which follow Council vision and objectives rather than a management group which would focus purely on income/profit generating services

Disadvantages of this option are:

- Higher wages
- Lack of facility management and tourism expertise
- May require additional administration (HR, accounting, etc) at the facility or within the Shires administration.

The down side of this option is the risks associated with a lack of expertise, in that the Shire currently may not have staff within the organisation that can oversee a smooth implementation and develop the systems required to manage the facility. The key issue here is the fact that Council will always only ever have one of these types of facility and the cost of employing specialist staff in all areas required will not be a financially viable option.

In order to properly assess the financial implications of an "In House "management option we draw the Shires attention to the following issues:

- Award options: What award options are open to Council given its current award structure?
- The implications for other areas of the Shire in terms of extra resources are:
    - An additional 20 staff will be added to Council payroll.
    - Approximately 80% of all staff will be employed as Casual employees.
    - Approximately 20% of all staff will be employed as Permanent or Permanent/Part –Time basis.
- Some training and development will need to be provided as part of Councils existing programs.

As part of a future investigation of potential cost, there are implications for other departments of the Council that would require a greater degree of involvement with the facility. These areas include:

- Human Resources
- Accounting & Payroll
- Occupational Health and Safety
- Asset Management

OUTSOURCED CONTRACT MANAGEMENT MODEL

Advantages of this option are:

- Wage savings.
- Support services (marketing, management, etc) specific to the Tourism & Wellness industries.
- Ready to install Quality Management System
- Sales and marketing systems
- Ability to provide capital investment in the facility
- Centralised accounting and payroll functions

Disadvantages of this option are:

- Lack of recognition of Council ownership
- Values not aligned with Council
- Profit motive the key objective.
- Loss of control of the facility

CONTRACT MONITORING

To achieve best practice in facility operation there is a range of contract monitoring measures that can be put in place.

Achievement of targets against a management plan that could be monitored include: participation statistics for the local community users; access for all abilities program participation; complaints handling and customer feedback; continuous improvements initiatives; customer retention; annual visitations; marketing programs; staff training and induction programs; emergency evacuation training; program diversity and participation etc.

Targets for these types of measures allow Council to specify program activity, usage levels requirements and minimum safety requirements. Utilisation of industry benchmarks as they currently exist provides a very general framework for the service provider requirements and does not allow council to shape facility operations or link program activities with key council strategies.

ASSET MAINTENANCE UNDER THE OUTSOURCED MODEL

Asset maintenance has provided concerns for Council's that have tendered operation of their facilities to external service providers. Some Council's have contract or licence agreements that do not specify clear obligations for all asset maintenance issues and consequently some items of equipment or building repairs remain in-operable for long periods. To overcome this situation some councils are now taking full responsibility for funding and in some cases coordinating all maintenance to Council assets.

ANNUAL MANAGEMENT PLANS

Under an Outsourced Management Model, Councils require the contract management agency to submit an Annual Management Plan that details services, business undertakings, maintenance schedules, capital works, budgets, income projections, performance measures and any other item as reasonably required, as related to the facility.

This process enhances Council's capacity to integrate their objectives into annual operations and helps structure annual performance measuring.

ENGAGEMENT OF MANAGEMENT

Council received advice from Probity Consultants - O'Connor Marsden and Associates relating to the procurement of an external management agency. Their report is provided as Appendix 2.

Given that Council is only ever going to operate one of these facilities, it is recommended that the Shire opts for an "Outsourced Management Model" in the event that this project proceeds. This could either operate under a management contract or a lease.

EARLY CONTRACTOR INVOLVEMENT (ECI)

(ECI) is a type of construction contract where the principal contractor is engaged at an early stage in a project to offer input into the design phase. It is in contrast to the design–bid–build model where the contractor is only brought on-board at the end of the design phase. The model allows the contractor to have an input in the design of the scheme and suggest value engineering changes. Studies have shown that savings of around 10% in construction phase time and 7% in cost are achievable through the use of ECI and we therefore recommend it for this project.

Under an early contractor involvement (ECI) system a single contractor is selected at an earlier stage in the process and is paid for their work on the scheme. This can be either at the preliminary/ concept design or detailed design stages, depending on client preference. The contractor can then use their knowledge and experience to influence the project design to increase build-ability or value and may be asked to advise on construction phase risks. The contractor may choose to involve their supply chain sub-contractors in the process to offer additional expertise. The contractor is able to build their price for the works during the process, in consultation with the client and designer.

As the ability of parties to affect project cost and programme is greater in the design stages than in the construction phase then the potential for value engineering is greater under ECI contracts than traditional contracts. ECI contracts tend to lead to more harmonious client-contractor relationship, though there is less competition than with traditional open tenders.

APPENDIX 1

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Coonamble Bore Baths Feasibility Study - Updated Hydrogeological Report

for Coonamble Shire Council
October 2021

J1537.3R-rev1

C. M. Jewell & Associates Pty Ltd

Coonamble Bore Baths Feasibility Study - Updated Hydrogeological Report
October 2021

J1537.3R-rev1

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1.0 INTRODUCTION

1.1 Background

The town of Coonamble has a population of about 2,750 and is located on the Castlereagh River in central western NSW. The town is located above the Great Artesian Basin (GAB) and obtains its water supplies from bores drilled into sandstone aquifers, within the GAB, which lie at a depth of about 430 to 600 metres.

Coonamble Shire Council (Council) is carrying out an assessment of the feasibility of establishing a hot artesian bore bath in Coonamble; this assessment is being managed by Belgravia Health and Leisure Group Pty Ltd.

An initial feasibility assessment was carried out in 2010; C.M. Jewell & Associates Pty Ltd (CMJA) prepared a hydrogeological report to support that study. The current proposal relates to a different site and a number of key regulatory instruments have changed since 2010. This report has therefore been prepared to update the earlier report.

1.2 Project Objectives

The Feasibility Study is to investigate:

- Availability and suitability of the groundwater;
- Technical, engineering and legal requirements;
- Potential market for the bore baths;
- Feasibility of establishing and operating the baths (capital costs, annual operating costs, likely revenues);
- Economic and social benefits for the town;

and develop an appropriate business case.

This hydrogeological study is to assess:

- Availability and suitability of the groundwater.
- Technical, engineering and legal requirements associated with the water supply.

1.3 Specific Questions

The following specific questions were posed in the original Brief, and subsequently.

1. Is there likely to be water at a deeper level that is hotter and/or whether using a small bore (e.g., 4-inch) would result in higher temperatures?
2. Can we use the existing bores (legal and practical / engineering considerations) – is it likely to be more cost effective to buy new pumps or drill a new bore? Is a new bore a better option – other than being 500 metres from a town water bore, what other factors need to be taken into consideration. Related to this is the implications of piping water from a remote bore (as opposed to having one on site) – how do we protect against heat loss, and if the water is too cool, what is the most effective way of reheating it – will reheating impact on the chemical composition / therapeutic value?
3. How much water are we likely to need?
4. Is the water going to be suitable?
5. Will it be possible to use a free-flowing bore?
6. What are the options for the disposal of water?

1.4 Scope of Work

This work has been carried out as a desk study, supplemented by a site visit.

1.5 Report Format

Section 2 of this report provides the information on local conditions that is necessary to understand the remainder of the report without extensive reference to external sources.

Section 3 provides a brief introduction to the hydrogeology of the GAB in general, and to hydrogeological conditions around Coonamble in particular.

Section 4 describes the regulatory framework governing access to groundwater resources in the NSW part of the GAB, with specific reference to the requirements of this project.

Section 5 provides an assessment and discussion of the issues that are the subject of this report, as set out in Section 1.

Section 6 summarises CMJA's conclusions and sets out recommendations for the project.

1.6 Limitations and Intellectual Property Matters

This report has been prepared by C. M. Jewell & Associates Pty Limited for the use of the client identified in Section 1.1, for the specific purpose described in that section. The project objectives and scope of work outlined in Section 1.2 were developed for that purpose, taking into consideration any client requirements and budgetary constraints set out in the proposal referenced in Section 1.1.

The work has been carried out, and this report prepared, utilising the standards of skill and care normally expected of professional scientists practising in the fields of hydrogeology and contaminated land management in Australia. The level of confidence of the conclusions reached is governed, as in all such work, by the scope of the investigation carried out and by the availability and quality of existing data. Where limitations or uncertainties in conclusions are known, they are identified in this report. However, no liability can be accepted for failure to identify conditions or issues which arise in the future and which could not reasonably have been assessed or predicted using the adopted scope of investigation and the data derived from that investigation. An information sheet – 'Important Information about your Environmental Site Assessment' – is provided with this report. The report should be read in conjunction with that information sheet.

Where data collected by others have been used to support the conclusions of this report, those data have been subjected to reasonable scrutiny but have essentially, and necessarily, been used in good faith. Liability cannot be accepted for errors in data collected by others.

This report, the original data contained in the report, and its findings and conclusions remain the intellectual property of C. M. Jewell & Associates Pty Ltd. A licence to use the report for the specific purpose identified in Section 1.1 is granted to the persons identified in that section on the condition of receipt of full payment for the services involved in the preparation of the report.

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2.0 LOCAL CONDITIONS

2.1 Water Supply

CMJA's previous report stated that Council currently operates three town water supply bores. Bore 3 is located on the eastern side of town, while Bore 4 and Bore 5 are located on the western side of town. These bores are artesian or sub-artesian and obtain groundwater from aquifers located 430 to 650 metres below ground level. The bores are fitted with electric submersible pumps (Bore 3) and line-shaft turbine pumps (Bores 4 and 5). The current Bore 3 is a replacement for an older bore (old Bore 3) and was drilled immediately adjacent to that bore. The old bore is still in existence and functions as a standby for Bore 3; these two bores cannot be operated simultaneously due to their proximity to each other.

Coonamble Shire Council holds two water access licences, WAL 15692 (1200 ML/yr) and WAL 21434 (50 ML/yr), and Water Supply Works and Water Use Approval 80CA704187 covering the three bores in current use and linked to both WALs. WAL 15692 is a Local Water Utility Access Licence permitting use for town water supply purposes only. WAL 21434 is an Aquifer Access Licence which is unrestricted as to use.

All three bores pump directly into the water reticulation system, which distributes water to the town for domestic and all other municipal uses. All users apart from businesses are metered. The operational pressure is 220 kilopascals (kpa). Water is chlorinated at the bore-head to 2.5 milligrams per litre (mg/L).

The town water supply system has three reservoirs, which are located close to the three operational boreholes. Reservoirs 3 and 4 are constructed from concrete and have capacities of 1 megalitres (ML), and Reservoir 5 is a steel reservoir with a capacity of 5.7 ML. The reservoirs are single-pipe bottom-fill systems, where the inlet pipe also functions as the outlet.

It is understood that this situation has not changed, and the original statements remain valid.

2.2 Potential Site

A potential site for bore baths has been identified. This is located on Lot 212 DP744199, south-east of Coonamble Racecourse and the golf course, as shown on Figure 1. This land is held by the Crown Lands Trustee.

Figure 1: Site Location

3.0 HYDROGEOLOGY

3.1 Regional Geology and Hydrogeology

The Great Artesian Basin (GAB) is the largest artesian groundwater basin in the world and one of only two groundwater flow systems, of any type, of comparable scale. It underlies parts of Queensland, New South Wales, the Northern Territory and South Australia and extends across an area of approximately 1.7 million square kilometres, as shown on Figure 2.

Figure 2: Extent of the Great Artesian Basin

The GAB consists of several contiguous sedimentary basins, including the Surat and Eromanga Basins, with confined aquifers of Triassic, Jurassic and Cretaceous continental sandstone, underlain by a low-permeability pre-Jurassic base (Habermehl, 1980).

Figure 3, extracted from Ransley et al (2015) shows the complex hydrostratigraphy of the GAB. It can be seen that many of the hydrostratigraphic units have regional equivalents with different local names and often significant differences in character, reflecting the influence of a range of sedimentary environments across the vast area of the GAB. Onlap and offlap occurred at the margins of the individual sedimentary basins and sedimentation was also affected by basement topography and syndepositional tectonics. Consequently, the full sequence of sedimentary units is rarely present, and in most locations some units were not deposited.

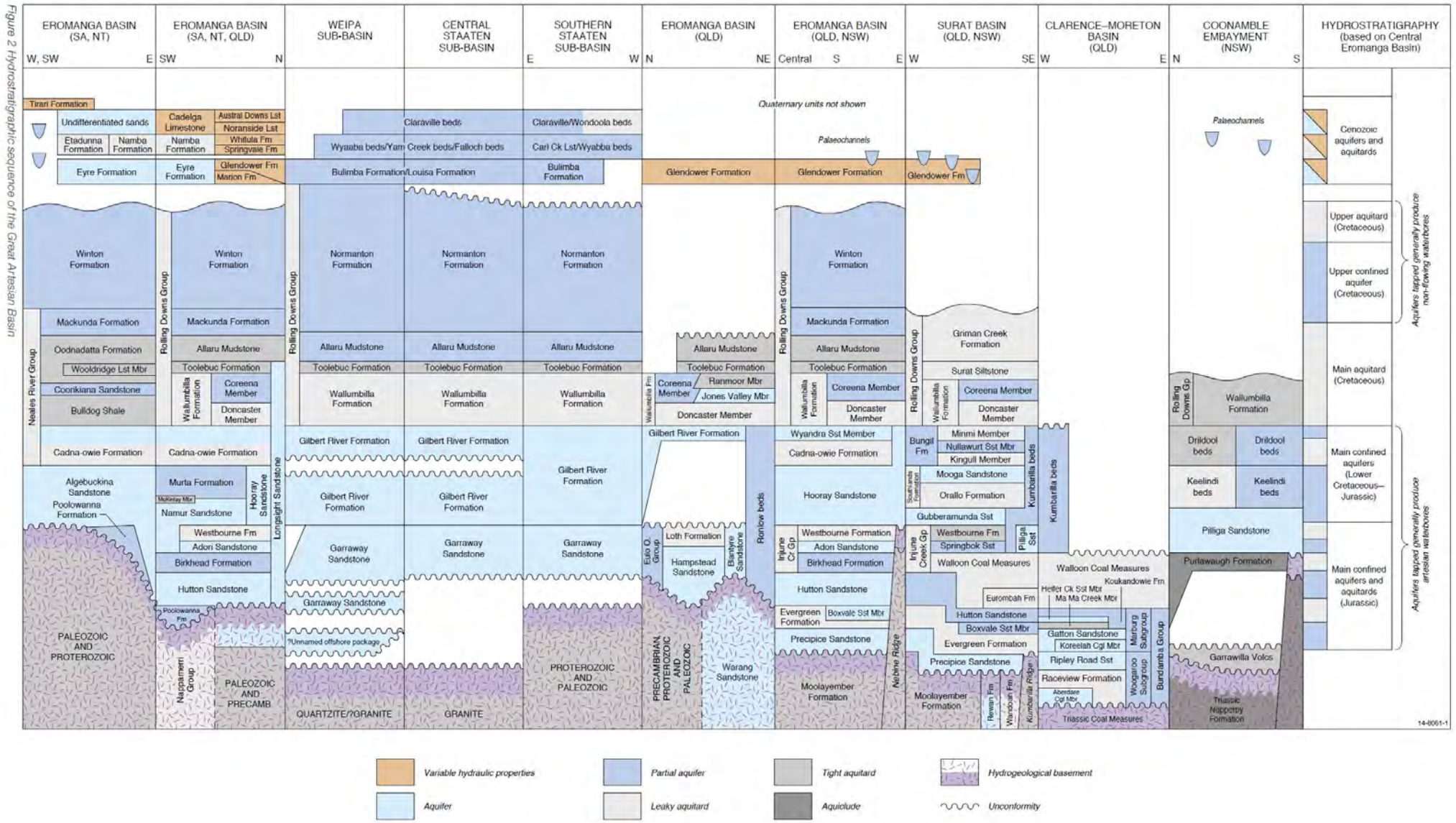

Figure 3: Hydrostratigraphy of the Great Artesian Basin

The Basin is up to 3000 metres thick, and forms a large synclinal structure, uplifted and exposed along its eastern margin, and tilted south-west. Recharge occurs mainly at the eastern and south-eastern edges, an area of relatively high rainfall, and large-scale regional groundwater movement is generally towards the south-western, southern, western and northern margins. Recharge also occurs in the western margin of the Basin, and groundwater flow directions are towards the south-western discharge margin. Natural discharge occurs in those areas from flowing artesian springs, most of which have built up mound-shaped deposits of sediments or carbonates. Discharge from the artesian aquifers near the Basin margins also occurs by diffuse leakage where the overlying confining beds are thin. Many springs are associated with structural impediments, such as faults, folds, monoclines and intersecting lineaments, and occur at abutment of aquifers against bedrock or where confining beds thin near the discharge margins.

The maximum total thickness of about 3000 metres occurs in the Mesozoic sedimentary sequence in the central GAB.

The GAB underlies the arid and semi-arid parts of central Australia, where surface water is sparse and unreliable. The discovery of the Basin's artesian groundwater resources, around 1880, made European-style settlement possible and led to the establishment of the pastoral industry, and the establishment of rural towns such as Coonamble. Pastoral activity and town water supplies are to a very large extent dependent on artesian groundwater in the Basin area. In recent years artesian groundwater has been used increasingly in the petroleum (since the 1960s and 1970s) and mining (since the 1980s and 1990s) industries located both inside and outside of the Basin area. Most of these industries are largely or totally dependent on the Basin's artesian groundwater resources.

Groundwater flow in the south-east corner of the GAB, known as the Coonamble Embayment, is predominantly to the north-west, as shown on Figure 4. The shaded areas on Figure 4 are the recharge areas or intake beds.

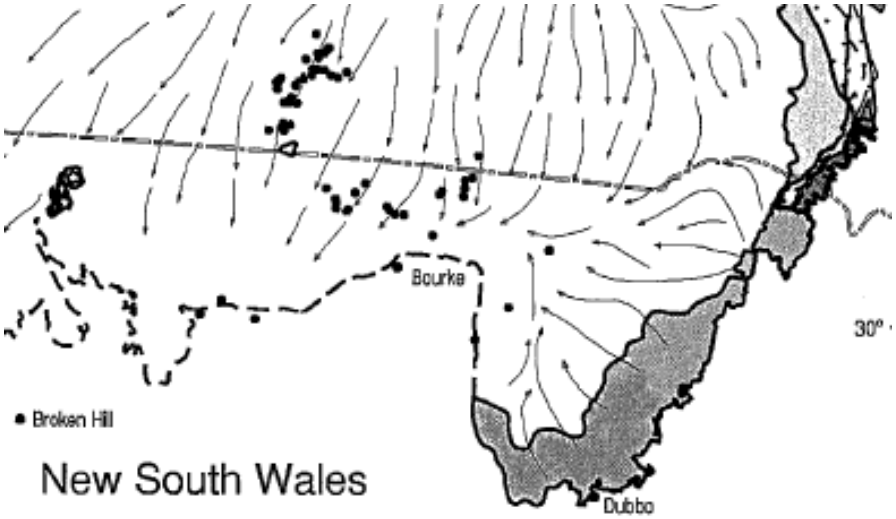

Figure 4: Groundwater Flow in South-East GAB (Habermehl, 1980)

Hydraulic conductivity in the main aquifers (Pilliga Sandstones and lateral equivalents) ranges from 0.1 to 10 m/day, generally in the lower part of that range (Habermehl, 1980).

Coonamble lies within the Surat Basin, a Mesozoic depositional sub-basin overlying the broader Gunnedah Basin, which contains older, Paleozoic sedimentary rocks. The Surat Basin extends to the north and north-east past Lightning Ridge and Moree, and on to Roma in Queensland.

Within New South Wales, the GAB aquifers within the Surat Basin are managed as the Surat Groundwater Source, shown on Figure 5.

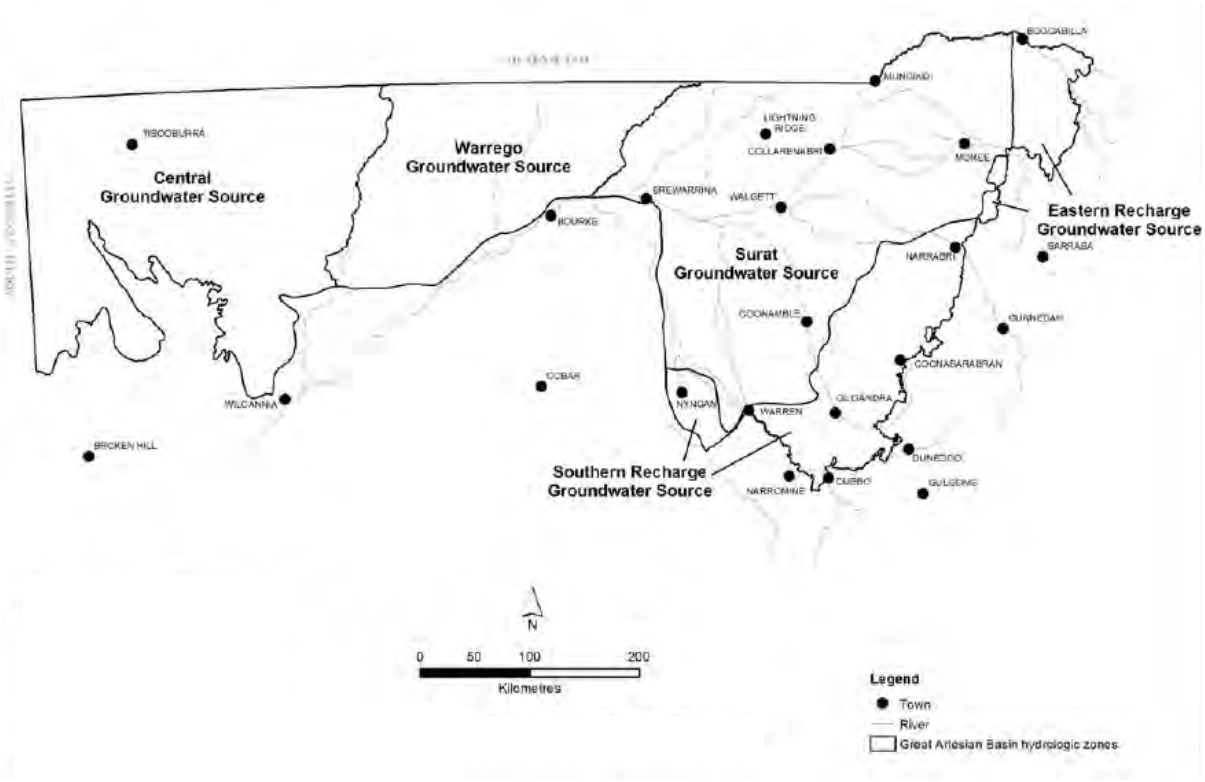

Figure 5: New South Wales GAB Water Sources

From Figures 4 and 5, it can be seen that Coonamble lies relatively close to the southern confined limit of the GAB, and to the southern recharge area, which has the consequence that, in comparison with areas further north, the groundwater is fresher, and cooler.

3.2 Local Geology and Hydrogeology

Figure 6 shows a geological section through the GAB sedimentary rocks about 8 kilometres south of Coonamble. The scale shows depth relative to sea level. Depths to corresponding strata in the centre of Coonamble are likely to be similar, or slightly greater. Coonamble is about 180 to 185 m above sea level, which must be added to the depths shown on Figure 5 to estimate depths below ground level.

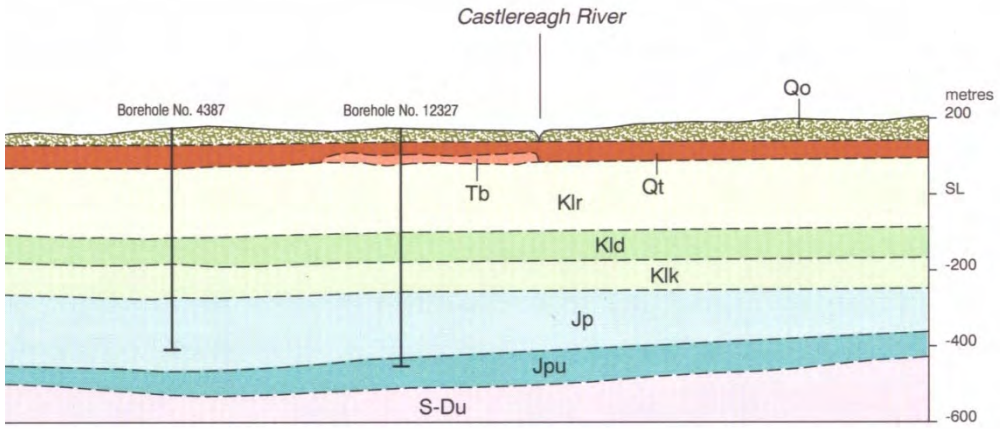

Figure 6: Geological Section

In Figure 6, the light blue horizon labelled Jp is the Jurassic-age Pilliga Sandstone, which is the main aquifer in the Surat Basin part of the GAB. The Pilliga Sandstone is a medium to coarse-grained, well-sorted quartzose sandstone, which was originally deposited in a fluviatile (river) environment (Hawke

and Cramsie, 1984; and Watkins and Meakin, 1996). The darker blue horizon represents the Purlawaugh Formation (Jpu), which is composed of lithic sandstones interbedded with siltstone and mudstone and has low porosity and permeability. S-Du represents the undifferentiated Silurian and Devonian rocks that form the Paleozoic basement beneath the GAB in this area.

The five remaining Coonamble town water supply bores (two others have been abandoned) are screened in the Jurassic-age Pilliga Sandstone, which is the main (and the only good) aquifer in the Coonamble Embayment. Typically, in these bores, the Pilliga Sandstone may be present within a range extending from about 430 m to 600 m below ground level. Several bores continue through the Purlawaugh Formation to the base of the GAB at about 630 m, but the sandstones in the Purlawaugh Formation are tight and unlikely to contribute significantly to bore yield. Below the Purlawaugh Formation lie very hard lavas and volcaniclastic rocks of the Garrawilla Volcanics, then the Devonian-Silurian basement.

An important consequence of the stratigraphy outlined above is that the Pilliga Sandstone is the deepest aquifer in the GAB in NSW. There are no deeper aquifers that might yield warmer groundwater. This situation is different from that in Queensland, where other GAB aquifers (the Hutton Sandstone and Precipice Sandstone) are present at greater depth. Those rocks were simply not deposited in NSW. The Pilliga Sandstone itself lies at a shallower depth than in northern areas of NSW, such as Moree and Collarenebri.

Coonamble is relatively close to the southern recharge zone of the GAB, which lies to the south-east. Groundwater flow occurs in a north-westly direction, and the base of the aquifer also dips in that direction. Consequently, compared with areas further north, the aquifer is shallower, groundwater temperatures are lower, and the water is less saline and less sodic. Figure 7 (compiled using a gridded dataset for the whole GAB) shows the temperature of groundwater in the Coonamble Embayment and southern Surat Basin. The reported temperature of 37°C for groundwater from the town bores is consistent with these data.

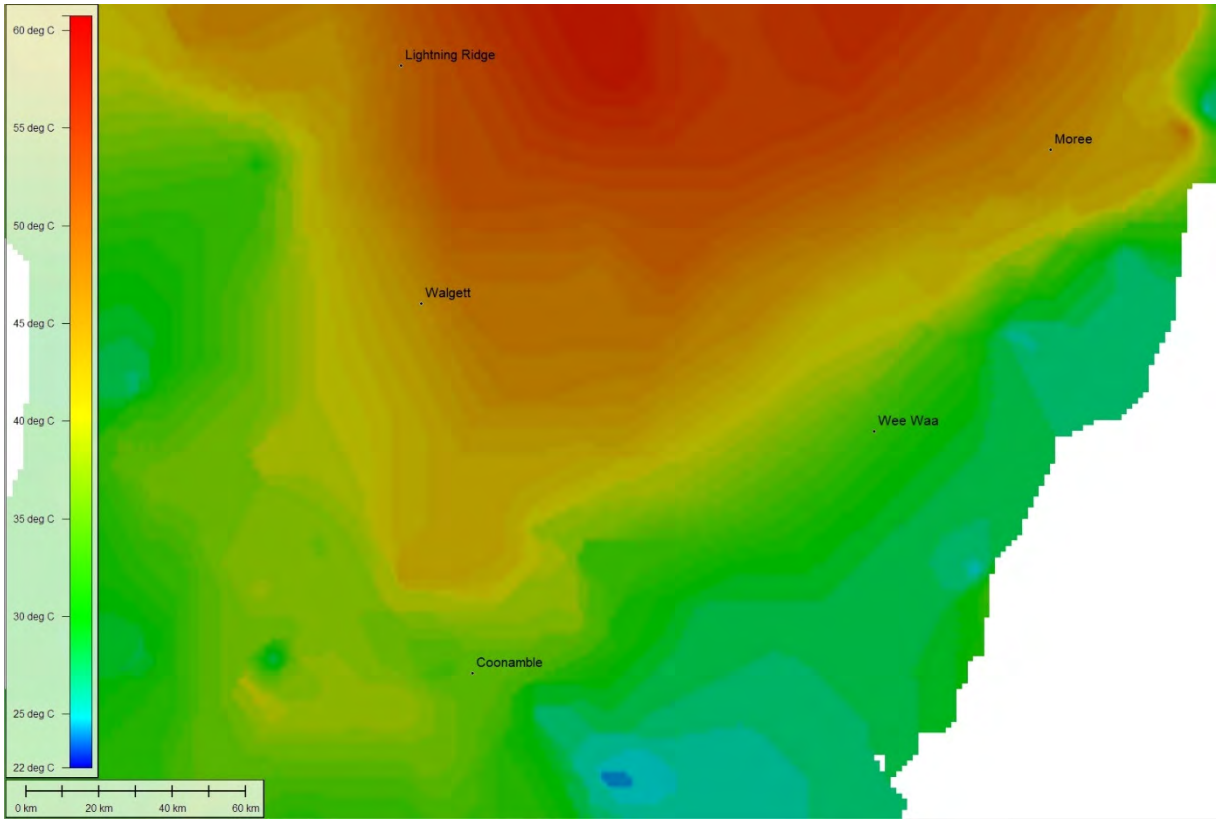

Figure 7: Temperature of Groundwater in the Coonamble Embayment and Southern Surat Basin.

There have been anecdotal reports of warm water being obtained from fractures in the Garrawilla Volcanics. This is not impossible, although it would be unusual to encounter open fractures at a depth of over 600 m in an area with a compressional residual stress field. It is considered very unlikely that any such fractures would be part of an extensive interconnected system capable of sustaining high yields.

Overlying the Pilliga Sandstone is a series of Cretaceous sedimentary rocks. The Keelindi Beds (Klk) are poorly sorted cream to white sandstones and conglomerates that may form a poor aquifer in some places. The Drildool Beds (Kld) are grey, fine-grained lithic sandstones. The Rolling Downs Group (Klr) is composed of clays and claystones and forms the main confining aquitard.

The Tertiary deposits are composed of conglomerate, sand and clay, with some basalt flows.

Figure 8 shows structure contours (relative to sea level) on the base of the GAB sediments in the Coonamble area. It can be seen that Coonamble lies on the eastern side of a basement high, which may divide groundwater flow, forcing local flow in the Pilliga Sandstone aquifer to the north-east. Add 180-185 m to the contour levels for depths below ground surface at Coonamble.

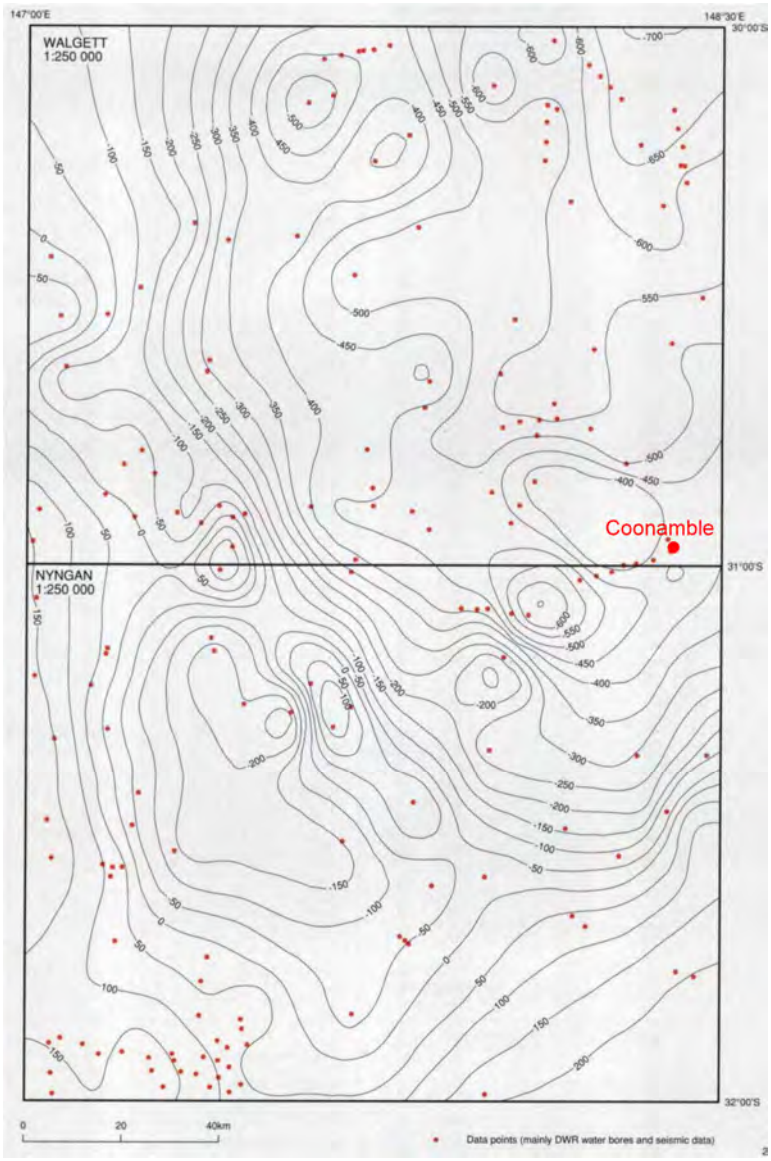

Figure 8: Structure Contours on the Top of the Palaeozoic Basement (Base of the GAB)

3.3 Local Groundwater Utilisation

In the area around Coonamble there are a number of shallow bores and dug wells that obtain water from shallow Quaternary-age sediments, including alluvial deposits associated with the Castlereagh River. Since these shallow aquifers are separated from the GAB aquifers by over 400 metres of low-permeability strata, they will not be affected by pumping from the latter. However, they potentially offer an alternative water source for some town uses, and pollution risks to these aquifers should be considered with regard to waste-water disposal.

Figure 9 shows (in blue) the town water supply bores in Coonamble.

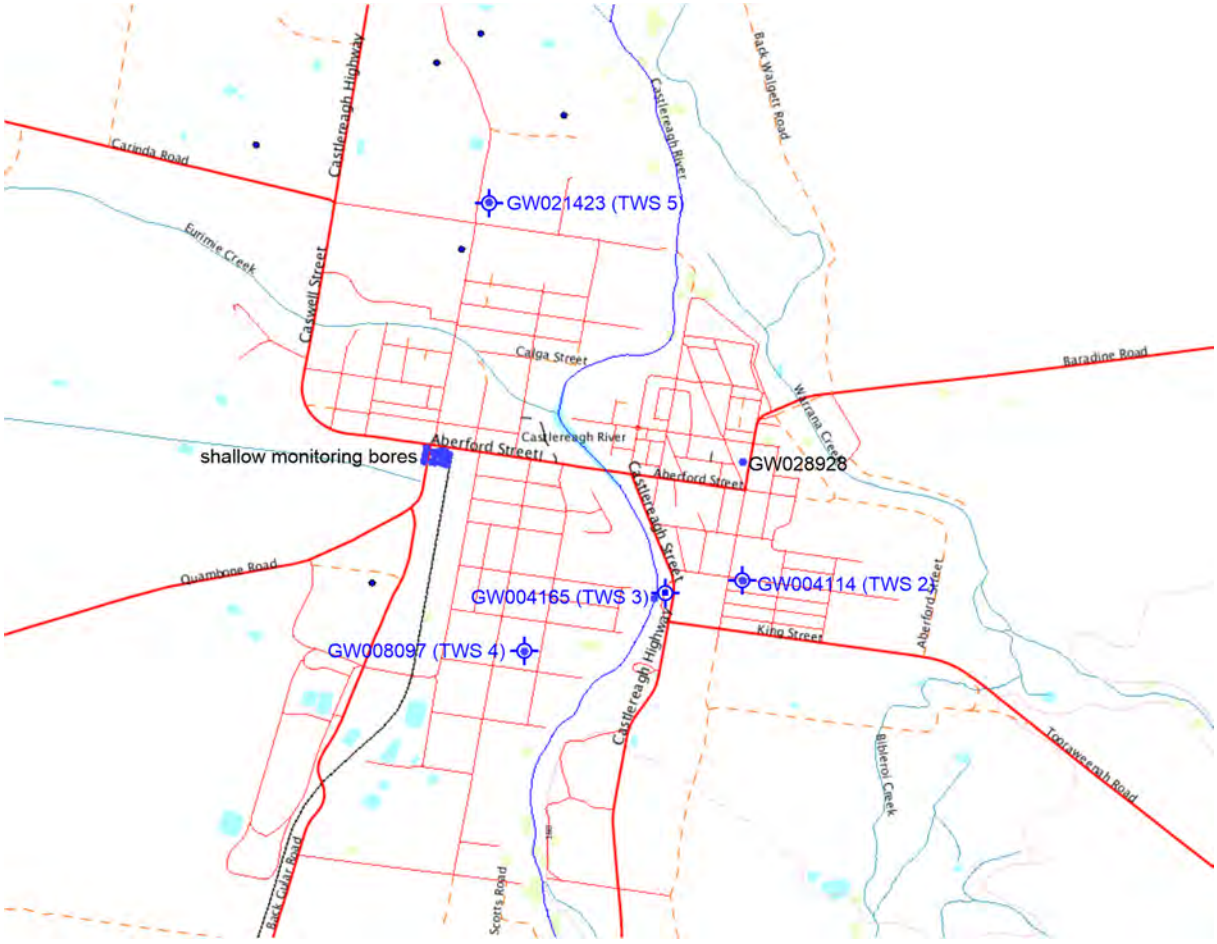

Figure 9: Coonamble Town Water Supply Bores

Table 1 summarises the hydrogeological information available for these bores, and also the Oaks bore which is shown on Figure 12. Works summaries for the bores are provided in Appendix A.

The annual entitlement (resource share) for these bores is 1200 ML. on WAL 15692 (Local Water Utility) and 50 ML/yr on WAL 21434 (Aquifer Access).

TABLE 1
Coonamble Town Water Supply Bores

GW Number	Local Name	Date Drilled	Depth (m)	Aquifers	Aquifer Intersection (m bgl)	Casing (mm)	Depth (m)	Status
GW004114	TWS Bore 2	1909	664.5	Pilliga sst Jpu	433-535 535-645	152	664.5 (failure at 421)	Abandoned (casing failure)
GW004158	Old Oaks Bore	1916	635.5	Keelindi beds Pilliga sst	353-373 419-610	127	462.4	Abandoned
GW039504	Oaks Bore	1993	606.0	Pilliga sst	452-601	168 127	451 606	In use
GW004165	Old Bore 3	1922	664.2	- Pilliga sst Jpu	 428-599 599-653	254? 254 127	44.2 341.9 664.2	Standby
GW039452	TWS Bore 3	1990	600	- Pilliga sst	- 537-588	168 (PC) 114	480.0 594.0	In use
GW008097	TWS Bore 4	1949	670.3	- Pilliga sst Jpu	- 434-594 594-645	254 (PC) 203 152	129.5 361.3 653.4	In use
GW021423	TWS Bore 5	1967	646.2	- Pilliga sst Jpu	- 440-596 596-646	254 (PC) 203 152	72.4 282.8 640.0	In use

Notes: m bgl metres below ground level
mm millimetres
PC pump chamber casing

The bores are completed (slotted) at a range of depths between 443 and 653 m, and draw water primarily from the Pilliga Sandstone aquifer, which is the main aquifer in this part of the GAB. However, lithology shown on the logs indicates that some bores are also slotted against the Purlawaugh Formation (Jpu) and seams or fractures at the top of the basement.

Bore 3 is fitted with a 6-stage Thompsons Kelly and Lewis turbine pump with a 37 KW Franklin submersible motor. The old Bore 3, Bore 4 and Bore 5 are fitted with lineshaft turbine pumps.

Table 2 shows pump details and average pumping rates over the period 1996-2020. Figure 10 shows annual groundwater pumping over the past 25 years, and Figure 11 the monthly pumping for three typical three-year cycles over that period (note that the 2019-21 data is to August 2021). Raw data as provided by CSC are in Appendix B. It can be seen that January is the peak month for water consumption and that average winter use is typically a third to a half of summer use. As would be expected, usage is also climate-cycle depended, with higher usage during dry parts of the cycles. Because the introduction of metering and charging has reduced water wastage, use has declined in recent years. Thus, the average January usage over the period 2019-2021 may be a better guide to future peak use than long-term average pumping figures.

TABLE 2 Bore Flow Rates							
Local Name	**Pump Intake Depth (m)**	**Pump Type**	**Maximum Flow Rate L/s / ML/d**	**Average Winter (ML/day)**	**Average Summer (ML/day)**	**Dry Summer (ML/day)**	**Peak (ML/day)**
TWS old Bore 3	38	125 mm 13-stage lineshaft	16.6 / 1.43				
TWS Bore 3		125 mm electrosubmersible	23-29 / 2.2				
TWS Bore 4	32	150 mm 6-stage lineshaft	30-35 / 2.8				
TWS Bore 5	42	150 mm 6-stage lineshaft	40 / 3.5				
Combined			**8.5**	**1.7**	**3.5**	**5.5**	**6.5**

Notes: L/s litres per second
ML/day megalitres per day

Average annual pumping from 1996-2020 was 1077 ML, and 1140 ML from 2011 to 2020.

Table 2 also indicates that the average summer demand has in the past been close to the maximum capacity of the system. Also, Table 2 does not take into account the variation in demand through the day, which, given the small reservoir storage volume, can see the pumps running at capacity during times of peak demand.

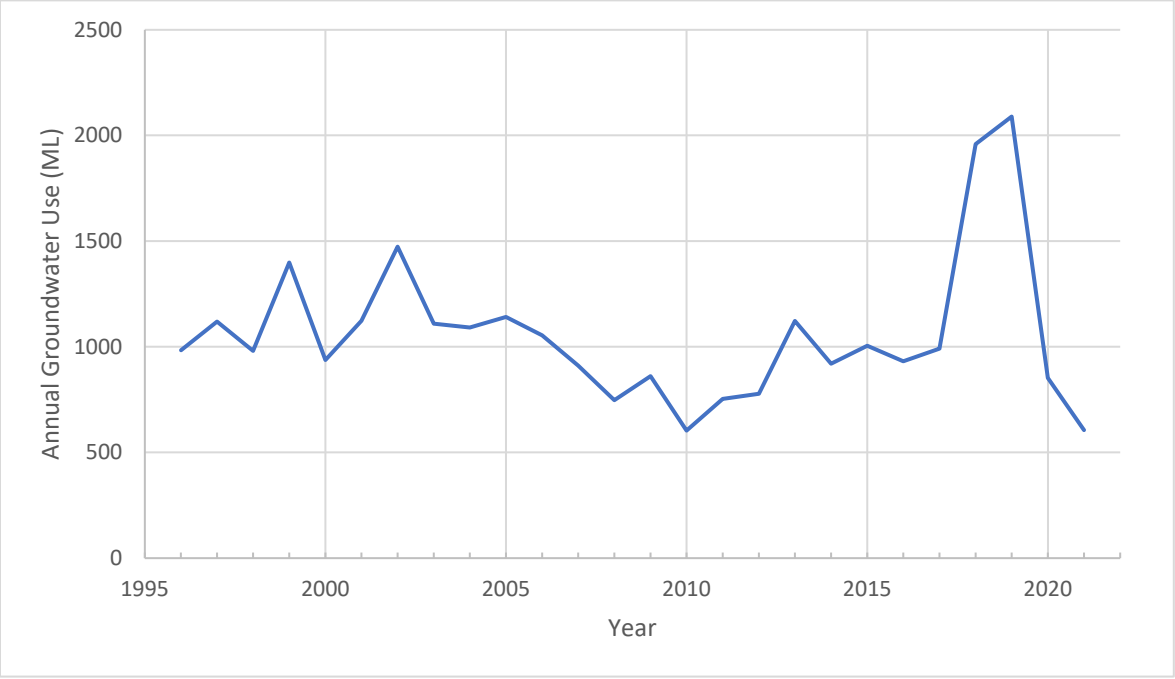

Figure 10: Annual Groundwater Use 1996-2020

The primary constraint on system capacity is the capacity of the borehole pumps that are installed, which is in turn limited by the borehole diameter. For example, the TKL VMS 6K1HA 6-stage submersible turbine pump installed in TWS Bore 3 has a rated capacity at 50Hz of 24 L/s against a 30 m head. It is understood that the installed pump was specially manufactured with a slightly smaller

bowl diameter, which would imply a smaller capacity. When run at 60 Hz on test the pump delivered 29.4 L/s against a 22 m head, and it is normally run at 54 Hz.

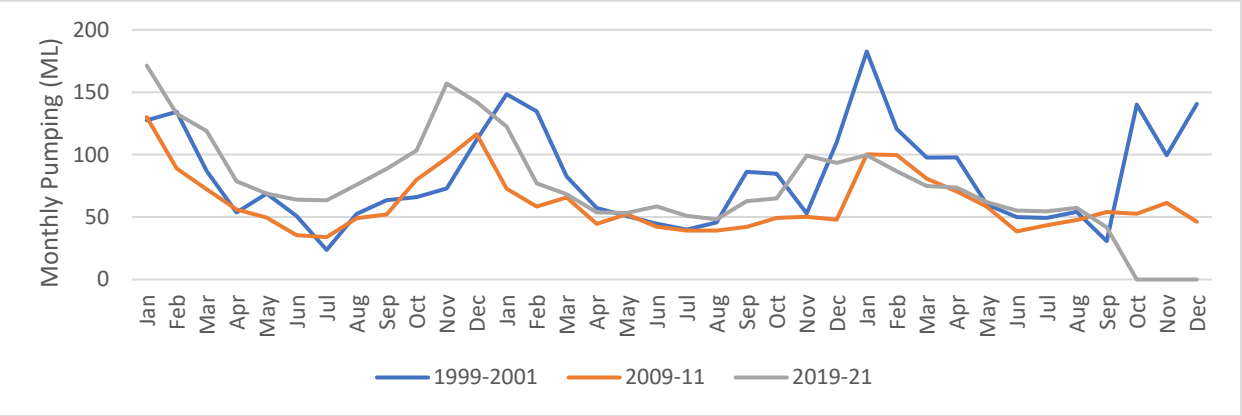

Figure 11: Monthly Groundwater Pumping over Three Typical 3-year Cycles

It is possible that a small increase in the system capacity could be obtained by lowering the pumps and increasing rotation speed, but this would be at the expense of increased wear and shorter lifespan. When pumps are replaced, it may be possible to obtain a higher yield by specifying pumps designed to run at a higher rotational speed and setting the intake deeper to compensate for additional drawdown. In any case, there are incremental increases in pump performance with time, but these are generally quite marginal. As indicated previously, the primary limitation on capacity is pump bowl diameter, which cannot be increased.

Figure 12 shows groundwater bores abstracting from the GAB aquifers in a wider area around Coonamble. Generally, these bores are of a similar depth to the town water supply bores. However, some stock and domestic bores are considerably shallower, obtaining water from the Keelindi Beds or the very top of the Pilliga Sandstone.

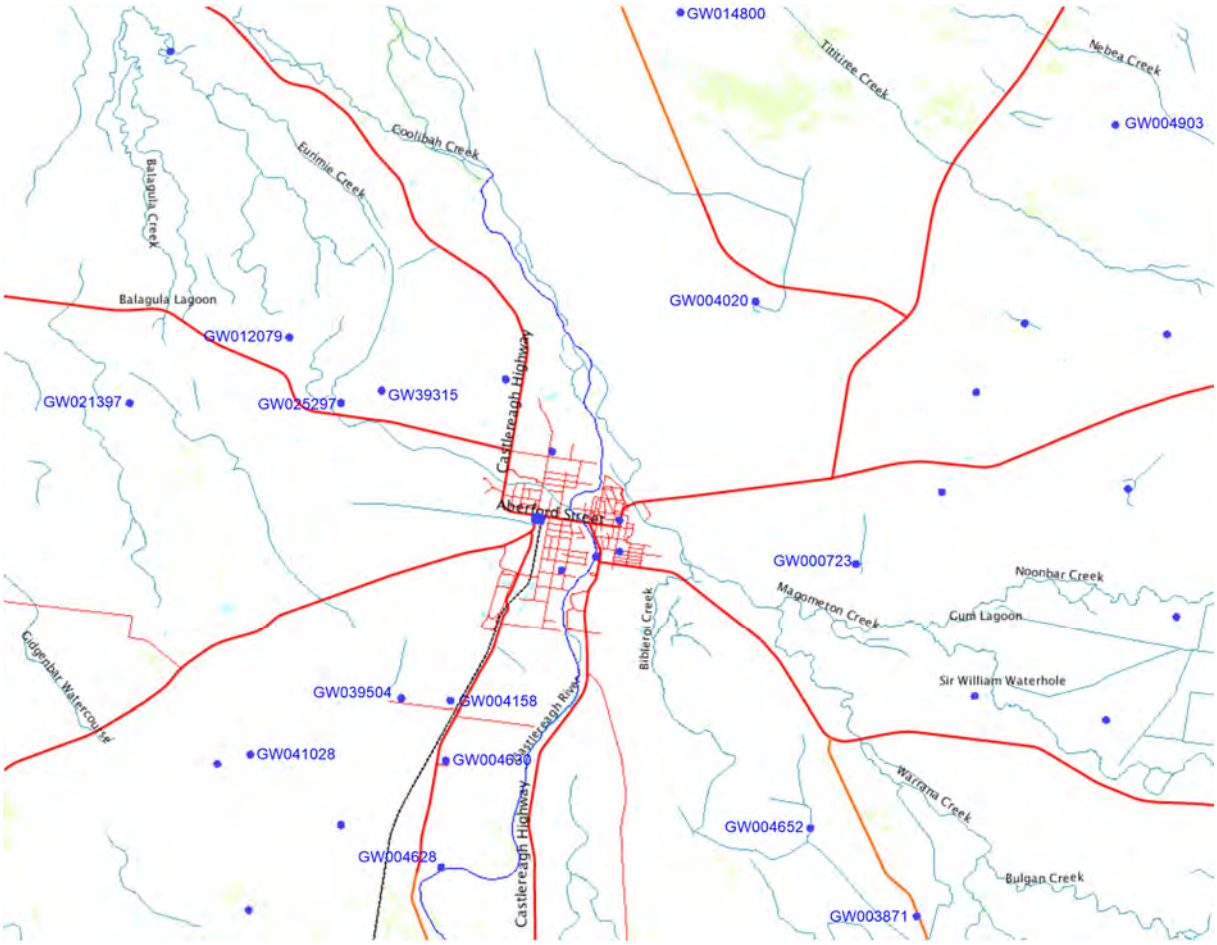

Figure 12: GAB Groundwater Bores in the Area around Coonamble

3.4 Local Groundwater Quality

Table 3 summarises the information on groundwater quality available for the town water supply bores.

TABLE 3
Summary of Groundwater Analytical Data (mg/L)

Parameter	Guideline Value	TWS Bore 3			TWS Bore 4			TWS Bore 5		
		Average	Min	Max	Average	Min	Max	Average	Min	Max
Indicators										
pH (pH unit)	6.5 - 8.5	7.3	7.1	7.5	7.6	7.2	7.8	7.4	7.3	7.5
TDS	500	340.7	329	351	336.4	328	338	359.7	350	362
Total Hardness as CaCO3	200	184.9	165.9	195	187.5	173.8	201.5	196.6	180.6	213.9
True Colour	15	1.3	1	2	2.1	1	4.2	1.1	1	2.2
Turbidity	5	77.0	13.7	177	1.4	0.7	4.5	2.1	1.3	4
Anions										
Chloride	250	20.1	17.6	22.9	16.0	14.1	16.7	21.2	17.7	22.2
Sulphate	500	4.9	1	18.5	12.4	11.3	13.1	14.8	12.2	16
Nitrate	50	1.0	1	1	1.0	1	1	1.0	1	1
Nitrite	3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Fluoride	1.5	0.4	0.32	0.44	0.4	0.34	0.42	0.4	0.31	0.46
Cyanide	0.08	0.0	0.01	0.01	0.0	0.01	0.01	0.0	0.01	0.01
Boron	4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17
Iodine	0.1	0.0	0.02	0.024	0.0	0.02	0.02	0.0	0.02	0.02
Major Cations										
Calcium		56.5	50.68	59.97	57.7	53.52	62.11	60.7	55.82	66.04
Magnesium		10.7	9.55	11.52	10.5	9.76	11.37	10.9	10	11.9
Sodium	180	69.0	63.7	73.9	65.5	61.8	69.1	77.1	71.3	82.4
Metals										
Aluminium	0.2	0.1	0.01	0.31	0.0	0.01	0.07	0.0	0.01	0.06
Antimony	0.003	0.0	0.001	0.003	0.0	0.001	0.001	0.0	0.001	0.001
Arsenic	0.007	0.0	0.001	0.003	0.0	0.001	0.003	0.0	0.001	0.003
Barium	0.7	0.4	0.268	0.443	0.4	0.37	0.553	0.4	0.354	0.516
Cadmium	0.002	0.0	0.0005	0.0005	0.0	0.0005	0.0005	0.0	0.0005	0.0005
Chromium	0.05	0.0	0.008	0.02	0.0	0.008	0.02	0.0	0.009	0.022
Lead	0.01	0.0	0.002	0.002	0.0	0.002	0.002	0.0	0.002	0.004
Manganese	0.5	0.1	0.015	0.239	0.0	0.006	0.008	0.0	0.006	0.008
Mercury	0.001	0.0	0.0001	0.0001	0.0	0.0001	0.0001	0.0	0.0001	0.0001
Molybdenum	0.05	0.0	0.005	0.005	0.0	0.005	0.005	0.0	0.005	0.005

TABLE 3 Summary of Groundwater Analytical Data (mg/L)										
Nickel	0.02	0.0	0.01	0.01	0.0	0.01	0.01	0.0	0.01	0.02
Selenium	0.01	0.0	0.002	0.002	0.0	0.002	0.002	0.0	0.002	0.002
Silver	0.1	0.0	0.002	0.002	0.0	0.002	0.002	0.0	0.002	0.002
Zinc	3	0.1	0.02	0.12	0.0	0.01	0.07	0.1	0.02	0.28

Notes: Min minimum
Max maximum
TDS Total Dissolved Solids

Table 4 shows concentrations and ion proportions converted to milliequivalents per litre, bicarbonate concentration is estimated from the difference in the anion-cation balance for the reported analytes.

These proportions are plotted on a trilinear diagram on Figure 13, with analyses from bores in the northern part of the NSW Surat Basin for comparison.

TABLE 4 Ion Proportions					
Parameter	**EQ Wt**	**Unit**	**TWS 3**	**TWS 4**	**TWS 5**
			Average	**Average**	**Average**
Calcium	20.04	mg/L	56.5	57.7	60.7
		meq/L	2.8	2.9	3.0
Magnesium	12.11	mg/L	10.7	10.5	10.9
		meq/L	0.9	0.9	0.9
Sodium	22.99	mg/L	69.0	65.5	77.1
		meq/L	3.0	2.8	3.4
Sulphate	96.06	mg/L	4.9	12.4	14.8
		meq/L	0.1	0.1	0.2
Chloride	35.45	mg/L	20.1	16.0	21.2
		meq/L	0.6	0.5	0.6
Nitrate	62.01	mg/L	1.0	1.0	1.0
		meq/L	0.0	0.0	0.0
Bicarbonate	50.05	mg/L	303.7	300.5	326.2
		meq/L	6.1	6.0	6.5
SAR			2.2	2.1	2.4

Notes: SAR sodium absorption ration

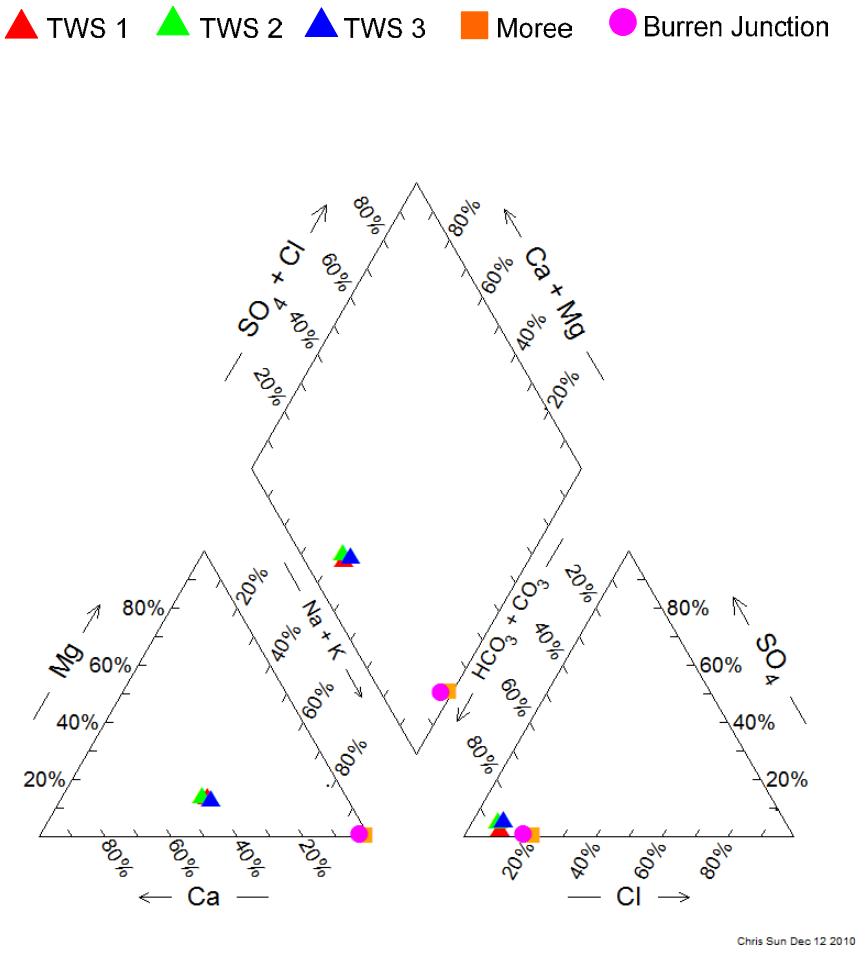

Figure 13: Piper Trilinear Diagram – Major Ion Proportions

The GAB groundwater at Coonamble is a fresh, potable quality, sodium-calcium-bicarbonate composition groundwater.

For most analytes, water quality variations between the three bores are minimal, which is indicative of spatially uniform quality within the aquifer. The range between maximum and minimum concentrations for all analytes is also small, indicating that there is little temporal variation in water quality.

The iron concentration is sufficient to cause some staining, which occurs as dissolved ferrous iron oxidises and precipitates on contact with the atmosphere. This is particularly the case for Bore 3, which has high (6.1 mg/L) average and very high (17.1 mg/L) maximum iron concentrations.

It is understood that some calcium scaling also occurs; this is likely to be caused by the water becoming oversaturated with calcium carbonate due to carbon dioxide loss when the pressure is reduced from aquifer pressure to atmospheric pressure.

The calculated sodium absorption ration (SAR) ranges from 2.1 to 2.4, which is in a low-hazard range for all soils. This finding is particularly significant when considering potential re-use of the water for irrigation.

The water temperature is reported to be 37˚C at the bore head.

4.0 OVERVIEW OF REGULATORY FRAMEWORK AND RELEVANT GUIDELINES

4.1 Water Management Act 2000

Groundwater resources in NSW are managed subject to the requirements of the *Water Management Act 2000 (NSW)* and water sharing plans developed under that Act.

The Act and the Plans together define two layers of management:

> **Licences** and **Rights** that provide an entitlement to a defined share in, or a right to make reasonable use of, a water source. Licence categories are defined in s57 of the Act and include aquifer access licences (which include a specific subcategory for town water supply) and local water utility access licences. Section 58(1) of the Act and clause 6(2) of the Regulation provide that local and major water utility access licences have equivalent priority to stock and domestic access licences, and priority over other aquifer access licences. Rights include Basic Landholder Rights and Native Title Rights.
>
> **Approvals** that allow a specific volume of water, or rate of abstraction, to be taken at a specific place, in a specific manner, for a specific use.

An access licence has two components, an extraction component and a share component.

The extraction component specifies where the water can be taken, and is directly linked to the works approval to take water. At the present time, allocations of aquifer access licence share component in the Surat Groundwater Source are not being granted by the NSW Government and the share component required has to be purchased on the water market.

It is possible for anyone to apply for the extraction component with zero share component attached, then attach share component that has been purchased on the market, subject to the dealing and transfer rules set out in the WSP.

Part 2 of Chapter 3 of the Act sets out provisions related to water access Licences. It is an offence to take water from a source to which Part 2 applies, otherwise than authorised by an access licence. Section 56(1) provides that an access licence entitles its holder:

(a) to specified shares in the available water within a specified water management area or from a specified water source, (the share component), and

(b) to take water:

  (i) at specified times, at specified rates or in specified circumstances, or in any combination of these, and

  (ii) in specified areas or from specified locations (the extraction component).

Part 3 specifies types of approval required under the Act. Of relevance to this plan are:

(i) Water use approvals, which confer a right on their holder to use water for a particular purpose at a particular location, and

(ii) Water supply works approvals which authorise their holder to construct and use a specified water supply work at a specified location.

For individual water sources, or groups of water sources, the basis for water sharing, and rules governing the provision of environmental water, granting of, and dealing in, access licences and granting of approvals are set out in a water sharing plan developed for that source.

4.2 Regulation of the NSW Great Artesian Basin System

4.2.1 Water Sharing Plan

As described above, the GAB in NSW is a multi-layered aquifer system comprised of generally confined aquifers in Jurassic and Cretaceous fluvial, fluvio-lacustrine and other continental and shallow marine sandstones. The aquifers are unconfined or overlain by Cenozoic alluvial aquifers in the recharge areas in the southern and eastern parts of the NSW GAB.

Groundwater abstraction from the confined GAB aquifers in NSW is regulated under the provisions of the *Water Sharing Plan for the NSW Great Artesian Basin Groundwater Sources 2020* (the WSP) which commenced on 1 July 2020. This plan applies to the GAB aquifers beneath Coonamble.

Part 2 of the WSP defines the Plan's vision, objectives, strategies and performance indicators. Objectives are defined in relation to Aboriginal cultural heritage, and in environmental, economic, social and cultural terms.

As indicated above, the GAB aquifers in the Coonamble area lie within Coonamble Embayment, which is part of the Surat Basin. They form part of the Surat Groundwater Source, as defined in the Registered Map attached to the WSP. Clause 24 of the WSP states that the long-term average annual extraction limit (LTAAEL) in the Surat Groundwater Source is 43,446 ML plus the volume of water lost through the use of inefficient water distribution systems in the exercise of stock and domestic rights, plus 30% of the water savings made under cap and pipe projects since the start of the plan (currently effectively zero). The WSP itself does not indicate how the volume of 43,446 ML was derived but it is understood, from DPIE (2020), that this is the sum of the entitlements authorised at the start of the 2008 WSP, the estimate of current basic landholder rights and 30% of the savings attributed to cap and pipe programs between 2009 and 2020.

At present, 20,400 ML is allocated under stock and domestic rights (and a further 15,000 ML is estimated to be taken that is excess to requirements or wasted water); 3,393 ML is allocated under local water utility access licences and 5,527 ML under aquifer access licences, a total of 29,320 ML (plus 15,000 ML wastage). Thus, the estimated volume available for further sharing in the Surat groundwater source is 14,126 ML/yr as summarised in Table 5. It should be noted that the estimated 15,000 ML of wasted water appears on both sides of the balance, effectively being cancelled out of the calculations. If all the wasted water were saved, 4,500 ML would accrue to the LTAAEL and 10,500 ML to planned environmental water.

TABLE 5
Groundwater availability in the NSW Surat (GAB) groundwater source

Available (ML)		**Maximum allowable use (ML)**	
LTAAEL (incorporates savings made between 2009 and 2020)	43,446	Stock and domestic rights	20,400
Assumed current wastage from leaking bores and drains	15,000	Local water utility	3,393
Current savings from cap and pipe program	0	Aquifer access licences	5,527
Subtotal			**29,320**
-	-	Assumed current wastage from leaking bores and drains	15,000
Total available	58,446	Total maximum allowable use	44,320
Current available[A]	14,126[B]		

A Determined as the difference between 'total available' (58,446 ML) and 'total maximum allowable use' (44,320 ML)
B Plus 30% of any future savings from cap and pipe programs (and any savings accruing from better estimation of stock and domestic use).

Planned environmental water in the Surat Groundwater Source under the 2008 WSP was defined in relation to the sustainable pressure estimate equivalent, i.e., the entitlements in existence in 1990 adjusted (downwards) to allow for increased abstraction between 1990 and 2008, and (upwards) for water savings made through the bore capping and piping program between 1990 and 1999, and a proportion of the savings between 1990 and 1998. This general principle is honoured in the 2020 plan, but planned environmental water is defined differently.

Access licences are subject to annual allocation of a proportion of the share component, on the basis of availability. As of 1 July 2021, the available water determination for all access licences in all of the NSW Great Artesian Basin groundwater sources is 100% of the share component. This may reduce if usage increases.

Sections 97(1) and 97(2) of the *Water Management Act 2000* and Part 9 of the WSP set out the rules for granting or amending water supply works approvals. Key provisions are that:

> The Minister may not grant a water use or water management (including water supply) work approval unless satisfied that adequate arrangements are in place to ensure that no more than minimal harm will be done to any water source, or its dependent ecosystems, as a consequence of the construction or use of the proposed water management work.
>
> These provisions are expanded under cl 36 of the WSP to require that the Minister must not grant a water supply work approval unless satisfied that adequate arrangements are in place to ensure that there will be:
>
> - no more than a minimal detrimental effect on the ability of a person to take water using an existing approved water supply work and any associated access licences,
> - no more than minimal harm to public health and safety or to a groundwater-dependent culturally significant area, and
> - no more than a minimal detrimental effect on groundwater levels and pressure at the border of New South Wales and Queensland or South Australia.
>
> A water supply work approval (other than for basic landholder rights) must not be granted or amended if the water supply work is located within 500 metres of a water supply work that is:
>
> - located on another landholding and authorised to take water solely for basic landholder rights from the same groundwater source, or
> - located on another landholding and nominated by another access licence, other than a local water utility access licence.
> - within 200 metres of the boundary of the landholding on which the water supply work is located, unless the owner of the landholding adjoining the boundary has provided consent in writing:
> - within 1,000 metres of a water supply work that is nominated by a local water utility access licence, or a major utility access licence authorised to take water from the same groundwater source, unless the holder of the local water utility access licence or major utility access licence has provided consent in writing, or
> - within 400 metres of a Government monitoring or observation bore.
>
> A water supply work approval must not be granted, or in the Minister's opinion, the water supply work is located within any of the following:
>
> - 40 metres of the top of the high bank of a river,

- 50,000 metres of any of the high priority groundwater-dependent ecosystems identified in Schedule 2 of the Plan, or
- 50,000 metres of a groundwater-dependent culturally significant area.

The location restrictions do not apply if the Minister is satisfied that the location of the water supply work at a lesser distance and would result in no more than a minimal detrimental effect.

4.2.2 DPIE Policy for Implementing the WSP

In order to clarify the process by removing some of the subjectivity inherent in the Act and the numerous WSPs, NSW DPIE Water published more objective guidelines for use in assessing the risk of unacceptable impact during the works approval process (NSW Department of Industry, September 2018, PUB18/580).

These guidelines state that the following criteria will be applied.

Impact on Groundwater Pressure (confined aquifers)

The approval should result in:

(1) Less than 0.2 metres drawdown in the groundwater pressure relative to natural variation 40 metres from any:

   a. high-priority, groundwater-dependent ecosystem, or

   b. high-priority, culturally significant site

(2) Pressure level decline should:

   a. not cause any flowing bore to cease to flow

   b. be no more than 1 metre at any flowing water supply work, or

   c. be no more than 2 metres at any non-flowing water supply work.

(3) A pressure level decline of not more than 30 metres at a distance of 200 m from any water supply works including the pumping bores.

(4) A cumulative pressure level decline of no more than 10% of the 2008 pressure level above ground surface at the NSW state border.

4.3 Groundwater Policies

The NSW government has published several groundwater policy documents that, although now quite old, are understood to remain in effect:

- NSW State Groundwater Policy Framework4F (Department of Land and Water Conservation (DLWC) 1997).
- The NSW State Groundwater Policy Framework introduced three policy documents:
  - NSW Groundwater Quality Protection Policy (DLWC, 1998)
  - NSW Groundwater Quantity Management Policy
  - NSW Groundwater Dependent Ecosystem Policy (DLWC, 2002)
- The NSW Aquifer Interference Policy7F[1] (AIP) was finalised in 2012 following several rounds of public review

[1] https://www.industry.nsw.gov.au/__data/assets/pdf_file/0005/151772/NSW-Aquifer-Interference-Policy.pdf

4.3.1 NSW State Groundwater Policy Framework

The Policy Framework goals were to slow, halt or reverse degradation in groundwater resources, ensure long-term sustainability of the biophysical characteristics of the groundwater system, maintain the full range of beneficial uses of these resources and maximise the economic benefit to the region and state.

The Groundwater Quality Protection Policy (DLWC, 1998) was developed to protect groundwater resources against pollution and ensure that that the sustainability of groundwater resources and their ecosystem support functions was given explicit consideration in resource management decision making. One of its major roles was to assist the selection of priorities for the later development of groundwater management plans in groundwater water sharing plans. It set out nine key principles for groundwater quality management and protection.

NSW Groundwater Dependent Ecosystem Policy (DLWC, 2002) has not been revised since it was issued in 2002 and is now substantially superseded by the provisions of the WSP and the research described in Section 2.4.5 above.

The NSW Aquifer Interference Policy (DPI, 2012) defines aquifer interference activities and describes how these will be managed under the licensing and approvals regime in the *Water Management Act 2000*. Under this policy, the requirements for a licence and approval are determined based on a risk and minimal impact assessment process. The process for assessment is also influenced by the location of the activity with respect to designated Biophysical 'Strategic Agricultural Land', and where the development is deemed to be 'State Significant'.

5.0 ASSESSMENT

This section first addresses the specific questions posed in the Brief, then provides a more general assessment of feasibility.

5.1 Answers to Specific Questions

How much water is likely to be required?

It is assumed that the larger pools will use a single pass of untreated water, as is normal for natural pools. Spas might use the same system, or might use water treated with disinfectant, that is filtered and recycled, and ultimately pumped to sewer.

The figures available for Moree (1 ML/d between five sites – the SPA Bath complex and four motels) provide a benchmark for comparison.

Belgravia has provided estimates of the dimensions of the pools proposed for Coonamble. Pool volumes have been calculated from these figures. Belgravia has also indicated that 3 water changes per day will be used. This turnover is below that recommended for outdoor pools provided in NSW Health (2013); that guideline, however, does not apply to natural pools.

These values are:

- Foot pool – Volume 13.5 KL, 3 changes per day, throughflow 40.5 KL/day
- Landscape Pool – Volume 86 KL, 3 changes per day, throughflow 258 KL/day
- Sunset Pool – Volume 106 KL, 3 changes per day, throughflow 318KL/day
- Hot tubs – 20 KL, minimum 3 changes per hour, throughflow 60 KL/hr, assumed to be filtered, disinfected and recycled.

Total volume 225 KL, total throughflow excluding hot tubs 617 KL/day).

Allowing for some (15%) spillage and evaporation, three changes per day would give a throughput of 710 KL/day without hot tubs), equivalent to 0.71 ML/day. Allowing for hot-tub make-up, a total groundwater requirement of 0.75 ML/day could be assumed.

Is the water going to be suitable?

The Coonamble groundwater has close to the highest quality (lowest salinity) in the GAB. The average salinity - as total dissolved solids (TDS) - is about 350 mg/L. The water meets Australian guidelines for drinking water and primary contact recreation in respect of all analytes except iron, and, for iron, is above an aesthetic guideline, not a health guideline.

Whilst this water is not strictly a mineral water, it has about 75% of the salinity of the Moree artesian water. The water type (sodium-bicarbonate) is typical of GAB groundwater.

Some precipitation of iron hydroxides, and consequent staining, are likely to occur.

Table 6 provides a comparison with some other bore-bath groundwaters. Ion proportions for these waters are shown on Figure 9.

TABLE 6 Comparison of Groundwater Chemistry					
Location	**Temp (°C)**	**pH (units)**	**TDS (mg/L)**	**Dominant Cation**	**Dominant Anion**
Coonamble	37.0	7.5	350	sodium-calcium	bicarbonate
Moree	44.6	8.5	509	sodium	bicarbonate
Burren Junction	41.5	8.9	790	sodium	bicarbonate

Is there likely to be water at a deeper level that is hotter?

The Coonamble town water supply bores are screened to depths below the base of the Pilliga Sandstone (the most productive aquifer) and to the approximate base of the GAB sedimentary rocks. The underlying Palaeozoic rocks have very low permeability.

There is thus no prospect of obtaining warmer water from a deeper level than those screened by the existing bores.

The existing bores are screened against the full thickness of the Pilliga Sandstone and Purlawaugh Formation and the water pumped from these bores is a mixture of inflow from a number of aquifer horizons that are likely to vary in temperature, salinity and mineral composition. The mixture is permeability-weighted; most of the water is sourced from the higher-permeability horizons. If a new bore were to be drilled and geophysically logged prior to installation of casing and screen, then it would be possible to select screened intervals so as to optimise the quality and temperature of water for bore bath purposes, possibly at the expense of a lower total yield.

Would using a small bore (e.g., 4 inch) result in higher temperatures?

Heat loss (and thus temperature loss) between the aquifer and the surface depends on:

- the temperature gradient between the external surface of the bore casing and the surrounding formation
- the surface area / volume ratio of the casing; and
- the transit time of the water between the aquifer and the surface.

The temperature gradient is almost independent of casing diameter.

Losses are directly proportional to the surface area / volume ratio of the casing. As, for cylindrical casing, this ratio is 4/d, losses are inversely proportional to casing diameter.

Heat loss is directly proportional to transit time. For a given flow, the transit time and thus heat loss is inversely proportion to the square of the casing diameter.

The net effect is that by, for example, reducing the casing diameter from 150 millimetres to 100 millimetres, heat loss would be reduced by a factor of more than 2/3.

There are, however, practicality issues to consider. Casing diameter could only be reduced below the pump-set depth. Hanging smaller-diameter intermediate casing and screen from the base of the pump-chamber casing is quite feasible. However, in deep bores the additional friction head losses that accrue from using small-diameter intermediate casing can be significant. This means that the pump has to be set deeper, requiring longer large-diameter pump-chamber casing. A more expensive pump would be required, and pumping costs (i.e., energy costs) would be higher over the whole life of the bore.

If a new bore is required, then at a later stage, an optimisation process would be used to select the most cost efficient bore design. It would also be appropriate to consider versatility as a design factor – the most efficient design solely for bore-bath use may prove to be inefficient if the bore has later to be adapted for another use.

Can we use the existing bores (legal and practical / engineering considerations)?

It is considered that, legally, it would be possible to use the existing *bores*. There are other examples of split municipal / commercial use. The question as to whether it would be legally permissible to use the existing *entitlements* is more complex, but I think that the answer is still clear.

Local water utility aquifer access licences have a special status under the WSP, in that they are granted for a specific purpose, and, on review, the Minister may grant additional shares in the water source up to the minimum volume required to meet water utility needs. Condition M6945-00001 of WAL 15692 states that water supplied under the licence may only be used for town water supply purposes. However, water utilities do usually supply public facilities such as swimming pools, and they also provide water, for a fee, to businesses within their supply area (such as motels) that operate spas and swimming pools, even though these operations may be subject to restrictions. Thus, if Council chose either to operate the bore baths itself as a public facility like a swimming pool, or to supply water on normal commercial terms to baths that were operated by a separate entity, then provided that the water was supplied through the town water supply system and within the existing allocation, this would not breach the licence conditions.

However, water supplied through the town system would not be suitable for the baths as it would be at ambient temperature and chlorinated. Providing an independent supply piped directly from the bore, possibly through insulated pipes, would be necessary. The extent to which this would comply with the conditions of the WAL is less clear, and it is unlikely that additional share component would be granted to make up any shortfall.

The information supplied by Council (Table 2) indicates that during the summer the town water supply bores are pumping at close to capacity; that capacity is determined by the installed pumps, which are the largest diameter units that can be installed in the bores. Whilst it may be possible to obtain slightly larger yields by setting replacement pumps deeper and running at higher speeds, this would be at the expense of increased wear and reduced life expectancy.

During the winter months there is spare capacity averaging 3.5 ML/day.

During the period 2001 to 2005, the town was using almost all its entitlement of 1200 ML/yr. However, savings achieved since that time have brought the average consumption (2006-10) down to below 900 ML, which does provide sufficient spare capacity to run the bore baths.

On this basis it would, therefore, be possible for the town water supply bores to service the bore baths during the winter, but not during the summer months.

Is it likely to be more cost effective to buy new pumps or drill a new bore? Is a new bore a better option – other than being 500 metres from a town water bore, what other factors need to be taken into consideration.

As discussed in Section 3.3 above, increasing the pump capacity in the existing bores significantly would not be a viable option.

The cost of a new bore will be very dependent upon bore design but is unlikely to be less than $500,000 for a fully-equipped bore constructed to the specifications appropriate for town water supply. This cost is largely independent of the site location. Skimping on bore construction is a false economy that fails the basis test of sustainability – it always results in greater costs for future users.

There is insufficient information to make informed decisions concerning selective bore placement, and it is necessary to assume that the aquifer is uniform in permeability and thickness. In reality, this is not the case, and there will be variations in transmissivity and thus yield from place to place. For practical purposes, however, these have to be regarded as random.

Section 37 (2) (e) and (f) of the WSP requires a set-off from an existing water bore of 500 metres for new bores in the Surat groundwater source. However, this may be modified if the Minister is satisfied that the location of the water supply work at a lesser distance than 500 m would result in no more than a minimal detrimental effect on the ability of a person to take water using an existing approved water supply work and any associated access licences.

Although not specified in the current WSP, satisfying the Minister that there would be no more than a minimal detrimental effect normally requires a hydrogeological study to be undertaken by the applicant.

Section 39(2) of the WSP requires a set-back of 40 from the top of the high bank of a river. This is not an issue at this site.

Section 39(3) of the WSP requires a set-off of 50 kilometres from high priority groundwater dependent ecosystems listed in Schedule 4 of the WSP. There are no Schedule 4 groundwater dependent ecosystems within 50 kilometres of Coonamble.

As set out in Section 4.2.2 above, NSW DPIE Water has an objective and quite rigid set of criteria for assessing works approval applications. The hardest criterion to meet for GAB approvals is that *pressure level decline should be no more than 2 metres at any non-flowing water supply work.* This is because the deep confined aquifers of the GAB have low storativity and relatively high transmissivity, thus pressure effects are transmitted over a long distance.

Figure 12 shows that the two closest bores to the site (excluding bores owned by Coonamble Shire Council) are located just over 3 km to the north-west. These bores, GW025297 and GW039315, are stock and domestic bores completed in sandstones in the upper part of the GAB sequence, at depths between 210 and 382 m. This is somewhat above the upper end of the range of town water supply bore completion depths, and well above the target depth for the proposed bore-bath bore (550-600 m). The risk of greater than minimal impact on these bores is considered to be very low.

Nevertheless, it is likely that DPIE Water would require a hydrogeological impact assessment to be carried out.

Typically, the type of hydrogeological study required would be a desk study incorporating analytical modelling, costing around $7500. However, it is possible that a pumping test on an existing bore (most likely TWS 3) may be required to support the findings, which could more than double that cost.

Related to this are the implications of piping water from a remote bore (as opposed to having one on site) – how do we protect against heat loss?

Any new pipework would be constructed of polyethylene (PE) or polyvinylchloride (PVC). Both of these materials have low thermal conductivity, but any significant pipe run is likely to result in temperature losses. Lagging pipes to reduce heat loss is feasible but would add substantially to the installation costs.

Unless 24-hour flow was maintained, water left in the pipes overnight would cool substantially. As the well-head temperature is marginal at best, it is clear that piped water would require re-heating.

If the water is too cool, what is the most effective way of reheating it?

The preferred way of achieving this would be to divert a side-stream of water though a commercial solar (thermal) heating system and remix the water prior to supply to the baths. It is expected that

this would be effective most of the time. Typically, about six cloudy days per month would be expected during the winter months, and adequate heating could be obtained on some of these days if the system was appropriately designed.

Such commercial systems are supplied by (for example) Rheem and are very scalable.

Detailed design work based on the anticipated throughput and water chemistry can be carried out at a later stage.

It would be possible to store some water in lagged tanks overnight, to start the baths in the morning.

Gas heating (or, preferably, a solar photovoltaic / battery system) could be used as a booster or back-up, but extensive use of fossil fuels would adversely impact the sustainability of the whole concept.

Will reheating impact on the chemical composition / therapeutic value?

Reheating will not affect the water chemistry. Heating a side stream to a higher temperature may result in some loss of carbon dioxide from the side-stream water, and possibly some scaling. This potential issue could be assessed using geochemical modelling, and the system designed to minimise the problem. An advantage of a side-stream approach is that the system could be designed to maintain temperatures sufficiently high to control microbiological growth, including potential pathogens.

Will it be possible to have a free-flowing bore?

An uncontrolled free-flowing bore - such as used to exist all over the GAB - will not be possible. The NSW and Federal Governments have spent a lot of money over the last 25 years plugging, capping or otherwise controlling these bores

A controlled artesian flow - i.e., with the bore capped and a valve to regulate flow - would be permitted. Whether it is practicable in Coonamble is another matter. Regionally (i.e., in an area with say a 20 km radius around Coonamble, the artesian pressure in the GAB would be in the range of 10 to 20 m above ground level. However, in Coonamble there are three town water supply bores pumping from the aquifer at a combined rate of around 1.7 ML/day in the winter and between 3.5 and 5.5 ML/d in the summer (1996 to 2020 figures). Demand is both seasonal and climate-cycle dependent. This pumping creates a cone of depression so that it is unlikely that there is sufficient pressure for a bore to flow reliably at a useful rate - not anything approaching 0.75 ML/d, although some natural flow is possible, particularly during the winter.

Thus, meeting the requirement with a controlled artesian flow would not be practicable.

A common arrangement on pastoral bores in the GAB is to have the headworks set up so that slow artesian flow from the annulus is possible if there is sufficient pressure (useful for keeping tanks topped up), and the pump kicks in when needed. A similar system may be feasible here, but it is likely that the pump would be operating most of the time during the summer.

What are the options for the disposal of water?

As described in Section 3.3 above, data available from the town bores indicates that sodium-calcium bicarbonate water with a salinity (as total dissolved solids, TDS) of about 350 mg/L and a sodium absorption ratio of less than 2.5 will be available. This water is of potable quality and is suitable for re-use for a range of non-potable purposes. In fact, the chemical quality of the water imposes few constraints on its use, including for irrigation onto most soils. Spray irrigation of salt-sensitive crops is a possible exception.

Chlorinated water from hot tubs etc would need to be disposed of to sewer.

For water from the main pools, reuse options that have been suggested include:

- passing the bore-baths discharge though ponds that would be used for commercially growing freshwater crayfish or Yabby (*Cherax destructor*), then
- flow into a constructed wetland / storage area, then
- Irrigation onto the golf course and/or racecourse.

On the basis of the water quality outlined above, there is no reason why this should not be technically feasible. In fact, quantity rather than quality is likely to be the major constraint.

Design of each of the three stages outlined above requires input from an experienced specialist. The paragraphs below address likely minimum requirements and feasibility considerations in a very general sense.

Aquaculture (Yabbie-Growing)

Design of Yabby-growing ponds involves commercial, environmental and health considerations. It would need to be carried out by someone with direct experience of all of these. However, at a basic feasibility level, information provided b NSW DPI ( ) indicates that conditions in Coonamble would be suitable.

It is understood that, for practical reasons, Yabby ponds would be quite small, with a correspondingly small hydraulic retention time, so it is assumed that they would not contribute significantly to water treatment. They may in fact increase nutrient loading

Constructed Wetlands

If a hydraulic retention time of 10 days and an average water depth of 750 mm are assumed, then a wetland area of 1 ha would be required to polish the bath outflow of 0.75 ML/day. Typically. this would be a pond, planted with carefully selected aquatic vegetation and with an average width of about 35 m and an overall length of 300 m.

In a detailed design process, it would be necessary to consider issues including the input quality (post-baths and possibly post-yabbie ponds), the quality required for the end-use (assumed to be some form of irrigation) and the retention time required to render the water suitable for this use, interaction with the shallow groundwater system and insect (particularly mosquito) management.

Irrigation

It is understood that the area available for irrigation on the golf course and racetrack is about 40 ha. If a capacity of 5.5 ML/ha/yr is assumed, the annual capacity would be 220 ML.

Allowing for the baths operating about 350 days per year and 4 mm/d average evaporation losses from the 1 ha wetland (15 ML/yr), this area would almost be sufficient.

However, a consequent problem would be disposal of the treated effluent from the Coonamble STP, which is currently irrigated onto the golf course. If, as is likely, the golf course operators preferred to use the bore-bath water rather than the STP effluent, then an alternative means of disposal would have to be found for the effluent.

The alternative would be to find another use for the bore-bath wastewater, which, following wetland treatment, would be suitable for irrigation of most agricultural and horticultural crops.

Given the value of the water, 'disposal' by non-beneficial means would be wasteful and growing a high-value horticultural crop may be the most economically attractive option. It is recommended that some soil sampling and water compatibility testing be carried out at an early stage to confirm the long-term viability of any irrigation option being considered.

Specialist input from a horticulturalist or agronomist with experience in the Coonamble area would be required to assess the economic viability of aquaculture and horticulture options.

The EPA would be unlikely to permit disposal to the Castlereagh River under an Environment Protection Licence (EPL). The bore baths at Moree have recently been required to find an alternative to the customary practice of disposal to the Mehi River.

5.2 General Technical Feasibility Assessment

It is considered that there are no unsurmountable technical obstacles to providing the volume and quality of water required by the bore-baths from a new bore drilled into the GAB Pilliga Sandstone aquifer. It may be necessary to boost the temperature, and solar heating of a side-stream of water, then remixing, would be the most effective way of doing this.

The minimum drilled depth would be the base of the Pilliga Sandstone at about 600 metres, although drilling to the base of the Purlawaugh Formation at about 650 metres may provide slightly warmer water. There would an option to selectively screen for warmer water, but there would then be a risk of not obtaining sufficient yield.

The existing town water supply bores have sufficient spare capacity to supply bore baths during the winter, but not during the summer. There is, at present, a sufficient margin in the entitlement to allow bore-baths to be supplied.

Disposal of the water discharged from the bore baths will not be straightforward. Options for treatment and re-use are available as described in this report but may conflict with existing wastewater reuse arrangements.

The ideal solution would be an arrangement for irrigation of the wastewater, with treatment, if necessary, onto a commercial agricultural or horticultural crop.

5.3 General Legal Feasibility Assessment

In order to drill a new bore, it would be necessary to apply for and obtain water supply works approvals to:

(a) construct a bore
(b) take water from the bore

(a) will have conditions relating to the location of the bore and its design, including grouting of the upper annulus, and possibly also the depth and diameter of the bore, and the screened interval.

(b) will have conditions concerning the volume and rate at which water can be extracted.

Works approval would not be granted unless an appropriate entitlement (source share) was held.

With some exceptions, the WSP does not currently allow for issue of new shares in the Surat groundwater source. The only generally-available options are thus:

- to purchase a share at market price from an existing share-holder in the Surat water source; or
- to bid for a share of the 30% of water-savings generated from bore rehabilitation and drain piping programs that is available under the WSP, when and if the next auction is held.

The exception to these restrictions is that a local water utility such as Council may be granted additional shares, on the basis of need, on a five-yearly review basis.

Council could also apply for works approval for a new bore by applying some of its existing share to that bore.

For Council, the authority to which application for both Works Approval and Access Licence is the NSW Natural Resources Access Regulator (NRAR). NRAR will consult directly with DPIE Water as part of the

assessment process. As indicated above It is likely that DPIE will require a site-specific hydrogeological assessment. The whole process is likely to take several months.

NRAR Application forms are attached in Appendix C.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The existing town water supply bores have the capacity to supply the bore baths during the winter months, but not during the summer. The supply constraints relate to the pump capacity and ultimately to the bore diameter.

Laying new pipes will be expensive, with the cost depending on the site chosen. Reheating will be required, regardless of whether existing or new pipework is used.

It is technically feasible to provide the required volume and quality of water to the bore-baths from a new bore drilled into the GAB aquifers on the proposed site. It may be necessary to boost the temperature (37o at the well-head, less than that at the baths), and solar heating of a side-stream of water, then remixing, would be the most effective way of doing this.

The cost of constructing a new bore is largely independent of the bore site chosen. Once there is a clear concept for the design of the baths, and thus the likely water demand, it would be possible to prepare a bore design and get reasonably accurate costs for drilling, bore construction, headworks and pump.

It would be substantially easier for Council to be responsible for water supply to the bore baths, regardless of the ownership or administration approach adopted for the baths, than for an independent operator to obtain an entitlement to a share of the Surat water source. This would be the case for both the option of supply from the existing bores, and for supply from a new bore.

Although it is likely that an independent operator would be able to purchase the necessary entitlement, there is no certainty as to when this would be possible, or the cost involved.

6.2 Recommendations

It is recommended that:

1. A bore design is prepared and costed.
2. Council be responsible for water supply to the baths.
3. An access licence and works approval are sought.
4. Any further hydrogeological work required by NRAR / DPIE is completed.
5. Any additional share component required is purchased.
6. Further assessment of the disposal / re-use options involving water-soil compatibility confirmation testing and input from aquaculture and agronomic specialists be completed.

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APPENDIX 2

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By email: edo@coonambleshire.nsw.gov.au

17 January 2022

Dear Pip,

Probity Advice: Artesian Bore Baths Project

O'Connor Marsden & Associates (**OCM**) has been engaged by the Coonamble Shire Council (**Council**) to provide ad-hoc probity advice in relation to a project for the potential development of Artesian Bore Baths.

Our probity services are provided in accordance with the terms and conditions of the Local Government Procurement Panel for *Audit and Advisory Services*.

Project Background

In June 2020, Council adopted a Masterplan, which includes, amongst other things, the establishment of Artesian Bore Baths.

In March 2021, Council requested quotes for the feasibility, business case and concept design of the Coonamble Artesian Bath Experience. The Request for Quote (**RFQ**) was listed on the Local Government Procurement (**LGP**) procurement platform, VendorPanel which provides Council with the ability to request quotes from suppliers pre-approved by LGP.

Belgravia Leisure, while not a pre-approved LGP supplier, was also invited to respond to the RFQ and was provided with the same information that was listed on VendorPanel. Belgravia is the current operator of the Council-owned Coonamble Riverside Caravan Park.

Council's reasons for inviting a vendor not listed on VendorPanel included the following points:

- the feasibility, business case and concept design of the Coonamble Artesian Bore Baths is a specialised project
- a supplier with a niche skillset is required to undertake the project and deliver the most advantageous result
- Council's Procurement Policy recognises that projects such as these present extenuating circumstances and that an advantageous result for Council may be best achieved by receiving a response from a supplier not on the LGP panel.

Council received one response following the RFQ close, that being from Belgravia Leisure. LGP pre-approved suppliers that were invited to respond to the RFQ provided a reason for declining the opportunity. Council records state that, consistently, this reason was that the project was not a service or product that they were able to provide.

Belgravia was subsequently engaged by Council to develop a business case for a financially and environmentally sustainable model to operate an artesian spa and accommodation.

Belgravia submitted the business case to Council in November 2021. This document sets out three options for a management model for the artesian spa and accommodation, being:

1. Go to tender to seek out contract management companies
2. Manage the facility 'in house' (that is, by Council)
3. Manage the facility 'in house' with additional contracted management support.

Option 1, the outsourced contract management model, was recommended by Belgravia which also observed that this model could either operate under a management contract or a lease.

Purpose

Council is yet to make a decision in connection with the business case. However, OCM understands that Council is anticipating that, if the Project goes ahead, there is a likelihood:

- it may need to engage with the market in order to deliver the Project objectives, either in their entirety or in part
- Belgravia would be an interested bidding party, subject to the procurement approach adopted.

Council is seeking to ensure that any future market engagement(s) conducted for the purpose of this procurement conforms with relevant probity requirements.

The purpose of this correspondence is therefore to provide advice on:

- the probity risks associated with a market engagement (or engagements) that may be undertaken in connection with the project
- the strategies available for mitigating those risks, while achieving a value for money outcome for Council.

Scope and Methodology

In identifying the probity risks and mitigation strategies, we have had regard to:

a. relevant legislation and guidelines, in particular:
   - the *Local Government Act 1993*
   - the *Local Government Regulation 2021*
   - *Tendering Guidelines for NSW Local Government – October 2009*
   - *Coonamble Shire Council Procurement Policy – December 2020*.

b. the probity principles, as identified by the ICAC, specifically:
   - Accountability and transparency of the process
   - Fairness, impartiality and honesty
   - Management of Conflicts of Interest
   - Maintenance of confidentiality and ensuring security
   - Attaining value for money.

A description of the probity principles is at **Appendix A**.

The following information was reviewed by OCM in the preparation of this advice:

- *Coonamble Shire Council, Coonamble Shire Masterplan – June 2020*
- *Coonamble Artesian Bath Experience, feasibility, Business Case and Concept Design – November 2021*
- Coonamble Shire Council Business Papers and Meeting Minutes – April – October 2021
- OCM Meeting with Mr Hein Basson (Council – General Manager) and Ms Pip Goldsmith (Council – Economic Development Officer) 11 November 2021 regarding the probity advice required by Council.

Probity Risks & Mitigation Strategies

The following table sets out the probity risks relating to any future procurement(s) conducted in connection with the project together with strategies that can be put in place to mitigate them. The applicable probity principles are highlighted in bold text in the left-hand column.

Probity Risks	Mitigation Strategies
Perception that Belgravia is able to influence the procurement process to suit its own interests as a tenderer and is therefore **unfair**	**1. Belgravia's role going forward:**

	Ensure that Belgravia plays no role in the planning for any future procurement(s) relating to the Project. For example, Belgravia should not be: • involved in developing requirements for the approach to market • asked to comment on, and does not have access to, draft approach to market documentation. This is also consistent with the Local Government Tendering Guidelines which states in Section 3.3.3 that where a consultant has been used for the development of specifications (where Council does not have the expertise internally) and when Council is retaining these consultants, they are excluded from direct or indirect participation in any subsequent tender relating to the original matter.
Perception that the process lacks **transparency** and that Council has not disclosed the involvement of one vendor in the project prior to the procurement phase	**2. Information in tender documents:** Consider including a statement in market-facing tender documents acknowledging that a third party was involved in the preparation of the business case. This information should also confirmation that the party is not precluded from participating in the process. However, Council has implemented a number of management strategies to mitigate this perception risk including ensuring that all information that the consultant has been provided with as part of this process has been made available to all tenderers in the tender documents.
Perception on the part of potential proponents that they will be unable to compete on a level playing field in any future procurement(s), given that Belgravia, in preparing the business case, may have had: • access to information that would give it an **unfair** advantage in any future procurement • the opportunity to draft the business case in such a way as to suit its own interests in any future procurement and **unfairly** disadvantage other proponents.	**3. Tenderer briefing sessions:** Consider convening in-depth one-on-one interactive briefing sessions with potential proponents during the tender period. As part of these sessions, they should also be provided with the opportunity to direct questions to Council subject matter experts and external consultants involved in the project. **4. Access to information:** Review all information made available to, or collected by, Belgravia for the purpose of its business case and, where possible, make it available to other proponents (refer also to the statement included in point 2. above) **5. Tender period:** Consider establishing an extended tender period to ensure that tenderers have sufficient time to review the available information and assemble their submissions. **6. Use of scenarios:** Consider, as part of the tender documentation, including a requirement that tenderers demonstrate their solutions on the basis of hypothetical scenarios linked in with the evaluation criteria that are directly project-related.
Perception that Belgravia may have had access to budget information relating to the Project as a result of preparing the business case giving it an **unfair** advantage over other proponents.	**7. Issue an affordability envelop:** Consider releasing an affordability envelop to all proponents as part of the tender documentation. In addition to mitigating the perception that Belgravia may have had access to information relating to the project budget, and therefore an unfair advantage over other proponents, it would limit the potential for tenderers to submit offers that are well outside the range of Council's pricing and more closely aligned with its objectives.

Perception, following contract award, that the process was unfair and biased towards one tenderer.	**8. In-depth debriefings to unsuccessful tenderers:** Consider inviting unsuccessful tenderers to detailed post-award debriefings on the process and their submissions. This will provide a demonstration of Council's commitment to transparent and accountable process. It will also assist in reducing the risk of tenderer complaints.

Procurement Paths

The following table sets out in broad terms the procurement paths that are available to Council and identifies the relevant pros and cons.

Procurement Path	Pros	Cons
1. Single contractor (Consortium) Under this option, Council would go to market for a single contractor to take end-to-end responsibility for the project. This would include design and construction, together with the ongoing operation of the facility. If this procurement path is adopted by Council, the tender documents would need to allow for bids from consortia with a designated head contractor. The head contractor may be either an Operator that has its own D&C Contractor, or, conversely, a D&C contractor with its own Operator. This procurement path would be consistent with the requirements for tendering provided in s 55(1) of the *Local Government Act 1993*. Under s 55(2) of the Act, Council would be required to invite tenders by public notice, in accordance with any provisions prescribed by the regulations.	**Reduced procurement cost:** Conducting a single stage process for an end-to-end provider would result in lower procurement costs to Council than a multi-staged process. **Time savings**: A single stage procurement process, as opposed to a multi-staged process, would potentially enable Council to appoint a contractor and, potentially, achieve its objectives for the procurement within a shorter timeframe. **Early operator involvement:** As part of the consortia, the operator of the facility would be automatically in a position to influence the design of the facility at an early stage in the project. The potential benefits from the perspective of **value for money** would be twofold, namely that: • it would (amongst other things) enable innovation early in the project, resolution of constructability issues, effective management and risk sharing • potential operators would be likely to take the view there is less risk associated with this procurement path than option 2 on the basis that their early involvement would mitigate against the possibility of a facility being developed requiring remediation in order to be fit for purpose. In turn, this could potentially, assist in attracting a more competitive field of tenderers.	**Market for consortia:** The extent to which this option is likely to attract consortia is unclear. However, the relatively small scale and estimated dollar value of the project (based on the costings presented in the business case) may be a limiting factor in attracting consortia bidders. The risk with being unable to attract a significant field of bidders is that it can limit the opportunities for competitive tension, thereby potentially reducing the likelihood of a **value for money** outcome being achieved from the procurement.
2. Procure D&C Contractor first, then the Operator Under this two-stage procurement path, Council would go out to market with two separate tenders: one for the design and construction of the facility; the other for the operator post construction. The D&C contractor would be procured first. This procurement path	**Market for D&C contractors**: Council may be able to attract a competitive field of bidders for the D&C tender, given there is an established market for D&C contracts of varying value. The resultant competitive tension would contribute to Council achieving a **value for money** outcome from the D&C limb of the procurement.	**Early contractor involvement:** This procurement path does not allow for early contractor involvement and therefore the value for money benefits that could potentially accrue from this approach. As above, these include, amongst other things, enabling innovation early in the project, resolution of constructability issues, effective management and risk sharing.

Procurement Path	Pros	Cons
is sometimes referred to as the design-bid-build model. This procurement path would be consistent with the requirements for tendering provided in s 55(1) of the *Local Government Act 1993*. Under s 55(2) of the Act, Council would be required to invite tenders by public notice, in accordance with any provisions prescribed by the regulations.		**Market for operators**: The extent to which Council is likely to attract a competitive field for an Operator tender is unclear. However, the absence of early operator involvement in this procurement path, and therefore the opportunity to provide input to the design the facility and ensure that the design and construction of the facility aligns to its requirements, may limit interest from the market (particularly in relation to the operator component). As above, the risk with being unable to attract a significant field of bidders is that it can limit the opportunities for competitive tension, thereby potentially reducing the likelihood of a **value for money** outcome being achieved from the procurement. **Time:** Compared to the single contractor model (described above), any multi-staged procurement path is likely to be more time consuming, leading to longer timeframes for project completion. **Costs:** Any multi-staged procurement path is likely to incur higher procurement costs than the single contractor model (see above).
3. Procure Operator first, then D&C Contractor Under this two-stage procurement path, the first step in the procurement process would be to tender for a vendor to operate the facility followed by a process to procure the D&C Contractor. The Operator would also be appointed as a technical consultant for the selection of the D&C Contractor. In this capacity, the Operator would need to be part of the Council-run tendering process as part of the Council's team and may need to assist Council in interactive tendering, if Council opts for this approach. This procurement path would be consistent with the requirements for tendering provided in s 55(1) of the *Local Government Act 1993*. Under s 55(2) of the Act, Council would be required to invite tenders by public notice, in accordance with any provisions prescribed by the regulations.	**Early contractor involvement:** The procurement of the Operator as a first step, then engaging them as a technical consultant to assist with the selection of a D&C Contractor, would ensure the Operator is in a position to influence the design process to produce a fit for purpose facility. The potential benefits from the perspective of **value for money** would be twofold, namely that: • it would (amongst other things) enable innovation early in the project, resolution of constructability issues, effective management and risk sharing • potential operators would be likely to take the view there is less risk associated with this procurement path than option 2 on the basis that their early involvement would mitigate against the possibility of a facility being developed requiring remediation in order to be fit for purpose. In turn, this could potentially, assist in attracting a more competitive field of tenderers. **Market for D&C contractors**: Council may be able to attract a competitive field of bidders for the D&C	**Identification and management of conflicts:** Where Council includes the contracted operator as part of the D&C Contract procurement process there will need to be a clear process for the identification and management of associations which may give rise to a conflict. This is particularly relevant where the operator may have existing business relationships and associations with contractors that need to be managed so they do not influence on the integrity of the procurement process. **Time:** Compared to the single contractor model (described above), any multi-staged procurement path is likely to be more time consuming, leading to longer timeframes for project completion. **Costs:** Any multi-staged procurement path is likely to incur higher procurement costs than the single contractor model (see above).

Procurement Path	Pros	Cons
	tender, given there is an established market for D&C contracts of varying value. The resultant competitive tension would contribute to Council achieving a **value for money** outcome from the D&C limb of the procurement. The selection on an Operator as the first step in this process, and their engagement as a technical consultant to provide advice in the procurement of a D&C Contractor, would be consistent with a common procurement method and unlikely to represent a disincentive to prospective proponents.	
Procurement Activity: Market Sounding A market sounding would involve approaching prospective proponents to obtain the feedback of the market in relation to a possible procurement activity. Market soundings are undertaken prior to the commencement of a procurement and are used to inform and guide any future market engagement to ensure maximum value for money is achieved. To take full advantage of this process, Council would conduct desktop research beforehand to identify potential vendors, together with whatever information is available on their strengths and weaknesses.	Market soundings could assist in: • gauging the level of interest from D&C Contractors and Operators of facilities of this kind • gauging the type(s) of procurement path that would be most attractive to the market • identifying solutions to any procurement problems that may arise • encouraging participation in future procurement(s) by raising the profile of the project and promoting the commercial opportunity amongst potential proponents • testing any assumptions Council may have about the market.	**Time:** Market soundings require pre-planning and desktop research, face to face (or virtual) sessions with vendors and the analysis of the information received. This would add to the overall timeframe for the project. **Cost**: A market sounding process would require staff resourcing from within Council to ensure effective planning, coordination and reporting. Supplementing in house resources with external consultants with expertise in running these processes may also be required. There would, therefore, be a cost in terms of inhouse resources and, potentially, external consultants in conducting market soundings. **External advisors:** While Belgravia may have considerable knowledge and expertise in connection with this project, given it prepared the business case, it is also understood that this entity may be interested in bidding in a future procurement. In the event that Belgravia does have such an interest, it should not be involved in the market sounding process in any capacity for Council as this would compromise the fairness of the process and give rise to perceptions of bias.

Please let me know if you have any questions or would like to discuss the above. I can be contacted on 0413 443 374 or by email at smullins@ocm.net.au.

Yours sincerely,

Sarah Mullins
Partner

Appendix A: Probity Principles

Accountability of the participants and transparency of the process.

Accountability and transparency are related concepts. Accountability involves agencies being able to justify the use of public resources to an appropriate authority by allocating and taking responsibility for both decisions and performance. This includes aligning the decision-making process with the appropriate delegated authority and keeping records of both the delegations and decisions.

Transparency refers to the provision of timely and appropriate information to each stakeholder and the need to leave an auditable trail of adequate records of the reasons for all decisions.

Fairness and impartiality in carrying out the process.

A fair process, where those involved act with integrity and impartiality is the cornerstone of best practice in procurement. Consistency and equality in the treatment of, and interaction with, potential market participants and Tenderers is important in ensuring probity standards are met.

Staff, contractors and consultants involved in procurement process should act with integrity by being honest and open in dealings, using power responsibly, reporting any improper conduct, avoiding any real or apparent conflicts of interest and striving to earn and sustain a high level of public trust. In addition, they should work to ensure compliance with government legislation and codes relevant to the procurement process.

Achievement of this standard is usually supported by the application of an employee code of conduct, such as the NSW Government Model Code of Ethics and Conduct.

Management of actual, potential and perceived conflicts of interest.

A conflict of interest occurs where there is, or there is a potential for, a conflict between a person's personal or private interest and that person's public duty. A perceived conflict of interest may exist where it appears that a person's person or private interest or associations are improperly influencing, or may improperly influence, the performance of the person's role in the Project without bias.

A relevant personal or private interest includes not only the personal, professional or business interests of a person, but also the personal, professional or business interests of any person or group with which or whom the first person associates directly. Relevant personal or private interests are generally divided into two categories:

- Pecuniary; and
- Non-pecuniary interests.

Pecuniary (material) interests

A pecuniary interest can also be referred to as a material interest and refers to when a person has a financial interest in something. Pecuniary interests involve an actual or potential financial gain or loss and may give rise to an actual or perceived conflict of interest arising from a tendency toward favour or prejudice resulting from their ability to gain or lose financially from a certain outcome.

A person may have a pecuniary interest if they (or an 'associated person'), for example, own property, hold shares, or receive benefits (such as income, concessions, discounts, gifts or hospitality) from a particular source that is, or could be, the subject of consideration by the Project.

Non-pecuniary interests

Non-pecuniary interests do not have a financial component and relate to the views or beliefs that may be held by that person as a result of their particular association. They may arise from the person's personal or family relationships, an association with a particular interest group or political group, or involvement in sporting, social or cultural activities. Non-pecuniary interests may give rise to an actual or perceived conflict

of interest arising from a tendency toward favour or prejudice resulting from their personal involvement with another person or group. A person may not necessarily consider the interest as significant, but when viewed objectively, the association could give rise to a conflict of interest.

It should be noted that it is not possible to develop an exhaustive list of all instances where a conflict of interest may arise, and each set of circumstances must be considered as they arise.

Maintenance of confidentiality and security of documentation and information.

Although accountability and transparency are fundamental to the work of public sector organisations and public officials, there is some information that needs to be kept confidential, at least for a specified period of time, in order to protect the integrity of the process and give Tenderers the confidence to do business with government.

Procedures must be implemented to ensure that no unauthorised release of confidential information occurs. The processes adopted for receiving and managing information are to ensure the security and confidentiality of intellectual property, proprietary information or otherwise sensitive information of both the agency and Tenderers.

Achieving value for money in the prevailing circumstances.

Value for money is the key driver of tendering decisions. Value for money does not necessarily mean accepting the lowest available price and tender processes need to maximise value for money, consistent with meeting the project objectives but having regard to the prevailing conditions at the time the project is undertaken.

The process should include the evaluation of non-price criteria such as the quality of services offered, the experience and past performance of the Tenderers, the financial strength of participating parties, the differing risk factors and quality of the personnel. Where appropriate it should also include comparison against a target benchmark or budget outcome.

APPENDIX 3



SUSTAINABLE
PARK SOLUTIONS

COONAMBLE ARTESIAN BATH RETREAT MARKET ANALYSIS

August 2021

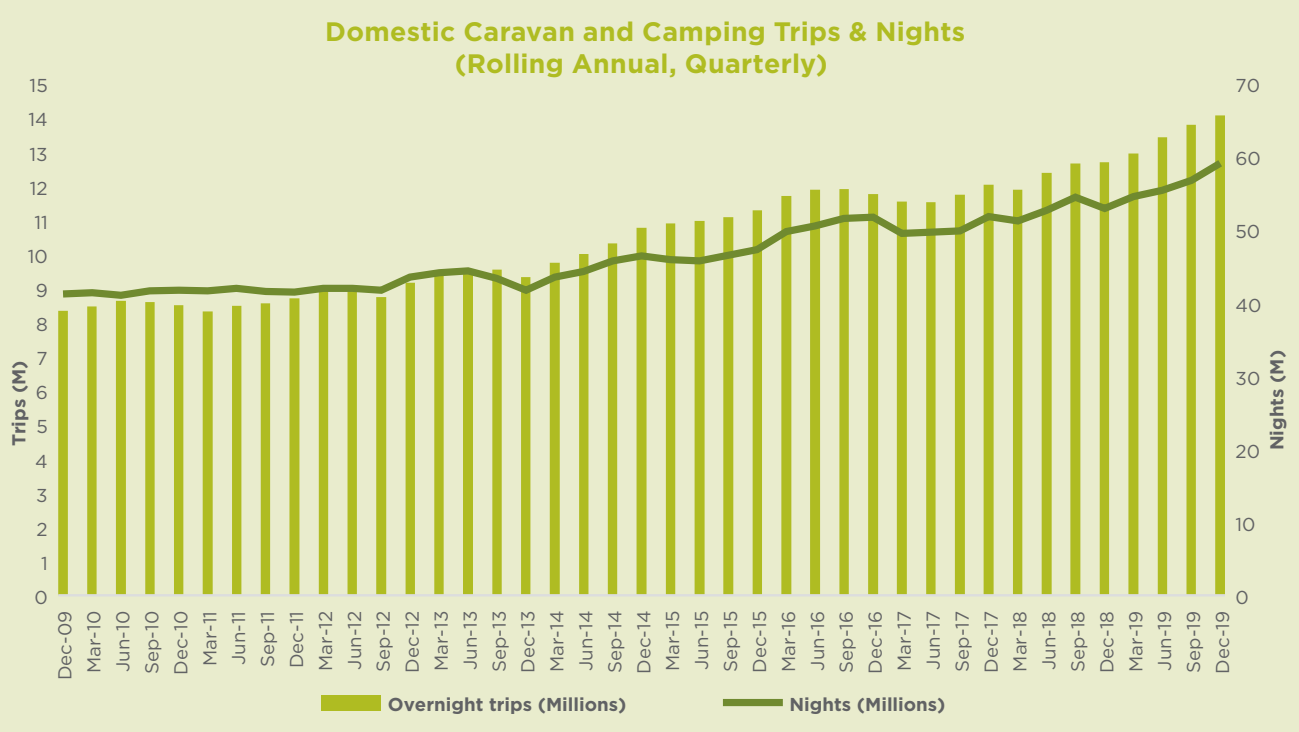
1

MARKET ANALYSIS

1.1 Domestic Caravan and Camping

1.1.1 What are the recent trends?

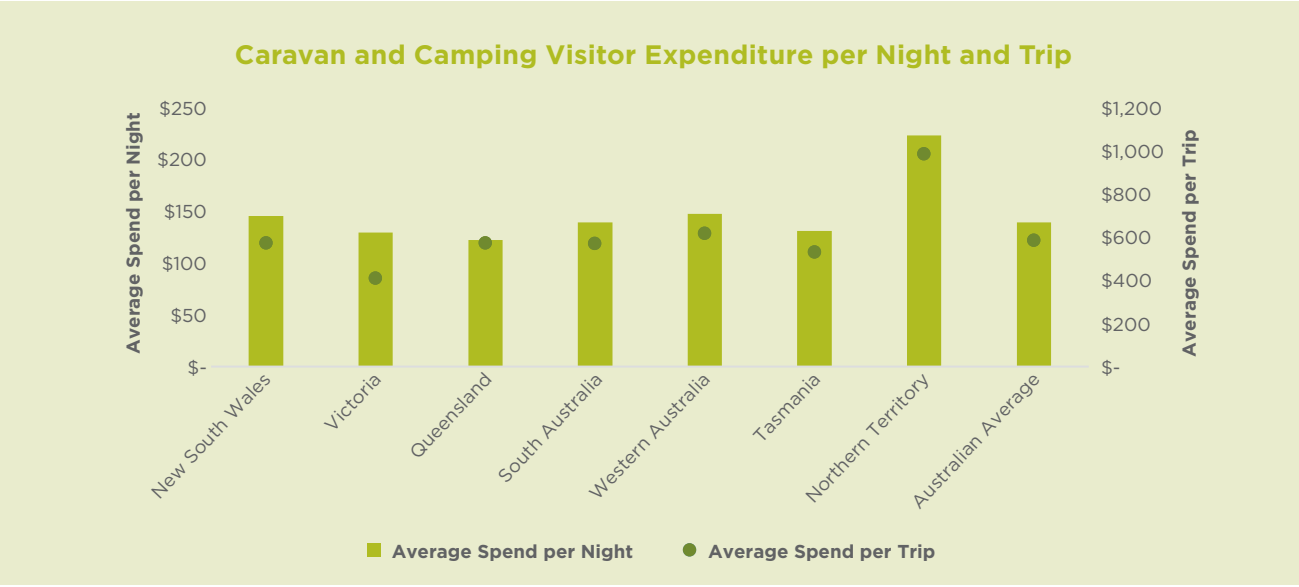
- In 2019, 14 million caravan and camping trips were taken by Australians, more than any other year previously. In line with this was the 59 million nights spent caravan and camping, another annual record.
- The average length of stay also increased to 4.2 nights in 2019, up from 4.1 nights in 2018.
- Growth in the caravan and camping sector has come from all age brackets, although it has been the growth of the 'young/mid-life (no children)' segment that has been the real stand out with this sector surpassing the 'parent with children at home' as the largest takers of caravan and camping trips.
- This Millennial/Generation X segment (aged under 45 and travelling without children) are increasingly searching out nature-based experiences that complement their increasingly busy personal and professional lives.



Data Sources: Tourism Research Australia, NVS, 2020.

- On a national level, overall visitor expenditure by caravan and camping visitors increased by 18% from 2018 to surpass $8B. In line with this was the increase in average spend per trip of 7.6% to $584 per trip. Looking at the differences between states, average spend per trip was largely connected to length of stay with Northern Territory attracting the most average spend per trip ($983) followed by Western Australia ($616).

- On average caravan and camping guests spent $139 per night on their trip. Highest spend in the Northern Territory and the least per trip in Victoria.



Source 2020 Caravan and Camping State of Industry - Caravan Industry Association of Australia

1.1.2 Trip Length

- Average trip length in 2019 was 4.2 nights and this has stayed fairly consistent since 2014. Although longer trips only comprise 5% of total trips, they still make up more than a quarter (27%) of total caravan and camping nights.
- Trips of 2-3 nights continue to make up the largest share of caravan and camping trips (41%) which fits with the Australian tendency to take short trips, especially during school holiday periods. Trips of 4-7 nights were the second most popular by length with 245 of the market and comprising 26% of total nights.

Source 2020 Caravan and Camping State of Industry - Caravan Industry Association of Australia

1.1.3 Caravan and Camping Visitor Regions

Top 10 Caravan and Camping Visitor Regions				
Tourism Region	**Overnight trips**	**YoY % Change**	**Nights**	**YoY% Change**
North Coast (NSW)	1,344,888	16%	6,021,822	15%
South Coast (NSW)	934,580	16%	3,710,125	24%
Australia's South West (WA)	599,559	5%	2,042,008	5%
High Country (VIC)	543,099	19%	1,444,223	4%
Brisbane (QLD)	523,505	-10%	1,582,419	4%
Sunshine Coast (QLD)	519,112	1%	1,914,421	6%
Central (NSW)	514,819	-7%	1,401,116	1%
Great Ocean Road (VIC)	486,061	-3%	1,517,401	2%
Hunter (NSW)	421,699	-1%	1,249,336	-1%
Gippsland (VIC)	417,997	33%	1,098,750	31%

- The North Coast of New South Wales continues to be the most popular tourism region for caravan and camping, followed by the South Coast of New South Wales.

Source 2020 Caravan and Camping State of Industry - Caravan Industry Association of Australia

1.1.4 Caravan Park Usage

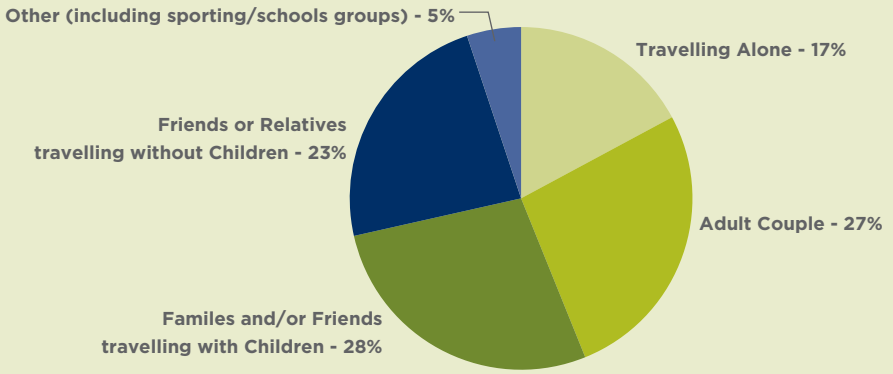
- Since 2011, caravan park accommodation usage has remained consistent with 40% of trips and 42% of nights coming from visitors who travel with and stay in caravans (or other towable recreational vehicles). Following this is cabins that account for 27% of trips and 29% of nights spent in caravan parks. It is important to note that due to higher tariffs in cabins than sites, cabins continue to account for most of the revenue in caravan parks (57%).
- While only making up 22% of trips to caravan parks, camping remains a vital gateway to the caravan and camping lifestyle. Having affordable accommodation options for all level of guests is a strong drawcard for caravan parks, especially consumers who do not have a family connection to owning an RV.

Source 2020 Caravan and Camping State of Industry - Caravan Industry Association of Australia

1.1.5 Travel Party Types

- Travel party types for caravan and camping trips has largely been consistent since 2015, with an even split between family market, adult couple and families and/or friends travelling without children.
- Solo travellers comprise 17% and this has grown from 14% in 2018.

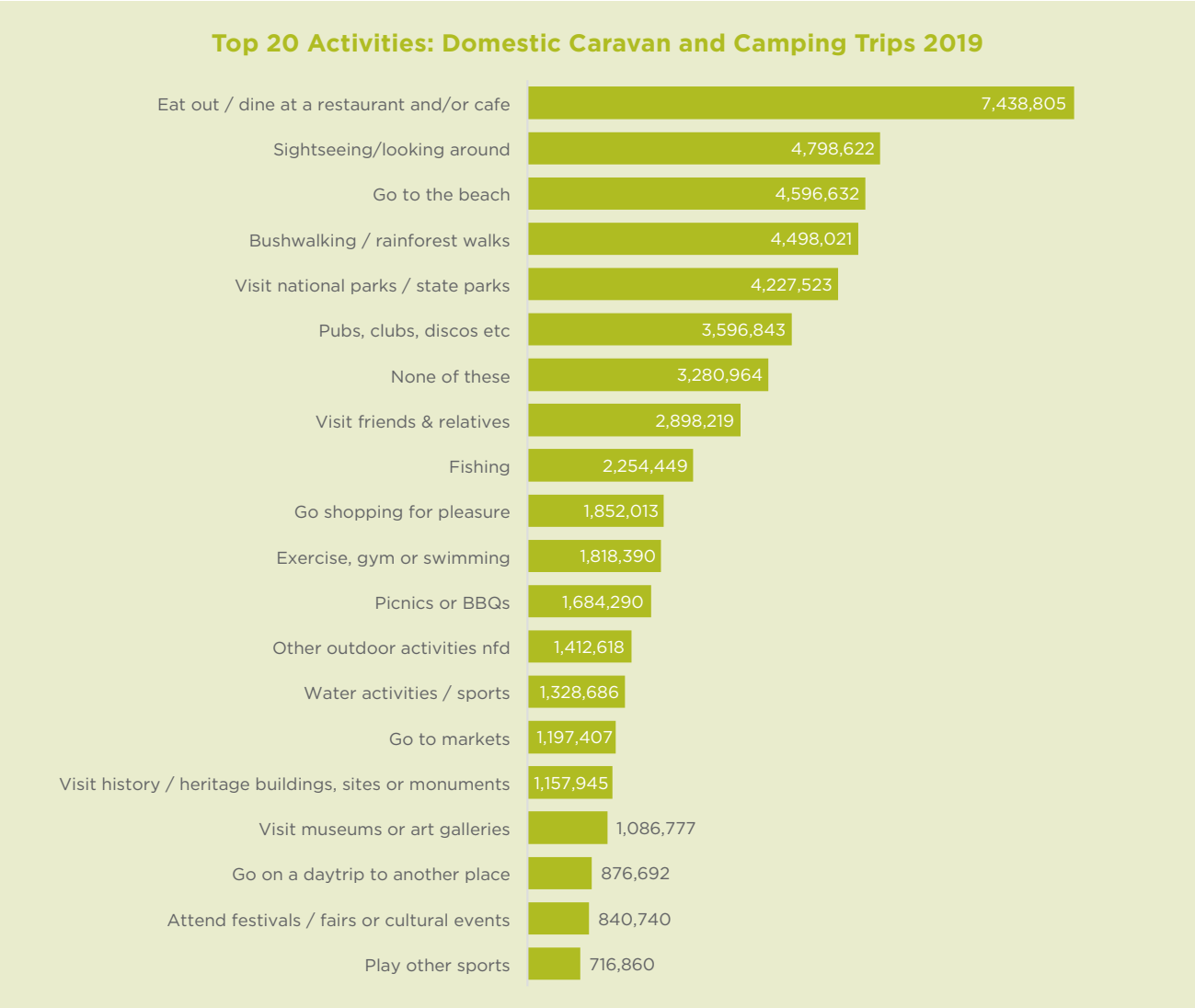
Domestic Caravan and Camping Trips by Travel Party Type: 2019



Source 2020 Caravan and Camping State of Industry - Caravan Industry Association of Australia

1.1.6 Travel Purpose

- Holiday continues to be the primary reason why Australians choose to go caravan and camping with 765 of trips identifying this reason. An additional 13% of trips identified their reason to travel as being related to business, which has increased slightly over the past 5 years from 10%.
- The primary activities undertaken on caravan and camping trips were eating out – $7.4M, sightseeing $4.7M going to the beach – $4.5M, bushwalking - $4.4M and visiting National Parks - $4.2M in the top 5 activities.



Source 2020 Caravan and Camping State of Industry - Caravan Industry Association of Australia

1.1.7 Accommodation Performance

National Statistics	Occupancy	+/- 2018	Average Daily Rate	+/- 2018	RevPAR	+/- 2018
Cabins	49.4%	- 3.0ppt	$155.03	4.5%	$76.59	1.3%
Powered Sites	42.2%	0.3ppt	$47.79	4.1%	$20.14	4.4%
Unpowered Sites	11.9%	- 2.7ppt	$41.04	4.3%	$4.89	1.5%

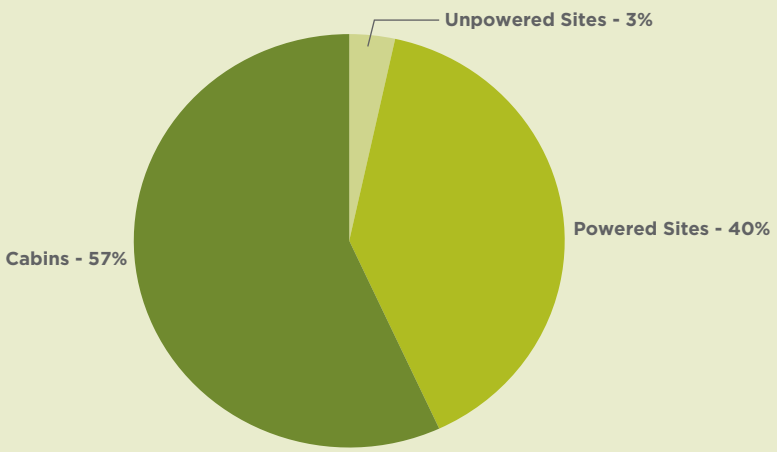
- 2019 was a solid year for caravan parks, with strong levels of demand across all site types highlighted by occupancy levels of 49.4% in cabins, 42.2% in powered sites and 11.9% in unpowered sites.

Source 2020 Caravan and Camping State of Industry - Caravan Industry Association of Australia Snapshot Nov 2019)

1.1.8 Caravan Park Revenue Generation

- In 2019, overall caravan park revenue increased by 6% to reach $2.1B across Australia. Caravan Park revenue in New South Wales of $683M accounted for 32% of total revenue, and remains the highest by market share. Queensland also recorded a strong performance with revenue increasing by 6% to surpass $500M for the first time. South Australia saw the strongest increase, which is in line with strong visitation performance in 2019, with caravan park revenue increasing by 14% in the state. Tasmania saw the second strongest increase, with revenue lifting by 9% through 2019 to $51M. Victoria and Western Australia both saw increases of 7% to reach $351M and $278M respectively. The Northern Territory was the only state that saw a decrease in revenue with 2019 revenue declining by -1% to $72.6M.
- Looking at caravan park revenue by site type, cabins continue to comprise the majority of revenue accounting for 57% of total revenue in 2019. This amounted to $1.2B in 2019, a 75 increase from revenue generated in 2018. Similarly, powered sites increased generated revenue by 5% and continue to account for a significant portion (40%) of revenue generated.

Caravan Park Revenue Generation: 2019



1.1.9 Caravan and Campervan Data

- Combined Motorhome, Caravan and Camper Trailer registrations reached a total of 711,354 in 2019, an increase of 4.7% from 2018.
- New caravan registrations (i.e. vehicles that were manufactured/imported in 2018) for 2019 surpassed 30,000 for the second year running, although was steady from 2018 figures.
- Campervan/Motorhome registrations declined marginally by -1% from 2018, however it remained the second highest year since 2013 for new campervan registrations with 2,690 for the year.
- Queensland had the largest fleet of motorhomes, caravans and camper trailers in Australia, accounting for approximately 188,638 registered vehicles of the total 641,603 in Australia. This equates to 29% of the total fleet.
- The total number of motorhomes registered in Australia in 2019 was 69,751 and increase of 5% on 2018.
- The total number of caravans registered in Australia in 2019 was 641,603 an increase of 5% since 2018.
- 28.1/RV Registrations per 1,000 people.
- 2019 saw the continued trend towards heavier towable vehicles, with vehicles with tare weights of greater than 2000kg continuing to growth their market share. This segment has increased from 295 in 2013 to 485 in 2019.
- Looking at length of caravans manufactured in 2019 it is worth noting that 58% were 6.01m to 7m, 27% were 5.01m to 6m, 12% 4.01m to 5m and 3% were less than 4m.

Source Caravan and Campervan Data Report 2019 Caravan Industry Association of Australia)

1.2 Caravan and Camping Trends

Over the last 17 years, some strong trends have emerged in the caravan and camping park industry. These include:

- The last 17 years has seen the closure of approximately 310 parks (equivalent to 4-5 per quarter).
- During the same period industry turnover has gone from less than $550m to just under $1.5b. This equates to a growth rate of approximately 6% per annum compared with CPI of 2.7% per annum for the same period.
- For the competing product of hotels, motels and serviced apartments, they have shed approximately 800 establishments and grown their turnover by approximately 5% per annum.
- Powered site numbers have declined, mainly because of there being fewer parks. In contrast the number of cabins has doubled in that time (though the growth rate in this area has slowed more recently).

	Feb '14 (EST)	March '12 (EST)	June '10	Dec '07	Dec '97
Caravan Parks					
Establishments	1,583	1,614	1,638	1,683	1,893
Powered Sites	126,667	135,576	138,837	143,272	167,557
Cabins etc	39,583	39040	35812	32907	17884
Occupancy % (Annual)	53%	54%	54%	53%	47%
Takings (Annual)	$1,289.8m	$1,192.7m	$1,135.8m	$965.5m	$483.0m
Hotels, Motels & Apartments					
Establishments	4,232	4,200	4,301	4,235	5,041
Occupancy % (Quarter)	65%	64%	64%	66%	58%
Takings (Quarter)	$2,316.6m	$2,233.6m	$2,004.6m	$1919.4m	$979.2m

Source BDO Distinctively Different Insights 2014

- Park improvement and development is high on the list of priorities; however, capital expenditure has recently slowed.
- Over time, consumer expectations have increased significantly, and today's caravan and camping guest is looking for parks with high quality amenities as well as broad range of communal facilities and services including camp kitchens/meeting rooms, BBQ shelters and Wi-FI.
- Whilst families enjoy parks with adventure playgrounds, water parks, jumping pillows and pump tracks Millennial/Generation X segments are looking for caravan parks that include cafes/micro brewery's, day spas and cycling related infrastructure.
- With the change in market segments there has been a shift towards newer forms of accommodation driven by the 'glamping' phenomenon. Safari tents, eco cabins, bell tents and Glamtainer's are examples of these new forms of accommodation. Guests are also demanding a higher standard of cabin with resort style furnishings and fittings.
- In addition, many caravan and camp grounds have responded to the demands of guests by installing unisex amenities rather than the traditional single sex amenities.
- The last 5 years has also seen a significant increase in the number of Grey Nomads travelling with pets. The caravan park industry has reacted by allowing pets in owner/occupier caravans, development of pet rules, pet friendly cabins, pet sitting services and dedicated pet runs.
- In the last 18 months there has seen a strong shift towards contactless check-in – partially driven by Covid-19 with parks adopting self-check online, digital registration cards, kiosks, number plate technology on boom gates to open gates and Wi-Fi systems to turn electricity on and off on sites.

2

GUEST EXPERIENCE

2.1 Introduction

The Coonamble Artesian Bath Retreat will offer guests a wide range of accommodation options supported by high quality amenity and recreational facilities.

The accommodation options at the Retreat have been specifically designed to be attractive to the target markets identified for the neighbouring Artesian Spa with higher end accommodation options, including Eco Cabins, Glamtainer's and Glamping Tents targeting Over 55's, Special Interest e.g., Girlfriends Market and Spa Enthusiasts and powered/unpowered sites targeting families and Grey Nomads.

The accommodation offerings at the Retreat have also been designed to complement other offerings in the town of Coonamble rather than compete against them.

Stage 1 – Retreat Accommodation		
Style	**Quantity**	**Sleeps**
Eco Cabins	10	24
Glamping Tents	5	10
RV Camping Spaces - Powered	20	80

Stage 2 - Retreat Accommodation		
Style	**Quantity**	**Sleeps**
Eco Cabins	15	24
Glamping Tents	10	20
RV Camping Spaces - Powered	45	180
RV Camping Spaces - Unpowered	10	40

2.2 Design Principles

A series of sustainable design principles have also been applied to the design of the Retreat to make the best use of the unique site.

2.2.1 Environment and Heritage

The sites within the Retreat are designed to enhance the quality of the natural environment through initiatives such as:

- Retaining and protecting significant vegetation within the Coonamble Golf Course site.
- Increasing the overall native vegetation cover on site.
- Greening site boundaries adjacent to road reserves with native trees & vegetation.
- Selecting appropriate native plants for landscaping that suit the local conditions.
- Strengthening the habitat value and improving the quality of water in the adjacent Castlereagh River Creek and waterbodies.
- Providing native fauna habitat within vegetated site areas to support local ecosystem biodiversity.
- The use of native grasses, especially perennial species, should be prioritised as they are Tare a valuable grazing resource and component of biodiversity in the region, as well as providing food and habitat for native animals.

2.2.2 Sustainability

The Retreat will have a strong focus on sustainability and the amenities block and buildings at both the Retreat and the Coonamble Artesian Bath Experience will use:

- Sustainable site water management initiatives including grey water capture and reuse, rainwater harvesting and storage for reuse.
- Water from the Coonamble Artesian Bath Experience will be recycled onto the grounds and sites.
- Water timers and shower head water saving devices.
- Passive building design including building location and orientation on the site, building layout, window design, insulation, thermal mass, shading, and cross-ventilation.
- Recycled and recovered site material for construction where practical.
- Existing trees where possible by designing proposed facilities around them.
- Solar power as the main energy source for outdoor and indoor lighting.
- Natural materials such as timber and local stone and tin.
- Demonstrate an architectural character which is complementary to the surrounding environment and context.
- Support local communities and businesses through use of local materials and labour.

2.2.3 Accessibility

Pedestrian and shared paths within the Retreat and Coonamble Artesian Bath Experience will allow people of all abilities, age and/or backgrounds to be able to access the accommodation and the experience.

All main pathways within the Retreat and the Coonamble Artesian Spa Experience will have disabled access. Exceptions may occur for bushland tracks or in steep terrain where ramping would have significant impact on the existing natural landscape.

2.2.4 Guest Experience and Facilities

The Retreat will offer guests a high end unique and authentic outback experience. Guest facilities will include:

- Unisex amenities featuring heated towel rails and heated underfloor heating with hot water from the Coonamble Artesian Bath Experience.
- Guest laundry.
- Centralised fire pit, where guests can come together and share their experiences.
- Bike service station so guests can service their bikes and/or wash down bikes after a ride into town.
- BBQ shelters and seating.
- Onsite meeting room/camp kitchen will be added at a later stage.

2.2.5 Accommodation Descriptions

Eco Cabins

Luxury meets camping with these Eco Cabins. Designed like a Safari Tent but with hard panel walls these are ideal for climate control.

- King size bed or twin bedding available on request
- Polished timber floorboards
- Hotel bed linen & towels
- Bedside table with lamps
- Covered verandahs with deck chairs
- Some with ensuite bathrooms
- Communal bathrooms a short walk away from the tents

Glamping Tents

Camp in comfort and style with these bell tents. Each tents contains:

- Super comfy mattresses on bed bases sleeping up to TWO people (king or single bed options)
- Hotel bed linen & towels
- Floor rugs throughout
- Storage chest
- Solar lighting
- Communal bathrooms a short walk away from the tents

RV Camping Spaces - Powered

Using waste water from the Coonamble Artesian Bath Experience all sites are lovely and green and large in size. Allowing room for the largest rig to small camper trailer the sites at the Coonamble Artesian Bath Retreat are suitable for short or longer stays.

- 10m x 10m
- Powered sites

RV Camping Spaces - Unpowered

Large green sites but without the added cost of power are perfect the budget cost camper.

3

RATE REVIEW

Western New South Wales - Park Rates					
	Budget Cabins	Deluxe Cabins	Ensuite	Powered Sites	Unpowered Sites
Coonamble Riverside CP	$110	$150	N/A	$32	$22
Gulargambone CP	$60	$90	N/A	$30	$25
Nyngan Riverside CP	$60	$140	$40	$33	$28
Gilgandra CP	$90	N/A	N/A	$33	$25
Macquarie CP	$65	$95	N/A	$28	$23
Cobar CP	$105	$145	N/A	$40	$35
Mitchell CP	$60	N/A	$43	$34	$25
Kidmans CP	$110	$149	N/A	$39	$34
Waioma CP	$60	N/A	N/A	$30	$20

4

CAPITAL WORKS

Coonamble Artesian Bath Retreat - Capital Works							
Item	**Cost**	**Qty**	**Description**	**Year 1**	**Year 2**	**Year 3**	**Total**
Infrastructure (Headworks)							
1	$2,500		Fire Services and Hydrants	$50,000		$62,500	**$112,500**
2	$12,500		Roads, Services, Powerheads (total sites)	$250,010		$412,500	
Park Entry							
3	$2,500	1	Entry Statement	$2,500			**$2,500**
4	$15,000	2	Boom Gates	$30,000			**$30,000**
Communal Facilities							
5	$150,000	1	Install New Relocatable Unisex Amenities Block of 4 + Disabled + Laundry			$150,000	**$150,000**
6	$2,500	6	Amenities Services			$15,000	**$15,000**
7	$170,000	1	Camp Kitchen			$170,000	
8	$2,500	2	Camp Kitchen Services			$10,000	
Sites & Accommodation*							
9	$7,500	5	Glamping Bell Tents	$37,500		$37,500	**$75,000**
10	$50,000	10	Install 10 Eco Cabins	$500,000		$250,000	**$750,000**
11	$5,000	10	Eco Tent Services	$50,000		$25,000	
Recreational Facilities							
12	$10,000	1	Fire Pit	$10,000			**$10,000**
			Subtotal Capex	**$930,010**		**$1,132,500**	**$1,032,500**
			Professional Fees - 9.5%	**$88,351**			
			Contingency - 15%	**$139,502**			
			TOTAL CAPEX	**$1,157,862**		**$1,132,500**	**$1,032,500**

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GUYMER | BAILEY landscape

SUSTAINABLE PARK SOLUTIONS

COONAMBLE ARTESIAN SPA
MASTERPLAN

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06.08.2021

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Coonamble Artesian Spa

Overall Site Plan
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SUSTAINABLE PARK SOLUTIONS
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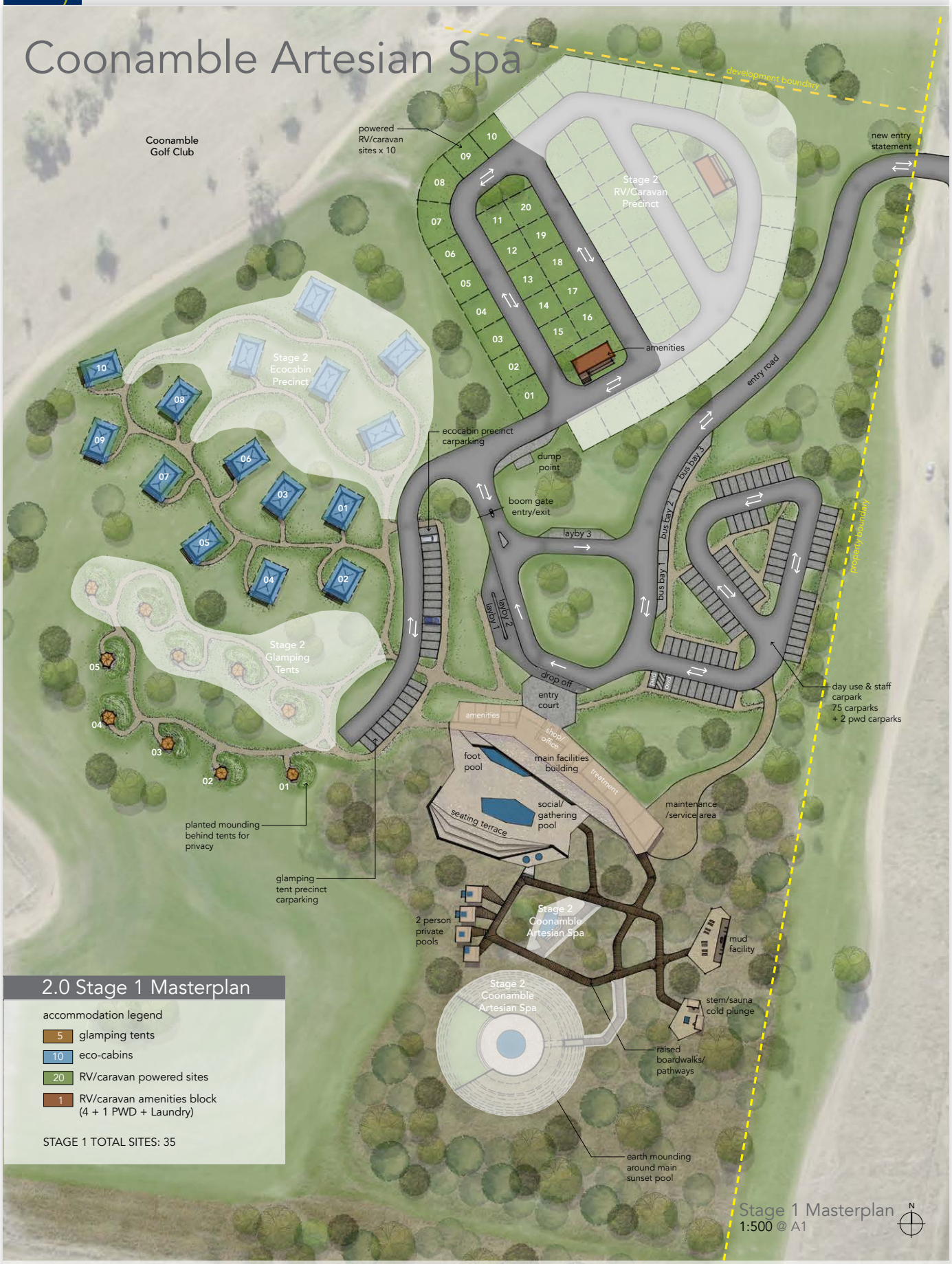
Coonamble Artesian Spa



2.0 Stage 1 Masterplan

accommodation legend

- 5 glamping tents
- 10 eco-cabins
- 20 RV/caravan powered sites
- 1 RV/caravan amenities block (4 + 1 PWD + Laundry)

STAGE 1 TOTAL SITES: 35

SUSTAINABLE PARK SOLUTIONS | GUYMER BAILEY landscape | atelier andy carson

3.0 Stage 2 Masterplan

accommodation legend

- 5 glamping tents
- 5 eco-cabins
- 25 RV/caravan powered sites
- 10 RV/caravan unpowered sites
- 1 RV/caravan amenities block (4 + 1 PWD + Laundry)

STAGE 2 TOTAL SITES: 45

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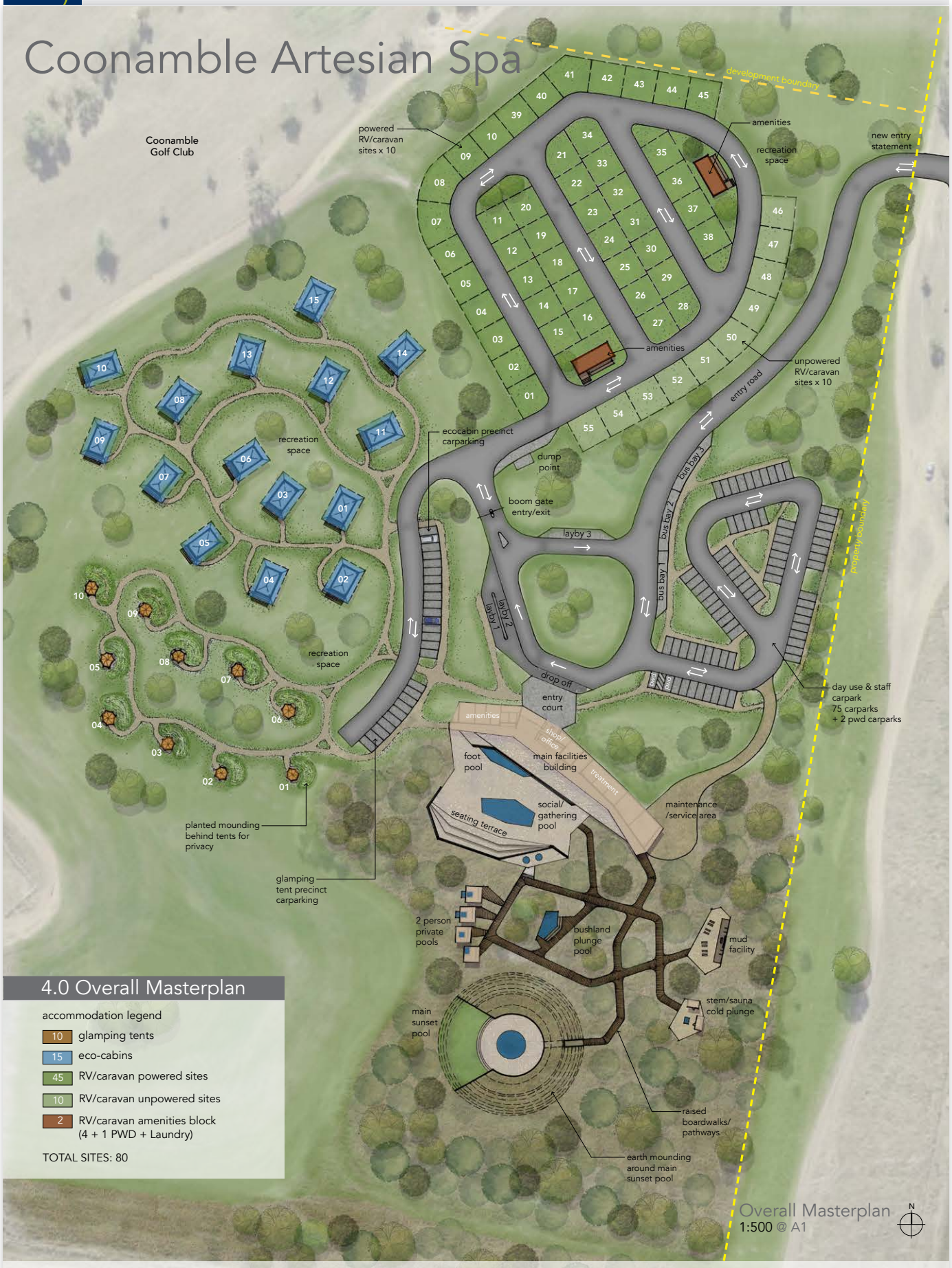

4.0 Overall Masterplan

accommodation legend

- 10 glamping tents
- 15 eco-cabins
- 45 RV/caravan powered sites
- 10 RV/caravan unpowered sites
- 2 RV/caravan amenities block (4 + 1 PWD + Laundry)

TOTAL SITES: 80

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SUSTAINABLE
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