Ballina Shire Council
Croquet Facilities Expansion
Cost-Benefit Analysis Report

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Acknowledgement

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Executive Summary

The Ballina Shire community is currently served by 2 existing croquet facilities. The home of the Alstonville Croquet Club is on a single croquet lawn at Gap Road, Alstonville. Ballina Croquet Inc. and Cherry St Croquet Club share a 2 lawn facility on Hampton Park Reserve, Ballina.

The number of croquet sport participants at the facilities, both individually and collectively, exceeds the level recommended by the sport's governing body and this has inhibited participation among the existing players, and has prevented new participants from taking up the sport.

Participation in sport has long been known to be highly beneficial - from health, social and economic perspectives - for the individual participants as well as their communities. The nature of croquet lends itself to a wide range of community members being able to access these benefits, not least among older demographics. Not many sports are well suited to older players, croquet is an exception.

The premise that encouraging the community to participate in or take up the sport is a logical one. The specific demographic profile of Ballina Shire, historically and increasingly so, based on population age profile forecasts, suggest that catering for participation in sports such as croquet is a well-founded public policy objective.

Accepting that premise leads to a consideration of how the demand for current and future needs can be met. This report considers a total of 8 options, with the intention of informing future Council site master planning processes.

The 8 options analysed are:

Option ID	Option Description	Estimated Aggregate Benefit Over 20years	Estimated Aggregate Cost Over 20years	Benefit to Cost Ratio (BCR)
Alstonville - Option 1:	Expand the existing Gap Rd Alstonville site by: - establishing 1 x new croquet lawn on the site's Lower Field - refurbishing the existing Lower field canteen/toilet block to accommodate croquet - making improvements to the site access way and pathways	$3,025,750	$1,969,423	**1.54**
Alstonville - Option 2:	Expand the existing Gap Rd Alstonville site by: - establishing 1 x new croquet lawn on the site's Lower Field - demolishing the existing Lower field canteen/toilet block - building a new amenity building - making improvements to the site access way and pathways	$3,025,750	$2,639,883	**1.15**

Ballina - Option 1:	Establish a new croquet facility at Cawarra Park, involving: - Relocating the existing users of Cawarra Park, baseball/softball to a new facility located at the Upper Field at Gap Road Alstonville, including a new baseball/softball field and amenity building. - Establish 2 x new croquet lawns at Cawarra Park - Refurbish the existing amenity building facility at Cawarra Park to accommodate croquet.	$3,107,240	$3,246,031	**0.96**
Ballina - Option 2:	Establish a new croquet facility at Cawarra Park, involving: - Relocating the existing users of Cawarra Park, baseball/softball to a new facility located at the Upper Field at Gap Road Alstonville, including a new baseball/softball field and amenity building. - Establish **2** x new croquet lawns at Cawarra Park - Demolish the existing amenity building at Cawarra Park and replace it with a modest new facility for croquet.	$3,107,240	$3,727,532	**0.83**
Ballina - Option 3:	Establish a new croquet facility at Cawarra Park, involving: - Relocating the existing users of Cawarra Park, baseball/softball to a new facility located at the Upper Field at Gap Road Alstonville, including a new baseball/softball field and amenity building. - Establish **3** x new croquet lawns at Cawarra Park - Demolish the existing amenity building at Cawarra Park and replace it with a modest new facility for croquet.	$4,450,595	$4,310,652	**1.03**
Ballina - Option 4:	Establish a new croquet facility at Cawarra Park, involving: - Relocating the existing users of Cawarra Park, baseball/softball to a new facility located at the Upper Field at Gap Road Alstonville, including a new baseball/softball field and amenity building. - Establish **4** x new croquet lawns at Cawarra Park - Demolish the existing amenity building at Cawarra Park and replace it with a modest new facility for croquet.	$5,590,669	$5,135,581	**1.09**

Ballina-Option 5:	Establish a new croquet facility at Cawarra Park, involving: - Relocating the existing users of Cawarra Park, baseball/softball to a new facility located at the Upper Field at Gap Road Alstonville, including a new baseball/softball field and amenity building. - Establish **4** x new croquet lawns at Cawarra Park - Demolish the existing amenity building at Cawarra Park and replace it with a larger-scale regional facility grade facility for croquet.	$5,590,669	$7,070,254	**0.79**
Hampton Park Reserve – Option 6:	Extend the existing Hampton Park Reserve site from an existing 2 x croquet lawns to include an additional 2 croquet lawns. Develop additional suitable amenity building facility to accommodate the increased participant capacity; including works to join the existing building and the new facility.	$2,878,989	$2,327,344	**1.24**

It is clear from this analysis that in some cases the public policy objectives described above can be supported from an economic, health and social perspective. The economic, social and health benefits that will stem from the development of croquet facilities in Ballina Shire are considerable. The 20 year accumulated benefits available among the options considered, when expressed in dollar terms, range from ~$2.1m to ~$5.6m.

The analysis outcomes summarised above were also subject to tests of sensitivity against key risks or changes in certain parameters. That sensitivity analysis highlights areas of potential concern among a range of the options, this is particularly true in cases where the BCR scores are just above or near 1.00. This indicates a thorough and careful approach to cost management in the detailed planning and during delivery of any resulting delivery project.

Background and Objectives

Background

Within the Ballina Shire, an increasing demand on existing community sport and recreational facilities, and requests for new facilities from many sporting and community

groups highlighted the need to develop a specific plan relating to sport and recreation facility provision for the current and future population of the Shire.

Ballina Shire Council completed a Community Facilities and Open Space Needs Analysis in 2004 and an Open Space Strategy in 2008. More recently, Council resolved to complete a Ballina Sport and Recreation Facilities Plan as part of the Delivery Program and Operation Plan 2018/19. Council engaged external consultants (Ross Planning) to establish the Ballina Shire Council Sport and Recreation Facility Plan 2020.

Based on the facility needs assessment completed as part of the Sport and Recreation Facility Plan 2020 process, that plan recommended, and Council has agreed, that a cost-benefit analysis be undertaken focussed on the "*establishment and maintenance of two new croquet facilities within the Shire prior to finalising options for the relocation of Ballina Croquet Club, and the expansion of the Alstonville Croquet Club*". The following report is the output from that analysis.

Approach

The following cost-benefit analysis activities have been undertaken:

- The collation of information gathered in consultation with Council staff and a variety of sporting club representatives concerning current arrangements and anticipated future needs.
- Identification of options for potential croquet facilities on sites in the Ballina Shire Local Government Area that reflect.
- Establishment of the financially quantifiable (and any material non-quantifiable) considerations relevant to each of the identified options.
- Undertake sensitivity analysis on each of the options to ensure Ballina Shire Council decision-makers can appreciate the implications when key assumptions underpinning the estimates of costs and benefits are varied.

Cost Estimation

It should be noted that the sport facility cost estimates that appear in this report have been established on the following basis:

- The cost estimates provided have provision for the following <u>inclusions</u>:
    - preliminaries and builder's profit and overheads
    - simple single storey construction and basic finishes
    - external works and services to the immediate surrounds of the building / field – limited to three metres beyond building / field footprint
    - nominal landscaping – limited to three metres beyond the building footprint
    - construction standards in accordance with current building legislation
    - contingency of 5% for the construction works only (not for additional scope or additional fees)
    - statutory fees, charges and building approval costs
    - professional fees e.g., architect, engineer, quantity surveyor etc
- The cost estimates are provided with the following <u>exclusions</u>:
    - land acquisition costs
    - finance and insurance costs, legal fees and stamp duty
    - local authority headworks fees and charges

- development approval costs
- site clearing and demolition
- costs associated with latent conditions
- costs associated with difficult or restricted site access
- costs associated with poor soil conditions or sloping sites
- costs associated with lengthy/complex services connections
- site infrastructure provision or upgrades e.g., electrical / data services, water and drainage services, fire hydrant systems, access roads, street lighting etc.
- project specific scope – e.g., specific fit-out, function rooms, covered or spectator areas, except where stated
- air conditioning
- external features – e.g., landscaping, carparks, shelters, covered verandahs / decks, covered ways, paving / paths, stairs, ramps, benches / seating, except where stated
- escalation beyond June 2021
- other project contingency
- GST.

Situation Analysis

Croquet Profile

Existing facilities in the region

The Northern Rivers region currently has 9 croquet clubs in the Northern Rivers region. Three of the 9 are in the Ballina Shire, they are:

- Ballina Cherry Street Croquet Club
- Ballina Croquet Inc.
- Alstonville Croquet

The croquet clubs in the surrounding region are found in Lismore, Byron Bay, Casino, Coutts Crossing, Murwillumbah and Tweed Heads.

Participant demand

A profile of the croquet clubs in the Ballina Shire Local Government Area (LGA) is provided in the following table:

Club Name	**Current Playing Members**	**Facilities**	**Current Lawns**
Ballina Cherry Street Croquet Club	81	Hampton Park Reserve – a shared croquet facility at corner of Bentinck and Moon Streets Ballina.	2 (shared)
Ballina Croquet Inc.	51		
Alstonville	34	Gap Road, Alstonville.	1
Totals	**166**		**3**

Representatives of all three Ballina Shire based clubs have identified a current (and in some cases long-standing) situation where their playing numbers could be expanded, however new players are being prevented from joining the sport because of inadequate facilities to accommodate them.

The peak body for the sport of croquet internationally – the World Croquet Federation – supplies reference to a croquet facility development guide that includes 2 approaches for determining the adequate number of lawns for a given population.

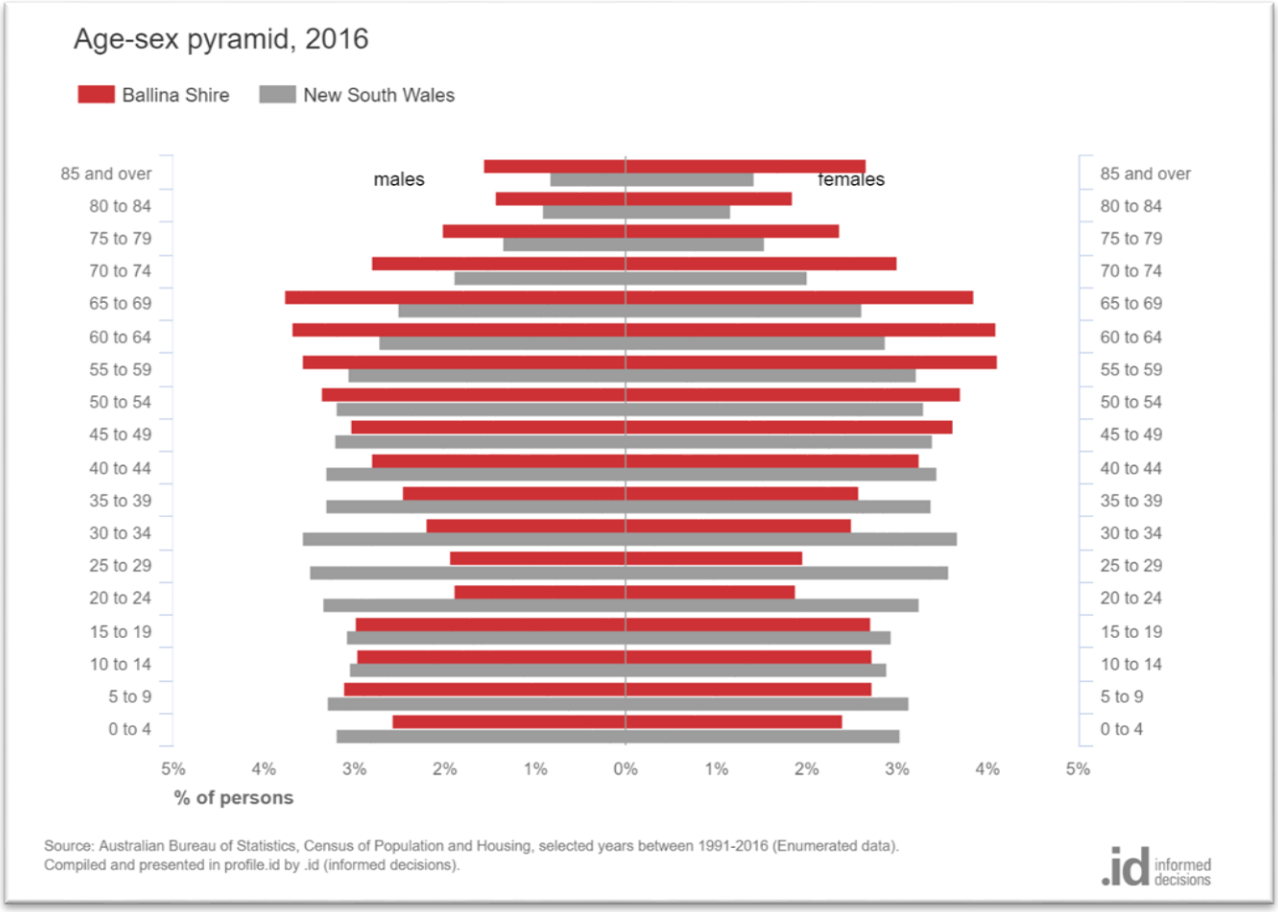
The first method suggests a *minimum* of one lawn per 25 playing members of a facility to ensure overall club sustainability as well as turf capacity. This method recognises one lawn can generally accommodate up to 8 players at any one time, therefore using the guide of one lawn for every 25 members assumes careful scheduling of games to maximise utilisation of each lawn.

From a whole of Ballina Shire perspective, this guidance suggests that the 3 existing croquet lawns for the 166 active players is markedly inadequate. This is also true from the standalone facility perspective – each of which has active playing memberships that exceeds the recommended minimum ratio of players to lawns – and significantly so in the case of the Ballina facility (with 132 players utilising 2 lawns).

The facility guide's second method offers a population-based planning approach - this method suggests that there should be one 2-lawn venue per 33,000 people aged over 15 years.

Croquet players range in age from high school students to retirees and seniors; predominantly the sport attracts people over 50 years of age. Ballina Shire LGA has 83.5% of its population in the 15+ age bracket, which represents ~37,760 people. Approximately, 48% of Ballina's population falls into the 50+ age bracket, representing around 21,600 people (using .id Community June 2020 data).

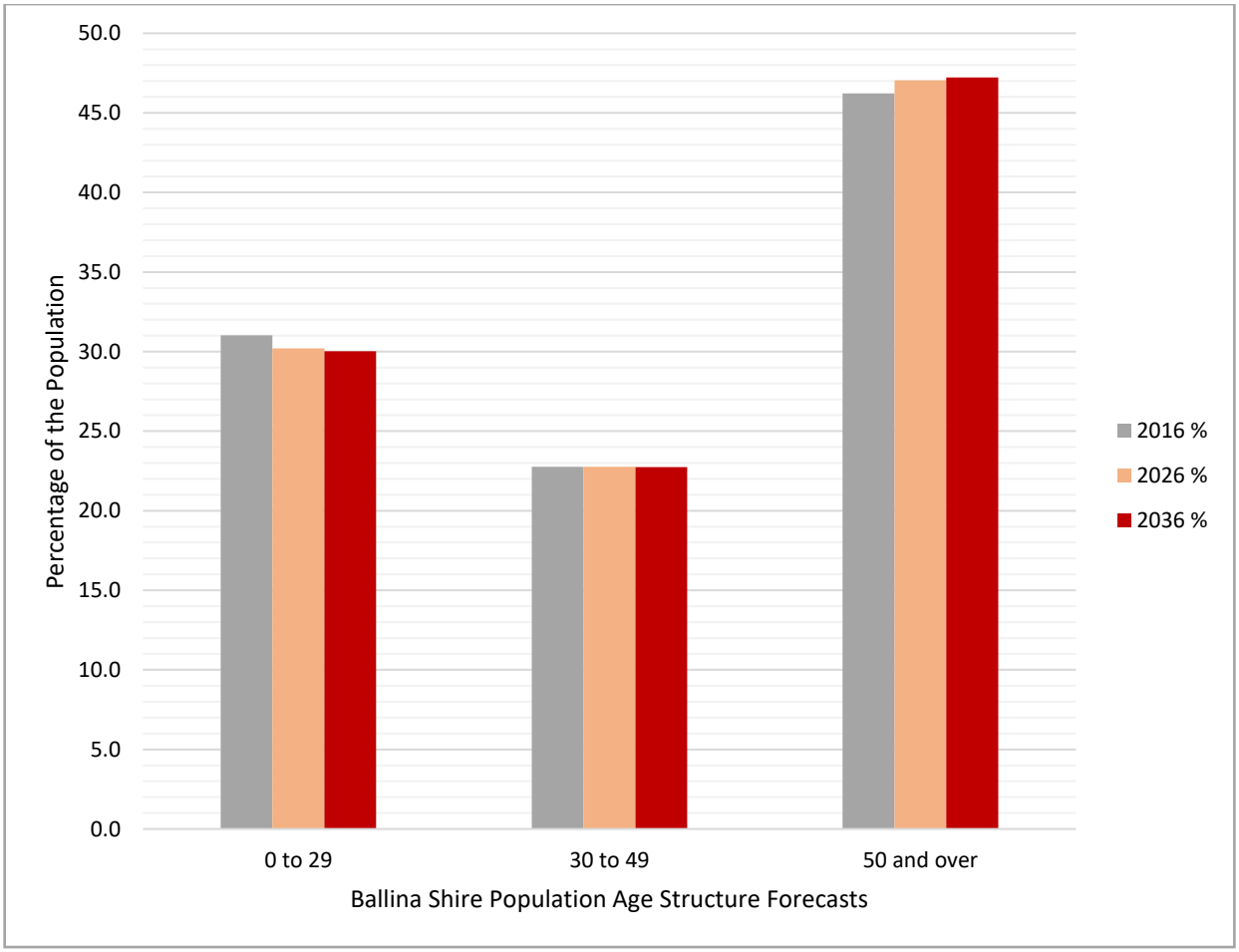
The population profile of Ballina shows that it is home to a population older than the NSW state population average (see table below) and Ballina LGA also has a larger portion of the population above 50 than regional areas across NSW, suggesting that demand for croquet facilities – a sport well suited to this age cohort - in Ballina is likely to be higher than elsewhere in NSW.



The age-sex pyramid above shows the high representation of people over the age of 50 years in the Ballina Shire (shown in red bars), compared with the NSW population more broadly (shown in grey bars).

Using this second method also suggests that Ballina has a shortage of croquet facilities, however to a smaller degree than the other method suggests (i.e., the 25 players per lawn method). Although it must be considered that without knowing the age profile utilised in formulating this method it is difficult to be certain how applicable it is to Ballina Shire demographically.

Another dimension of the Ballina Shire's population demands for croquet facilities can be drawn from population forecasts. Ballina Shire is expected to experience a continued increase in the population, and within that growth, the proportion of the population in the 50+ age group will increase from current levels.



Source: Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), December 2017.

The Australian Bureau of Statistics have modelled forecast changes in population for Ballina Shire that would suggest in the period between 2010 and 2036, the portion of Ballina Shire residents is forecast to increase by 27.5 percentage points with 86.5% of that population in the 15yo plus age group, which is approximately 53,020 people.

The Ballina Shire Council Sport and Recreation Facility Plan 2020 recognised the constraints faced by the croquet clubs and the demand analysis undertaken here echoes that conclusion.

Among the 3 existing croquet clubs in the Ballina Shire, it is the Ballina Croquet Inc. club that is most motivated to establish and host a new croquet facility in Ballina, away from the existing facility it currently shares with the Cherry St Croquet Club. That motivation is long-standing and stems from a range of issues that are not relevant to the scope of this cost-benefit analysis. That said, in the process of evaluating their intention to relocate, the club has been able to establish a range of traits or characteristics that are desirable for them in a

new site for a croquet facility. However, despite extensive and tenacious effort on the part of the club officials, they have not yet been able to secure a site. This makes the completion of a fully informed cost-benefit analysis challenging because site specific costs and considerations cannot be accurately factored in.

The following analysis has been developed on the basis that a number of options remain valid in terms of a site, but it has also considered other non-site specific variables such as the number of croquet lawns and the nature of the facility that accompanies the lawns.

Where site specific factors are known they are used, but in other cases the analysis has had to rely on generic inputs and assumptions. This cost benefit analysis will aid in the identification of the most viable sites and level of facilities required; however, decision-makers will need to address the generic nature of these inputs and assumptions when a suitable site is identified, and detailed planning is undertaken.

Identified Croquet Facility Options

Given the above discussion identifying that the Ballina Shire currently has facility constraints the following material provides a profile of potential options.

Gap Road, Alstonville

The site (DP 1130300 - 486 Gap Road, Alstonville) is Council owned land, and the same lot has facilities that can accommodate other sports, as well currently being the site of a Ballina Shire Council operated plant nursery. This site is situated approximately 1.8 kms east from the centre of Alstonville village and is 12.84 hectares in size (see more detail here). The existing croquet facility consists of a single croquet lawn in fair condition which is well suited to social play rather than inter-club competitions.

The other sports and functions catered for on the site are:

- Cricket
- Hockey
- Baseball/Softball
- Dog off leash exercise
- Not for profit community group storage

In the case of cricket, there are 2 fields (referred to as Upper and Lower fields, based on elevation) with a synthetic cricket pitch in place. The Lower field also has a canteen building with toilet facilities.

The site is used by Alstonville and District Cricket Club Inc.; however, the site is not considered their main field, this is Geoff Watt Oval. The Ballina Shire Council Sport and Recreation Facility Plan 2020 has identified Wollongbar Sporting Complex as a potential new 'home' for cricket in the Shire as part of a consolidation of cricket facilities across the Shire.

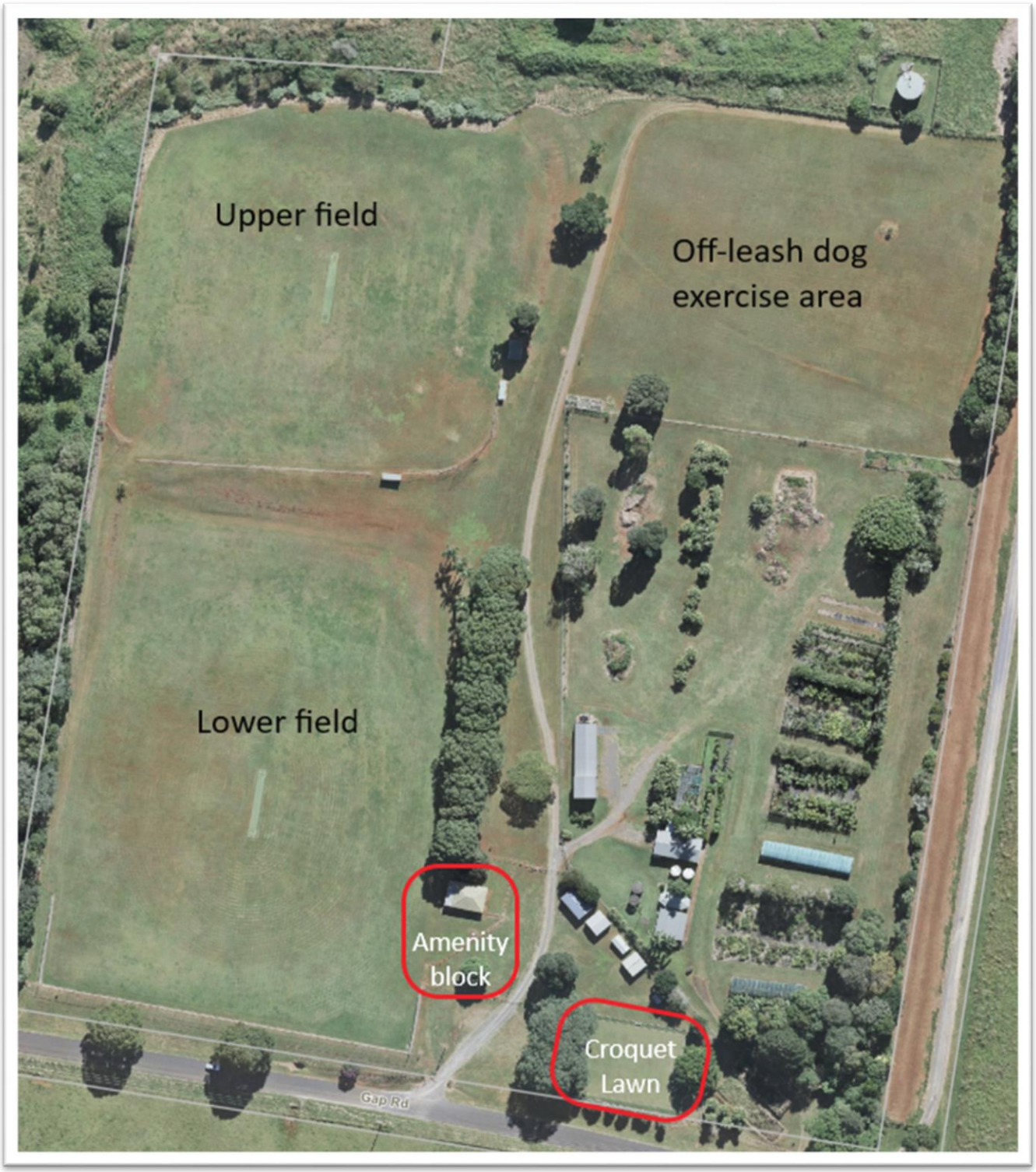
In the case of hockey, the Gap Road site is used primarily for storage and club functions instead of being a field used to train or play the sport. Other hockey facilities (namely Ballina and Goonellabah) in the Shire and nearby in the region are superior facilities for playing hockey. The Ballina Shire Council Sport and Recreation Facility Plan 2020

recommended the retirement of Gap Road as a hockey facility. This recommendation, if accepted by Council, would make the existing amenity building more available for use by other site users such as croquet.

The upper field has existing baseball/softball nets and dug outs in its southeast corner, but they have not been used for that purpose for a lengthy period of time and would need replacement before they could be used for regular sports use.

The northeast portion of the site is designated as a dog off leash exercise area and there are a number of storage sheds located between the nursery and existing croquet lawn that provide storage for a number of not for profit community groups.

The following image shows an aerial view of the Gap Rd, Alstonville site:


Upper field
Off-leash dog exercise area
Lower field
Amenity block
Croquet Lawn
Gap Rd

Alstonville: Option 1

This option addresses the establishment of one additional croquet lawn at Gap Road using the southern portion of the existing 'Lower' field, along with:

a) adjustments to the site access and pathways
b) perimeter seating for participants on the new field
c) perimeter fencing for the new lawn

The option delivers an additional lawn that will ensure that demand for croquet in the Alstonville area is met. The land required to provide this additional lawn will be carved out of the existing Lower field at the Gap Rd site. This would effectively eliminate the option for that field to be used for cricket but would not preclude the use of the field for other field sports and passive recreation. From a cricket facility perspective this aligns with the overall intention to consolidate facilities across the Ballina Shire to Wollongbar Sports Fields and Hutley Drive, Lennox Head. This option would accommodate potential further expansion later using the adjacent remaining space on the Lower field for additional croquet lawns.

Alstonville: Option 1 – Summary Profile

Alstonville: Option 1 Funding Sources	One-off Capital Expenditure	Annual Operating Expenditure
Ballina Shire Council	NIL	$ 15,677[a]
Alstonville Croquet Club	$ 2,500[b] $524,325[c]	$ 39,038[d]
Totals	**$ 526, 825**	**$ 54,715**

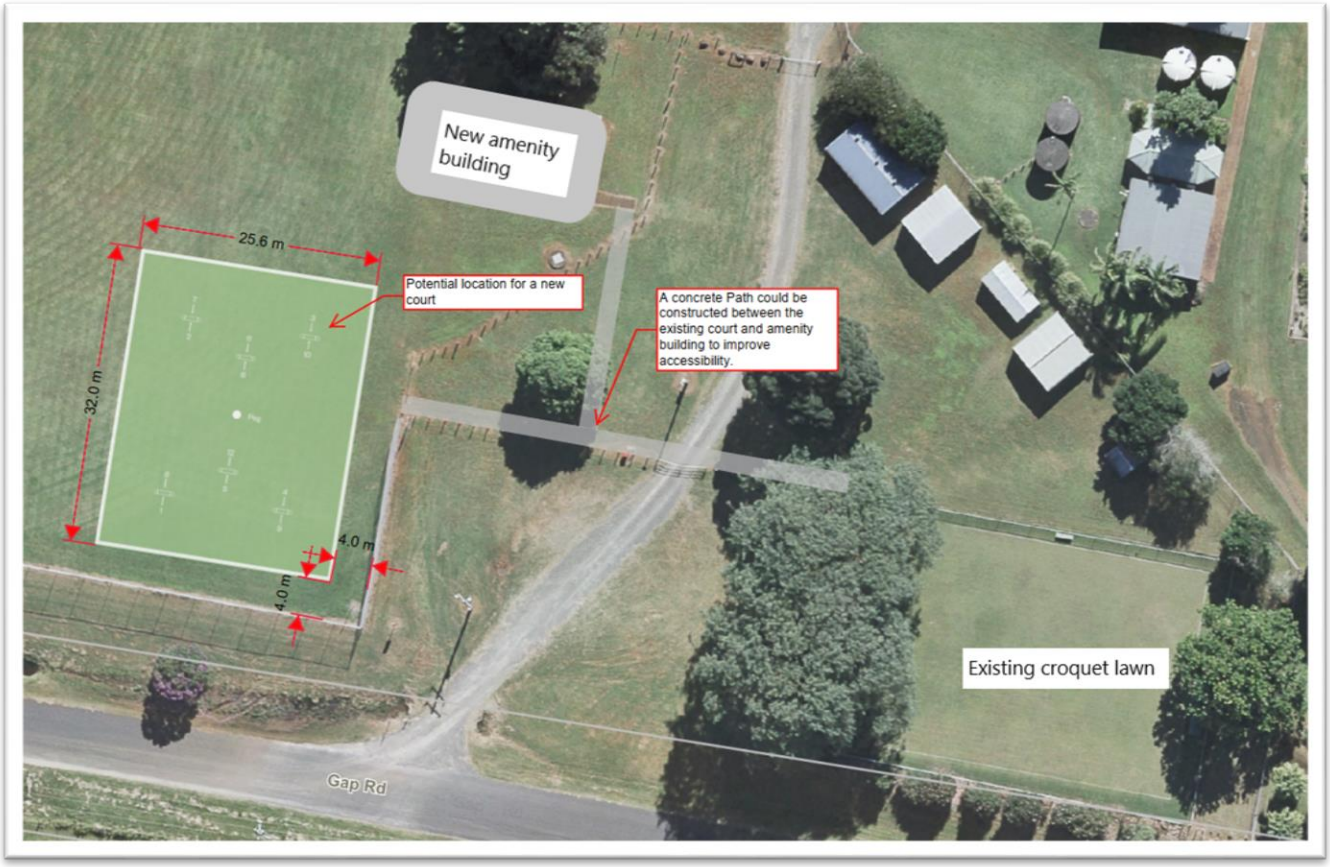
[a] This assumes that Council's maintenance efforts would be 2.1x the existing level, reflecting the doubled lawn with a small provision for additional maintenance associated with the updated site facilities.
[b] Sports equipment and related material for the new lawn
[c] Includes new lawn, fencing, seating, storage, & roadway/parking area. This cost has been allocated to the club in the absence of another funding source.
[d] Assumes a 1.6x multiplier for costs associated with maintaining the facility, but not other club costs which should not increase proportionate to the doubling of lawns, owing to available scale efficiencies.

Alstonville: Option 2

This option involves the establishment of one additional croquet lawn at Gap Road using the southern portion of the existing lower field along with:

a) adjustments to the Gap Road site entry and car-parking
b) associated seating for participants adjacent to the new field
c) perimeter fencing for the new lawn
d) establishment of a new croquet club toilets/changing/storage facility on the site of the existing canteen/toilets block (which will be demolished).

The demolition of the existing canteen/toilet facility and having it replaced would provide the club with a more suitable amenity building. Current club facilities are very modest, consisting of a demountable-style powered worksite shed sized ~6m x 3m shed with a simple kitchen bench for tea/coffee making and garden furniture for seating.



The new amenity building could be constructed over the existing footprint with connection to existing services. A suitable building for croquet could be achieved at ~80m^2 in size and

include a basic fit-out, and include features such as a small club room, a kitchenette, and building code compliant accessible and ambulant change room and toilet facilities.

Such an amenity building would provide a basis to more comfortably accommodate new players, as well as providing a more permanent facility upon which the club can address typical sports club operational needs for meetings, information sharing, honour boards and the like. If designed and built appropriately the facilities could also better service and increase benefits for other community uses at the reserve.

Alstonville: Option 2 – Summary Profile

Alstonville: Option 2 Funding Sources	One-off Capital Expenditure	Annual Operating Expenditure
Ballina Shire Council	NIL	$ 15,677[e]
Alstonville Croquet Club	$ 2,500[f] $943,140[g]	$ 48,798[h]
Totals	**$ 945,640**	**$ 64,475**

[e] This assumes that Council's maintenance efforts would be 2.1x the existing level, reflecting the doubled lawn with a small provision for additional maintenance associated with the updated site facilities.
[f] Sports equipment and related material for the new lawn.
[g] Includes new lawn, fencing, seating, storage, & roadway/parking area as well as the amenity building. Funding source TBD.
[h] Assumes a 2x multiplier for existing costs associated with maintaining the facility, but not other club costs which should not double.

Potential Ballina sites

Ballina Shire Council manages approximately 34 sport and recreation sites across the LGA. Among these sites several have been identified as possible sites for a new facility for croquet in the Ballina Shire. They include:

- Cawarra Park, Ballina
- Chickiba Park, East Ballina
- Porter Park, West Ballina
- Hampton Park Reserve, Ballina

For assorted reasons the establishment of new croquet facilities at each of these sites comes with challenges. These sites and the associated challenges are discussed below:

Cawarra Park

This site is made up of 2 Council-owned lots (Lot: 3 Sec: 37 DP: 758047 and Lot: 2 Sec: 37 DP: 758047) totalling ~1.91ha in size situated ~1.4km north east of the centre of Ballina, adjacent to the foreshore of North Creek. The site is 1.2km from the existing 2-lawn croquet shared facility at Hampton Park Reserve.

The majority of the site (~1.48ha) is currently utilised by the Ballina Sharks Baseball and Softball Club. Their club has used the site for some time and the current club management have identified plans to expand and improve the facility. The club uses a small amenity building to store their equipment and to host club events and to house club records, trophies and the like.

The Ballina Sport and Recreation Facility Plan 2020 and associated submissions with Council responses identified the potential to relocate softball/baseball away from Cawarra Park on the basis that: *"…space available at Cawarra Park does not allow for the full dimensions of a standard baseball diamond, and so alternative venues have been considered to enable the requested expansion of facilities for the sport.*".

The Plan goes on to make the recommendation that Council: "*Re-locate the Ballina Sharks Softball and Baseball Club to a site that allows for their space requirements. Chickiba Park and Gap Road [Upper field; where there are existing but dilapidated baseball facilities] have been identified as potential sites to meet the needs of the two sports*".

In order for baseball to remain at Cawarra Park consideration needs to be given to the construction of a large fence or netting structure on the northern property boundary to protect people and property from balls being hit beyond the short outfield of the less than standard dimension playing field.

The current Ballina Sharks Baseball and Softball Club committee members have formally responded to Council with an *"overwhelming"* and "*vehement*" reluctance at being relocated elsewhere. They have also indicated that alternatively the site may have room to accommodate croquet on a portion of land that is currently unused.

The portion of the site proposed by baseball/softball officials is adjacent to land currently used for a range of paddle sports and is not large enough for development of sufficient croquet facilities and other ancillary requirements to respond to the demands of the Ballina Croquet Club or facility requirements recommended by the World Croquet Federation.

The eastern side of the Cawarra Park site is well suited to paddle sports owing to the boat ramp and ease of access to North Creek. Currently the site provides facilities for the following paddling sport clubs:

- Northern Rivers Outrigger Canoe Club
- Rainbow Region Dragon Boat Club

Whilst both of these clubs do not have dedicated space on the site, there are arrangements in place between them to share existing storage compounds and facilities for their equipment. There is also a desire on the part of these clubs to expand the existing storage compound facility for improved and/or increased equipment storage.

Other water sports such as the Ballina Outrigger Canoe Club, Ballina Dragon Boat Club, Rowing Club and Surf Life Saving Clubs have also indicated an interest and potentially benefit from the development of facilities specific to water sports in this location.

The logic behind expansion at that specific site, specifically for paddle sports is sound given the limited number of Council managed sites that provide the necessary water access of this kind.

Council has indicated that a site Master Plan will be developed to establish the best land uses at Cawarra Park. The following aerial image shows the existing uses of Cawarra Park:

The decision to develop a master plan for the site was determined due to the increasing demand for improved facility for water sports in the Shire and recognises Cawarra Park as the most suitable site. The master plan needs to identify the best way to achieve the additional secure storage, parking, change rooms and other facilities to support water sports groups and recreational users of the site and boat ramp. Additional efficiencies may

also be achieved by a single shared amenity building on the reserve that services the community and sporting groups more effectively. Before this can be completed it needs to be determined if Baseball or Croquet will be included in the master planning process for this site. This cost benefit analysis report is part of the processes to assist council in determining if croquet facilities are to be included in the master plan.

The option to establish a croquet facility at Cawarra Park cannot be achieved without a substantial adjustment to existing arrangements. Council has signalled an intent to undertake master planning activities for Cawarra Park, and such a process will consider a range of dimensions. It has been established that a full sized baseball diamond cannot be achieved within the sites boundaries and the site is not large enough to cater for both existing uses and croquet. So, a decision needs to be made to determine if the site will be master planned to improve facilities for the existing site user groups and community or relocate Baseball to allow development of a new croquet facility or other potential community facilities. In an effort to contribute to those considerations, the following material sets out a range of economic considerations relevant to that exercise.

To provide a basis for costing the possible substantial adjustment to existing arrangements discussed above, it is necessary to define the scope of the potential adjustments. The following scenarios are put forward as potential outcomes, rather than being recommended outcomes.

Cawarra Park - Option 1:

Relocate softball/baseball to another site and establish a croquet facility consisting of 2 lawns with the existing club house refurbished /refitted to suit croquet.

New Croquet Site: Option 1 Funding Sources	One-off Capital Expenditure	Annual Operating Expenditure
Ballina Sharks Baseball and Softball Club	$1,348,951[i]	$ 134,895[j]
Ballina Croquet Club Inc.	$ 380,959[k]	$54,169[l]
Totals	**$ 1,729,910**	**$ 189,064**

[i] In this table costs are allocated to the relevant clubs pending identification of an actual funding source, most likely via a State or Commonwealth government grant program. Relocation of baseball/softball to an as yet undefined generic site, and therefore can only be consider a rough order of magnitude estimate - costs include site preparation, facility establishment, irrigation, grass finish, dugouts, diamond, pitching mound as well as providing a new modest 80m^2 amenity building.

[j] This reflects 10% maintenance costs for the new softball/baseball site/facility. This is a notable increase in annual operational costs for the existing Cawarra Park baseball facility, which is budgeted for 2021/22 at $10,000.

[k] Figure represents the cost to refurbish/refit the existing amenity building at Cawarra Park for croquet needs, establish lawns, fencing, seating/shelters, and acquire maintenance equipment.

[l] This figure reflects operational costs associated consistent with known existing operational costs at the Gap Road croquet facility using a 1.7x multiplier based on the additional lawn.

Cawarra Park - Option 2:

Relocate softball/baseball to another site and establish a croquet facility consisting of 2 lawns with a modest new club house to replace the existing one.

New Croquet Site: Option 2 Funding Sources	One-off Capital Expenditure	Annual Operating Expenditure
Ballina Sharks Baseball and Softball Club	$1,348,951[m]	$ 134,895[n]
Ballina Croquet Club Inc.	$ 701,250[o]	$ 60,541[p]
Totals	**$ 2,050,201**	**$ 195,436**

[m] In this table costs are allocated to the relevant clubs pending identification of an actual funding source, most likely via a State or Commonwealth government grant program. Relocation of baseball/softball to an as yet undefined generic site, and therefore can only be consider a rough order of magnitude estimate - costs include site preparation, facility establishment, irrigation, grass finish, dugouts, diamond, pitching mound as well as providing a new basic 80m2 amenity building.
[n] This reflects 10% maintenance costs for the new site/facility.
[o] Figure represents the cost to establish a modest 80m^2 new amenity building at Cawarra Park for croquet needs, establish lawns, fencing, seating/shelters, and acquire maintenance equipment.
[p] This figure reflects operational costs associated consistent with known existing operational costs at the Gap Road croquet facility using a 1.9x multiplier based on the additional lawn and amenity building.

Cawarra Park - Option 3:

Relocate softball/baseball to another site and establish a croquet facility consisting of 3 lawns with a modest new club house to replace the existing one.

New Croquet Site: Option 3 Funding Sources	One-off Capital Expenditure	Annual Operating Expenditure
Ballina Sharks Baseball and Softball Club	$1,348,951[q]	$ 134,895[r]
Ballina Croquet Club Inc.	$ 800,725[s]	$ 79,660[t]
Totals	**$ 2,149,676**	**$ 214,555**

[q] Cost allocated to Club pending identification of actual funding source. Relocation of baseball/softball to an as yet undefined site – costs include facility establishment, irrigation, grass finish, dugouts, diamond, pitching mound as well as providing a basic 80m^2 amenity building.
[r] This reflects 10% of capital expenditure to maintain the new site/facility.
[s] Figure represents the cost to establish a modest 80m^2 new amenity building at Cawarra Park for croquet needs, establish 3 x croquet lawns, fencing, seating/shelters, and acquire maintenance equipment.
[t] This figure reflects operational costs associated consistent with known existing operational costs at the Gap Road croquet facility using a 2.5x multiplier based on the additional lawns and amenity building.

Cawarra Park - Option 4:

Relocate softball/baseball to another site and establish a croquet facility consisting of 4 lawns with a modest new club house to replace the existing one.

New Croquet Site: Option 3 Funding Sources	One-off Capital Expenditure	Annual Operating Expenditure
Ballina Sharks Baseball and Softball Club	$1,348,951[u]	$ 134,895[v]
Ballina Croquet Club Inc.	$ 900,200[w]	$ 193,063[x]
Totals	**$ 2,249,151**	**$ 243,233**

[u] Cost allocated to Club pending identification of actual funding source. Relocation of baseball/softball to an as yet undefined site – costs include facility establishment, irrigation, grass finish, dugouts, diamond, pitching mound as well as providing a basic 80m^2 amenity building.
[v] This reflects 10% of capital expenditure to maintain the new site/facility.
[w] Figure represents the cost to establish a new regional-grade amenity building facility as per Ballina Croquet Inc design estimates, establish 4x lawns, fencing, seating/shelters, and acquire maintenance equipment.
[x] This figure reflects operational costs associated consistent with known existing operational costs at the Gap Road croquet facility using a 3.4x multiplier based on the additional lawns and amenity building.

Cawarra Park - Option 5:

Relocate softball/baseball to another site and establish a croquet facility consisting of 4 lawns with a new regional-grade amenity building built to replace the existing building.

New Croquet Site: Option 3 Funding Sources	One-off Capital Expenditure	Annual Operating Expenditure
Ballina Sharks Baseball and Softball Club	$1,348,951[y]	$ 134,895[z]
Ballina Croquet Club Inc.	$ 1,175,189[aa]	$ 173,944[bb]
Totals	**$ 2,524,140**	**$ 308,839**

[y] Cost allocated to Club pending identification of actual funding source. Relocation of baseball/softball to an as yet undefined site – costs include facility establishment, irrigation, grass finish, dugouts, diamond, pitching mound as well as providing a basic 80m^2 amenity building.
[z] This reflects 10% of capital expenditure to maintain the new site/facility.
[aa] Figure represents the cost to establish a new regional-grade amenity building facility as per Ballina Croquet Inc design estimates, establish 4x lawns, fencing, seating/shelters, and acquire maintenance equipment.
[bb] This figure reflects existing known costs associated with maintaining the Alstonville croquet facility with a 4x multiplier reflecting the 4 lawns, as well as 10% of capital expenditure to maintain the new amenity building.

Chickiba Park, East Ballina

Chickiba Park is a portion of the larger Chickiba Reserve found in East Ballina, 3.9 km NE of Ballina. The Park portion (found at 86 Chickiba Drive, East Ballina) is approximately 3.4ha in size.

The Park site is surrounded by bush land and creeks – it is low-lying making it prone to inundation, although Council has recently invested in improvements to the park drainage.

The site is recognised in the *Ballina Shire Sports and Recreation Facilities Plan 2020* as a current cricket facility, the site has also previously been used as a soccer/football facility. The plan has recommended that Chickiba Park be no longer used as a cricket venue as part of a broader cricket facility consolidation across the Shire.

The site is also recognised as holding potential for hosting athletics events. Although other venue options (such as schools) are recommended as better suited to build participation in athletics.

Council considers Chickiba Park well suited to a variety of uses - owing to the versatile size of the site, the facilities present (football fields one with lighting, synthetic cricket wicket, cricket practice nets, change rooms with showers, toilets and canteen) and the fact it is not currently the 'home' of any specific sport or club. Council have indicated that the retention of Chickiba Park as a multipurpose sports facility with the additional potential as a new home for athletics events year round as recommended for investigation by the sport and recreation facility plan is preferable.

Chickiba Park has been identified (along with Gap Road in Alstonville) as a potential venue for the baseball/softball club to be relocated to (from Cawarra). Again, the

baseball/softball club officials have indicated that moving away from Cawarra Park is not an outcome they support. Decisions about the potential relocation of softball/baseball is pending the outcomes of this cost benefit analysis and decision as to if croquet will be developed at Cawarra Park in place of baseball.

A key consideration here is that Ballina Croquet Inc. have indicated that a site on Ballina 'island' (in the area bounded by the Richmond River, North Creek and North Creek Canal) is highly preferable, primarily for reasons of ease of access for sport participants. This preference would considerably diminish the suitability of Chickiba Park for a new croquet facility.

Preliminary investigation of Chickiba Parks dimensions for Baseball or Croquet facility development also identify that even though the new facilities would cover less than half of the reserves area they will render the reserve un-usable for any of the other existing field sports or proposed athletics facilities.

Hampton Park Reserve, Ballina

This site is 6,321m^2 of largely flat land located in central Ballina (site details found here). The site is Crown land, managed by Council, and subject to a Plan of Management approved by the Minister in May 2005 (copy found here).

Hampton Park Reserve is the location of the existing 2 croquet lawns that are shared by the clubs 'Ballina Croquet Inc.' and 'Cherry Street Croquet Club'.

The Hampton Park Reserve also hosts the Ballina Tennis Club. This facility has 11 current floodlit tennis courts. These courts are available for use by club members and the public for 14 hours per day from 7am to 10pm. The facility is well utilised with almost 400 playing club members with an average casual court hire involving 90 users per

week, as well as use of the facility by local community groups, including disability support organisations, Indigenous organisations and local schools.

The tennis club has experienced steady participation levels supported by education and development programs it operates, with a recent increase in membership. The site is utilised at full capacity on a weekly basis. The *Ballina Shire Sports and Recreation Facilities Plan 2020* identifies the priority action for Hampton Park as: *"Following the outcomes of the cost-benefit analysis, amend the Plan of Management for Hampton Park, assessing the need for additional Tennis Courts. Options to consider include the provision of additional Croquet Lawns within Hampton Park, as well as upgraded clubhouse facilities."*

The expansion and adjustments for tennis are subject to assessment and possible amendment of the 2005 Plan of Management for the site. Although the existing Plan of Management identifies these adjustments as part of the Development Strategy for the site. As shown in the extract below:

As can be seen in the extract above, there were 2 croquet lawns that were proposed in the Plan of Management in 2005, which have since been developed. Whereas the access from Moon Street and the establishment of additional tennis lawns in the southwestern corner has not progressed to date. The fulfilment of the current Plan of Management would prevent the provision of any more croquet lawns.

To provide preliminary economic analysis to inform Council decision making on whether to consider the amendment to the Plan of Management the following material addresses a scenario where the site's 2 existing two croquet lawns are supplemented with a further 2 croquet lawns. This approach would not leave sufficient room for all of the features identified in the 2005 Plan of Management, which identified additional tennis courts and a considerably adjusted parking and vehicle access layout.

It should be noted that such an approach would be contrary to the stated preference of the existing site users, namely:

- Ballina Tennis Club – this club has developed a plan to extend the number of tennis courts into the portion of the site that would be needed to deliver this option.
- Cherry Street Sports Club – this club has expressed a desire (along with the tennis club) to reconfigure the car parking and site vehicle access arrangements using the same portion of the site that would be needed to deliver this option.
- Ballina Croquet Club – this club has indicated dissatisfaction with current arrangements and a strong desire to establish a new site in Ballina that would serve as a regional centre for croquet.

Hampton Park Reserve - Option 6:

Extension of the existing Hampton Park croquet facility with an additional 2 lawns with associated site preparation, fencing and shelters.

New Croquet Lawns Funding Sources	One-off Capital Expenditure	Annual Operating Expenditure
Ballina Croquet Club Inc. and/or Cherry Street Sports Club	$ 956,250[cc]	$ 47,813[dd]
Totals	**$ 956,250**	**$47,813**

[cc] Figure represents the cost to undertake site preparation/drainage, establish 2x lawns, fencing, seating/shelters as well as developing a new facility to accommodate the expanded capacity for sport participants and its integration with the existing facility.
[dd] This figure reflects 5% of the estimated capital expenditure to maintain the additional croquet lawns and facility.

Benefits Analysis

When undertaking cost benefit analysis, it is recommended practice to identify benefits across a range of categories. Several categories of benefit that are relevant to this subject are set out below:

Savings or avoided costs:

This category of benefit reflect the expected reductions in public or private expenditure if a project proceeds. For example, where a project's reduction in expenses is attributable to reduced staffing the analysis will identify the sources of such staff reductions.

In the case of the expansion of croquet facilities in Ballina Shire no such savings are anticipated.

Benefits to the broader community

This category of benefits are premised on 'public good' flowing to the community as a whole as well as to individual consumers or private entities. For example, a project that delivers additional public transport can generate lower pollution levels than private cars which flows to not only the users of the new public transport, but also the broader community wellbeing from reduced levels of pollution.

In the case of the expansion of croquet facilities in Ballina Shire considerable savings of this kind are anticipated. A range of benefits in this category are set out below:

Health Benefits

There are a range of benefits associated with community participation in sport. There are also health benefits attributable to participation in sport by community members that are part of the older demographic, which is relevant to croquet, with most of its players being over 50 years of age. Recognised benefits for the community from participation in sport are set out below:

Fitness and strength - The benefits of physical activity to older persons are derived from their ability to adapt and respond to both endurance and strength stimulating

activities. Endurance training can help maintain and improve various aspects of cardiovascular function. Importantly, improved fitness reduces many risk factors associated with disease states (e.g., heart disease, diabetes, etc.) and improves overall health status, this may contribute to increased life expectancy. Many studies, demonstrate a relationship between physical activity and reduced risk of falling, particularly in elderly participants, and falls in this segment of the community can have serious and long-term consequences.

Cognition, mental acuity, and social interaction - evidence suggests that involvement in regular exercise among older persons can provide a number of benefits beyond physical fitness. The response to physical activity appears to impact upon preserved cognitive function, psychological mood state, and perceived wellbeing. Physical activity can also improve self-concept and increase opportunities for social interaction.

Physiological function - A larger body of evidence supports the physiological benefits of regular participation in physical activity and sport among older persons. Older persons who maintain a higher level of physical capacity as they age may actually slow the ageing process, as well as contributing to improved health outcomes.

Health - utility of regular exercise for this potentially vulnerable age-group in both the treatment and prevention of chronic diseases. The scientifically verified effects of regular physical activity in the elderly include, but are not limited to, reduced cardiovascular disease, reduction of anxiety and depression, reduced risk of osteoporosis and fewer falls and injuries from falls. In addition, exercise can also be an effective treatment for many of the chronic diseases that increase with age, including hypertension, stable angina, chronic obstructive lung disease and diabetes/pre-diabetes, providing a rationale for exercise prescription by physicians.

Wellbeing - Wellbeing results from favourable physical and psychological factors that shape one's attitudes, self-concept, and perception of quality of life. Physical activity, in its many forms (examples include sport, leisure-time recreation, exercise, structured and

unstructured physical activity), can have a significant impact upon the wellbeing of older adults, which extends beyond physical health.

Aside from the health benefits that flow to the individual participants, a range of ancillary savings to the health system come about as a result of the improved health of the individual participant benefits. Health system benefits flow from lower wait times, less congestion, better mental health outcomes, and lower incidence of disease and accidents.

Economic Benefits

A considerable economic benefit flows from community sport in a range of ways, they include:

- The activity associated with the value of expenditure on sports infrastructure in the economy. The materials, labour and productivity that go into the development of sports facilities and its operation once established.
- The increased overall productivity of sport participants
- The employment that sports infrastructure contributes as well as the contribution of the many volunteers in community sport, and
- The value associated with tourism that sport encourages.

Social Benefits

A range of social benefits have been shown to exist for both sport participants and the wider community who are advantaged by improvements that sports facilities bring. These include:

- Participation in physical activity improves the life skills such as improved learning ability and behavioural improvements.
- People who participate in sport are more likely to undertake volunteering
- Evidence show that both educational and employment outcomes are improved among those who participate in sport, be it as players, coaches or volunteers.
- There is a positive association between levels of general trust among a community and the level of sports participation in that community, thought to be brought about through increased social inclusion and connectedness.
- Sporting facilities play a role in building a heightened sense of community pride through increased amenity.
- Sporting facilities, particularly those - like croquet - that offer low barriers to participation, promote social inclusion and offer improve engagement between a diverse range of community groups.

It is clear that whilst there are no cost savings or costs avoided through the development of additional croquet facilities in Ballina Shire there are a substantial number of relevant considerations that amount to benefits.

Using figures developed by KPMG for work that was commissioned by the Australian Sports Commission[ee], we can quantify these benefits. Using their analysis, the annual benefits from sport participation accrue at a rate of $2,025 per person in 2018. We can apply this figure (with uplift adjustments) to the current and anticipated croquet participants in Ballina Shire to develop a set of viable benefits calculations that can be contrasted with the anticipated costs of each of the options considered above.

For each of the options considered the Australian Sports Commission figure above was applied. So, where a facility has increased capacity to accommodate additional participants this benefit was attributed to the option. For example, where a single new croquet lawn accommodates a potential 25 new participants to join the sport, then the uplift adjusted figure (at $2,189 in 2022, $2,233 in 2023 and so on) was multiplied by the practical number of additional participants. The model recognised that the full capacity of the new lawn's would not be consumed immediately upon their development, so it assumes participation uptake of 10% annually after the completion until a ceiling of 25 participants per lawn was reached, and then that level of participation is assumed to remain.

[ee] Found here https://www.sportaus.gov.au/__data/assets/pdf_file/0005/974948/KPMG_Value_of_Community_Sport_Infrastructure_final.pdf

Options Costs and Benefits

Alstonville Gap Road Croquet Facility Expansion						
Year	Benefits				Costs *Includes capital expenditure and operating expenses with 2% pa uplift*	
	Croquet Participants	Benefits per Participant pa with 2% annual uplift	Do Nothing Case Benefits	Accumulated Benefits	Alstonville - Option 1: 1 x New Lawn with existing amenity building & improved access /parking	Alstonville - Option 2: 1 x New Lawn with new amenity building, improved access /parking
2021	34	$2,147	$79,186	$79,186	$31,864	$31,864
2022	34	$2,189	$80,770	$119,571	$526,825	$945,640
2023	37	$2,233	$82,385	$164,883	$54,715	$64,475
2024	41	$2,278	$84,033	$215,723	$55,809	$65,765
2025	45	$2,323	$85,713	$272,765	$56,925	$67,080
2026	50	$2,370	$87,428	$401,335	$58,064	$68,421
2027	50	$2,417	$89,176	$532,477	$59,225	$69,790
2028	50	$2,466	$90,960	$666,241	$60,410	$71,186
2029	50	$2,515	$92,779	$802,681	$61,618	$72,609
2030	50	$2,565	$94,635	$941,849	$62,850	$74,062
2031	50	$2,617	$96,527	$1,083,801	$64,107	$75,543
2032	50	$2,669	$98,458	$1,228,592	$65,389	$77,054
2033	50	$2,722	$100,427	$1,376,279	$66,697	$78,595
2034	50	$2,777	$102,436	$1,526,919	$68,031	$80,167
2035	50	$2,832	$104,484	$1,680,573	$69,392	$81,770
2036	50	$2,889	$106,574	$1,837,299	$70,780	$83,405
2037	50	$2,947	$108,705	$1,997,160	$72,195	$85,073
2038	50	$3,006	$110,880	$2,160,218	$73,639	$86,775
2039	50	$3,066	$113,097	$2,326,537	$75,112	$88,510
2040	50	$3,127	$115,359	$2,496,183	$76,614	$90,281
2041	50	$3,190	$117,666	$2,669,222	$78,146	$92,086
2042	50	$3,253	$120,020	$2,845,721	$79,709	$93,928
2043	50	$3,318	$122,420	$3,025,750	$81,304	$95,806
			$2,284,117	**$3,025,750**	**$1,969,423**	**$2,639,883**
				Benefits to Costs Ratio	**1.51**	**1.12**

The table above is premised on a range of assumptions and notable considerations. They include:

- It is assumed that the assets will have a 20 year operational life beginning in 2023 and not requiring any further material capital outlays. It assumes that works to deliver the expansion are completed in 2022. These dates are selected for modelling purposes only, not planning purposes.
- It is assumed that participation in croquet at the Alstonville lawns increases by 10% per year after the facility expansion is completed. This participation increase will occur until a ceiling of 25 participants per lawn (or 50 participants for 2 lawns) is reached, from that point on it is assumed that level of participation will remain.
- The modelling assumes a 2% uplift on participant benefits and OPEX annually.
- OPEX costs model assumes full cost with no club revenue offsets. In reality playing fees/membership and other revenues would lower the net operating costs in all options and thereby improve the BCR results in all cases. This consideration is addressed in the sensitivity analysis.

It is clear from this analysis that, in isolation, there is a net benefit in undertaking the expansion of croquet facilities at Gap Road Alstonville, with all 3 options scoring a Benefit to Cost Ratio (BCR) greater than 1.0.

The strongest BCR result is for the 'Do Nothing' option, unsurprisingly, owing to an absence of capital outlay in that scenario; but of course, this option represents a continuation of the status quo, and the issues associated with that in terms of inability to allow croquet participation to expand beyond current levels, as well as continued challenges with the facilities in terms of access to toilets and suitability of the shed.

The second strongest prospect from the BCR analysis perspective is Option 1 at Gap Road Alstonville, which involves the development of a new lawn with fencing, seating and shelter on the Lower field as well as undertaking refurbishment and improvements to the existing canteen/toilet facility and the access way and carpark.

Lastly, the 'Alstonville - Option 2' analysis suggests an overall net benefit with a BCR of 1.12. This option entails the same lawn development scope as Option 1 above, but instead

of refurbishment, it introduces the demolition of the existing canteen/toilet block at the Lower field to accommodate a newly developed amenity building.

Ballina Croquet Club New Facility Cost Benefit Model

	Benefits					Costs *Includes capital expenditure and operating expenses with 2% pa uplift*					
Year	**Participants**	**Benefits per Participant pa**	**Accumulated Benefits With 2 lawns** *(max participants = 50)*	**Accumulated Benefits With 3 lawns** *(max participants = 75)*	**Accumulated Benefits With 4 lawns** *(max participants = 100)*	**Cawarra Park - Option 1: New baseball field and club at Gap Road, plus 2 new croquet lawns with existing amenity building refurbished**	**Cawarra Park - Option 2: New baseball field and club at Gap Road, plus 2 new croquet lawns with modest replacement amenity building**	**Cawarra Park - Option 3: New baseball field and club at Gap Road, plus 3 new croquet lawns with modest replacement amenity building**	**Cawarra Park - Option 4: New baseball field and club at Gap Road, plus 4 new croquet lawns with modest replacement amenity building**	**Cawarra Park - Option 5: New baseball field and club at Gap Road, plus 4 new croquet lawns with regional-quality replacement amenity building**	**Hampton Park Reserve - Option 6: Establish 2 x additional croquet lawns and develop additional facilities.**
2021	51	$ 2,147	$ 109,472	$ 109,472	$ 109,472	$ 10,893	$ 10,893	$ 10,893	$ 10,893	$10,893	$0
2022	51	$ 2,189	$ 118,779	$ 111,661	$ 111,661	$ 1,729,910	$ 2,050,201	$ 2,149,676	$ 2,249,151	$ 2,524,140	$956,250
2023	56	$ 2,233	$ 111,661	$ 125,284	$ 125,284	$ 189,064	$ 195,436	$ 214,555	$ 243,233	$ 308,839	$47,813
2024	62	$ 2,278	$ 113,894	$ 140,568	$ 140,568	$ 54,169	$ 60,542	$ 79,660	$ 108,337	$ 173,944	$49,247
2025	68	$ 2,323	$ 116,172	$ 157,717	$ 157,717	$ 55,252	$ 61,752	$ 81,253	$ 110,504	$ 177,423	$50,724
2026	75	$ 2,370	$ 118,495	$ 177,743	$ 176,959	$ 56,357	$ 62,987	$ 82,878	$ 112,714	$ 180,971	$52,246
2027	82	$ 2,417	$ 120,865	$ 181,298	$ 198,548	$ 57,485	$ 64,247	$ 84,536	$ 114,968	$ 184,591	$53,813
2028	90	$ 2,466	$ 123,283	$ 184,924	$ 222,771	$ 58,634	$ 65,532	$ 86,227	$ 117,267	$ 188,283	$55,428
2029	99	$ 2,515	$ 125,748	$ 188,623	$ 249,949	$ 59,807	$ 66,843	$ 87,951	$ 119,613	$ 192,048	$57,091
2030	100	$ 2,565	$ 128,263	$ 192,395	$ 256,527	$ 61,003	$ 68,180	$ 89,710	$ 122,005	$ 195,889	$58,803
2031	100	$ 2,617	$ 130,829	$ 196,243	$ 261,657	$ 62,223	$ 69,543	$ 91,504	$ 124,445	$ 199,807	$60,567
2032	100	$ 2,669	$ 133,445	$ 200,168	$ 266,890	$ 63,468	$ 70,934	$ 93,334	$ 126,934	$ 203,803	$62,384
2033	100	$ 2,722	$ 136,114	$ 204,171	$ 272,228	$ 64,737	$ 72,353	$ 95,201	$ 129,473	$ 207,879	$64,256
2034	100	$ 2,777	$ 138,836	$ 208,254	$ 277,673	$ 66,032	$ 73,800	$ 97,105	$ 132,062	$ 212,037	$66,184
2035	100	$ 2,832	$ 141,613	$ 212,420	$ 283,226	$ 67,352	$ 75,276	$ 99,047	$ 134,703	$ 216,278	$68,169
2036	100	$ 2,889	$ 144,445	$ 216,668	$ 288,891	$ 68,699	$ 76,781	$ 101,028	$ 137,398	$ 220,603	$70,214
2037	100	$ 2,947	$ 147,334	$ 221,001	$ 294,668	$ 70,073	$ 78,317	$ 103,049	$ 140,145	$ 225,015	$72,321
2038	100	$ 3,006	$ 150,281	$ 225,421	$ 300,562	$ 71,475	$ 79,883	$ 105,110	$ 142,948	$ 229,515	$74,490
2039	100	$ 3,066	$ 153,287	$ 229,930	$ 306,573	$ 72,904	$ 81,481	$ 107,212	$ 145,807	$ 234,106	$76,725
2040	100	$ 3,127	$ 156,352	$ 234,528	$ 312,705	$ 74,362	$ 83,111	$ 109,356	$ 148,723	$ 238,788	$79,027
2041	100	$ 3,190	$ 159,479	$ 239,219	$ 318,959	$ 75,850	$ 84,773	$ 111,543	$ 151,698	$ 243,564	$81,398
2042	100	$ 3,253	$ 162,669	$ 244,003	$ 325,338	$ 77,367	$ 86,468	$ 113,774	$ 154,732	$ 248,435	$83,840
2043	100	$ 3,318	$ 165,922	$ 248,883	$ 331,845	$ 78,914	$ 88,198	$ 116,050	$ 157,827	$ 253,404	$86,355
			$ 3,107,240	**$ 4,450,595**	**$ 5,590,669**	**$ 3,246,031**	**$ 3,727,532**	**$ 4,310,652**	**$ 5,135,581**	**$ 7,070,254**	$2,327,344
					Benefits to Cost Ratio	**0.96**	**0.83**	**1.03**	**1.09**	**0.79**	**1.24**

The table above is premised on a range of assumptions and notable considerations. They include:

- It is assumed that the assets will have a 20 year operational life beginning in 2023 and not require any further material capital outlays. It assumes that works to deliver the expansion are completed in 2022. These dates are selected for modelling purposes only, not planning purposes.
- The cost calculations include the cost of establishing a baseball/softball facility elsewhere to make room for the croquet facility. It includes the cost of establishing that facility and the first year of operational costs for that new baseball/softball facility. The sensitivity analysis section of this report also considered the costs and benefits of establishing a new croquet facility at a non-specific location and without these baseball/softball costs having to be factored in.
- It is assumed that participation in croquet at the Ballina Croquet Club increases by 10% per year after the facility expansion is completed. This participation increase will occur until a ceiling of 25 participants per lawn (or 100 participants for 4 lawns) is reached, from that point on it is assumed that level of participation will remain.
- The modelling assumes a 2% uplift on participant benefits and OPEX annually.
- OPEX costs model assumes full cost with no club revenue offsets. In reality playing fees/membership and other revenues would lower the net operating costs in all options and thereby improve the BCR results in all cases. This consideration is addressed in the sensitivity analysis.

Sensitivity Analysis

The establishment of Cost-to-Benefit Ratios is based on estimates, modelling and assumptions. It is recognised that accurately forecasting future events and their associated effects on benefits and costs is not possible.

As a means of countering the inherent inaccuracies that these uncertainties bring, we undertake sensitivity analysis. This is the process of testing the results of the cost benefit analysis by varying key assumptions underpinning the estimated costs and benefits.

NSW Treasury recommends that as a general rule, analysts should select and report on those assumptions for sensitivity testing that are plausible and that are designed to help identify and manage the most important risks for the project or program or regulation. Key assumptions and inputs may not necessarily move in isolation. Sensitivity analysis can be done on key variables moving at the same time.

In the case of the analysis of croquet facilities in Ballina Shire, the key assumptions have been:

a) **the scale of the benefits attributable to croquet participation** – a range of beneficial factors were established for the Australian Sports Commission by KPMG looking at participation in sport across a range of demographics and a range of localities. The benefits that they identified were established using inputs on a much broader scale than those that may apply to the cohort of current and future croquet players in the Ballina Shire. It could be argued that some elements of the benefits calculations they have applied would be more applicable to this analysis – and thereby increase the benefits that flow from additional croquet facilities in Ballina Shire, and conversely others could be argued as being less applicable. In the case of the sensitivity analysis undertaken here, the benefits assumptions have been varied in both directions by 10% that is we look at the implications of the benefits being 10% smaller than anticipated, and 10% larger than anticipated.

b) **the costs to develop the facilities** – the models have utilised *rough order of magnitude* estimates for civil works projects that are at best at conceptual stage, and whilst every effort has been made to cater for key foreseeable factors that will influence cost there is no expectation that they represent the actual cost to develop any of the options explored. In an effort to counter this, in sensitivity analysis we test our assumptions by considering where the cost estimates are incorrect by 10%, 15% or 20%.

c) **Club revenue offsetting operational costs –** the ability to confidently establish the revenue that will be available to clubs in the various scenarios is challenging. We know that the croquet clubs involved have well-kept financial records that apply to their current circumstances, but the analysis above has not extrapolated those revenues with multipliers across the future years in the scenarios considered. In the sensitivity analysis, we have used those past revenues as a basis to offset the anticipated operational costs that each of the unique scenarios brings. Introducing these revenues offsets and their impact of the BCRs is not significant – only one of the scenarios that previously had a BCR ratio of less than 1.0 became greater than 1.0 after the anticipated revenues are applied.

   As can be seen from the Sensitivity Analysis table below, some scenarios represent a risk that Council would have to consider carefully before proceeding.

Specifically, the scenarios that fall into this category are:

- Cawarra Park
  - Option 2: New baseball field and club at Gap Road, plus 2 new croquet lawns with modest replacement amenity building.
  - Option 5: New baseball field and club at Gap Road, plus 4 new croquet lawns with regional-quality replacement amenity building.

Both of these scenarios have a BCR of less than 1.0 in all circumstances, whereas their equivalent scenario that do not involve the relocation of baseball/softball score a BCR of 1.0 or above, although careful cost management would be necessary for Option 5 in any case, owing to its low ratio scores.

A number of the other scenarios have BCR results that could be considered marginally acceptable and could only be recommended to proceed if costs could be constrained further, or additional benefits could be established to improve the BCR. This category includes:

- Cawarra Park:
  - Option 1: New baseball field and club at Gap Road, plus 2 new croquet lawns with existing amenity building refurbished
  - Option 3: New baseball field and club at Gap Road, plus 3 new croquet lawns with modest replacement amenity building

In both of these scenarios there is a considerable susceptibility to cost increases that would result in outlays that are close to or greater than the benefits available. Options 1 and 3 were developed as low cost options (with 2 and 3 lawns respectively), but perhaps further reductions in initial scope would be advisable and allow for some elements to be delivered at a later date when the participation outcomes are proven.

The 2 Alstonville Gap Road croquet facility development scenarios both offer a positive economic outcome based on their BCRs. However, the ratios for Option 2 suggests some care around the certainty and control of costs associated with the project to ensure that it remains positive. Again, there is latitude for a staged implementation of these Options to allow for this cost constraint and to ensure in the interim, the benefits of the development of additional fields do produce the sport participation outcomes that were anticipated.

In all cases whether an initiative is worthwhile, however, will also depend on how it compares against the costs and benefits of other initiatives that Council and other funding bodies might be considering.

Sensitivity Analysis Table

Scenario Variables	Alstonville Gap Road		Baseball Relocated and Cawarra Developed as a croquet facility					Hampton Park
	Option 1	Option 2	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Original Benefits and Gross Costs	**1.51**	**1.12**	**0.96**	**0.83**	**1.03**	**1.09**	**0.79**	**1.24**
Original Benefits with Revenue Estimates Offsetting Costs	**1.75**	**1.25**	**1.11**	**0.95**	**1.20**	**1.28**	**0.89**	**1.43**
With Costs Increased by 10%	1.59	1.14	1.01	0.86	1.09	1.16	0.80	1.12
With Costs Increased by 15%	1.52	1.09	0.97	0.83	1.04	1.11	0.77	1.08
With Costs Increased by 20%	1.46	1.04	0.93	0.79	1.00	1.06	0.74	1.03
With Costs Increased by 10% & Benefits reduced by 10%	1.43	1.03	0.91	0.78	0.98	1.04	0.72	1.01
With Costs Increased by 15% & Benefits reduced by 10%	1.37	0.98	0.87	0.74	0.94	1.00	0.69	0.97
With Costs Increased by 20% & Benefits reduced by 10%	1.31	0.94	0.84	0.71	0.90	0.96	0.66	0.93
With Costs Increased by 10% & Benefits increased by 10%	1.75	1.25	1.11	0.95	1.20	1.28	0.89	1.24
With Costs Increased by 15% & Benefits increased by 10%	1.67	1.20	1.07	0.91	1.15	1.22	0.85	1.18
With Costs Increased by 20% & Benefits increased by 10%	1.60	1.15	1.02	0.87	1.10	1.17	0.81	1.13

Summary of Findings

The findings of this economic analysis provides guidance as to which options should be further considered based on their apparent overall economic benefit to the community.

Alstonville:

The analysis of the Alstonville court expansion options warrant further planning, with both options considered producing positive benefit to cost ratios.

Option 1 at this site offers the best benefit to cost ratio, and so this option presents the best basis for further detailed planning, however that planning could reasonably be expected to provide for further future expansion of at least 1 additional croquet lawn, bringing the site to 3 lawns total at some point. This approach would cater for longer term planning by the Council and the club and aligns with the modest ambitions of the club in terms of having only the necessary ancillary facilities.

Ballina:

When considered solely through the lens of benefit-cost ratio, the Hampton Park Reserve option is superior with a BCR of 1.24, however other factors may diminish that standing. Namely they are:

a) The scope of this assessment did not include undertaking analysis of the relative economic value of expanding the tennis facility at this site. The high level of participation and space utilisation records for tennis on the site would likely indicate that expansion of tennis would deliver a more economically beneficial outcome.
b) The site will almost certainly experience a future of ongoing contested land use matters because any expansion of facilities for one sport will necessarily inhibit or impact upon options for expansion of facilities for the other sports played on the site. Related challenges could also be expected to arise involving commercial and community interests operating on the site.

The process to update the Hampton Park Reserve Plan of Management will provide an opportunity to establish the plausibility and appetite for further development of this option.

Material to inform a decision around changing the use of Cawarra Park from baseball/softball to croquet is only addressed in this analysis from the limits of an economic perspective – although the authors recognise the considerable non-economic implications of such a decision.

The options relating to Cawarra Park indicate both positive and negative net economic outcomes. This analysis indicates a net economic benefit to the community is available from Options 1, 3 and 4 and among these Option 4 is superior from an economic standpoint. It should be noted that Cawarra Park Option 4 will also deliver the largest croquet capacity increase, although the economics of this option are premised on that capacity being fully taken up by the community. So, should this site be selected by Council for croquet facilities, it could be preferable to adopt the more modest amount of capacity in Option 3 (3 new lawns, instead of 4) and assessing participant uptake before committing to the 4th lawn. Where evidence of material uptake is found, the case for Option 4 could be confirmed and indeed the economics of Option 5 (4 lawns with a regional-quality facility) could also be re-considered using data that the facility on that site provides.

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