



GREATER VICTORIA 2030 COMMONWEALTH GAMES BID PRE-FEASIBILITY STUDY

FINAL REPORT



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1. Introduction

1.1 Background to the Pre-Feasibility Study

This project is for the provision of consultancy and event planning services for the Greater Victoria Commonwealth Games Bid Pre-Feasibility Study.

The Project Proposing Taskforce believes that after reviewing recent statements from the Commonwealth Games Federation there is an opportunity for an alternative model for the delivery of the Commonwealth Games. This project proposes a unique approach across Victoria that could see a potential Commonwealth Games held across several regional cities. This is a 'first of its kind' vision - the "People's Games"- and could form the blueprint for future major sporting events given the cost required and infrastructure needed to hold global competitions like the Commonwealth Games.

In the first instance a pre-feasibility study is required to explore the legitimacy of the proposed delivery model and any alternative viable approaches. The outcomes of the pre-feasibility will determine if the project will advance to a full feasibility stage.

Initially the Taskforce had proposed considering a Bid for the 2030 Commonwealth Games. However following investigation of the most appropriate timing for a Regional Victoria Bid for the Commonwealth Games the Taskforce has identified that the pre-feasibility should focus on reviewing the potential for a Bid for the 2034 Games or beyond.

There are a number of factors that could potentially impact on the timing of the Bid including the potential South-East Queensland 2032 Olympic Bid and consideration of a potential bid for the 2026 Commonwealth Games by South Australia/Adelaide governments that has emerged since this report was commissioned and the advice that Australia may not put forward a bid for 2030 as this will be the centenary of the first ever Commonwealth Games which was held in Canada, which has expressed its eagerness to host a 2030 Games.

The funding of this pre-feasibility study has been shared between the Victoria State Government and Regional Victorian Councils. The scope of the pre-feasibility study has been agreed upon by the Taskforce and the State Government Working Group, with input provided by Regional Victorian Councils.

1.2 Project Objectives

The project objectives as stated in the project brief include:

- To examine the feasibility or possibility of a regional Victorian bid to host a future Commonwealth Games event in 2034 or beyond.
- To look at creative and adaptive solutions for existing and planned infrastructure that could facilitate the Commonwealth Games being held regionally.
- To examine other national or international opportunities that could be hosted using a regional model.

1.3 Project Scope

The pre-feasibility study has involved reviewing and analysing the following key areas.

A. Major Venue Audit Reviews

These include pre-feasibility event needs reviews linked to key venue requirements:

A.1 Ceremonies

It is a requirement for the Commonwealth Games to host activities in at least two main stadiums. What regional or alternative stadiums are available or could be altered (either by permanent or temporary solutions) to be able to seat up to 36,000 spectators (CGF requirement is for seating 40,000 spectators) for the likes of the opening and closing ceremonies? It is noted for this review that stadiums can have multiple uses/be multiple purpose.



A.2 Competition Venues

Which regional venues have the capacity to accommodate the competitor and spectator quotas including optional sports/disciplines? Which regional venues meet or could possibly meet the technical requirements of each sport/discipline? Temporary infrastructure/solutions can be suggested.

A.3 Aquatic Facilities

The Aquatics venue must have a capacity of 5,000. In addition to the 50m competition and warm-up pools, an additional 50m pool will be required for training, subject to the number of competing athletes. Which regional Victorian area has the current or future capacity to host swimming events during a Commonwealth Games event? It is noted that diving is an optional sport.

A.4 Athletics Village

A central athlete's village is the preferred model by the Commonwealth Games Federation, which is required to accommodate 6,500 athletes and team officials. What regional location has the potential to house this number of athletes in its current capacity or with temporary solutions?

If a village was to be created which regional location would benefit long-term from the re-use of the village into the future? What regional location would facilitate a maximum of an hour travel time to competition venues? Would a metropolitan based athlete's village support competition in the regions?

A.5 Media Centre

Key requirements for operating the Commonwealth Games Media Centre include:

- A 5,000m² space (approximately 7,000m² when the needs of the International Broadcast Centre and Main Press Centre are combined)
- Access to good Wi-Fi
- Central location with access to multiple sports
- Access to 24-hour catering
- Ample parking.

Which regional location can/could accommodate these requirements?

B.1 Accommodation

Athletes are required to be provided with accommodation if they travel more than an hour from the athlete's village to competition venues. In addition, CGF require a further 4,000 rooms contracted for use for other Games constituents.

- Which regional locations can/could meet this requirement?
- What is the current and future range of accommodation available number of rooms, star ratings, disability access - in regional Victoria to accommodate for spectators, volunteers and officials?

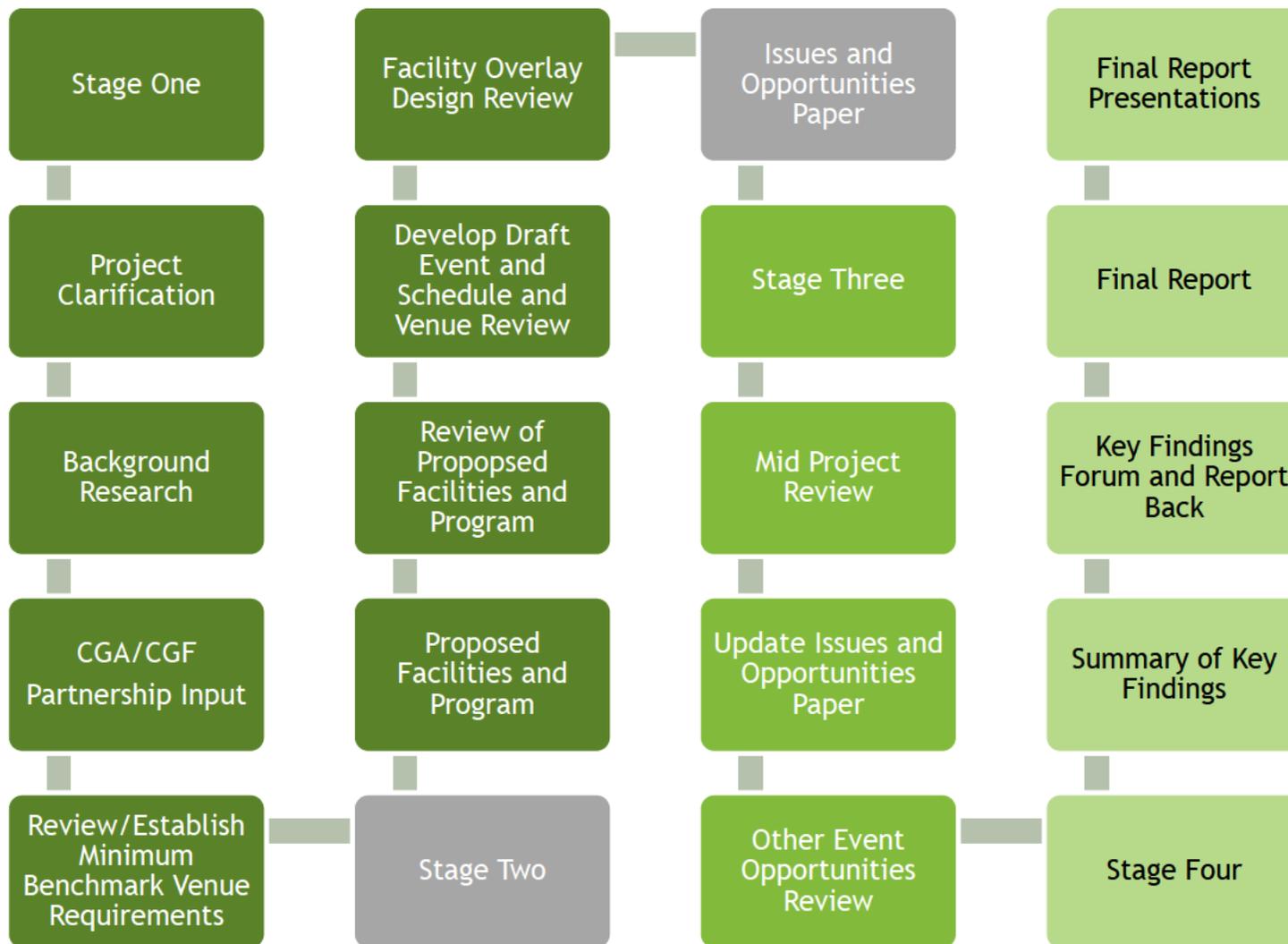
B.2 Other Opportunities

What other opportunities or events could be hosted using the proposed regional model?

Events could vary in nature and could be national or international.

1.4 Project Methodology

Otium Planning Group Pty Ltd (OPG) were appointed to complete the project. In line with the project requirements OPG developed a three-stage project methodology involving the following key tasks.





1.5 What has been done

To complete the prefeasibility study OPG has:



1.6 Notional Commonwealth Games Schedule

To test the Commonwealth Games (CG) requirements against key bid selection criteria OPG in association with the Greater Victoria Regional Commonwealth Games 2030 Bid Taskforce (The Taskforce), a notional CG event and facility schedule was developed. This was based on:

- Commonwealth Games Federation (CGF) future delivery model requirements
- CGF principles for location of facilities



- Inclusion of most likely successful bid optional sports.
- Choosing events and facilities to meet required athletic quotas for core sports (3,800 athletes) and optional sports (500 athletes) resulting in a combined total of 4,300 athletes.
- Key competition and training venue requirements
- Athletes Village location to meet CGF requirements and close by to major event venues.
- Timing of the games to:
 - Maximise the chances of a successful Australian bid against other bidding countries.
 - Schedule for optimal seasonal weather.
 - Timing to attract the best Athletes.
 - Compliment international sporting event calendars.
 - Accommodation availability.
 - Minimal impacts on domestic sporting calendars
- CG travel time requirements.
- Best event and ceremony opportunities to generate ticket sales of more than 1.2M or greater.
- Ensure all venues meet Universal Design and also meet the Para Athlete event requirements.
- Sufficient number of venues to meet games training and pre-event training.
- Venues to meet sporting and ceremonies requirements.

The detailed project report is covered in the following sections and an Executive Summary Report has also been developed.

The Taskforce also note that many of the challenges/gaps as identified in this report can be addressed and determined by a detailed feasibility study which is the next stage of development of such a bid.



2. Commonwealth Games Bid Context and Overview

2.1 Development Process for a Bid

The Commonwealth Games Federation (CGF) is the final decision-making authority in all matters concerning the Commonwealth Games. Responsibility is vested in the Federation for the direction, policy and control of the Commonwealth Games and such other events and activities organised to further the Objects of the Federation. The selection of the Host CGA and the Host City shall be made in accordance with the Candidate City Manual as prepared by the Executive Board and made available to Candidate Cities at least 18 months prior to the awarding of a Commonwealth Games to a Host CGA and Host City.

The Candidature File must also be supported by the written approval of the various levels of the Candidate Governments and the Candidate City in order to ensure their cooperation in the successful staging of the Commonwealth Games. The CGF General Assembly shall award the Commonwealth Games to a Host City and Host CGA at the General Assembly which follows the Commonwealth Games held eight years prior to the Games in question.

In 2018 the CGF committed to a new consultative process of jointly scoping the 2026 and potentially 2030 Commonwealth Games Host City Partners, with 2026 targeted to be awarded at its next General Assembly in September 2019. Advice is that since the project was commissioned, this date is under review. Commonwealth Games Australia (CGA) has advised that it is currently focused on working with the South Australian Government/City of Adelaide on a possible candidature for 2026.

During the Commonwealth Games Federation (CGF) General Assembly on the Gold Coast, Australia, the 71 Commonwealth Games Associations (CGAs) were informed of an 18-month-long consultative bidding process for the XXIII and XXIV editions of the Games, under the new CGF Partnerships model.

The landmark step will allow the Commonwealth Sports Movement to capitalise on the Federation's innovative new Games delivery model, CGF Partnerships (CGFP), which aims to support host nations and cities and enhance the overall value of hosting the Games.

The Taskforce has developed a delivery model that aims to provide:

- A spread of cost and economic, social and cultural gains across regional Victoria
- A blueprint for hosting other events
- A spotlight on regional Victoria
- Decentralisation
- Inspiration and hope for regional Victorians who will hopefully have the opportunity to be part of something truly great
- Further avenue for lobbying for key infrastructure projects
- Pipeline projects for other Councils
- Regional connectivity.

2.2 CGF Principles for the Location and Planning of Facilities

The CGF has prescribed the following principles to help drive the Planning for future Games Bids:

- Priority use first of existing facilities.
- Optimising use of existing venue infrastructure (including upgrading of facilities to support legacy).
- Consider creative and adaptive use or modification of existing facilities.
- Transport:
 - Location of venues and facilities to ensure alignment with existing and planned transport infrastructure (public transport and roads).



- Ensure capacity versus demand.
- Legacy
 - Ensure new venues support legacy and deliver optimal community and sport benefits.
 - Where there is no legacy, consider temporary infrastructure.
- Urban Development
 - Maximise opportunities for key Games projects to support and accelerate urban development and/or regeneration projects.
- Housing
 - Ensure the Athletes Village supports the need for new housing in the city including market, 'build to rent', social/affordable and student housing.
 - Identify optimal solution/mix based on legacy.
- Showcasing
 - Showcase the iconic places and spaces within the city and region.
- Clustering. Development of a compact master plan with venue clusters that:
 - Reduces travel times for Athletes and other Games clients.
 - Reduces operational costs in key areas including security, transport, staffing, overlay.
 - Creates a focal point for the Games experience.

The pre-feasibility study has focused on identifying the gaps between the required and existing infrastructure and it should be noted that the CGF criteria for sporting venues are minimum criteria and that other factors such as CGA requirements and infrastructure quality will also play a significant part in the selection process.

It remains extremely unlikely that a bid that only met the minimum criteria of the CGF would be supported. In order to succeed a bid would need to meet individual facility standards as well as an overall integrated infrastructure network.

2.3 Summary of CG Major Requirements

The CGF develops a Candidate City Manual to direct Candidate Cities in the development of their propositions for each Games. The Manual, along with a range of other documents, defines the technical, financial and legal requirements to host the Commonwealth Games and the obligations of the Host City.

The Study has utilised the 2022 Commonwealth Games Candidate City Manual as it is the most recently available Manual for the purposes of the pre-feasibility study, to assist in understanding the requirements for future Games. Based on previous Manuals it is likely that these requirements and obligations will change for future Games.

For future Games Bids the Manuals have been replaced by a consolidated Games Requirements document. It should be noted that the most current version of this was not provided to the Project Team because it is too detailed for this stage of the pre-feasibility analysis.

The information provided by the CGF is based on the information provided to the 2022 Bid Cities that was available at the time this pre-feasibility project commenced, and that although it is understood that the CGF is reviewing and updating the overall Games Requirements, these were not available for the 2030 and future Games, hence all references to requirements are based on the CGF information available at the time, that is understood to be subject to future change and refinement.



The CGF Requirements review is being undertaken to reduce costs to conduct the Games, and it should be noted that the CGF may not support a Games Concept that creates cost increases that may be incurred through a 'regional' model, however at this stage detailed budget analysis has not been undertaken and would be required in the future.

The CGF has stressed that the following critical issues and associated requirements need to be addressed before more detailed assessment of venues meeting technical standards and operational issues.

2.3.1 Village location and Capacity

The Central Village must be within 60 minutes travel of most CG venues, using road-based transport so this study has assessed where is the critical mass of venues/sports. For the purposes of the pre-feasibility we are assuming that more than 75% of athlete competition venues will need to be within one hour of Games Village. The Village will cater for 6,500 Athletes and Officials.

The CGF encourages considering all options to ensure a sustainable and positive legacy. Options can include Market Housing, Affordable Housing Student or Other. The CGF continue to require a Single Central Games Village supported by (but not replaced by) satellite villages for remote venues by exception.

Based on initial investigation and detailed analysis of options and population distribution, we are assuming the Games Village will be located in a Geelong in a northern sector development area. (i.e. Lara/Lara North is one potential option as it has large areas of serviceable planned for more than 7,000 new residents in the next 15 years).

2.3.2 Sports Included in Games Program

The CGF advises that there are 16 Core sports and 13 Optional sports. These sports are confirmed in the CGF Constitution in Byelaw 14 Sports in the Programme of the Commonwealth Games. These are summarised under two key sports headings

1. Core or Compulsory Sports

The 16 core sports are:

- Aquatics (Swimming) including Para
- Athletics including Marathon and Para
- Badminton
- Cycling (Road Race and Time Trial)
- Boxing
- Gymnastics (Artistic)
- Hockey
- Judo
- Lawn Bowls including Para
- Netball
- Rugby 7's
- Squash
- Table Tennis
- Triathlon
- Weightlifting including Powerlifting (Para)
- Wrestling (Freestyle)



2. Optional Sports

The optional sports (disciplines) can be selected from the following list:

- Archery (Recurve)
- Athletics (Race Walks). Race Walks were identified as an optional sport in the CGF presentation but are not specifically referred to in Byelaw 14.
- Aquatics (Diving)
- Basketball (3x3)
- Basketball (Wheelchair Para 3x3)
- Cricket
- Cycling (Mountain Bike)
- Cycling (Track including Para)
- Gymnastics (Rhythmic)
- Shooting (Clay Target, Full Bore, Pistol, Small Bore)
- Table Tennis (Para)
- Triathlon (Para)
- Volleyball (Beach)

2.3.3 Number of Athlete Quotas

The CGF has quotas for the number of athletes available to compete in each sport to target a total of 4,300 athletes across the compulsory and optional sports. The key principle underpinning the quota system is to provide certainty of numbers of athletes and officials to Organising Committees during bid, operational and Games-time event phases.

Quota athlete numbers must be established for each compulsory sport (discipline). The total number of athletes for compulsory sports (disciplines) shall not exceed 3,800 athletes. Athlete numbers shall be established for each optional sport (discipline). The total number of athlete positions for optional sports (disciplines) shall not exceed 500 athletes.

Further to this including compulsory and optional sports (disciplines), there shall be no more than four team sports on the program of a Commonwealth Games. In such case whereby Basketball (3x3) is selected from the pool of optional sports, Basketball (Wheelchair Para 3x3) may be also selected (or vice versa) in which case the sport of Basketball shall be considered as one team sport. In such case whereby Cricket is selected from the pool of optional sports, Basketball (Wheelchair Para 3x3) may also be selected.

Including compulsory and optional sports (disciplines), a minimum of 300 athlete positions shall be devoted to para-sports (disciplines) within the prescribe numbers as approved by the Executive Board. Any changes to the athlete numbers must be agreed by the CGF Executive Board.

2.3.4 Main Stadium

The Opening and Closing Ceremony and/or the Athletics field of play need to be hosted within a 40,000-seat venue. It is possible that the athletics program could be conducted in a separate venue to the Opening and Closing ceremonies.



2.3.5 Accommodation

Based on previous Games experience, the CGF estimates that a minimum of 4,000 rooms is required for its key constituents. These rooms in the following star categories are required:

- 5 star - 200 rooms
- 4 star - 1,400 rooms
- 3 star - 2,100 rooms
- 2 star - 300 rooms

There is also a requirement to make accommodation available to the other constituent groups. Based on previous Games, there may be a need for an additional 4,000 rooms to address the requirements of the media and broadcasters, Games workforce, and spectator accommodation. As a point of reference, Gold Coast contracted 7,100 rooms for use by Games constituents, which translated to over 15,500 beds - the significant 'consumers' were (# rooms):

- Games Family - 750 (includes CGA rooms for their 'guests')
- Tech Officials - 660 (can share rooms so translates to over 1,300 beds)
- Media and Broadcasters - over 1,000
- Sponsor Family - nearly 500
- Workforce (OC) - over 450
- Contractors (largest groups were security and transport) - over 2,000 rooms (using shared rooms etc. over 5,000 beds)
- Government Delivery Agencies (Police, Transport, etc.) - over 1,600

2.3.6 Accredited Personnel

At the Gold Coast Games there were 75,000 personnel involved of which 60,000 who were accredited. The accredited personnel included:

- Athletes and Games Family - 8,200
- Media and Broadcasters - 3,000
- IF and Tech Officials - 1,300
- Workforce (incl paid staff, volunteers, contractors) - 47,000

2.3.7 Main Media Centre - International Broadcast Centre (IBC)

- Technical and operational hub for international broadcasters (IBC)
- Facility will include host broadcast operations and dedicated space for RHB's, 24 hour/day operations
- Requires large open plan space of approximately 5,000m²
- Significant external space required for satellite farm, energy compound, parking, logistics
- Access to 24-hour catering services and transport mall servicing all venues

2.3.8 Main Media Centre - Main Press Centre (MPC)

- Hub for international press
- Facility will include main work room, press agency space, technical services, catering and retail services
- Access to catering services and transport mall servicing venues



2.3.9 Transport

A challenge for the development of the regionally distributed model is how will athletes, media/broadcasters, CGA/CGF Family travel from venue to venue and return to their accommodation.

2.3.10 Timing of the Games

The Pre-Feasibility Study has been undertaken without the identification of a specific date for the conduct of the Games. It has been assumed that the Games will be scheduled at a time that will maximise the chances of a successful Bid, be optimal for weather, attracting the best athletes, compliment international sporting calendars, accommodation availability and minimise impact on domestic sporting calendars.

These were all key considerations in Melbourne hosting a highly successful March Commonwealth Games in 2006.



3. Key Event Requirements

This section reviews key event requirements for the following key areas as required for the pre-feasibility study assessment:

- Competition Venues
- Sport and Ceremony Venues
- Games Village
- Other Support and Services Areas

3.1 Competition Venues

OPG has been required to assess venues against essential functional area requirements for Athletes, Spectators, Media, VIP, and Operational Zones including minimum capacity requirements, suitable fields of play and warm up requirements in competition venues and integrated planning for para-sport competitions.

The CGF Requirements are as per information provided to OPG based on the 2022 Bid process requirements, and specific requirements for 2030 or beyond is not available.

The CGF has provided an update of venue capacity requirements for core and optional sports. Overall Venue Requirements identified by CGF are:

- Two stadia for Rugby, Athletics, Ceremonies up to 40,000
- Approximately 8 indoor venues/ halls with capacities from 2,500 to 7,500 or greater
- Aquatics Centre
- Venues for Hockey, Lawn Bowls
- Temporary venues for Road Cycling and Triathlon
- Additional venues for selected optional sports

The pre-feasibility study has considered these venue capacity requirements, and field of play requirements as issued by the CGF available at the time of the Study.

However, there are other factors including International Federation standards / expectations and broadcast standards / expectations that may require further analysis in the future.

The venue capacities consistent with CG requirements are listed in the following tables for core sports and optional sports on the following page.

3.1.1 Core Sports Venue Capacities

The core sports venue capacity requirements are:

Sport	Discipline	CGF Preferred/ Required Capacity
Ceremonies		40,000
Aquatics	Swimming, Para Swimming	5,000
Athletics	Track and Field Para Track and Field	40,000
Athletics	Marathon	1,000*
Badminton		2,500
Cycling	Road (Road Race and Time Trial)	1,000
Boxing		3,000
Gymnastics	Artistic	7,500
Hockey		5,000
Judo		2,500
Lawn Bowls	Lawn Bowls Para Lawn Bowls	2,500
Netball (Preliminaries)		2,500
Netball (Finals)		5,000
Rugby 7'ss		10,000
Squash		2,500
Table Tennis		2,500
Triathlon		2,000
Weightlifting		2,500
Powerlifting	Parasport	2,500
Wrestling	Freestyle	2,500

3.1.2 Optional Sports Venue Capacities

The optional sports venue capacity requirements are:

Sport	Discipline	CGF Preferred/ Required Capacity
Aquatics	Diving	2,500
Archery		2,500
Basketball	3 x 3, Wheelchair 3 x 3	3,000
Cricket	T20	20,000 5,000
Cycling	Mountain Bike	1,000
Cycling	Track, Track Para	4,000
Gymnastics	Rhythmic	3,000
Shooting	Clay Target	1,000
Shooting	10m,25m,50m	
Shooting	Full Bore	
Volleyball	Beach	3,000



3.2 Commonwealth Games Village

The CGF identifies that the Commonwealth Games Village is one of the largest projects an Organising Committee must undertake in preparing for the Commonwealth Games. The CGF Requirements are as per information provided to OPG based on the 2022 Bid process requirements, and specific requirements for 2030 or beyond is not available.

CGF highlights that Post-Commonwealth Games legacy must also be carefully considered. Design for previous Commonwealth Games Villages have included new residential housing projects, campus-style villages and privately-operated housing schemes.

The Village requires significant supporting infrastructure. For example, the Main Dining is expected to serve over 18,000 meals daily and will meet a variety of requirements including dietary, nutritional, recovery, cultural, religious and medical. The specific requirements of elite athletes with disabilities will be fully met within the Village design.

The Central Village must be within 60 minutes of most venues (most), using road-based transport - where is the critical mass of venues/sports. For the purposes of the pre-feasibility we are assuming that more than 75% of athlete competition venues will need to be within one hour of Games Village. The Village will cater for more than 6,500 Athletes and Officials. The CGF encourages considering all options to ensure a sustainable and positive legacy. Options can include Market Housing, Affordable Housing Student or Other.

The CGF continues to require a Single Central Games Village supported by (but not replaced by) Satellite Villages for remote venues by exception. Planning for the Village should take account of the CGF's desire to maximise opportunities for key Games projects to support and accelerate urban development and/or regeneration projects.

3.2.1 Previous and Future Games Review

OPG has reviewed past games as well as the next games and highlighted key findings/issues in relation to the Games Village.

3.2.2 Gold Coast Commonwealth Games Village (CGV)

The Games Village was the catalyst for one of Australia's largest urban renewal projects at the Gold Coast Health and Knowledge Precinct. The Athletes Games Village was home to more than 6600 athletes and team officials including residential, retail, recreation, dining and medical facilities during the Games period. After the Games, the Village transformed into the residential, retail and commercial heart of the Gold Coast Health and Knowledge Precinct

The CGV was designed to be comfortable, functional, accessible and barrier free for all athletes and team officials. Accessible apartments and townhouses were designed throughout the CGV featuring a range of accessible initiatives. The CGV was located in Southport, Queensland, adjoining the Griffith University, the Gold Coast University Hospital (GCUH) and Gold Coast Private Hospital.

The CGV incorporated 1252 permanent dwellings - comprising 1170 two- and three-bedroom apartments and 82 four- and five-bedroom townhouses. Also incorporated in the CGV design was 7.3 hectares of green and open space including a community park and extensive landscaped areas.

3.2.3 Gold Coast 2018 Commonwealth Games Regional Villages

Regional Villages were established as fully secured accommodation in Cairns and Townsville for athletes and team officials participating in the GC2018 Basketball preliminary matches. The Regional Village Cairns (RVC) at the Rydges Plaza Hotel and the Regional Village Townsville (RVT) at the Rydges Southbank Hotel were open to athletes and team officials from 31 March to 11 April 2018.

The Regional Villages included a small gym with minimal equipment and an area set aside for physiotherapy and massage treatment spaces. An area was located at the Hotel pool deck to allow for ice bath recovery.



3.2.4 Glasgow 2014 Commonwealth Games Village

Ninety per cent of all competition and training venues were within a 20-minute drive of the Games Village on the banks of the Clyde at Dalmarnock. About 70% of the venues and infrastructure were already in place. More than 1,000 homes were built at the Village site, all of which were available for sale and social housing after the Games.

3.2.5 Melbourne 2006 Commonwealth Games Village

Following the successful Bid for the 2006 Commonwealth Games, the Victorian Government set up an Expression of Interest and Tender process to procure from the private sector the delivery of the Melbourne 2006 Commonwealth Games Athletes Village.

The Village Park Consortium (VPC), a joint venture between Citta Property Group and Australand Holdings Ltd were the successful Tenderers for the delivery of the Games Village.

The successful solution required VPC to provide the accommodation and ‘back of house’ needs for 6,000 athletes and officials. The solution also embodied VPC taking the Post Games risk of selling the dwellings created for the Games accommodation and developing the residual land. Following the Games and following a retrofit period Parkville Gardens emerged as an inner-city master-planned community set within a 20-hectare site.

M2006 also utilised the concept of Satellite Villages in both Bendigo Shooting and Basketball Preliminaries) and Traralgon (Basketball Preliminaries). The Basketball teams were given the choice whether they would use the Satellite Village or travel back to the Main Village in Melbourne.

3.2.6 Wales Village Proposal (2026 Games)

The Wales 2026 Feasibility Study, commissioned by the Welsh Government in 2015, stated that its preferred option was identified as an agreement to lease the “shell” units and space required from St. Modwen to facilitate the fit out of the village, to hold the Games, and then to return the land and the units in their “shell” condition by an agreed date.

This was identified by the consultants as the preferred option because they believed it requires the least capital out lay by and the least risk to the Welsh Government.

3.2.7 Games Village Potential Options

In the event of agreement to proceed further with the Bid, a detailed analysis of potential athlete’s ‘Village’ options will need to be undertaken. High Level research reviews indicate Regional Victoria does not have an adequate supply of student accommodation other accommodation in one site that is capable of housing the required number of athletes and team officials.

Potential student or campus accommodation developments have been identified and preliminary analysed as potential ‘Village’ options.

Residential developments in Regional Victoria of the scale required to be the basis for the development of a Village are rare. The most relevant developments are in the Greater Geelong area. Some of these are planned to develop residential developments and new communities around identified growth areas. These growth areas have been identified both within existing residential areas and at new greenfield sites.



The following is a brief summary of potential development options for the Games Village:

	Option	Pros	Cons
1.	New Housing Development	<ul style="list-style-type: none"> • Low cost or apartment housing post event • Developer may cover costs • Redevelopment of unsightly/under-utilised area 	<ul style="list-style-type: none"> • Extra beds need to be installed to increase sleeping density • Lead time for developer to get permits/finance etc. • Not purpose built so design needs to be adapted to accommodate village requirements • May or may not have associated playing field for recreation/training use by athletes • Location of transport mall may be problematic
2.	University	<ul style="list-style-type: none"> • May already have some facilities which reduces cost (catering/laundry) • Likely linked to existing sporting facilities for training and recreation of athletes • Guaranteed use post Games • Contribution to community through availability outside teaching periods • Possible revenue generation for University post Games • Purpose built for similar use as village • Likely to have space for transport mall 	<ul style="list-style-type: none"> • Students displaced during Games period • Disruption to University during construction • Extra beds need to be installed to increase sleeping density • No Regional Victorian University or school has accommodation provision of the scale required
3.	Hotels	<ul style="list-style-type: none"> • Ready-made facilities • On-site service facilities • Existing management structure 	<ul style="list-style-type: none"> • Cost to rent • May detract from bed availability for spectators (impact on ticket sales) • Requires splitting of village into several sites • No Regional Victorian city has accommodation provision in one (or even multiple linked) hotels or resorts of the scale required. • Unlikely to provide adequate space for key services, such as Transport Mall
4.	Cruise Ship	<ul style="list-style-type: none"> • Could possibly be moored at Geelong Port • High density, well designed accommodation • All services on-board • Some liners can accommodate up to 3500 beds 	<ul style="list-style-type: none"> • Utilities (sewerage etc.) may be difficult to provide long term at the dock • Diversity of quality of beds • Cost • Would require a number of ships moored close together

3.2.8 Preferred Village Precinct

For the purposes of the first stage of the Pre-Feasibility Study, the consultants have assumed that the Games Village will be located in a Geelong development area, as identified in the Northern and Western Geelong Growth Areas Framework Plan. A number of sites are worthy of consideration.

These growth areas have been identified both within existing residential areas and at new greenfield sites. Securing ‘clear’ village sites is likely to be best achieved by aligning a growth area in a strategic position and developing it as a Games Village and following the Games before on selling the accommodation units to the public after the Games are finished.

The Northern and Western Geelong Growth Areas Framework Plan is the largest greenfield planning project in regional Victoria with the capacity to accommodate 110,000 new Geelong residents. The Northern and Western Geelong Growth Areas will be planned and developed sequentially. The timing, location and scale of the proposed sub-regional centres, and any potential impacts on the existing centre network, will be considered and floor space caps applied as part of each precinct structure plan.



The implementation plan identifies next steps to highlight the importance of guiding and supporting the delivery of the Northern and Western Geelong Growth Areas and considers timing and sequencing of development and 'out of sequence' considerations, sequential or concurrent development of each growth area, and future rezoning and precinct structure plans.

Many previous Commonwealth Games (Melbourne 2006, Delhi 2010 and Glasgow 2014) used the opportunity of the Commonwealth Games to work in conjunction with a developer to establish a new housing area in previously under utilised space. This may or may not also incorporate low cost public housing options.

During the Games sleeping arrangements are generally high density with additional beds installed in bedrooms and other areas, such as legacy mode living areas, to accommodate the number of athletes for one month. It may be possible to utilise back yard areas to have temporary showers and toilets installed which are removed post Games.

Previous Games have also utilised the concept of week one and week two turnover of athletes where teams send athletes who have concluded their competitions home and replace them with athletes yet to have their competitions begin. This provides the opportunity for less beds than athletes or team officials to be able to accommodate the required numbers. However CGF requires a bed in the Village for every athlete.

Recreation areas need to be accommodated, potentially in future parklands and/or sports fields, within the developments and the International Zone is built using temporary structures on space that often provides future carparks and locations for shopping or community facilities.

3.2.9 Potential Other Games Village Options

Other Games Village options include:

1. Geelong Waterfront

The possibility of securing an area of the waterfront that incorporated the new Convention Centre, Deakin University and the gardens/parklands associated was considered (refer to Appendix 2 for site plan). It could potentially be secured by temporary fencing with little disruption to local residents.

The parklands provide recreation areas and the conference centre could be used for main dining and athlete services centres. The spaces within the University could be used for team offices and perhaps accommodation. However, it would require the support of Deakin University to displace students and staff during this period.

It would also prevent the Convention Centre, which is proposed to host a number of the larger Sports Programs, from being available for sport. A great deal of further investigation would be required and while it might be feasible, it is not a preferred option.

2. Cruise Ships

The City of Greater Geelong are considering a proposal to build a new wharf capable of accommodating larger cruise ships at the end of Yarra Street. This area once had a major pier and was a high use port for shipping. Depending on the additional transport and parklands associated with this development, it may be possible to utilise this option as a Games Village solution.

It would require a minimum of two large (4,000 plus passenger) cruise ships to be berthed close together at the new wharf. Recreation, catering and sleeping would be done on-board, while the International Zone and team offices would need to be provided with temporary infrastructure on the wharf.

Additional secured areas for sport and recreation would be required on-shore. A suitable transport mall would also need to be accommodated at the end of the wharf. However, past events have struggled with this option as the services used to support cruise ships for an overnight stopover are generally not able to accommodate a one-month berthing. Cruise operators are also loath to remove a vessel (or two for a Commonwealth Games) from their touring schedule. However it is understood that this option has been utilised in other events (not Commonwealth Games events) for corporate purposes and has been considered as an alternative to accommodate athletes or workforce or Games Family.



3. Laverton Airport

Laverton is used for the Airshow on a biennial basis. During this period the organisers erect a large amount of temporary infrastructure including significant catering equipment. The area has ample space for the installation of temporary accommodation and if an arrangement could be made with the airshow organisers, there may be an opportunity for cost sharing between the events (refer to Appendix 2 for site plan).

There is potentially significant impact on the Airport's operations as a result of the need to secure a large area to be removed from the Airport's operations for many months during set-up, bump in, Games period, bump out and return to previous state. As this option would primarily utilise temporary infrastructure, there would be no lasting legacy of resources available for community benefit post Games. The infrastructure requirements suggested here are used in large construction/mining camps throughout the world.

Further investigation can be undertaken at a later stage if considered appropriate. There may be a legacy need for mining cabins, or other markets, which could make this option more commercially viable if assessed in detail. However based on current information there is unlikely to be any ongoing legacy achieved by utilising this model.

3.3 Service and Support Facilities

There are a large range of event service and support facilities that need to be assessed and these are covered in the following section

3.3.1 Commonwealth Games Amenity Considerations

Hardstand Venue Areas

In general, all hardstand carpark and roadways around existing sporting venues will be required to provide sufficient space for Transport Load-Zones, Broadcast Compounds, Logistics Compounds, Games Fleet parking, operational vehicle parking and security infrastructure. This requires spectators to use public transport and/or Park & Ride facilities.

Transport Load Zones: All venues will require spaces for load zones for accredited VIPs, Athletes and Team Officials and Media. These are sites where the vehicles for these constituent groups can load and unload safely and without interference from general public.

In the case of athletes and team officials this load zone must be secure and able to accommodate large coaches and, in some cases, equipment trailers or vehicles. In the case of VIPs these are effectively taxi stands where multiple sedans (up to 10) can be accommodated or alternatively a lesser number of spaces for calling up vehicles and loading.

The number of vehicles required to be accommodated and the frequency of movements is dependent on the entries for each sport. These vehicles have drivers attached, so once the passengers alight the vehicles can move to a nearby parking area.

3.3.2 Media Spaces

All venues require spaces to allow the accredited media to work. Technology is rapidly changing the way in which media deliver their roles and it is impossible to predict exactly what space requirements will be needed by 2034. However, based on current operational arrangements, the following will be needed at each venue (as per the space requirements tables listed at each venue).

Most International Sports Federations have their own particular specifications for the number and location of these spaces.

- **Media Tribunes;** these are the seats where the journalists view the competition and, in many cases, write and file their reports. They need to have desk space in front to accommodate a laptop and notes they may use. These seats are in premium positions and, in general, each tribune seat will need to be installed with temporary infrastructure and will take up 2-3 regular seats from the seating bowl.
- **Mixed Zone;** this is an area adjacent to the FOP where athletes can choose to do interviews with broadcasters and journalists. It should be on the pathway from the FOP to the change rooms and be

large enough for athletes who choose not to be interviewed to be able to pass comfortably without interference from media.

- Photo-journalist positions; these are spaces either inside or adjacent to the FOP where photojournalists can get high quality action photographs of competition. Generally, now with internet capability, photo-journalists file their images from the site.
- Media Centre; while technology is making this space less important (as journalists can more easily file stories from their tribune seats), each venue needs a central space where they can work filing stories and getting accurate results and other competition information.
- Journalists mingle and exchange information. Usually a large room with temporary FF&E installed that is easily accessible from the media tribunes.

3.3.3 Broadcast Spaces

All venues require spaces to allow the Broadcasters to work. Technology is rapidly changing the way in which broadcasters deliver their roles and it is impossible to predict exactly what space requirements will be needed by 2034. However, based on current operational arrangements, the following will be needed at each venue (as per the space requirements tables listed at each venue). Most International Sports Federations have their own specifications for the number and location of these spaces.

- Broadcast Compound; An area of hardstand adjacent to the venue where cabling can be run from Outside Broadcast (OB) facilities to commentary and camera positions within the venue. While the size of these spaces is rapidly diminishing, currently mobile production studios based on trucks are still commonly used. This compound may also incorporate a satellite farm for the transmission of signals.
- Commentary Control Room; an area where producers can manage the production of the feedback to the studio.
- Broadcast Information Office; a general office area in which the Host Broadcaster can operate.
- Commentary Tribunes; desks where broadcast commentators can provide commentary on the sport. These are generally in prime locations and will take up 4 spaces per commentator from the seating bowl. They are made of temporary infrastructure and need to be able to accommodate monitors and will generally need to be soundproofed.
- Presentation Studio; a studio area, which could be a multi-functional space, where interviews with athletes can be conducted. Sometimes all media can be accommodated in a single conference room where risers at the rear can hold broadcast cameras and journalists can sit in front.
- Camera Space and Positions; locations in critical locations around the FOP where broadcast cameras can be located (note: in many instances, photo-journalists and broadcast cameras need to be accommodated in similar locations).

While most modern stadia conform to Australian disability access standards, there will be a large amount of temporary infrastructure that will also need to consider universal access requirements of not only para athletes, but also the ex para athletes who take on commentary roles with media outlets.

As competing and spectating athlete pathways between transport load-zones, athlete seating, change rooms, the call room and FOP need to be segregated from other constituent groups, sometimes additional temporary ramps, handrails and other access devices will need to be installed where existing stadium pathways cannot be used. In the case of wheelchair athletes, they will have a separate “day chair” which needs to accompany them wherever they go.

This requires the ability for their transport to either have the chairs inside and able to be strapped down for travel or, in the case of athletes who can transfer to a seat, their “day” chairs to follow in a trailer or separate vehicle. In all cases the involvement of para-athletes needs the transport load-zones to be designed to accommodate these requirements.

Media tribune access and pathways to the mixed zone will also need to be considered. Media tribunes are located in prime seating bowl locations which may not have direct access for people with a disability.



3.4 Media Centre

There are two main Media venues in a Commonwealth Games. These are the International Broadcast Centre (IBC) and the Main Press Centre (MPC). These are generally located near to each other as some of the journalists work across both areas and some of the services (see comments below) may be able to be shared. The Main Media Centre is comprised of the International Broadcast Centre (IBC) and the Main Press Centre (MPC). The CGF's generic requirements for the Main Media Centre's are:

- Proximity to main stadium other Games venues and media accommodation.
- Availability of suitable facilities for IBC and MPC that can be easily retrofitted.
- Fibre connectivity for IBC/MPC and Games venues; and between the IBC and Games Venues.
- Mobile phone network and Wi-Fi availability across Games footprint.
- Availability of existing auditorium or meeting rooms for press conferences.

The main facilities include:

1. The International Broadcast Centre (IBC)

The Host Broadcaster is normally responsible for the IBC, which is the hub of all Commonwealth Games broadcasting activity, handling incoming video and audio from venues and distributing it to broadcast rights holders' home countries.

During Games time at the 2018 Gold Coast Commonwealth Games, more than 1,200 broadcast technical and operational experts worked from the IBC, located at the Gold Coast Exhibition and Convention Centre (GCECC) at Broadbeach and venues, to deliver event coverage. Approximately 1,100 hours of live television was transmitted via 25 outside broadcast vehicles and control rooms. The IBC was serviced by 350 cameras deployed at venues in and around the Gold Coast, with more than 100km of broadcast cable laid.

Although rapid changes in technology will impact on IBC requirements at future Games, key requirements and functions are expected to be:

- Technical and operational hub for international broadcasters (IBC).
- Facility will include host broadcast operations and dedicated space for Rights Holding Broadcasters (RHBs), 24 hour/day operations.
- Large open plan space of approximately 5,000m².
- Significant external space required for satellite farm, energy compound, parking, broadcast vans, logistics.
- Access to 24-hour catering services and transport mall servicing all venues.

2. Main Press Centre (MPC)

At the 2018 Gold Coast Commonwealth Games the MPC comprised 2,000 square metres of floor area located within the exhibition space of the GCECC, on a mezzanine floor directly above the IBC. Although rapid changes in technology will impact on MPC requirements at future Games, key requirements and functions are expected to be:

- Hub for international press, with approximately 1600 press to be catered for utilising an estimated 400 workspaces and 100 results and online desks.
- A main work room, press agency space, technical services, catering and retail services, media conference room; and smaller meeting spaces and facilities. It requires facilities for a centre for information and data, a centre for communications, a centre for social and work interaction, a one-stop centre for photo processing and transmission, and camera repairs service.
- Access to catering services and transport mall servicing venues.

Additional considerations are:

- The MPC and IBC need to have significant transport services attached to allow, particularly the journalists and photo journalists, to get to the venues.



- The co-location of the MPC and IBC provides the opportunity to maximise common use areas such as dining and meeting facilities, ensuring efficient services and cost-effective rates for the media.
- A large exhibition space is often an appropriate area as it has the toilets, power, hardstand (load zone and satellite farm) space required.

3.4.1 Media Centre Potential Sites

There are many sites in the Geelong area that could provide the basic infrastructure required for the Media Centres. These include:

- Geelong Greyhound Track
- Laverton Airport (a hanger?)
- Kardinia Park Car Park area/outdoor netball courts
- Vacant Warehouse in north of Geelong
- Geelong Showgrounds

3.5 Logistics

While not in the scope of this pre-feasibility report, Commonwealth Games require the use of significant logistics receiving, warehousing, pick & pack and dispatch operations. While this may be able to be provided by an existing logistics company, often a Games specific Logistics Warehouse is established. This requires a space of up to 10,000m² with outside space for large truck deliveries and forklift movements. The Geelong Showgrounds may be an appropriate location for this operation, either co-located with the Main Media Centre or as a stand-alone Logistics Centre.

3.6 Ticket Sales and Visitor Numbers

At this stage of planning any estimates of likely visitors and ticket sales for Regional Victoria Venues is an estimate. However, a key requirement of the CGF for a Games Bid is that the Program is able to generate sales of 1.2 million tickets. Patronage at the various sporting programs will be dependent on a number of key factors. These include:

- Interest in the particular event, sporting program.
- Location and convenience of the venue.
- Capacity of local market place to absorb ticket sales. For example, 380,000 of the tickets sold for the Gold Coast Games were purchased by locals from a population of approximately 600,000 persons. On average each person from the Gold Coast who attended Games activities attended events. This translates to 95,000 Gold Coast residents purchasing a ticket or a market penetration of 16%.
- Marketing. Table 1 provides some details on the location of residence of ticket purchasers for the Gold Coast Games.
- Connection to the event/venue.
- Pricing policies.
- Coordination with other activities.

The following table provides a guide to Gold Coast CG 2018 spectator residential profiles



Table 1: Location of residence 2018 Gold Coast Commonwealth Games (% split)

Event City	Gold Coast	Brisbane	Cairns	Townsville	Total
Local	32%	64%	79%	87%	42%
Elsewhere in Queensland	38%	13%	6%	7%	31%
Interstate	23%	8%	6%	2%	19%
Overseas	7%	15%	8%	3%	8%
Total	100%	100%	100%	100%	100%

In the Sports and Ceremonies summary (Section 5), there are specific comments provided on a number of sport programs for which the projected ticket sales based on selling 85% of the required venue capacity appear to be overly optimistic.

Any combination of programs in a Regional City that requires greater than 20% market penetration in that City would appear to be difficult to achieve. In some instances, the demand on the local market will be diminished if the venue is located within an hour of major Melbourne municipalities and/or is hosting one of the traditionally higher profile and crowd drawing activities such as Artistic Gymnastics, Swimming and Athletics.

The Taskforce is confident that an event/venue schedule can be developed that will ensure the CGF's ticket sales targets can be met. This would be an important consideration in reviewing amendments to the model. Any revision of the model and further feasibility analysis should examine ways that the programs/ venues can be developed to maximise ticket sales and not saturate local markets.

In Appendix 4, information is provided on the specific primary catchments for venues to provide an overview of catchment numbers. The following table provides a summary of the catchments for half hour and 1-hour drive times. An estimate of potential patrons for the Games drawn from the broader local area is provided. The market penetration estimates utilised are:

- attracting 20% of half hour catchment and
- 5% of 1-hour catchment.

These are marginally more bullish than the Gold Coast patronage for its immediate local area and patrons from Brisbane who travelled between 40 minutes to 1,5 hours to Games events.



Table 2: Broader Local Area Catchment Summary

City/ Town	Half Hour drive time from centre of the city/ town (000)	One Hour drive time from centre of the city/ town (000)	Potential local purchasers of tickets in local area (000)	Comments
Bright	8.6	51	3.84	
Ballarat	125	880	62.75	1-hour catchment is high because it brings into play Western suburbs of Melbourne plus significant growth projected by 2034
Echuca	40.1	178	14.9	Well in excess of ticket availability
Bendigo	113	212	27.55	
Geelong	268	1,993	139.85	1-hour catchment is high because it brings into play almost 30% of Melbourne plus significant growth projected by 2034
Shepparton	81.5	193	21.875	
Horsham	21.5	50	5.725	Well in excess of ticket availability
Traralgon	86.5	198	22.875	
Mildura	56	61	11.45	
Totals			310 (approx.)	



4. Sport and Ceremonies Venues Review and Assessment

The Sports Program and Venue model have been revised and updated as a result of ongoing consultation, feed-back from key stakeholders and analysis of venue model. The model we are using for assessment purposes involves 16 Core sports and 10 Optional sports disciplines. The location of proposed venues, relationship to Games Village and potential primary local catchment data is provided in Appendix 4.

This model would result in catering for/hosting 4,330 athletes and based on the sports and events proposed provides the potential target for approximately 1.2 million tickets being available for sale/distribution to the general public. The Taskforce has indicated that it looks forward to discussing with CGA and CGF closer to a proposed Games Bid a Sports Program that meets the CGF requirements and maximises international and regional interest for enhanced public interest, increased ticket sales and Games profile.

4.1 Proposed Core and Optional Sports Program

The 16 core sports that are proposed to be hosted at the Regional Victoria CG to help complete this studies' assessments are:

- Aquatics - Swimming (including Para)
- Athletics including Marathon and Para
- Badminton
- Cycling (Road Race and Time Trial)
- Boxing
- Gymnastics -Artistic (Men's and Women's)
- Hockey
- Judo
- Lawn Bowls including Para
- Netball
- Rugby 7's
- Squash
- Table Tennis
- Triathlon
- Weightlifting including Powerlifting (Para)
- Wrestling (Freestyle)

The Optional sports (disciplines) that OPG have found could maximise regional locations that have been selected for pre-feasibility assessment are:

- Archery (Recurve)
- Athletics - Race Walks
- Aquatics - Diving
- Basketball (3x3) and Wheelchair Para 3x3
- Cycling - Mountain Bike
- Cycling - Track (including Para)
- Gymnastics - Rhythmic
- Shooting - Clay Target, Full Bore, Pistol, Small Bore
- Table Tennis (Para)
- Triathlon (Para)



4.2 Notional Allocation of Venues to Host CG Sports

A large range of venues across Victoria have been assessed and reviewed by OPG to meet the CG event criteria.

To complete the assessment against key games requirements OPG has had to develop a notional sports program and then assumed venue allocation and scheduled (based on best event assumptions) to assist undertaking the pre-feasibility assessment against a nominated set of event gives.

It would be expected that there would be significant changes if and when planning/ feasibility is progressed. A total of twenty-one venues across Regional Victoria have been allocated sporting competition programs and ceremonies in the updated venue assessment.

The Regional Victoria CG Sporting and Ceremonies Venues OPG has proposed for pre-feasibility assessment purposes are listed in Table 3 below.

Table 3: Recommended Regional Victoria CG Venues Summary

Venue	Proposed Sports and Ceremonies to be Hosted
Ballarat Sports and Events Centre, Wendouree, Ballarat	Badminton Netball (Women's) Preliminary Rounds
Bendigo Stadium	Netball Finals Table Tennis (including para) Wrestling (Freestyle)
Bright	Cycling Mountain Bike
Echuca Clay Target Club/VCTA State Ground	Shooting Clay Target
Eureka Stadium (Mars Stadium), North Ballarat	Athletics
Geelong Arena.	Basketball Men's and Women's 3 on 3 Basketball Wheelchair Para 3 on 3
Geelong Convention Centre Geelong	Boxing Gymnastics Artistic Men's and Women Gymnastics Rhythmic Judo
Geelong Waterfront Geelong (Start and Finish)	Athletics Marathon
GMHBA Stadium (Kardinia Park) Geelong	Opening and Closing ceremonies Rugby 7's Men's and Women's Finals
Kardinia Park Aquatic Centre	Aquatics Swimming (including para- sports)
Little River Shooting Range (Eagle Park), Lara	Shooting Pistol, Small Bore
Mildura Waves Aquatic Centre	Aquatics (Diving)
Shepparton Community Football Complex, Greater Shepparton Regional Sports Precinct	Rugby 7's Men's and Women's Preliminary Rounds
Shepparton Park Bowls Club, Shepparton	Lawn Bowls (including para - sports)
Shepparton Sports Stadium, Shepparton	Squash
Stead Park Hockey Centre, Geelong	Hockey
Tom Flood Centre Bendigo	Cycling Track, includes Track Para
Traralgon Sports Stadium	Weightlifting (plus Powerlifting para - sports)
Victoria Park Lake Precinct Shepparton (Start and Finish)	Athletics Walking Cycling Road Men's and Women's Individual Road Race Men's and Women's Individual Time Trial Triathlon Triathlon (Para)
Wellsford Forest, Bendigo	Shooting Full Bore
Wimmera Events Centre, Longerenong, Horsham	Archery (Recurve)



These venues assessment is listed against a range of key selection criteria in Table 4 on the next page and provides a summary of:

- The LGA area where the venue is located
- The sport
- Proposed venues
- Approximate numbers of athletes
- Spectator capacity
- Likely ticket sales
- Comments on facility capacity/issues

Table 4: Proposed CG Sporting and Ceremonies Venues Review

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
Core Sports										
City of Greater Geelong	Aquatics - Swimming (including para- sports)	360	Kardinia Park Aquatic Centre	5,000 CGA requires 8,000	8,000	12	96,000	81,600	It will require a major overlay, including temporary stands around the Main Pool, for 8,000 spectators. It is close to the proposed Games Village site and has surrounding land for expansion and has some of the competition/warm-up areas already in place. As an outdoor pool the decision relating to the timing of the Games will be critical to minimise the impact of weather risk issues for broadcasters and athletes.	Compliant
City of Ballarat	Athletics	920	Eureka Stadium (Mars Stadium) North Ballarat, utilising current Showgrounds site for warm up track and warm up throwing area.	40,000	40,000	13	520000	442000	Architects advise that it is unlikely to be feasible to provide seating for more than 32,000 seats on-site. Preliminary overlay design has identified that large sections of existing and proposed infrastructure would need to be demolished to maximise seating capacity. For example, retaining existing grand stand, removing all other built structures around the field and providing temporary seating around 75% of overlaid competition track achieves a seating capacity of approximately 27,000 spectators. Options to increase temporary seating compromise event operations and Games legacy and future Venue viability. Athletics is the largest program in the Commonwealth Games, representing approximately 21% (18% of total athletes if marathon runners and walkers are not included) of the total number of athletes. The majority of these athletes will either be required to travel almost one hour each way to travel from Games Village to the Athletics venue in Ballarat, which barely meets the CGF requirement for the venues to be within one hour of the Village.	Non-Compliant
City of Greater Geelong	Athletics - Marathon		Geelong Waterfront Geelong (Start and Finish)	1,000	1,000	1	1000	850	Number of competitors included in overall Athletics numbers. Traditionally the Marathon has been held in the same city as Athletics Program with finish into Athletics Stadium.	Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
City of Ballarat	Badminton	150	Ballarat Sports and Events Centre, Wendouree, Ballarat	2,500	3,000	23	69000	58650	The main show court can be configured to accommodate a spectator seating capacity of 3,000 plus in Badminton mode. As the Badminton program operates for 10 days, this configuration would mean no other sports could be catered for at the Centre. Unlikely to sell 60,000 plus tickets to Badminton in Ballarat.	Compliant
City of Greater Geelong	Boxing	220	Proposed Geelong Convention Centre Geelong	3,000	3,000	16	48000	40800	As the facility is yet to be formally designed, assessment can only be made on proposed specifications. These indicate the Centre's capacity to cater for two sporting programs on-site, including amenity required for each of the indoor sports. Preliminary advice is that the venue will be able to be divided into 2x4000m2 event centres. Hosting two or more indoor sports on one-site provides the capacity to share amenity, especially for Media, Broadcast & Transport Requirements, and reduce the overall size of the amenity area. The length of the Boxing Program means that this Event Arena can only cater for one sport.	Compliant
City of Greater Shepparton	Cycling Road (Men's and Women's Individual Road Race and Men's and Women's Individual Time Trial)	105	Victoria Park Lake Precinct, Shepparton (Start and Finish)	1,000	1,000	4	4000	3400	Shepparton has a range of circuits that could potentially meet UCI requirements. In line with previous Games, the Cycling Road Race routes would be confirmed closer to the Games. There are numerous international standard options across Victoria for this Program.	Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
City of Greater Geelong	Gymnastics Artistic (Men's and Women's)	100	Proposed Geelong Convention Centre Geelong	7,500	7,500	8	60000	51000	Artistic Gymnastics is normally a 5-day program. Subject to future design, preliminary advice is that the venue can be divided into 2x4000m2 event centres. Locating gymnastics and other indoor sports in the proposed Convention Centre creates another Games precinct, close to other Games infrastructure and activities. The capacity to incorporate a number of indoor sports on this site will be dependent on final design for first stage and other future developments. Hosting Gymnastics in Geelong will capitalise on the larger population to support the 50,000 plus tickets made available for sale. Based on proposed specifications for the Convention Centre, 7,500 seats will be difficult to achieve unless Centre was allocated to one event stadium with Judo and Gymnastics Only (i.e. Boxing would need to be located at another venue).	Non-Compliant
City of Greater Geelong	Hockey	360	Stead Park Hockey Centre, Geelong with 80% plus of spectator seating provided by temporary stands	5,000	5,000	23	115,000	97,750	The Centre will require an upgrade to meet capacity requirements, but there is ample space on-site to construct temporary stands to bring seating levels to Games requirements. The second pitch would need to be replaced with a water-based pitch. It is understood that the FIH are reviewing their standards for international events which would need to be considered if a full feasibility assessment is undertaken.	Compliant
City of Greater Geelong	Judo	185	Proposed Geelong Convention Centre Geelong (3-day program), before or after Gymnastics Program	2,500	2,500	6	15,000	12,750	Refer to comments for Gymnastics Program. The venue's spectator capacity would be scaled back for Judo as it has a relatively low profile.	Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
City of Greater Shepparton	Lawn Bowls (including para - sports)	210	Shepparton Park Bowls Club, Shepparton	2,500	2,500	9	22,500	19,125	The site currently has two international standard greens and will require a minimum of two additional international standard greens for the Commonwealth Games program. The venue has previously had a 500-seat grandstand constructed on the Show Green which becomes the TV green. In Games mode it will be more practical to construct the major temporary stand for 1,500 spectators on the western side of Green Two (re-developed as the Show Green) and place the remaining seats around the other three greens.	Compliant
City of Ballarat	Netball (Women's) Preliminary Rounds	145	Ballarat Sports and Events Centre either using the Show Court for Netball Preliminary Rounds or locating Badminton in the Main Show Court and conducting Netball Preliminary Rounds in the newly developed Competition Space with Temporary seating for spectators.	2,500	3,000	15	45,000	38,250	The concept of re-locating Netball during the Games for Finals has been undertaken previously. However, this has been undertaken utilising two venues in one city rather than moving to another city 1¼ hour away. The proposed facility allocations for Netball do not meet all requirements and potentially compromise the sport's significant role in an Australian Commonwealth Games. If the Games Bid proceeds to feasibility stage further analysis is required including potential for other planned developments to cater for Netball's needs.	Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
City of Greater Bendigo	Netball (Women's) Finals		Bendigo Stadium - number of competitors included in overall netball numbers	5,000	4,000	2	8,000	6,800	This provides in the Program a one-day break after Netball preliminaries for re-location of program to Bendigo for Semi-finals and Finals (similar to Gold Coast Program). The finals capacity is 4,000 seats at Bendigo Stadium so will be well short of required capacity. The major issue with Bendigo Stadium is that the Commonwealth Games seating capacity requirements is set at 7,500 seats. Detailed analysis would be required to be undertaken on the Stadium to determine the potential to incorporate an additional 3,500 seats around the main court (however, without major modifications to the building this is unlikely). There are no indoor stadiums in Regional Victoria that could achieve the Netball Finals spectator capacity requirement.	Non-Compliant
City of Greater Geelong	Opening and Closing ceremonies		GMHBA Stadium (Kardinia Park), Geelong	40,000	40,000	2	80,000	68,000	Stadium is planned for redevelopment with seating for 40,000 spectators. The current field provides a similar overall area for the Ceremonies as provided at recent Games. There is adequate space on site to cater for all major functional and overlay requirements. The Stadium is conveniently located within 20 minutes of Village options proposed for consideration. It has also been proposed that the Rugby 7's finals be conducted at Kardinia Park Stadium. The grounds adjacent to the Geelong stadium are sufficient for large storage areas for props and other presentation devices.	Compliant
City of Greater Geelong	Rugby 7's (Men's and Women's) Finals	Number of competitors for rugby 7's included in overall rugby 7's numbers	GMHBA Stadium (Kardinia Park), Geelong		20,000	1	20,000	17,000	The field can easily accommodate the field of play requirements for Rugby 7's final. Most previous Games have held Rugby 7's in a Rectangular Stadium. Kardinia Park will be capable of servicing 40,000 spectators; however, it will be more realistic to provide 20,000 seats. Assessment has been undertaken on a relatively conservative provision for 20,000 spectators. It is understood that Rugby's preference is to have the entire competition at a single venue and this would have to be negotiated at an appropriate time. Moving the Rugby 7's competition to another city after the preliminary rounds would add operating costs for the Games and would more costly for broadcasters.	Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
City of Greater Shepparton	Rugby 7's (Men's and Women's) Preliminary Rounds	305	Shepparton Community Football Complex, Greater Shepparton Regional Sports Precinct	5,000	5,000	3	15,000	12,750	One day break after preliminaries for re-location of program to Geelong. There will be a need to accommodate the Rugby 7's athletes and technical officials in the Shepparton Satellite Village for a minimum of 3 days.	Compliant. The approach of conducting Rugby 7's at two locations may not be acceptable.
City of Greater Shepparton	Squash	105	Shepparton Sports Stadium, Shepparton	2,500	3,000	19	57,000	48,450	The proposed new show court and additional competition space can easily accommodate the Squash Program. Unlikely to sell 50,000 tickets to Squash in Shepparton (10-day program).	Compliant (assuming redevelopment project proceeds)
City of Greater Bendigo	Table Tennis (including para)	160	Bendigo Stadium	2,500	4,000	20	80,000	68,000	Due to the need to locate the Netball finals in the largest indoor stadium in Regional Victoria (i.e. Bendigo) the draft schedule for the Table Tennis program is different to that used in recent Games. This may not be acceptable to the CGF and/or the International Table Tennis Federation. If this is the case it may require Table Tennis to be re-located to another event centre (yet to be developed, such as Wangaratta Indoor Stadium proposal). Unlikely to sell 70,000 plus tickets to table tennis in Bendigo.	Non-Compliant (program schedule proposed varies with CGF requirements)
City of Greater Shepparton City	Triathlon	65	Victoria Park Lake, Shepparton (Start, Finish and Swim location)	1,000	1,000	2	2,000	1,700	The venue is the base for a number of high-profile Triathlon events, with a range of routes available for the Games Triathlon course. Victoria Park Lake Shepparton and associated routes provides an effective base and course, provides the capacity to share infrastructure across a range of sports. Triathlon is a very popular sport in the Shepparton area and is likely to be well patronised by locals.	Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
Latrobe City	Weightlifting (plus, Powerlifting para - sports)	205 30	Traralgon Sports Stadium. (5-day program for weight-lifting, 1-day program for power-lifting). Competition area is proposed to be located in show court with warm up platforms/ area in adjoining courts.	2,500 2,500	3,000 3,000	15 3	45,000 9,000	38,250 7,650	It is proposed to have three sessions of Weightlifting per day as per Gold Coast Program. The main show court can be configured to accommodate a spectator seating capacity of 3,000 plus in Weightlifting or Powerlifting mode. As the combined Weightlifting and Powerlifting programs operate for 6 days, this configuration would mean it would be difficult to cater for other sports at the Centre. It may require some retro-fitting of additional floor reinforcement for platform areas.	Compliant
City of Greater Bendigo	Wrestling (Freestyle)	105	Bendigo Stadium (second show court 3-day program)	2,500	2,000	6	12,000	10,200	Fitting 2,500 seats in the second show court in Wrestling mode is a challenge, with preliminary design input indicating 2,000 seats as the potential maximum spectator capacity. As the proposal is to co-locate Wrestling, Table Tennis and Netball finals much of the media, broadcast and transport amenity for Wrestling can be shared with other programs at the venue. One of the warm-up/ training areas will need to be located in a temporary structure external to the building.	Non-Compliant
Sub-total No of Athletes Core Sports		3730		Sub-total Potential Ticket Sales Compulsory Sports				1,124,975		

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
Optional Sports										
Mildura Rural City	Aquatics (Diving)	70	Mildura Waves Aquatic Centre	2,500	2,500	8	20,000	17,000	The current facility does not meet the basic CGF requirements for pool dimensions. However, its depth is adequate. It would require a re-build of the pool tank to meet CGF and contemporary international diving event requirements. There is space on-site to place temporary infrastructure including spectator seating, assuming that most of the amenity infrastructure (other than seating) would be provided in the current indoor pool area and car-park. The preferred facility, Mildura Waves Aquatic Centre, would require a significant upgrade to meet Games requirements on a site that is limited in its capacity to absorb further development. Further analysis would be required of the cost-benefit, feasibility and viability of such an upgrade if the Bid was to proceed.	Non-Compliant
Horsham Rural City	Archery (Recurve)	25	Potential site at Wimmera Events Centre, Longerenong, Horsham	500	500	6	3,000	2,550	Indoor Archery is held at the Events Centre, located as part of the grounds at Longerenong Agricultural College, approximately 15kms north of Horsham. There is adequate land area for external facilities (archery and/or accommodation). Archery was initially proposed by the Taskforce as an optional sport because it provided an opportunity to take the Games to an area of the State often disadvantaged in access to major events. However, it is likely that an Archery program in Horsham would require an almost total build of a facility and would likely have significant Games capital and operational cost impacts, as well as additional costs for broadcasters. Further analysis would be required of the cost-benefit, feasibility and viability of such an upgrade if the Bid was to proceed.	Compliant if a total temporary infrastructure approach is utilised.
City of Greater Shepparton	Athletics Walking	25	Victoria Park Lake Precinct, Shepparton (Start and Finish)	1,000	1,000	2	2,000	1,700	Shared start and finish infrastructure with Triathlon and Road Cycling.	Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
City of Greater Geelong	Basketball Men's and Women's 3x3	70 (est.)	Geelong Arena, either using the Main Arena for two half courts or establishing the Main Arena as the Show Court and establishing a second competition court in the adjoining Competition court space.	3,000	3,000	16	48,000	40,800	The 3x3 Program has not been conducted at a Commonwealth Games to date. Proposal is for the establishment of two half-courts for preliminary rounds. The Centre has the majority of required amenity in place. Basketball 3x3 is preferred by FIBA to be played as an 'urban' sport - outdoors. There are two large paved areas on the Geelong Arena site that could potentially be developed as two outdoor half court areas providing space for a total of 3,000 spectators. An alternative is Ballarat Sports and Event Centre using its outdoor half courts as the basis for the program.	Compliant
City of Greater Geelong	Basketball Wheelchair Para 3 on 3	45 (est.)	Refer Men's and Women's Basketball venues.	3,000	3,500			0	Basketball Wheelchair ticket estimates included in other Basketball estimates.	Compliant
Alpine Shire	Cycling Mountain Bike	15	Bright	1,000	1,000	1	1,000	850	The area already hosts a number of major mountain bike events. Melbourne 2006 had 2 ticketed sessions for the day whereas Gold Coast had whole day ticketed as 1 session.	Compliant
City of Greater Bendigo	Cycling Track, includes Track Para	115	Tom Flood Centre Bendigo	4,000	4,000	7	28,000	23,800	CGA identified that although Track Cycling is an optional sport it would be considered an important part of an Australian based Bid. Tom Flood Centre is currently an outdoor velodrome, with a 413m acrylic track. It may not be viable to re-develop (large capital investment with limited legacy) as an indoor venue, rather it may be more effective to conduct the track cycling program at Melbourne Park.	Non-Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
City of Greater Geelong	Gymnastics Rhythmic	25	Proposed Geelong Convention Centre Geelong (schedule would not allow Rhythmic, Artistic Gym and Judo in the one event space)	3,000	3,000	4	12,000	10,200	Rhythmic Gymnastics and Judo can potentially be held in the one event area following each other in the Games program. The required roof height with a preference for 14m high precludes most Regional Victoria indoor stadia from hosting the Program. Potentially the Judo or Boxing program could be hosted at the other indoor arenas proposed for the Games, if the compulsory sports currently proposed for those venues were re-located or optional sports not included in the Bid program. There are also potential developments in Geelong (Regional Indoor Sports Centre) Warragul that are likely to be capable of hosting the Judo or Boxing programs.	Non-Compliant in that space would not cater for schedule.
	Shooting								In the absence of a multi-discipline international Shooting complex it is likely that the Games Shooting Program would need to be held at a number of Centres, as was the case for the 2006 Commonwealth Games. While some of the proposed venues may be able to be compliant with overlay, the proposed solution is not ideal and may not be winnable, as three shooting venues in vastly different locations will require teams to increase their team management support.	
Campaspe Shire Council	Shooting Clay Target	60	Echuca Clay Target Club/VCTA State Ground	1,000 across all shooting disciplines	500	8	4,000	3,400	The Echuca Clay Target Club's existing field of play and warm up areas meet current Games requirements. There is adequate space adjoining the ranges for support infrastructure and stands to house up to 1,000 spectators.	Compliant
City of Greater Bendigo	Shooting Full-Bore	40	Wellsford Forest		400	3	1,200	1,020	Wellsford Forest Rifle Range, Bendigo hosted the Full-Bore shooting program for the 2006 Commonwealth Games. Most of the infrastructure is available on-site and would be complimented by temporary overlay similar to that provided for the 2006 Games.	Compliant
City of Greater Geelong	Shooting Pistol, Small Bore	100	Little River Shooting Range (Eagle Park)		500	9	4,500	3,825	This would require significant infrastructure development.	Non-Compliant
City of Greater Shepparton	Triathlon (Para)	10	Victoria Park Lake, Shepparton	1,000	1,000	2	2,000	1,700	As per Triathlon comments.	Compliant

Local Government Area	Sport	Approx. no of Athletes (based on 2018 Gold Coast Commonwealth Games numbers where applicable)	Proposed Venue	Minimum Spectator No's (CGF &/or CGA)	Proposed Spectator Numbers	Number of Sessions	Total of Seats Available for Allocation	Ticket Sales @ 85% Uptake	Comments	Compliant for Field of Play, Schedule and Spectator Capacity with Proposed Overlay
Sub-total No of Athletes Optional Sports		530		Sub-total Potential Ticket Sales Optional Sports				10,6845		
Total No of Athletes		4260		Sub-total Potential Ticket Sales All Sports				1,231,820		

Optional sports not included in draft pre-feasibility assessment are Cricket (Men's and Women's) and Volleyball (Beach).



Table 5 highlights the LGA where the proposed CG venue is located and numbers of proposed sports to be hosted and athlete capacity requirements

Table 5: CG Venue and Event Summary by LGA

Local Government Area	No. of Venues	No. of Sports/ Ceremonies Hosted	No. of Athletes excluding athletes hosted for finals and ceremonies	Ticket sales by LGA based on 85% of capacity sold
Alpine Shire	1	1	15	850
Ballarat City	2	3	1215	538,900
Campaspe Shire	1	1	60	3,400
City of Greater Bendigo	3	5	420	109,820
City of Greater Geelong	7	10	*1855	424,575
City of Greater Shepparton	4	7	**435	88,825
Horsham Rural City	1	1	25	2,550
Latrobe City	1	2	235	45,900
Mildura Rural City	1	1	70	17,000
Totals	21	28	4,330	1,231,820

Notes:

*(includes 390 athletes who will stay in Shepparton for 3 days or less)

** (plus 390 athletes who will stay in Shepparton for 3 days or less)

In addition, the City of Greater Geelong is proposed to host both Opening and Closing Ceremonies.

4.3 Proposed Venues SWAT Review

4.3.1 Venue Strengths

The preliminary assessment of venues has identified the following strengths of the venue delivery model:

- The Bid is based on providing 5 main sporting precincts (Geelong Convention Centre, Kardinia Park, Eureka Stadium/ Ballarat Sports and Event Centre, Bendigo Stadium and Greater Shepparton Regional Sports Precinct) with consequent benefits of shared amenity, festival feel across sports and activities.
- A large percentage of proposed venues either exist or are committed for development.
- Recognises that many Regional Victoria facilities can be geared up to cater for high profile/ large participant/spectator events.
- The location of some venues more than one hour from Melbourne is likely to encourage more overnight visitations to regional cities.
- Eases and reduces travel time for athletes and technical officials from Satellite Villages to Games venues as compared to those in large cities.
- The assessment has Identified that Regional Victoria's sporting event infrastructure positions Regional Victoria to bid for and host more events (multi-sport and single sport) than currently occurs.
- Where separate training facilities during the Games period are required, the majority of proposed competition venues are located reasonably close to facilities that are likely to meet Games requirements.
- Has focused on planning a model in which venues are sustainable into the future.
- Has helped identify some current gaps in provision in Regional Victoria.



- Spreads the benefit of the Games to a much broader area.
- A more widely dispersed Games may result in greater socio-economic benefits to Regional Victoria through short-term employment and volunteering opportunities being felt more widely by individuals because they would not be prohibited from taking up these opportunities by the need to travel long distances. Regional events are generally regarded as securing greater volunteer input and more closely linked to local sporting and other community organisations.
- Raises the profile of Regional Victoria.
- Can be a catalyst for infrastructure development and bringing forward other investment in infrastructure.
- Provides a model that would encourage pre-Games training in Regional Victoria, including in municipalities nearby not hosting the Games competition program.
- The Games could be a catalyst across Regional Victoria to have a positive impact on health - promoting and facilitating opportunities to increase participation in sport and physical activity.

4.3.2 Venue Gaps and Weaknesses

The preliminary assessment of venues has identified the following gaps, weaknesses and issues of the venue delivery model:

Regional Victoria's key infrastructure gaps in meeting CGF requirements are:

- The biggest challenge for any major multi-sport event is the provision of an event Village and associated accommodation to cater for the temporary increased demand.
- An existing World Class Stadium to host athletics with seating for 40,000 spectators.
- The limited spectator seating capacity at most Regional Victoria venues to match the requirements of the CGF.
- Many of the current indoor show-courts/ competition spaces are not able to be configured for Games program because of roof heights that limit size of spectator stands and/ or that don't meet international competition requirements. The Taskforce has noted that there is a shortfall in Regional Victoria of indoor venues that can be geared up to cater for major events. It is therefore imperative that future planning of indoor stadia take account of the need for increased stadia provision and planning of stadia with flexible design that caters for ongoing mass participation as well as major events.
- An established indoor aquatic venue with the ability to accommodate 5,000 to 8,000 spectators, or the ability to feasibly expand to meet the required capacity.
- A Multi-Purpose Indoor Event Stadium that can accommodate 8,000 spectators, capable of hosting the artistic gymnastics and netball finals.
- Inadequate indoor arenas to accommodate 2,500 plus spectators.
- An indoor cycling velodrome.
- A single multi-discipline shooting facility.

Weaknesses and Issues with the proposed model include:

- The philosophy of the Commonwealth Games to bring athletes together both to compete and for cultural exchange is somewhat diluted in a Regional Victoria approach. The wide geographical spread of events is likely to be less supported as compared to an event predominantly in a focused area.
- The Satellite Village in Ballarat will need to be large enough to cater for many athletes wanting to stay closer to competition and/or training venues.
- The ongoing legacy for Regional cities is somewhat diminished because the most viable/effective method of meeting Games infrastructure requirements is through the large utilisation of temporary infrastructure. In many instances this is a consequence of Games requirements being well beyond that which is sustainable in a Regional city.



- Meeting ticket target sales is problematic for many sports based on information analysed from other Games. Meeting CGF's ticket sales targets would be an important consideration in reviewing amendments to the proposed Games Delivery Model.
- The large program of required temporary infrastructure will result in significant impact on many of the facilities operations prior to and following the Games.
- It may mean a network of events, with significant need for athletes to travel regularly in excess of the 60 minutes leading to potentially negative athlete experiences; and spectators would be widely dispersed with no central Games Hub. The proposed venue and sporting program schedule will require more than 40% of competitors to be located in satellite villages for extended periods during the Games. Whilst the pre-feasibility analysis has not undertaken evaluation of likely cost impacts of a regional model, having 40% of competitors located outside of the Main Village adds costs; duplicating accommodation for athletes and officials and transport services across the region adds costs; impacts to broadcaster operations, and media adds costs, or may deter their attendance; costs to sponsors transporting their guests across the region; sourcing resources like volunteers and contractors adds training costs.
- As a result of proposed venue and sporting program schedule requiring multiple Satellite Villages and accommodation it would be necessary to build in duplication of the accommodation requirements, so that athletes and Games Family had the opportunity to stay in both the sporting event locations and in the main village as required during the Games.
- The proposed venue allocation for most sports utilises almost all facilities of sufficient size and standard across Regional Victoria. For example, the main show court at Bendigo Stadium is scheduled to host the table tennis program and netball finals, resulting in a table tennis schedule that varies from recent Games.
- The Games requirements for many of the sports could be met through hosting those sports in Melbourne with minimal temporary infrastructure and resultant impact on operations and Games budget.
- Meeting required maximum travel times for athletes and technical officials provides an expectation that significant improvements are made to road/rail connection between regional cities and/or implementation of operational measures to ensure athletes and technical officials have adequate time and flexibility in travel arrangements.
- An analysis of current and projected accommodation availability identifies that the level and standard of accommodation provision required for the Games is not likely to be available using traditional accommodation providers.

A detailed analysis of each Commonwealth Games sport and their associated venue requirements will need to be undertaken. The feasibility of developing new or redeveloping existing venues into facilities which could be viable will need to be examined in greater detail. The Taskforce recognises that based on assessment of existing infrastructure the Greater Victoria concept has some initial challenges.

However, this is a “point in time” analysis and doesn't account for nor seek to anticipate future changes in the landscape that may occur in the lead-up to 2034 e.g. technology, connectivity, transport, significant developments, population growth etc. It is difficult to predict future changes, especially with a report at this level.

The Taskforce would welcome the opportunity to work with the CGF, CGA and other stakeholders to resolve current identified Gaps in the model, including amending the model and believe that a full feasibility study will provide increased detail to make a fully informed decision. The Taskforce acknowledges that in reviewing the Regional Victoria model for delivering the Games consideration will need to be given to a number of options, including locating some activities in Melbourne in which those events are not practical or viable to host in Regional Victoria.

The timing of the various sports programs for the games period is critical as the current proposal is dependent on use a number of venues for more than one sport. Consideration needs to be given to the impact on a potential Bid of requiring athletes to move to other cities from preliminary round competition to finals in sports, such as Rugby 7's and Netball. In the event that a Bid is to proceed, and this Bid competes against a centralised model from another Australian State (pre-Bid selection may be required), or another country, it is recognised that a centralised Games Concept from a competing city may be more desirable to



the CGF voting members. A key consideration for further feasibility assessment would need to be whether the Bid is winnable. Based on advice to date the proposed model that distributes the competition widely across Victoria may not be winnable, depending upon the 'competition'.

Although this report, in accordance with its brief, focuses on the preliminary identification of gaps between the CGF's required infrastructure and Regional Victoria's existing infrastructure it is important to highlight that that the CGF's criteria for sporting venues are only the stated minimum criteria.



5. Ceremonies and Sports Assessment Summary

The following provides an overview of proposed venues, overlay requirements and an assessment of the proposed venue's capacity to meet Games requirements. Space assumptions for Media, Broadcast and Transport and Athlete, Technical Officials and Competition Management Amenity have been developed based on prior experience, as estimates/assumptions to validate venue suitability, and are not defined requirements. The report is unable to take account of potential future developments, such as technological developments that will impact on space requirements.

The Summary should be read in conjunction with the notional assumed draft Games program provided in Appendix 3. This section covers compulsory sports and ceremonies.

5.1 Opening and Closing Ceremonies

5.1.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

Spectator seating of 40,000 is required. The major component of the opening and closing ceremonies will be undertaken on the Stadium field.

Games Amenity

The Opening and Closing Ceremonies are the most popular events for attendance by both spectators and Games Family. For this reason, the amenities required to be provided for the Ceremonies and Athletics are very similar in relation to transport, media and broadcast requirements. This is why the Athletics venue is often used as the Opening and Closing Ceremonies venue as significant Broadcast and Media resources can be utilised for both purposes and the venue staff are used throughout the Games period.

Opening and Closing Ceremonies require large storage areas for props and other presentation devices. These are generally accommodated in compounds adjacent to arena access doors or roadways, often utilising carpark or other hardstand areas just outside the access doors and secured with temporary fencing. These locations need to be available and accessible for the large number of rehearsals that are conducted prior to the Opening and Closing Ceremonies. The Opening and Closing Ceremonies present specific challenges as they generally are attended by much larger numbers of VIPs, Media and Athletes than individual sports competitions. As a result, all resources are stretched to the limit during these periods. Specific challenges include:

- Large load zones to accommodate the entire Games Fleet of cars and buses being utilised.
- All constituent groups arriving and departing at approximately the same time.
- All media and broadcast rights holders wanting to cover the events.
- Strain on internet bandwidth in a localised area.
- High levels of security due to the large number of VIPs, often some with diplomatic status for the Government Protocol Office to manage.
- Large numbers of seats needing to be reserved for VIPs, Media, Broadcasters and Athletes reducing the number of seats available for sale.
- Large space requirements for ceremony props and presentation devices.



Table 6: Media, Broadcast & Transport Requirements for Ceremonies

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	3,000	3,520
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	120	
Presentation Studio	150	
Camera Space & Positions	140	
Media Tribunes	60	

Athlete, Technical Officials and Competition Management Amenity for Ceremonies

Approximately 5,500 athletes and technical officials normally participate in the Games Opening and Closing Ceremonies. It is likely that all of these athletes and officials will require a secured and covered staging area of at least 5,000 m2 with toilets, change, lounge/refreshments, some change amenity, plus access to watch proceedings in the main arena. This will need to be easily accessible from bus drop-off zone of at least 1,000 m2 and have to direct access to field.

5.1.2 Preferred Venue

Facility Description

The preferred venue is Kardinia Park Stadium (currently known as GMHBA Stadium). The Stadium is located in the Kardinia Park Precinct which covers an area of approximately 28,300 square meters and is inclusive of a number of different areas and equipment to cater for a variety of different activities. The Park includes the Stadium, Kardinia Aquatic Centre and a wide range of community sporting facilities, car-parking and passive recreation areas. The Stadium is the home of Geelong Football Club but is also utilised for a wide range of events. It currently has a spectator capacity of 36,000 with plans for a stadium capacity of approximately 40,000.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The Stadium is planned for redevelopment with seating for 40,000 spectators. The current field provides a similar overall area for the Ceremonies as provided at recent Games. There is adequate space on site to cater for all major functional and overlay requirements. The Stadium is conveniently located within 20 minutes of Village options proposed for consideration. It has also been proposed that the Rugby 7’s finals be conducted at Kardinia Park Stadium. The grounds adjacent to the Geelong stadium are sufficient for large storage areas for props and other presentation devices.

5.1.3 Other Venue Options

There are no other Regional Victoria venue options identified from 5 areas reviewed.

5.1.4 Summary

Kardinia Park is well placed to cater for the minimum requirements of the CGF for the Opening and Closing Ceremonies.



5.2 Athletics (including Para-Sports)

5.2.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

The preferred field of play layout for the main competition arena is the IAAF standard track layout; class one certification is mandatory. This includes an 8-lane synthetic track of 400m with 10 lane 110m plus straight on finish side and long/ triple areas on opposite side to finish straight. The warm-up facilities for Athletics competition need to be adjacent to the main stadium. The warm-up area will include as a minimum a six lane by 400-metre synthetic track and jump pits as well as a separate throwing warm up area of approximately one 136 m x 70 m in accordance with IAAF requirements. Final warm-up area within the stadium adjacent to the final cool area requirements include a six-lane synthetic running track approximately 80 m in length including run-off areas.

Spectator seating of 40,000 is required, however the 2018 Gold Coast Commonwealth Games Athletics facility had a capacity of 36,000 seated spectators.

Games Amenity

Table 7: Athletics Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	3,000	3,720
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	120	
Presentation Studio	150	
Camera Space & Position	140	
Media Tribunes	200	
Mixed Zone	60	

Table 8: Athletics Athlete Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	360	1,690
Athlete Lounge and other	240	
Athlete Call Room/Marshalling	120	
Technical Official Change	240	
Technical Official Lounge	300	
Competition Management	140	
Secured entry/mixed areas	100	
Athlete Medical Area	140	
Doping Control	50	

Approximately 850 athletes compete in the Games Athletics Program.

In the case of track wheelchair para athletes, transport and storage of the much longer than normal competition chairs must also be considered. This will generally involve a covered, lockable storage area of approximately 50m² depending on the final number of athletes.

Most of the additional infrastructure required to facilitate para-sports outside the FOP can be done with temporary installations and the Mars Stadium appears to have adequate space for this.

5.2.2 Preferred Venue

Eureka Stadium (Mars Stadium) and adjoining public spaces in North Ballarat, Ballarat City.

Facility Description

The preferred venue is Eureka Stadium (Mars Stadium) North Ballarat, Ballarat City. The venue has been recently redeveloped and is located in a major sporting and recreational precinct that has significant



capacity for future development and space for Games Overlay. Eureka Stadium has been significantly upgraded to meet AFL standards. The Stadium has more than 5,000 undercover seats and a total stadium capacity of more than 11,000 spectators with an oval the same dimensions as Etihad Stadium. Planning works for Stage 2 of the redevelopment will look at boosting the capacity of the stadium, facilities for fans and commercial development around the stadium.

Council advises that it believes that the maximum sustainable core seating capacity for the stadium is 15,000 spectators. A new rail station is planned at the corner of Howitt St and Creswick Road which is only 250m from the main oval. There is already a media and broadcast infrastructure network in place and flexible spaces that provide options for some of the functional area and overlay requirements

Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

The current surface is natural turf and this would need to be renovated to accommodate the synthetic running track configuration - this would be temporary however requires significant timeframes and cost for installation and removal. This was undertaken for the track at the MCG but at a large cost. There is adequate space on site to cater for all major functional and overlay requirements. It will be critical that the design of stands in future staged development are located outside the proposed footprint of the Athletics facility.

Based on council advice that any future development is unlikely to take the Stadium to beyond 15,000 seated spectator capacity, temporary stands providing seating for a further 25,000 spectators will be required. Architects advise that it is unlikely to be feasible to provide seating for more than 32,000 seats on-site, without encroaching on a major road.

Preliminary overlay design has identified that large sections of existing and proposed infrastructure would need to be demolished to maximise seating capacity. For example, retaining existing grandstand, removing all other built structures around the field and providing temporary seating around 75% of overlaid competition track achieves a seating capacity of approximately 27,000 spectators.

Options to increase temporary seating compromise event operations and Games legacy and future Venue viability. Measures considered include re-locating final warm-up area to south of the stand enabling additional rows of seats in the east/north-east stand on bend to protrude forward a few rows without impacting on sight lines of other stands and adding seats to the north-east stand by cantilevering over road. There are currently a number of areas on-site available for warm-up track and support amenity. This will be greatly enhanced in the medium term with the showgrounds moved to another site freeing up the showgrounds area for other developments.

This could include the construction of a permanent track and field area which could serve as the warm-up areas for track and field. As a large proportion of the infrastructure will be temporary overlay it will result in significant impact on the precinct's operations prior to and following the Games.

Parking and load zone locations at Mars Stadium are more than adequate as they can be located easily with BOH entry access on the hardstand areas between the stadium and adjacent football oval.

For the purposes of the Pre-Feasibility study it has been assumed that the warm-up track will be located on the current Showgrounds site.

Rugby 7's is also a consideration for this site either in conjunction with the Athletics program or as an alternative to the Athletics program. Whilst the Rugby 7's program was completed on days 1 and 2 at the Gold Coast and the Athletics didn't commence until Day 4 it would be extremely difficult (field needs a minimum turfed space of 130m x 80m) to conduct the Rugby 7's on the infield for Athletics.

5.2.3 Other Venue Options

Kardinia Park

Existing or planned grandstands at Kardinia Park do not allow for international athletics track dimensions under current configuration. A significant redevelopment of the existing grandstands would therefore be required to enable this to occur. Any such redevelopment would likely come at significant cost.



5.2.4 Summary

This preliminary assessment indicates that it is likely to be feasible to develop the key Field of Play and Warm-Up facilities and support amenity on the site. However, there are major difficulties in achieving the required spectator capacity. Athletics is the largest program in the Commonwealth Games representing approximately 21% (18% of total athletes if marathon runners and walkers are not included) of the total number of athletes. The majority of these athletes will either be required to travel almost one hour each way to travel from Games Village to the Athletics venue in Ballarat, which barely meets the CGF requirement for the venues to be within one hour of the Village. Athletics involves athletes travelling to the venue for heats, semis and finals. Many athletes prefer to return to the Games Village to prepare between morning, afternoon and evening sessions. For this reason, a long travel time between the competition venue and the Games Village is not advised.

As Athletics is extremely popular, a large number of VIPs attend sessions and almost all CGAs will have athletes competing in this sport. Therefore, the demands on T1 and T2 load zone and parking areas is high. The ability for Chef de Missions and other team staff to visit all venues to cater for their athletes makes distances between competition venues problematic. Based on previous Games it is likely that a significant percentage of these athletes will want to stay at a Satellite Village closer to the venue, especially for those wishing to return to their Village accommodation between competition sessions, training or venue familiarisation.

5.3 Athletics - Marathon

5.3.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

The IAAF recommends that international marathons start and finish within 10% of the race distance from each other to ensure that records can be compared between events. As these events attract relatively small numbers of athletes, the event is best accommodated by starting and finishing within the Athletics venue (or sometimes starting on the roadside adjacent to the Athletics venue) so that the services within the venue can be utilised by the Marathon team. These include:

- Transport load zones
- Athlete change rooms
- Doping Control
- Medical at start/finish
- Some media and broadcast facilities.

The majority of the venue is the streets of the host city. The course is 42.195kms. As this event is used as a mechanism for host nations to showcase their city to the world, the course generally includes passing a number of significant local icons and central landmarks.

This necessitates closing down large numbers of roads which impacts “Business as Usual” traffic immensely. For this reason, and also to assist with cooler morning temperatures for the athletes, the Marathon generally starts early in the morning. Athletes warm up on the first few hundred metres of the course and/or adjacent roadways.

No special warm up facilities are required. If the event is not being run from the Athletics stadium, as is proposed in this document, then the following spaces are required at the Start/Finish location:

- Change Rooms (accessible for para-athletes)
- Timing/Results operations room
- Media Centre
- Broadcast compound
- Media Centre
- Logistics Compound



- Athlete Load Zones
- Media Load Zones

Course Requirements: The following needs to be temporarily installed along the 42.2km course at 2.5 km intervals. Generally, the infrastructure is installed on the morning prior to the event and removed immediately after the event concludes.

- Aid stations (trestle tables with water and athlete specific drinks)
- Sponging stations
- Timing stations
- Static Camera positions at strategic locations

Games Amenity

Table 9: Athletics - Marathon Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	200	340
Commentary (done from the studio or a lead vehicle)	0	
Camera Space & Position (2 set cameras and ENG)	10	
Media Centre (small marquee)	100	
Mixed Zone	30	

Table 10: Athletics - Marathon Athlete, Technical Officials & Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	100	475
Athlete Lounge and other	100	
Athlete Call Room/Marshalling	25	
Technical Official Lounge	100	
Competition Management	50	
Secured entry/mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

The number of Marathon competitors is included in overall Athletics numbers.

5.3.2 Preferred Venue

Geelong Waterfront including Eastern Beach Reserve (Start and Finish).

Facility Description

Waterfront Geelong features many cafes and restaurants, fully restored art deco seawater baths, a yacht club marina and a scenic bay side promenade leading to a number of reserves, including Eastern Beach Reserve.

Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The Geelong Waterfront for the start and finish of the marathon and is the base for a wide range of running, cycling and triathlon events.

There are a wide range of potential circuits that could potentially meet IAAF requirements. The route would be confirmed closer to the Games.

Ongoing venue-planning and technical assessments may necessitate event host arrangements being subject to change with the focus in the pre-feasibility on assessing start and finish area and potential circuit’s capacity to meet CGF’s and IAAF’s requirements. Starting and finishing at the waterfront area provides an opportunity to showcase many aspects of the City and other tourism icons.



5.3.3 Other Venue Options

There are numerous other suitable sites including starting and finishing at the Athletics venue in Ballarat, utilising the proposed infrastructure for Triathlon at Shepparton and using the routes along the Great Ocean Road.

5.3.4 Summary

The Geelong Waterfront and associated routes provides the most effective way to showcase the area and expose the athlete and the event to a larger number of spectators than other options.

5.4 Aquatics - Swimming

5.4.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

A 10 lane, 50-metre-long pool for swimming competition field of play; the pool shall provide eight competition lanes each 2.5m wide with two spaces (also 2.5m wide) outside lanes one and eight (pool will normally be a 52m or 54m length pool with movable boom, however movable boom is not essential for Commonwealth Games Competition Program). Depth shall be a minimum of 2m but preferably 3m.

A warm-up pool with a minimum of six lanes but preferably eight lanes each 2.5m wide; with two spaces each 2m wide beyond the outside lines. Depth shall be a minimum of 1.2m with at least 1.35m for the first 6m from the starting block but preferably 2m deep.

Spectator seating of 5,000 is required, however the 2018 Gold Coast Commonwealth Games Athletics facility had a capacity of 10,000 seated spectators. CGA advise that an 8,000-capacity venue is required for an Australian hosted Games.

Games Amenity

Table 11: Aquatics - Swimming Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	2,000	2,545
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	100	
Presentation Studio	60	
Camera Space & Position	85	
Media Tribunes	200	
Mixed Zone	50	

Table 12: Aquatics - Swimming Athlete, Technical Officials & Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	360	1,690
Athlete Lounge and other	240	
Athlete Call Room/Marshalling	120	
Technical Official Change	240	
Technical Official Lounge	300	
Competition Management	140	
Secured entry/mixed areas	100	
Athlete Medical Area	140	
Doping Control	50	

Approximately 360 athletes compete in the Games Aquatics Swimming (including para- sports) Program.

5.4.2 Preferred Venue

Kardinia Aquatic Centre, Geelong



Facility Description

The preferred venue is Kardinia Aquatic Centre. The Centre is located in the Kardinia Park Precinct which covers an area of approximately 28,300 square meters and is inclusive of a number of different areas and equipment to cater for a variety of different activities.

The Kardinia Pool has two 50-metre heated wet deck pools, including a ten lane FINA standard pool and an eight lane Olympic pool. Other facilities are also a diving pool with springboards, toddlers and learners' pools. The venue hosted the 2006 World Lifesaving Championships.

Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

It will require a major overlay, including temporary stands around the Main Pool for 8,000 spectators. It is close to the proposed Games Village site and has surrounding land for expansion and has some of the competition/warm-up areas already in place. The precinct regularly hosts major events involving 30,000 spectators.

There will be the capacity to share some of the Opening and Closing Ceremony amenity with the Aquatics program. As a large proportion of the infrastructure will be temporary overlay it will result in significant impact on the Aquatic Centre's operations prior to and following the Games. Preliminary advice from the architects is that all infrastructure, including temporary seating around the competition pool can be achieved on the site with some impact on local parkland.

5.4.3 Other Venue Options

The Greater Bendigo Indoor Aquatic Leisure Centre was the proposed venue in the initial proposal by the Taskforce. The Centre has been constructed at a cost of over \$30M. The design provides for approximately 200 seats around the competition pool.

Further significant upgrades would be required for this facility to meet the capacity requirements, as it lacks a warm-up pool and it would not be possible to locate a major temporary spectator stand overlooking the main competition pool. The outdoor Faith Leach Aquatic Centre (Bendigo Aquatic Centre) is the major aquatic complex for swimming carnivals in the Bendigo area and was used for the 2005 Commonwealth Youth Games.

The \$46M Gippsland Regional Aquatic Centre is currently under construction. It will include an eight lane 50-metre competition pool with spectator seating for 500, a 25-metre outdoor pool, warm water pool, indoor water play areas, water slides, gym, geothermal heating and a wellness centre. The capacity to increase the seating to the required 8,000 is not considered achievable.

5.4.4 Summary

Kardinia Park's location in an event precinct and large surrounding open space, along with its close proximity to the proposed Games Village provides the most feasible development options for the Games. The challenge will be planning the development to provide maximum ongoing legacy and minimise impact on the Precinct's operations and parkland. As an outdoor pool the decision relating to the timing of the Games will be critical to minimise the impact of weather risk issues for broadcasters and athletes.

5.5 Badminton

5.5.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

A competition arena containing at least five courts with a minimum clear height of 12m over the playing area and minimal air movement in the playing space.

A warm-up area in a separate adjacent area containing a minimum of 2 but preferably 4 courts with a minimum clear height of 10m is required but 12m preferred over the warmup area. The courts require seating for 2,500 spectators with the majority around the show court.



Games Amenity

Table 13: Badminton Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,922
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	72	
Camera Space & Position	140	
Media Tribunes	150	
Mixed Zone	10	

Table 14: Badminton Athlete, Technical Officials & Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	160	985
Athlete Lounge and other	120	
Athlete Marshalling/Waiting	40	
Technical Official Change	150	
Technical Official Lounge	120	
Competition Management	120	
Secured entry/mixed areas	200	
Athlete Medical Area	50	
Doping Control	25	

Approximately 150 athletes compete in the Games Badminton Program.

5.5.2 Preferred Venue

Facility Description

Ballarat Sports and Events Centre, Wendouree, Ballarat

Ballarat Sports and Events Centre is currently under redevelopment and will be substantially completed in July 2019. The expansion includes six new courts for multi-sport use including basketball, netball, volleyball and badminton. It will also feature a 3,000-seat show court, learning rooms and sports medicine facilities, as well as 3 outdoor 3 on 3 basketball courts. Ceiling heights have been designed to meet major badminton event requirements.

Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

The courts at the Ballarat Sports and Event Centre can be configured to provide 8 badminton courts. The main show court can be configured to accommodate a spectator seating capacity of 3,000 plus in badminton mode. As the Badminton program operates for 10 days, this configuration would mean no other sports could be catered for in the show court at the Centre. The current proposal is to host preliminary rounds of netball in the competition courts utilising temporary seating.

5.5.3 Other Venue Options

Ballarat Badminton Centre which would need a significant upgrade. The facility has hosted world events previously including the Oceania Championships, but has minimal spectator capacity. If an upgrade was undertaken it is likely that the Centre could only cater for preliminary rounds. It would be suitable to be the major support training centre during Games time.

5.5.4 Summary

Ballarat Sports and Event Centre is a suitable site for the Games Badminton program.



5.6 Boxing

5.6.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

The competition hall is required to have one boxing ring separated from seating by a barrier. Two competition warm-up areas, one for the red corner and one for the blue corner each to accommodate two boxes four trainers and be located in close proximity to the field of play.

The field of play component of the arena needs to be 21.4m x 21.4m plus space for the technical officials. Seating for 3,000 spectators around the main boxing ring is required. The Boxing Program is generally conducted over 9 days. Boxing at the Commonwealth Games has traditionally been conducted within a multi-purpose facility.

Games Amenity

Table 15: Boxing Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,736
Commentary Ctrl Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	10	

Table 16: Boxing Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	160	985
Athlete Lounge and other	120	
Athlete Marshalling/Waiting	40	
Technical Official Change	150	
Technical Official Lounge	120	
Competition Management	120	
Secured entry/mixed areas	200	
Athlete Medical Area	50	
Doping Control	25	

Approximately 220 athletes compete in the Games Boxing Program

5.6.2 Preferred Venue

Facility Description

The proposed Geelong Convention Centre Geelong located at Deakin's waterfront campus car park. The venue can be divided into 2 x 4000m2 event centres. Seating for 3,000 spectators would be provided by temporary stands.

Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

As the facility is yet to be formally designed, assessment can only be made on proposed specifications. These indicate the Centre's capacity to cater for two sporting programs on-site, including amenity required for each of the indoor sports. Hosting two or more indoor sports on one-site provides the capacity to share amenity, especially for Media, Broadcast & Transport Requirements, and reduce the overall size of the amenity area.

5.6.3 Other Venue Options

Traralgon Sports Stadium. Victorian State Government committed to a \$19M upgrade to this facility to be completed by mid-2020. The project includes a four-court extension to the existing stadium featuring a new show court with 3000 capacity spectator seating and associated amenities.



The venue is the preferred venue for the Weightlifting program. The lengthy program in Boxing and Weightlifting would mean the Traralgon facility could only cater for one of the two sports programs. The other proposed indoor sport competition centres, such as Shepparton, Ballarat and Bendigo could host the Boxing program if one of their sporting programs were re-located.

5.6.4 Summary

Locating boxing and other indoor sports in the proposed Convention Centre creates another Games precinct, close to other Games infrastructure and activities. The capacity to incorporate a number of indoor sports on this site will be dependent on final design for first stage and other future developments.

5.7 Cycling - Road

5.7.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

The Road Cycling program comprises of:

- Men’s and Women’s Individual Road Race
- Men’s and Women’s Individual Time Trial

The minimum UCI requirements for the Road Race is a 15km circuit on an undulating road with flat sections for the start/finish. The Time Trial is conducted on a smooth, minimal graded road (e.g. freeway). The competition course layout and distances must be approved by the UCI technical delegates. The start finish area shall be at least 6m wide at the race start and a minimum of 8m at the race finish. Seating for 1,000 spectators in the finish area is required.

The time trial start area needs to be separate from the finish and include a starting ramp, finish area should be the same as the road race. One warm-up circuit of at least 800 m must be provided in the vicinity of the start area.

Additional requirements include:

- A detour for all vehicles to leave the course before the finish line.
- Spectator crossing point at regular intervals, the crossings must be marshalled on each side of the course.

The course varies from Games to Games. At the Gold Coast Commonwealth Games, the road circuit was 18.7km for the 168km men’s race and 113km women’s event. In the time trial, was 24.5km for the women and 37.8km for the men.

Games Amenity

Table 17: Cycling - Road Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,766
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	80	
Mixed Zone	30	



Table 18: Cycling - Road Athlete, Technical Officials and Competition Management Areas

Area Description*	Space Required (m2)	Total Space Required (m2)
Athlete Change	200	1,175
Athlete Lounge and other	200	
Team Pit Area	400	
Technical Official Lounge	100	
Competition Management	100	
Secured entry/ mixed areas	50	
Athlete Medical Area	100	
Doping Control	25	

*Note: spaces will be shared with Triathlon

Approximately 105 athletes compete in the Games Road Cycling Program.

External temporary grandstands require hard standing areas both for stands and spectator access.

Para Athletes

While most modern stadia conform to Australian disability access standards, there will be a large amount of temporary infrastructure that will also need to consider access requirements of not only para athletes, but also the larger than usual number of former para athletes who take on commentary roles with media outlets.

As competing and spectating athlete pathways between transport load-zones, athlete seating, change rooms, the call room and FOP need to be segregated from other constituent groups, sometimes additional temporary ramps, handrails and other access devices will need to be installed where existing stadium pathways cannot be used. In the case of wheelchair athletes, they will have a separate “day chair” which needs to accompany them wherever they go.

This requires the ability for their transport to either have the chairs inside and able to be strapped down for travel or, in the case of athletes who can transfer to a seat, their “day” chairs to follow in a trailer or separate vehicle. In all cases the involvement of para-athletes needs the transport load-zones to be designed to accommodate these requirements.

Media tribune access and pathways to the mixed zone will also need to be considered. Media tribunes are located in prime seating bowl locations which may not have direct access for people with a disability.

In the case of Road Cycling, there is generally plenty of space for any “day chair” storage. If hand crank cycles are being used, they generally can be accommodated in the same spaces as regular cycles.

5.7.2 Preferred Venue

Victoria Park Lake Precinct Shepparton (Start and Finish).

Facility Description

Victoria Park Lake Precinct Shepparton (Start and Finish) has a range of circuits that could potentially meet UCI requirements. In line with previous Games, the Cycling Road Race routes would be confirmed closer to the Games.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

Ongoing venue-planning and technical assessments may necessitate event host arrangements being subject to change with the focus in the pre-feasibility on assessing start and finish area and potential circuit’s capacity to meet CGF’s and UCI’s requirements.

The Victoria Park precinct is well placed to cater for all overlay requirements.



5.7.3 Other Venue Options

There are numerous international standard options across Victoria for this Program. These include various International Circuits in the Geelong and Ballarat areas. The Mansfield area has hosted numerous national/international road racing events, including the local club hosting the annual Tour of Mansfield using local roads.

5.7.4 Summary

Road Cycling is a good fit for Victoria Park Shepparton and surrounding roads. There are strong synergies and efficiencies placing triathlon, walking and road cycling in the one precinct.

5.8 Gymnastics - Artistic (Men's and Women's)

5.8.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

The competition arena requires a minimum dimension of 64m x 41m. The height of the podiums should be a minimum of 800mm and a maximum of 1000mm. The Arena requires 7,500 seats around the FOP.

Two warm up areas of approximately 40m x 20m separate but adjacent to the main competition field of play; the two areas need to include gymnastics apparatus for men's and women's events as set out in the FIG Apparatus norm guidelines.

Need to confirm minimum height requirement for both competition and warm up areas. The Program is held over 5 days.

Games Amenity

Table 19: Artistic Gymnastics Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	2,000	2,440
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	60	
Presentation Studio	105	
Camera Space & Position	100	
Media Tribunes	100	
Mixed Zone	25	

Table 20: Artistic Gymnastics Athlete, Technical Officials & Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change and Lounge	300	650
Athlete Marshalling/Waiting	Side of FOP	
Technical Official Change	50	
Technical Official Lounge	50	
Competition Management	100	
Secured entry/ mixed areas	25	
Athlete Medical Area	100	
Doping Control	25	

Approximately 100 athletes compete in the Games Artistic Gymnastics Program.

5.8.2 Preferred Venue

Facility Description

The preferred venue is the proposed Geelong Convention Centre Geelong, located at Deakin's waterfront campus car park.



The State Government has committed \$140M and the Federal Government \$30M towards a Geelong Convention & Exhibition Centre through the Geelong City Deal. This facility would need upgrades to meet the facility requirements.

The first stage of the Geelong Convention and Exhibition Centre will include a conference venue with the capacity for 1,000 plenary delegates. It will provide exhibition space, banqueting facilities, meeting rooms, a business centre and retail outlets. The proposed venue can be divided into 2 x 4000m² event centres.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

As the facility is yet to be formally designed, assessment can only be made on proposed specifications. These indicate the Centre’s capacity to cater for two sporting programs on-site, including amenity required for each of the indoor sports. Hosting two or more indoor sports on one-site provides the capacity to share amenity, especially for Media, Broadcast & Transport

Requirements, and reduce the overall size of the amenity area. Based on proposed specifications for the Convention Centre, 7,500 seats will be difficult to achieve unless Centre was allocated to one event stadium with Judo and Gymnastics Only (i.e. Boxing would need to be located at another venue.

5.8.3 Other Venue Options

There are no other indoor event centres in Regional Victoria with program space, seating (including capacity to accommodate temporary seating) that meet Artistic Gymnastics requirements.

5.8.4 Summary

Locating gymnastics and other indoor sports in the proposed Convention Centre creates another Games precinct, close to other Games infrastructure and activities. The capacity to incorporate a number of indoor sports on this site will be dependent on final design for first stage and other future developments. Hosting Gymnastics in Geelong will capitalise on the larger population to support the 50,000 plus tickets made available for sale.

5.9 Hockey (Men’s and Women’s)

5.9.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

Two pitches located within walking distance of each other and with identical FIH global category hockey surfaces; irrigation sprinklers are required for global elite category fields. Pitch one is the primary field of play for competition while the secondary pitch will be used for warmup and as a contingency backup.

The hockey pitch shall be set out with the long axis on a north-south orientation and with a maximum tolerance of plus or -15° to the east or west. The colour of the field of play run-offs and perimeter branding to be approved by FIH. The minimum size of the arena required for FOP and run-offs will be 102m x 62m.

Seating for 5,000 spectators with the majority of seating around pitch one.

Games Amenity

Table 21: Hockey Media, Broadcast & Transport Areas

Area Description	Space Required (m ²)	Total Space Required (m ²)
Broadcast Compound	2,000	2,560
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	90	
Presentation Studio	100	
Camera Space & Position	140	
Media Tribunes	150	
Mixed Zone	30	



Table 22: Hockey Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	400	1,100
Athlete Lounge and other	300	
Athlete Marshalling/ Waiting	n/a	
Technical Official Change	50	
Technical Official Lounge	150	
Competition Management	100	
Secured entry/mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Approximately 360 athletes compete in the Games Hockey Program.

5.9.2 Preferred Venue

Stead Park Hockey Centre, Geelong

Facility Description

Stead Park Hockey Centre has two synthetic pitches, one is international standard. Pitch One is currently a Dry/Sand Based pitch which is due to be replaced in 2020.

Pitch One has seating for 150 spectators and standing area for 200 spectators. Pitch Two has seating for 60 spectators and standing area for 150 spectators. There is lighting on both pitches which would require boosting for international broadcast requirements.

The facility currently has 400m2 of change, Social Rooms, Public Toilets and another amenity. A further redevelopment of the amenity is planned for 2021.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The Centre will require an upgrade to meet capacity requirements, but there is ample space on-site to construct temporary stands to bring seating levels to Games requirements. Any future replacement of pitches would need to take account of FIH/CGF requirements for the Centre to be able to host the Games Hockey program.

It is understood that the FIH are reviewing their standards for international events which would need to be considered if a full feasibility assessment is undertaken. The Centre is co-located in a large precinct with some additional support amenity and plenty of space to bring in temporary overlay.

5.9.3 Other Venue Options

There are no other suitable facilities for consideration in Regional Victoria. However, there is the potential for an expansion to two hockey pitch facility in Ballarat.

5.9.4 Summary

Stead Park Hockey Centre has the potential to host a Games Hockey program.



5.10 Judo

5.10.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

A competition area with two competition mats each of 8m x 8m or 10m x 10m. The height of the competition podium shall be a minimum of 800mm and a maximum of 1000mm. Allowing for on floor circulation the competition arena needs to be approximately 44m long and 26m wide.

The Arena requires a minimum spectator capacity of 2,500 seats. Judo has been included on the Commonwealth Games program three times, in Auckland 1990, Manchester 2002, and Glasgow 2014. The 2022 Games will be the first Games that it is a compulsory sport. Based on the previous Judo programs we have assumed that it will operate over 3 days.

Games Amenity

Table 23: Judo Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,731
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	5	

Table 24: Judo Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	120	855
Athlete Lounge and other	100	
Athlete Marshalling/Waiting	40	
Technical Official Change	100	
Technical Official Lounge	100	
Competition Management	120	
Secured entry/ mixed areas	200	
Athlete Medical Area	50	
Doping Control	25	

Approximately 185 athletes compete in the Games Judo Program.

5.10.2 Preferred Venue

Proposed Geelong Convention Centre Geelong in Event Space One, before or after Gymnastics Program.

Facility Description

The State Government has committed \$140M and the Federal Government \$30M towards a Geelong Convention & Exhibition Centre through the Geelong City Deal. The Geelong Convention & Exhibition Centre will be located at Deakin's waterfront campus car park.

The (yet to be designed) Geelong Convention and Exhibition Centre is anticipated to include multiple flexible internal halls which could open up to form one large space of approximately 8000m². For the purposes of the study it has been assumed that in Commonwealth Games mode the Centre will be temporarily configured into two distinct event spaces each of approximately 2000m² with supporting amenity provided through other Centre spaces and temporary overlay.



Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

As the facility is yet to be formally designed, assessment can only be made on proposed specifications. It is proposed that seating for 4,000 spectators be provided for the judo program, as it is unlikely to attract the same interest in ticket sales as gymnastics. There is likely to be adequate space on-site for additional amenity. The Judo program would share some amenity with the other indoor sports on-site.

5.10.3 Other Venue Options

Potentially the Judo program could be hosted at the other indoor arenas proposed for the Games, if the compulsory sports currently proposed for those venues were re-located or optional sports not included in the Bid program. There are potential developments in Geelong (Regional Indoor Sports Centre) Warragul that are likely to be capable of hosting a sport of this size.

5.10.4 Summary

Locating a number of indoor sports in the proposed Convention Centre creates another Games precinct, close to other Games infrastructure and activities. The capacity to incorporate several indoor sports on this site will be dependent on final design for first stage and other future developments.

5.11 Lawn Bowls (including para-sports)

5.11.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

At least four greens for competition and warm-up, each normally at least 40m x 40m but min of 40m x 36m. A separate warm-up area is not required. The field of play orientation must be north south with a maximum tolerance of plus or -15° east or west.

The field of play is generally natural grass however an approved synthetic surface may be considered; if synthetic it shall meet will bowls recommended standards and will be supplied by an approved provider. Most venues utilise four side by side greens however alternative layouts can be considered. Seating for 2,500 spectators is required, with the majority located around the main green.

Games Amenity

Table 25: Lawn Bowls Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	150	517
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	72	
Camera Space & Position	140	
Media Tribunes	100	
Mixed Zone	5	



Table 26: Lawn Bowls Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	320	880
Athlete Lounge and other	200	
Athlete Marshalling/Waiting	80	
Technical Official Change	50	
Technical Official Lounge	80	
Competition Management	50	
Secured entry/mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Approximately 210 athletes compete in the Games Lawn Bowls Program.

5.11.2 Preferred Venue

Shepparton Park Bowls Club, Shepparton

Facility Description

The venue has hosted the 2009 and 2010 Australian Lawn Bowls Open. It currently has two grass and one undercover carpet greens. The club house (main) building provides high-quality services and facilities for athletes, the Games Family and media.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The site currently has two international standard greens and will requires a minimum of two additional international standard greens for the Commonwealth Games program. There is room in a number of locations on the site for two additional grass greens and there is substantial built amenity on-site for support activities.

The venue has previously had a 500-seat grandstand constructed on the Show Green which becomes the TV green. In Games mode it will me more practical to construct the major temporary stand for 1,500 spectators on the western side of Green Two (re-developed as the Show Green) and place the remaining seats around the other three greens. A significant amount of land is located adjacent to the facility to accommodate all other Games temporary overlay and operational requirements.

To comply with the CGF FOP requirements and to have a stronger bid, it could be possible to place the additional greens directly to the west of the existing bowling greens. If this is the preferred option and the greens encroach onto the cricket oval, Greater Shepparton City Council could make arrangements for the user groups to play their games elsewhere during this period. If this decision is taken, consultation with the user groups will need to occur to provide a satisfactory outcome for all. There is the potential for the under-cover synthetic bowling area to be utilised for support amenity.

5.11.3 Other Venue Options

A number of Geelong based Bowling Clubs, in relatively close proximity to Kardinia Park have two to three bowling greens and some supporting infrastructure. At least one of these clubs has surrounding open space and/or sports fields that could provide temporary greens and space for amenity in Games mode.

5.11.4 Summary

Shepparton Park Bowls Club has a proven capacity to host major lawn bowls events. The proposed development of the facility for Games mode could include some infrastructure that provide ongoing legacy for the community.



5.12 Netball (Women's)

5.12.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

One competition arena to INF standards is required with Ceiling Height minimum of 8.3m. Minimum required space for arena is approximately 41m x 28.5m includes allowance for team and official's benches.

At least one, preferably two netball courts for warm-up area separated but adjacent to the competition arena. The Arena requires a minimum spectator capacity of 2,500 seats and 5,000 seats for Finals. CGA advise that a 7,500-capacity venue is preferred for an Australian hosted Games.

The Commonwealth Games Netball Program is normally played at one venue, whereas current regional proposal is to have some preliminary rounds at other venues.

Games Amenity

Table 27: Netball Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	2,000	2,256
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	30	

Table 28: Netball Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	400	900
Athlete Lounge and other	150	
Athlete Marshalling/Waiting	25	
Technical Official Change	75	
Technical Official Lounge	150	
Competition Management	75	
Secured entry/mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Approximately 145 athletes compete in the Games Netball Program.

5.12.2 Preferred Venue

Ballarat Sports and Events Centre, Wendouree, Ballarat for Preliminary Rounds, either using the Show Court for Netball Preliminary Rounds or locating Badminton in the Main Show Court and conducting Netball Preliminary Rounds in the newly developed Competition Space with Temporary seating for spectators. Bendigo Stadium to be utilised for Netball Finals.

Facility Description

Ballarat Sports and Events Centre is currently under redevelopment and will be substantially completed in July 2019. The expansion includes six new courts for multi-sport use including basketball, netball, volleyball and badminton. It will also feature a 3,000-seat show court, learning rooms and sports medicine facilities. Ceiling heights have been designed to meet major netball event requirements. All new courts are netball compliant.

Bendigo Stadium has 10,000m2 of floor space (with a flexible floor plan) including 2,700m2 of floor space for the main arena.



It comprises 10 indoor multi-purpose courts (eight during show court layout), 12 outdoor netball courts, Stadium spectator seating over 4000 people on main arena (fixed, retractable and floor seating) and Stadium spectator seating for 1600 people on court one. It is supported by large scale amenity for participants and spectators including 650 car parking spaces and VIP & corporate entertaining on show court.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The current draft program has Netball placed in the new competition program area at the Ballarat Sports and Event Centre, primarily because the Show Court is required to meet Badminton ceiling height requirements. All amenity requirements can be met through utilisation of current infrastructure and temporary overlay.

For the finals the draft Program provides a one-day break after Netball preliminaries at Ballarat for the re-location of the program to Bendigo for semi-finals and finals (similar to Gold Coast Program). The finals capacity is 4,000 seats at Bendigo Stadium so will be well short of required capacity.

The major issue with Bendigo Stadium is that the Commonwealth Games seating capacity requirements for an Australian hosted Games is set at 7,500 seats (CGF’s requirement is 5,000 seats). The popularity of netball events in Australia continues to grow with internationals and the national competition regularly attracting crowds greater than 10,000 spectators. Detailed analysis would be required to be undertaken on the Stadium to determine the potential to incorporate an additional 3,500 seats, as a minimum, around the main court (however preliminary advice from architects is that without a major re-build this is unlikely).

5.12.3 Other Venue Options

There are no indoor stadiums in Regional Victoria that could achieve the Netball Finals spectator capacity requirement. There is a potential development in Geelong (Regional Indoor Sports Centre) that may be capable of hosting a sport of this size.

5.12.4 Summary

The proposed facility allocations for netball do not meet all requirements and potentially compromise the sport’s significant role in an Australian Commonwealth Games. If the Games Bid proceeds to feasibility stage further analysis is required including potential for other planned developments to cater for Netball’s needs.

5.13 Rugby 7’s (Men’s and Women’s)

5.13.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

A competition arena with minimum dimensions of 130m x 80m and seating for 5,000 spectators. At least two warm-up areas in close proximity to the field of play are required. The Rugby 7’s program has previously been conducted at one venue over two successive days.

Games Amenity

Table 29: Rugby 7’s Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	2,000	2,256
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	30	



Table 30: Rugby 7's Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	400	1,300
Athlete Lounge and other	300	
Athlete Marshalling/ Waiting	100	
Technical Official Change	100	
Technical Official Lounge	150	
Competition Management	100	
Secured entry/ mixed areas	25	
Athlete Medical Area	100	
Doping Control	25	

Approximately 305 athletes compete in the Games Rugby Program.

5.13.2 Preferred Venue

The proposal is to schedule the Program over four days with the Preliminary Rounds and Quarter Finals played over two days at Shepparton Community Football Complex, Greater Shepparton Regional Sports Precinct. The Semi-Finals and Finals are proposed to be played on Day Four at Kardinia Park Geelong.

Facility Description

The Shepparton Community Football Complex has four natural turf fields with the main field having a spectator stand for 530 seated. The field has potential to be extended to meet Rugby 7's requirements and has plenty of adjoining space for temporary stands and amenity. It is on the same site as the Sports Stadium thus potentially providing a consolidated Games Precinct.

Preliminary Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

The Program proposes a one-day break after preliminaries for re-location of program to Geelong. There will be a need to accommodate the Rugby 7's athletes and technical officials in the Shepparton Satellite Village for a minimum of three days. It is proposed that a temporary stand be installed to bring capacity of main field to 5,000 spectators for preliminary rounds. Kardinia Park is proposed to host the one day of finals. Kardinia Park will be capable of servicing 40,000 spectators; however, assessment has been undertaken on a relatively conservative provision for 20,000 spectators.

It is understood that Rugby's preference is to have the entire competition at a single venue and this would have to be negotiated at an appropriate time. Moving the Rugby 7's competition to another city after the preliminary rounds would add operating costs for the Games and would be more costly for broadcasters.

5.13.3 Other Venue Options

The Deakin Reserve, Shepparton facility has a current capacity of up to 10,000 with a mixture of fixed seating and mostly standing. Current planning is underway to upgrade this facility over the next decade. This could see capacity grow to around 15,000 and enable it to host a variety of sport and entertainment activities to service the northern part of Victoria. The main oval is a turf oval - 155m (goal to goal) by 134m (wing to wing) with 5m run-off.

The current permanent stand seats approximately 300 spectators. The oval is configured such that potentially a major temporary seating stand could be placed on opposite side to stand utilising excess oval area. There are two plus two large change rooms that each cater for 25 plus players in AFL pre-season mode. Amenity and some indoor warm-up space could be accommodated in the large gym at the adjoining Notre Dame College, subject to discussions with School.

A further option is to conduct the full Rugby 7's program at Kardinia Park.



5.13.4 Summary

The current proposal to schedule the Preliminary Rounds and Quarter Finals played over two days at Shepparton Community Football Complex, Greater Shepparton Regional Sports Precinct and Semi-Finals and Finals Kardinia Park Geelong is achievable, assuming CGF and World Rugby are prepared to support a program that varies from previous Games.

5.14 Squash

5.14.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

The show court arena must have at least one show court with a glass enclosure convertible from singles to doubles with seating on all sides (WSF Accredited). The arena requires seating for 2,500 spectators, with the majority around the show court arena. The match court arena needs to have a minimum of six single convertible to four double courts. The match courts will also be used for warm-up.

Games Amenity

Table 31: Squash Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,736
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	10	

Table 32: Squash Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	200	725
Athlete Lounge and other	100	
Athlete Marshalling/Waiting	100	
Technical Official Change	n/a	
Technical Official Lounge	75	
Competition Management	50	
Racket stringing/bag storage	50	
Secured entry/mixed areas	25	
Athlete Medical Area	100	
Doping Control	25	

Approximately 105 athletes compete in the Games Squash Program.

5.14.2 Preferred Venue

Shepparton Sports Stadium, Shepparton

Facility Description

The Stadium has four basketball courts, a multi-purpose room, support amenity, café and a 400-seat grandstand. The redevelopment will see the construction of three new basketball/netball multi-use courts, including a show court with a 3,000-seat retractable grandstand, new wet area amenities, administration hub and car park.



The project, costed by Greater Shepparton City Council at \$37M, will see the stadium transform into an elite event and sporting facility to be known as the Shepparton Sports & Event Centre. Council intends seeking funding from State and Federal Governments later in 2019 and going to tender in 2020/21.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The redeveloped facility will have more than 22,000m² of program and amenity space, including show court, thus providing adequate floor space for FOP, warm-up areas and support amenity. The Show Court, supported by other court spaces, will easily accommodate the Field of Play for squash, with the majority of seating provided through the utilisation of the retractable seating.

There are a number of configuration options. For the purposes of the pre-feasibility study it has been assumed that the squash show court will be centred in the main stadium show court with three single match courts (converting to doubles courts) on either side of the show court. However, it is possible to locate the match court arena of six single convertible to four double courts, in the existing stadium area which is being extended in length as part of the re-development. Structural support for the weight of the seating and temporary court needs to be considered.

5.14.3 Other Venue Options

There are various multi-purpose event facilities within Regional Victoria that could accommodate the construction of a temporary purpose built ‘show court’ to hold a Commonwealth Games squash event. However, there is a very large demand placed on these facilities because of the large number of Games events requiring show courts with 2,500 plus spectator capacity.

5.14.4 Summary

The proposed new show court and additional competition space can easily accommodate the Squash Program. The proposal provides a Games precinct, incorporating Rugby 7’s and Squash which will potentially enhance spectator and participant experience. It is unlikely that 50,000 tickets to Squash in Shepparton (10-day program) could be sold.

5.15 Table Tennis (includes para)

5.15.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

Two show courts and eight match courts are required. A minimum of 10 warm-up courts is required in close proximity to the show courts and match courts. The minimum area for the show court arena is 28m x 24m and the match court area is 37m x 36m, plus allowance for circulation etc. Seating for 2,500 spectators is essential with the main stand around the show court generally containing 75% of spectator capacity.

Games Amenity

Table 33: Table Tennis Media, Broadcast & Transport Areas

Area Description	Space Required (m ²)	Total Space Required (m ²)
Broadcast Compound	1,500	1,912
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	72	
Camera Space & Position	140	
Media Tribunes	140	
Mixed Zone	10	



Table 34: Table Tennis Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	150	610
Athlete Lounge and other	100	
Athlete Marshalling/Waiting	50	
Technical Delegate/Referee	50	
Technical Official Lounge	100	
Competition Management	60	
Secured entry/mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Approximately 160 athletes compete in the Games Table Tennis Program.

5.15.2 Preferred Venue

Bendigo Stadium Main Show Court

Facility Description

Bendigo Stadium has 10,000m2 of floor space (with a flexible floor plan) and 2,700m2 of floor space for the main arena. It comprises 10 indoor multi-purpose courts (eight during show court layout) and 12 outdoor netball courts. There are two show courts with spectator seating for over 4000 people on main arena (fixed, retractable and floor seating) and spectator seating for 1600 people on court one. It is supported by a range of amenity including kiosk/bar, restaurant/bistro, change rooms and approximately 650 car parking spaces.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

It is proposed that the two show courts and half the match courts be located in the main show court arena with retractable seating configured to provide 3,000 seats in this area. The remaining match courts would be located in the adjoining competition court area with further seating for 500 spectators. An alternative configuration would provide for the two show courts in the main show court arena with seating for 4,000 spectators and all eight match courts located in the adjoining competition court area with further seating for 500 spectators.

The flooring would need to be reviewed to ensure it meets international Table Tennis requirements, especially table stability. Amenity can be shared across the sports at the site. Due to the need to locate the Netball finals in the largest indoor stadium in Regional Victoria (i.e. Bendigo) the draft schedule for the Table Tennis program is different to that used in recent Games. This may not be acceptable to the CGF and/or the International Table Tennis Federation. If this is the case it may require Table Tennis to be re-located to another event centre (yet to be developed, such as the proposal to redevelop the indoor stadium in Wangaratta).

5.15.3 Other Venue Options

There are various multi-purpose event facilities within Regional Victoria that could accommodate the table tennis program. However, there is a very large demand placed on these facilities because of the large number of Games events requiring show courts with 2,500 plus spectator capacity. The proposed indoor stadium for Mansfield was considered, however based on concept information it would not be capable of hosting an event of this size.

5.15.4 Summary

Bendigo Stadium can easily accommodate the Table Tennis Program, however a program that varies from recent Games has been proposed. The proposal provides a major Games precinct which will potentially enhance spectator and participant experience. It is unlikely that 68,000 tickets to table tennis in Bendigo could be sold.



5.16 Triathlon

5.16.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

The Triathlon field of play is comprised of:

- Swimming course of 1500m with a maximum of eight turns in total with first turn at least 300m from start; the start area is 3m by at least 30m (dependent on number of athletes).
- Cycle course is a 40km course (6 to 8 laps) with a minimum width of 5m. A minimum of one hill is required along the course with a minimum of 8 to 10% gradient, and the road surface must be of a suitable quality.
- Run course is a 10km course (3 to 4 laps) with a minimum with 3m width required along the course, a minimum of 8 to 10° gradient and the road surface must be a suitable quality course.
- A transition zone which includes finish area.
- A separate warm-up area is not required.

At the Gold Coast Commonwealth Games, the Triathlon was conducted under the “Sprint” format which involved a 750m swim, 20km bike ride and 5km run.

Games Amenity

Table 35: Triathlon Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,766
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	80	
Mixed Zone	30	

Table 36: Triathlon Athlete, Technical Officials and Competition Management Areas

Area Description*	Space Required (m2)	Total Space Required (m2)
Athlete Change	200	1,175
Athlete Lounge and other	200	
Athlete/Team Pit Area	400	
Technical Official Lounge	100	
Competition Management	100	
Secured entry/ mixed areas	50	
Athlete Medical Area	100	
Doping Control	25	

*Note: Will be shared with Road Cycling, includes provision for the optional Triathlon Para program.

Approximately 65 athletes compete in the Games Triathlon Program.

5.16.2 Preferred Venue

Victoria Park Lake Shepparton using the Lake for the Swim Leg and Shepparton’s International Olympic Course Circuit for the Cycling and Running Legs.



Facility Description

The Shepparton Course starts and finishes at the Victoria Park Lake precinct. Victoria Park Lake is located in the heart of Shepparton. The Swim Course is an M-shaped 1.5km course in Victoria Park Lake. Athletes enter the water from the boat ramp and swim 5-10 meters to a deep water start line.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The venue is the base for a number of high-profile triathlon events, with a range of routes available for the Games Triathlon course. Can share amenity with Road Cycling and Walking programs. The site has catered for a range of major triathlon events with great success with circuits capable of hosting the Olympic distance or “Sprint” formats. There is plenty of room on-site for amenity and spectator stands.

5.16.3 Other Venue Options

Geelong Waterfront which has been used for international standard Triathlon events in the past. It would be part of a multi venue/sport precinct if selected.

5.16.4 Summary

Victoria Park Lake Shepparton and associated routes provides an effective base and course, provides the capacity to share infrastructure across a range of sports. Triathlon is a very popular sport in the Shepparton area and is likely to be well patronised by locals.

5.17 Weightlifting (plus Powerlifting para - sports)

5.17.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

Weightlifting: A competition arena with a minimum area of 22m x 16m. The competition stage of 10m x 10m to have a minimum height of 800mm and a maximum height of 1000mm. Structural capacity must be in accordance with international Federation requirements. A warm-up area immediately adjacent to the competition area is required; it shall contain 15 warm-up platforms each of 3m x 3m. The Arena needs to cater for 2,500 spectators.

Powerlifting: Powerlifting competition arena with a minimum area of 25m x 15m the competition stage of 12m x 11m shall have a maximum height of 700mm. Structural capacity must be in accordance with international Federation requirements. One warmup area immediately adjacent to the competition area is required which shall contain 12 warm-up platforms each at least 3m x 3m with additional space for safety and circulation as well as entry and control area.

Games Amenity

Table 37: Weightlifting/Powerlifting Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,731
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	5	



Table 38: Weightlifting/Powerlifting Athlete, Tech Officials & Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	120	855
Athlete Lounge and other	100	
Athlete Marshalling/ Waiting	40	
Technical Official Change	100	
Technical Official Lounge	100	
Competition Management	120	
Secured entry/ mixed areas	200	
Athlete Medical Area	50	
Doping Control	25	

Approximately 235 athletes compete in the Games Weightlifting and Powerlifting (Para) Programs.

5.17.2 Preferred Venue

Traralgon Sports Stadium (5-day program for weight-lifting, 1-day program for power-lifting).

Facility Description

The Victorian State Government committed to a \$19M upgrade to this facility to be completed by mid-2020. The project includes a four-court extension to the existing stadium featuring a new show court with 3000 (1500 seating and the capacity to increase to 3000 capacity) spectator seating and associated amenities. The new courts re under construction for Netball, Basketball, Badminton and other indoor sports, including a new show court with spectator seating, in addition to an overhaul of the existing indoor stadium and administration areas.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The main show court can be configured to accommodate a spectator seating capacity of 3,000 plus in Weightlifting or Powerlifting mode. As the combined Weightlifting and Powerlifting programs operate for 6 days, this configuration would mean it would be difficult to cater for other sports at the Centre.

All of the additional overlay specifically required for the Games can be easily accommodated through a combination of utilising existing amenity, other competition court space and the significant hard stand space externally. The floor will need reinforcing below and adjoining the competition and warm up platforms. It is proposed to have three sessions of weightlifting per day as per Gold Coast Program.

5.17.3 Other Venue Options

Commonwealth Games weightlifting commonly occurs within a multi-purpose facility where the required infrastructure can easily be temporarily constructed. The 2006 Commonwealth Games utilised the Melbourne Exhibition Centre as the venue for the weightlifting event.

5.17.4 Summary

The Traralgon Sports Stadium is capable of hosting the weightlifting program taking the Games to an area of the State often disadvantaged by access to major events. The distance from the main proposed Village would need to be addressed with the CGF and the International Weightlifting Federation.



5.18 Wrestling (Freestyle)

5.18.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

The main arena has two competition mats on a raised podium with minimum arena area of approximately 35m x 18m plus circulation space and judges/athlete areas; initially allow for arena space of minimum 39m x 32m. A minimum of 6 warm-up mats in adjoining area. A minimum spectator capacity of 2,500 seats is required.

Games Amenity

Table 39: Wrestling Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,731
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	5	

As the proposal is to co-locate Wrestling, Table Tennis and Netball finals much of the media, broadcast and transport amenity for wrestling can be shared with other programs at the venue.

Table 40: Wrestling Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	120	855
Athlete Lounge and other	100	
Athlete Marshalling/Waiting	40	
Technical Official Change	100	
Technical Official Lounge	100	
Competition Management	120	
Secured entry/mixed areas	200	
Athlete Medical Area	50	
Doping Control	25	

Approximately 105 athletes compete in the Games Wrestling Program.

5.18.2 Preferred Venue

Bendigo Stadium Second Show Court area.

Facility Description

Bendigo Stadium has 10,000m² of floor space (with a flexible floor plan) and 2,700m² of floor space for the main arena. It comprises 10 indoor multi-purpose courts (eight during show court layout) and 12 outdoor netball courts. There are two show courts with spectator seating for over 4000 people on main arena (fixed, retractable and floor seating) and spectator seating for 1600 people on court One. It is supported by a range of amenity including kiosk/bar, restaurant/bistro, change rooms and approximately 650 car parking spaces.

Preliminary Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

Fitting 2,500 seats in the second show court in wrestling mode is a challenge, with preliminary design input indicating a little more than 2,000 seats as the potential maximum spectator capacity.



As the proposal is to co-locate Wrestling, Table Tennis and Netball finals much of the media, broadcast and transport amenity for wrestling can be shared with other programs at the venue. One of the warm-up/training areas will need to be located in a temporary structure external to the building.

5.18.3 Other Venue Options

There are various multi-purpose event facilities within Regional Victoria that could accommodate the table tennis program. However, there is a very large demand placed on these facilities because of the large number of Games events requiring show courts with 2,500 plus spectator capacity.

5.18.4 Summary

Wrestling can be hosted at Bendigo Stadium with some temporary infrastructure for warm-up mats and noting that further investigation is required to determine a seating configuration that meets minimum requirements.

Optional Sports

5.19 Aquatics - Diving

5.19.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

A minimum 25 m wide pool by 20 m long with 10m, 7.5m, 5m platforms plus 3m and 1m springboards. Platforms and towers need to cater for synchronised diving. A separate warmup pool is not required. Diving pool depth can vary but shall be a minimum of 4.5 m and preferably 5 m below plummet point. Seating for 2,500 spectators.

Games Amenity

Table 41: Aquatics Diving Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,766
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	80	
Mixed Zone	30	

Table 42: Aquatics Diving Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	100	600
Athlete Lounge and other	100	
Athlete Call Room/Marshalling	50	
Technical Official Change	100	
Technical Official Lounge	100	
Competition Management	50	
Secured entry/mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Approximately 75 athletes compete in the Games Diving Program.



5.19.2 Preferred Venue

Mildura Waves Aquatic Centre

Facility Description

The Diving Pool is outdoors and is part of the Aquatic Complex that includes an indoor centre. The current diving pool is 18.28m long by 12.95m wide and its depth ranges from 4.88m to 5m. It has 1m and 3m boards and 5m and 10m tower. It has hosted the Victorian Country Diving Championships in recent years.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The current facility does not meet the basic CGF requirements for pool dimensions. However, its depth is adequate. It would require a re-build of the pool tank to meet CGF and contemporary international diving event requirements. There is space on-site to place temporary infrastructure including spectator seating, assuming that most of the amenity infrastructure (other than seating) would be provided in the current indoor pool area and car-park.

5.19.3 Other Venue Options

Bendigo Aquatic Centre has a similar diving pool and infrastructure to that in Mildura. The only venue in Victoria that could be easily overlaid to meet CGF requirements is at Melbourne Sports and Aquatic Centre (MSAC) which hosted the M2006 Diving Program; however, this is not in keeping with the regional programming objectives.

5.19.4 Summary

The preferred facility, Mildura Waves Aquatic Centre, would require a significant upgrade to meet Games requirements on a site that is limited in its capacity to absorb further development. Further analysis would be required of the cost-benefit, feasibility and viability of such an upgrade if the Bid was to proceed.

5.20 Archery (Recurve)

5.20.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

A competition arena with two target fields of play shall be provided for the finals. A separate warm-up area in close proximity to the competition field of play is required; for safety a clear distance of 50m to 60m shall be provided behind the target line (if not possible a safety wall should be constructed behind all targets minimum of 4m high and full with of the field of play). The shooting range shall be set out a north-south orientation lengthways and with a maximum tolerance of plus or -20° east or west. A seating stand overlooking the finals target fields with seating for 500 spectators.

Games Amenity

Table 43: Archery Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Mini Broadcast Compound	750	986
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	10	



Table 44: Archery Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	100	450
Athlete Lounge and other	75	
Athlete Call Room/Marshalling	50	
Technical Official Lounge	75	
Competition Management	50	
Secured entry/ mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Approximately 25 athletes compete in the Games Archery Program.

5.20.2 Preferred Venue

Wimmera Events Centre Longerenong, Horsham

Facility Description

Wimmera Events Centre. Indoor archery is held at the Events Centre, located as part of the grounds at Longerenong Agricultural College, approximately 15kms north of Horsham. There is adequate land area for external facilities (archery and/or accommodation). The area can be used for either the development of facilities or transformation into a secure accommodation village. This can be achieved by either the construction of infrastructure or the temporary re-location of facilities. The College is keen to assist in whatever way it can be to be involved in the hosting of a training camp for the Games.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

There is adequate room on a site that currently services club level activities.

5.20.3 Other Venue Options

No other identified Archery venues exist however as it is an outdoor activity, it is possible to site Archery on a space that can be overlaid with the necessary sport specific fields of play and services.

5.20.4 Summary

Archery was initially proposed by the Taskforce as an optional sport because it provided an opportunity to take the Games to an area of the State often disadvantaged in access to major events. However, it is likely that an Archery program in Horsham would require an almost total build of a facility and would likely have significant Games capital and operational cost impacts, as well as additional costs for broadcasters. Further analysis would be required of the cost-benefit, feasibility and viability of such an upgrade if the Bid was to proceed.

5.21 Athletics - Walks

5.21.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

Dependant on the Games Program there are generally are men’s and women’s walk of 20kms and 50kms. The Walks Course to be used for all Walks is a 2km lap mainly within the confines of the host Precinct.

The route needs to be measured, on an ideal line, by a qualified official Road Race Course Measurer using a calibrated bicycle and checked by an IAAF measurer in accordance with official measuring protocols.



Games Amenity

Table 45: Athletics Walks Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Mini Broadcast Compound	250	486
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	10	

It is proposed that Amenity established for the Triathlon and Road Cycling programs be utilised for the Games Walking Program.

Table 46: Athletics Walks Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	100	500
Athlete Lounge and other	100	
Athlete Call Room/Marshalling	50	
Technical Official Lounge	100	
Competition Management	50	
Secured entry/ mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Note: Will not be required as shared with Road Cycling and Triathlon.

Approximately 25 athletes compete in the Games Walking Program.

5.21.2 Preferred Venue

Victoria Park Lake Precinct Shepparton (Start and Finish)

Facility Description

A 2kms loop course starting and finishing in Victoria Park Shepparton with Games specific overlay.

Preliminary Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

Victoria Park Lake Precinct Shepparton (Start and Finish) with a range of circuits that could potentially meet requirements. Ongoing venue-planning and technical assessments may necessitate event host arrangements being subject to change with the focus in the pre-feasibility on assessing start and finish area and potential circuit's capacity to meet CGF's and IAAF's requirements.

5.21.3 Other Venue Options

These include the Geelong Waterfront Games Precinct

5.21.4 Summary

The Victoria Park Lake Precinct Shepparton site can easily meet Games standards, assuming that an agreed course that meets IAAF and CGF requirements is available. It provides an efficient use of Games infrastructure developed for other sports and is normally a popular and successful sport for Australians.



5.22 Basketball (Men’s, Women’s and Para 3 on 3)

5.22.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

One competition arena with minimum dimensions of 18m x 15.5m as specified by FIBA. A minimum clearance height of 7 m is required.

One covered warm up area in close proximity to the competition area is also required. CGF has advised that outdoor facilities should be considered for this program. Spectator seating of 3,000 is required across the site. The likely program would require the establishment of 2 half-courts on-site, or two venues. As the Basketball 3 on 3 program has yet to be conducted at a Commonwealth Games there is very little information available on schedule or facility requirements.

Games Amenity

Table 47: Basketball Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,726
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	60	
Mixed Zone	10	

Table 48: Basketball Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	400	875
Athlete Lounge and other	100	
Athlete Marshalling/Waiting	25	
Technical Official Change	75	
Technical Official Lounge	100	
Competition Management	75	
Secured entry/mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Approximately 115 athletes compete in the Games Basketball 3 on 3 Program, across the Men’s, Women’s and Para (Wheelchair) Program. This is an estimate only as the 3 on 3 Program has not been conducted at a Commonwealth Games to date.

5.22.2 Preferred Venue

Geelong Arena

Facility Description

Geelong Arena is Geelong region’s largest indoor sports and entertainment venue, with versatility and flexibility in hosting events. The venue comprises four purpose-built basketball courts, one being an international standard Show court with seating for 2,500 in modified court mode.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

The proposal is to use the Main Arena for two half courts or establishing the Main Arena as the Show Court and establishing a second competition court in the adjoining Competition court space.



If main arena is used for one half court only it can easily be expanded with temporary seating to hold 2,500 seats and able to place 500 plus seats around half court in competition area. An indoor program provides greater certain for Games scheduling and ticketing.

5.22.3 Other Venue Options

Basketball 3 on 3 is preferred by FIBA to be played as an 'urban' sport - outdoors. There are two large paved areas on the Geelong Arena site that could potentially be developed as two outdoor half court areas providing space for a total of 3,000 spectators. An alternative is Ballarat Sports and Event Centre using its outdoor half courts as the basis for the program.

5.22.4 Summary

Geelong Arena as a large indoor sports and entertainment venue, with substantial outdoor areas could cater for the 3 on 3 basketball program, based on the limited information available on how the program would be conducted.

5.23 Cycling - Mountain Bike

5.23.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

Competition course shall be 4 to 6km undulating circuit including a variety of terrain and significant amounts of climbing and descending; the course layout must be approved by the UCI technical delegates. The start/finish zone must be at least 8m wide for at least 50m before and 100m after the start line. A separate warm-up area is not required. Spectator seating for 1,000 is required. A key requirement is clear broadcast vision across the circuit.

Games Amenity

Table 49: Cycling - Mountain Bike Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	750	986
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	10	

Table 50: Cycling - Mountain Bike Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	100	650
Athlete Lounge and other	100	
Team Pit Area	200	
Technical Official Lounge	100	
Competition Management	50	
Secured entry/ mixed areas	25	
Athlete Medical Area	50	
Doping Control	25	

Approximately 15 athletes compete in the Games Mountain Bike Program.



5.23.2 Preferred Venue

Bright

Facility Description

Bright is serviced by a number of mountain bike race circuits that currently host national and international events.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

Bright has a well proven capacity to host high profile mountain bike events and the relevant overlay required. A circuit would need to be chosen that meets broadcast requirements.

5.23.3 Other Venue Options

The Otways area where there are a number of high participation major mountain bike events. Colac Otway Shire Council is currently undertaking a detailed design plan for the trails to rework the entire trail system, so it’s considered a nationally significant product.

5.23.4 Summary

The Bright Mountain Bike site can easily meet Games standards, assuming that an agreed course that meets UCI and CGF requirements is available.

5.24 Cycling - Track (includes Track Para)

5.24.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

An indoor 250-metre timber track. The track needs to meet UCI cycling regulations specifications and velodrome homologation sections in particular. One warm-up area inside the track infield is required in accordance with UCI requirements. There is a need to confirm whether outdoor 413 metre circuit is acceptable. Seating for 4,000 spectators is required.

Games Amenity

Table 51: Cycling - Track Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	1,500	1,766
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	80	
Mixed Zone	30	



Table 52: Cycling - Track Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change	200	700
Athlete Lounge	150	
Team Pit Areas	Inside FOP	
Athlete Marshalling/Waiting	Inside FOP	
Technical Official Lounge	100	
Competition Management	100	
Secured entry/ mixed areas	25	
Athlete Medical Area	100	
Doping Control	25	

Approximately 115 athletes compete in the Games Track Cycling Program. Some of these athletes will also compete in the Road Cycling program.

5.24.2 Preferred Venue

Tom Flood Centre Bendigo

Facility Description

Tom Flood Centre is currently an outdoor velodrome with a 413m acrylic track and hosts various major events. Track lighting of 300LUX (in need of renewal/replacement). Upgrades would be required to meet velodrome requirements. Current CGF specifications state that an indoor velodrome is a requirement.

Preliminary Assessment of Venue’s Capacity to Cater for Games Mode Overlay Requirements

There is adequate space on-site to locate amenity. This would be a major project to re-develop as an indoor track, however there would be adequate space if current track is demolished and replaced by an indoor velodrome. It would require significant review to determine whether an indoor velodrome is sustainable and/or meets Bendigo’s need for this facility into the future.

5.24.3 Other Venue Options

Melbourne Arena at Melbourne Park. Since its construction in 2000, Melbourne Arena has been the venue for major cycling events in Melbourne, hosting the 2006 Commonwealth Games and the World Track Cycling Championships in 2012. However, locating the track cycling at Melbourne Park is not in keeping with the regional programming objectives.

5.24.4 Summary

CGA identified that although Track Cycling is an optional sport it would be considered an important part of an Australian based bid. Tom Flood Centre is currently an outdoor velodrome, with a 413m acrylic track. It may not be viable (large capital investment with potentially limited legacy) to re-develop as an indoor venue, rather it may be more effective to conduct the Track Cycling program at Melbourne Park.

5.25 Gymnastics - Rhythmic

5.25.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

Competition arena requires minimum dimensions 38m x 34m including a performance area of 18m x 18m and borders on a 26m by 26m competition podium; height of podium shall be a minimum of 800 mm and a maximum of 1000 mm. The minimum clear height above podium is 8m but 10 to 14m is preferred. A warm-up area of 18m x 18m separate but adjacent to FOP.



Games Amenity

Table 53: Gymnastics - Rhythmic Media, Broadcast & Transport Areas

Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	750	986
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	10	

Table 54: Gymnastics - Rhythmic Athlete, Technical Officials and Competition Management Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Athlete Change and Lounge	300	650
Athlete Marshalling/Waiting	Side of FOP	
Technical Official Change	50	
Technical Official Lounge	50	
Competition Management	100	
Secured entry/mixed areas	25	
Athlete Medical Area	100	
Doping Control	25	

Note: uses same spaces as Artistic Gymnastics

Approximately 25 athletes compete in the Games Rhythmic Gymnastics Program.

5.25.2 Preferred Venue

Proposed Geelong Convention Centre Geelong (schedule would not allow Rhythmic Gymnastics, Artistic Gymnastics and Judo in one event area).

Facility Description

The preferred venue is the proposed Geelong Convention Centre Geelong, located at Deakin's waterfront campus car park. The Venue can be divided into 2 x 4000m² event centres.

Preliminary Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

Many of the previous Games programs utilise the same venue for Rhythmic and Artistic Gymnastics with the Artistic program typically requiring 5 days and Rhythmic program typically requiring 3 days. However, the proposed sports program for the Centre, involving compulsory sports of Judo, Boxing and Artistic Gymnastics makes it difficult to schedule Rhythmic Gymnastics at the Centre.

5.25.3 Other Venue Options

The required roof height with a preference for 14m high precludes most Regional Victoria indoor stadia from hosting the Program. Potentially the Judo or Boxing program could be hosted at the other indoor arenas proposed for the Games, if the compulsory sports currently proposed for those venues were re-located or optional sports not included in the Bid program. There are also potential developments in Geelong (Regional Indoor Sports Centre) and Warragul that are likely to be capable of hosting the Judo or Boxing programs.

5.25.4 Summary

It will be difficult to fit the Rhythmic Gymnastics Program in with other proposed sports at the Geelong Convention Centre.



5.26 Shooting

Shooting is not in the program for the 2022 Commonwealth Games. It had previously been on the program for all Games from 1974 to 2018. GC2018 hosted the sport of Shooting across four disciplines of Full-bore, Pistol, Rifle and Shotgun (Trap, Double Trap and Skeet).

5.26.1 Venue Requirements

Field of Play, Warm-Up and Spectator Seating

Full Bore

A competition arena with five firing lines all firing to the same target area. A separate warmup area is not required. The number of targets will depend on the number of athletes.

Pistol and Rifle Shooting

10-metre and 50-metre Range:

A 10-metre range with a fully enclosed competition arena. The 50-metre range is an enclosed but only partially roof competition arena at least 45m of the 50-metre shall be open to the sky; the firing point must be removed or covered. Separate warmup areas are not required.

The number of targets will depend on the number of on the number of athletes, generally a minimum of 40 athletes should be provided for. A combined 10-metre and 50-metre range would require a minimum area of 70m x 60m plus provision for seating.

25 metre Shooting Range:

Enclosed but only partially roofed competition arena with at least 12.5m of the 25m open to the sky; The firing point must be roof covered. A minimum of two but preferably four dry firing positions for warm-up; the warm-up positions shall be adjacent but visually separate from the remainder of the range. The number of targets will depend on the number of athletes, generally 40 athletes should be provided for. The facility should be approximately 64m by a minimum of 45m plus allowance for seating.

Shotgun Combined Trap and Skeet

Three combined trap and skeet ranges in close proximity to one another. Two ranges will be used for competition one of which shall be set up as the finals range and the remaining range will be used for warm-up and practice. A south shooting orientation for southern hemisphere maximum tolerance is plus or -20° east or west of true south.

CGF identifies that the shooting facilities are required to be able to cater for 1,000 spectators across the shooting disciplines.

Games Amenity

Table 55: Shooting Media, Broadcast & Transport Areas

Area Description	Space Required (m2)	Total Space Required (m2)
Broadcast Compound	2,000	2,236
Commentary Control Room	25	
Broadcast Info. Office	25	
Commentary Tribunes	36	
Camera Space & Position	70	
Media Tribunes	70	
Mixed Zone	10	



Table 56: Shooting Athlete, Technical Officials and Competition Management Areas

Discipline	Area Description	Space Required (m2)	Total Space Required (m2)
Clay Target	Athlete Change	100	450
	Athlete/Technical Official Lounge	150	
	Athlete Marshalling	25	
	Armoury	25	
	Competition Management	50	
	Secured entry/mixed areas	25	
	Athlete Medical Area	50	
	Doping Control	25	
Full Bore	Athlete Change	100	450
	Athlete/Technical Official Lounge	150	
	Athlete Marshalling	25	
	Armoury	25	
	Competition Management	50	
	Secured entry/mixed areas	25	
	Athlete Medical Area	50	
	Doping Control	25	
Pistol	Athlete Change	100	575
	Athlete/Technical Official Lounge	250	
	Athlete Marshalling	25	
	Armoury	50	
	Competition Management	50	
	Secured entry/mixed areas	25	
	Athlete Medical Area	50	
	Doping Control	25	

Approximately 200 athletes compete in the Games Shooting Program. The athlete break-down by discipline is:

- Clay Target 60 athletes
- Full Bore 40 athletes
- Pistol and Small Bore 100 athletes

Some of these athletes compete in more than one shooting discipline.

5.26.2 Preferred Venue

In the absence of a multi-discipline international shooting complex it is likely that the Games Shooting Program would need to be held at a number of Centres, as was the case for the 2006 Commonwealth Games.

The following venues have been identified for further investigation for the three main disciplines:

- Shooting Clay Target at Echuca Clay Target Club/VCTA State Ground
- Shooting Full Bore at Wellsford Forest Rifle Range Bendigo
- Shooting Pistol and Small Bore at Little River Shooting Range (Eagle Park), near Geelong

Facility Description

The Echuca Clay Target Club/VCTA State Ground Range has three international standard clay target (trap and skeet) ranges.

Wellsford Forest Rifle Range, Bendigo caters for full bore rifle shooting (300 to 1,000 metre target shooting). The shooting range was utilised for the 2006 Commonwealth Games.



It has a target gallery with 24 new cantilever target mechanisms, 4 Konsberg Electronic Targets and firing mounds to 1000 yards. It has clubrooms and other support infrastructure.

The Little River Shooting Range (Eagle Park), is a multi-discipline range. The range caters for all sport shooting disciplines including pistols, shotgun and large calibre rifles.

Preliminary Assessment of Venue's Capacity to Cater for Games Mode Overlay Requirements

The Echuca Clay Target Club's existing field of play and warm-up areas meet current Games requirements. There is adequate space adjoining the ranges for support infrastructure and stands to house up to 1,000 spectators.

Wellsford Forest Rifle Range, Bendigo hosted the full-bore shooting program for the 2006 Commonwealth Games. Most of the infrastructure is available on-site and would be complimented by temporary overlay similar to that provided for the 2006 Games. The 2006 Games Satellite Village was based around All Seasons Resort. For previous major events that have been held at the site, parking has been allocated at the Bendigo Harness Racing Club and a shuttle bus is provided to the Rifle Range.

Due to spatial limitations the Little River Shooting Range (Eagle Park) is unable to be enhanced to major multi-disciplined event standard. Specifically, it does not include a small-bore competition centre. It would require significant infrastructure development to bring up to Games standard, however there is ample space on-site to achieve this.

5.26.3 Other Venue Options

Melbourne International Shooting Centre in Port Melbourne. This facility was utilised for the 2006 Commonwealth Games and caters for air pistol and air rifle (ranging from distances of 10 to 50 metres). The facility is privately owned.

Melbourne Gun Club in Lilydale is located on private land and caters for skeet, down the line and trench shooting, sporting clays and field and game shooting.

5.26.4 Summary

The draft venue allocation for the Regional Victoria model proposes conducting the shooting program across three cities. This would result in the Games and Teams incurring significant costs to service this model (e.g. three team managers, three groups of support staff etc.) The shooting discipline requirements for Full Bore and Clay Target can be achieved with increasing amenity with temporary overlay. Shooting Pistol and Small Bore at Little River Shooting Range would require a major infrastructure re-development.

5.27 Games Training and Pre-Games Venues

An indicative schedule for training venues by sport is provided in Appendix 2. The allocation of proposed training venues will ultimately be determined by a range of factors, including location of the main Games Village, Competition Venue, competition format, athlete numbers and any proposed venue sharing arrangements. There are adequate training venues to support the draft proposed competition schedule. Pre-Games training provides an opportunity for more regional centres to be involved in the Games.

5.28 Other Games Programs

The Host CGA may only allow Commonwealth Championships or such other sports events or activities in non-programme sports to be held in the Host Country during the Commonwealth Games or three months prior to or after the Commonwealth Games with the approval of the Executive Board.

The Taskforce has identified a desire to maximise the benefits of a Games Bid across regional Victoria. The Study has highlighted that Regional Victoria's sporting event infrastructure positions Regional Victoria to bid for and host more events (multi-sport and single sport) than currently occurs.



This also includes sporting events not in the formal Games program. The Taskforce has proposed a number of Non-Games sporting events to be considered either during the lead-up to the Games, following the Games or if approved by the CGF as Exhibition activities. As the CGF specifically require that there are no other major events on during the Games, so "exhibition" events may be unlikely. Incorporating events/activity into a cultural programme may be feasible but would need to be located in the primary Games Hub area.

The following venues are capable of hosting national and international sporting events not currently in the Games program:

5.28.1 Lake Nagambie International Rowing Course

Lake Nagambie Precinct is regarded as one of Victoria's premier water sport venues, with infrastructure that is of FISA (the international rowing organisation) standard. It includes an eight lane fully buoyed course with associated supporting structures (aligner's jetties, timing huts, Regatta Centre building, boat ramps) which are all permanently in place and maintained by the Shire.

It is a gated facility, meeting VicPol security requirements. This infrastructure is maintained by the Shire and permanently in place, which would therefore significantly reduce the cost of the event by not having to set up a course each time. In conjunction with Shire the Taskforce have nominated that if a Bid for the Games was progressed that it would like to consider a special international rowing or canoeing event for the venue as part of additional Games activities.

5.28.2 Shepparton BMX Circuit

Greater Shepparton has an international standard BMX track and supporting infrastructure which hosts national and international events. The Union Cycliste Internationale (UCI) BMX Supercross World Cup event is to be hosted in 2020, whilst the national championships were hosted in 2019 attracting a large number of participants and spectators.

Over 3,000 people are expected to attend and 2,000 visitors are expected to come from intrastate, interstate and internationally for the UCI event. The City of Greater Shepparton has identified a number of potential events that could be hosted to enhance the Games hosting and capitalise on the Games.



6. Accommodation

6.1 Accommodation for Games Delivery Personnel and VIP's

The CGF requires that a minimum of 4,000 contracted rooms be made available for CGF Games constituents. However, advice from the CGF is that planning should be based around 8,000 rooms for Games constituents. An assessment of recent Commonwealth Games has identified that it would be prudent to plan for the allocation of approximately 35,000 beds or 16,000 rooms across Regional Victoria to house CGF constituents, media and broadcast personnel, workforce and volunteers.

This is assuming that approximately 50% of volunteers are either locals, commute to events each day or arrange to stay with friends and family. The Gold Coast 2018 Commonwealth Games Organisers contracted 7,100 rooms for use by Games constituents, which translated to over 15,500 beds.

Taking account of the Games Program schedule, location of events and that much of the central infrastructure, including Games Village will be in or near Geelong it would be reasonable to assume that 70% of accommodation catering for those involved in the delivery of the Games will need to be in the Geelong area. There will however need to be some duplication as some of the personnel and Games family based in Geelong will travel to other host destinations and require overnight accommodation.

This will be especially the case for those involved in activities more than 1 hour from their accommodation. The estimated break-down of requirements by Regional Victoria host cities are:

- Geelong 24,500 beds plus Games Village of 6,700 beds
- Ballarat 7,000 beds plus Satellite Games Village of 800 beds
- Bendigo 3,500 beds plus Satellite Games Village of 600 beds
- Shepparton 3,500 beds plus Satellite Games Village of 550 beds
- Traralgon 600 beds plus Satellite Games Village of 250 beds
- Bright 150 beds plus Satellite Games Village of 25 beds
- Echuca 100 beds plus Satellite Games Village of 90 beds
- Horsham 50 beds plus Satellite Games Village of 40 beds
- Mildura 100 beds plus Satellite Games Village of 100 beds

This would mean that 39,500 beds are required for Games delivery personnel, including volunteers, and an additional 2,455 beds in Satellite Villages in Regional Victoria. The Satellite Villages would normally be established in hotels, resorts, conference centres that can easily be secured.

Therefore prior to considering the needs of visitors coming to spectate at Games events there will be a need for almost 42,000 beds across Regional Victoria to cater for Games delivery, media, athletes and technical officials, excluding provision at the Games Village.

An analysis of current and projected accommodation availability identifies that this level of provision is not likely to be available using traditional accommodation providers. This basic assessment does not provide in-depth analysis of the level of provision but it is clear that none of the Regional cities have adequate 4 star or 5-star provision as in most cities this represents less than 5% of available stock whereas CGF requirements for its key constituents is 40% of the 4,000 rooms (approx. 9,000 beds).

The following table provides a summary of current/projected accommodation availability as compared to estimated requirements.

Table 57: Host Area Accommodation Summary

Host Area	Current Available Beds, excludes caravan sites, includes Air BnB	Beds required for Games Delivery Personnel	Satellite Games Village (Beds)	Total no of Beds required for Games Delivery and Satellite Village	No of Athletes excluding athletes hosted for finals and ceremonies	Explanatory Comments	Comments on local regional capacity to meet Games Needs
Geelong	10,340	24,500	0	24,500	15	This includes Air BnB. In addition, there are 6,272 holiday homes. There is a recognised lack of rooms in the north of the city. The Greater Geelong and the Bellarine Tourism Development Plan identifies that the region will need to attract between 1,400 and 2,500 Guest rooms to support projected growth over the next 15 years.	There is a shortfall in capacity of approximately 14,000 beds.
Ballarat	4,500	7,000	800	7,800	1215		There is a shortfall in capacity of approximately 3,300 beds.
Bendigo	4,300	3,500	600	4,100	60	This includes Bendigo and surrounding up to approximately half hour drive o venues.	There is adequate capacity to cater for Games Delivery personnel.
Shepparton	2,641	3,500	550	4,100	420	The Greater Shepparton Accommodation Opportunities Study reports that the existing accommodations stock in Greater Shepparton is largely standard hotel/motel. The notable accommodation gap in Greater Shepparton is a high-quality hotel (4+ star rating).	There is a shortfall in capacity of approximately 1,500 beds.
Traralgon	3,200	600	250	850	1855 (includes 390 athletes who will stay in Shepparton for 3 days or less)	Estimate only for the Latrobe Valley Region	There is adequate capacity to cater for Games Delivery personnel.
Bright	2,000	400	25	425	435 (plus 390 athletes who will stay in Shepparton for 3 days or less)	Estimates are for across the Alpine Shire area.	There is adequate capacity to cater for Games Delivery personnel.
Echuca	1,200	100	90	190	25		There is adequate capacity to cater for Games Delivery personnel.
Horsham	800	50	40	90	235		There is adequate capacity to cater for Games Delivery personnel.
Mildura	2,000	100	100	200	70		There is adequate capacity to cater for Games Delivery personnel.
Totals	Approx. 31,000	39,500	2,455	41,955	4,330		There is a major shortfall across the host cities. Overall this shortfall is more than 10,000 beds. However, there is a shortfall of approx. 19,000 beds.



Some of the shortfall of 19,000 beds may be able to be met through utilisation of University and school accommodation. However, the standard of provision in these facilities is likely to be well below that required for CGF constituents. Based on the Gold Coast experience some of the shortfall is likely to be met through accommodation in areas of Melbourne less than a travel time of one hour from Games activities.

6.2 Accommodation in Regional Victoria for Games Visitors

It is not possible to accurately predict the number of visitors that will travel to Victoria to attend Games activities. Reviewing the reports on the Gold Coast Commonwealth Games does help to provide some guidance. Key visitor statistics were:

- Sporting tickets sold 1.2 million.
- Unique visitors to Gold Coast, Brisbane, Cairns and Townsville for Games activities was 591,000 persons comprising 378,000 day-trippers and locals, 168,000 from rest of Queensland and Australia and 45,000 visitors from overseas.
- Visitors to ticketed sporting events was 331,000 persons.
- Visitors to non-ticketed sporting events was 159,000 persons.
- Visitors to Festival 2018 events 274,000 persons.
- Average number of sporting sessions attended was 4 sessions.
- Average length of stay of visitors was 7 days.
- 28,000 beds were available in Gold Coast within 10kms and 65,000 beds within 50kms of main stadium plus a further 38,000 beds in Brisbane (approximately 70kms from main stadium).
- 31% of Gold Coast visitors stayed at a friends or relative's house.

The Melbourne 2006 Commonwealth Games reports provide similar visitor data. For example, the Economic Impact Study of the Melbourne 2006 Commonwealth Games prepared by KPMG reports:

- 60,125 overseas visitors
- 57,000 interstate visitors
- 37,000 Regional Victoria visitors

If a Regional Victorian based Games can generate similar visitors to those experienced by the Gold Coast and Melbourne it is estimated that between 130,000 and 200,000 visitors will travel to Regional Victoria. Utilising a conservative estimate of 5 days stay per visitor and 150,000 visitors and 30% staying with family and friends this would require almost 500,000 bed nights. This equates to a demand for 33,000 beds if evenly distributed over the Games program and lead-in activities.

6.3 Accommodation Summary

If the requirements of Games delivery personnel, VIPs and Games visitors are combined there will be a need for 75,000 beds with current capacity in Regional Victoria providing less than 40% of this requirement. Some of the shortfall could be catered for in Melbourne as occurs at some other large events or through creative use of available accommodation stock. These estimates should be treated with caution as some of the regional accommodation capacities are estimates only and the likely demand for visitation to a disbursed Games are problematic.

It should be noted that this shortfall does not take into account any current or future investment opportunities. Major events such as the Commonwealth Games provide the impetus for targeting accommodation investment, or growth in the likes of student accommodation. Indications from many Regional Victorian Councils and Tourism authorities is that there is planning in place for a major increase in accommodation capacity.



7. Other Event Opportunities

The pre-feasibility assessment of potential Commonwealth Games venues has highlighted that that Regional Victoria's sporting event infrastructure positions Regional Victoria to bid for and host more events (multi-sport and single sport) than currently occurs.

It recognises that many Regional Victoria facilities can be geared up to cater for high profile/large participant/spectator events. OPG has utilised its facility and event development knowledge in association with its national and international sport, recreation, event and tourism knowledge to identify and scope up other major event use opportunities.

This has been supported through consultation with Visit Victoria, Sport and Recreation Victoria and other industry event stakeholders to identify and analyse a number of national and international major event opportunities that could be hosted regionally. The following is a summary of events identified as having the potential to have a greater presence in Regional Victoria.

7.1 Multi-Sport Event Opportunities

These are detailed as follows.

7.1.1 Australian Sikh Games

There are two major Sikh Games conducted annually in Australia. These are the Australian Sikh Games and the Griffiths Sikh Games, the Shaheedi Tournament.

The Australian Sikh Games is one of Australia's largest multi-sport annual events. The Games are held every year in capital cities and major regional areas around Australia, rotating between six state and territories with Victoria next due to host the Games in 2025. These Games are the premier sporting and cultural event for the Australian Sikh community.

The Australian National Sikh Sports and Cultural Council (ANSSACC) acts as an umbrella body of all partners organisations. Each year ANSSACC names one of the partner organisations as the next host and hands over responsibility for delivering the Games to a new city around Australia.

Athletes and spectators from all over the country and overseas, including New Zealand, Malaysia, Singapore, Canada and the U.K. come to participate in a wide array of traditional Indian and Australian sports and related events. The Games draw crowds of up to 45,000 people over three days during which 1,400 plus (up to 3,000) athletes compete in 14 to 16 different sports.

Based on advice from organisers the Games could be held in one of the larger Victorian regional cities. Key requirements for hosts are:

- Large indoor sports centre/s capable of providing 6 volleyball courts, 4 badminton courts, additional multi-sport courts for basketball, netball and other indoor activities.
- Four soccer pitches.
- Four cricket pitches
- One (preferably two) synthetic hockey pitches.
- Additional outdoor fields and spaces for sports such as Kabaddi, AFL, Touch Footy.
- Accommodation for 10,000 visitors (some of whom will stay with local families).

The 2019 Australia Sikh Games were held in Melbourne at the Casey Fields, Cranbourne East on the 19-21 April 2019 and received significant financial support from state and local government.

The larger sports included Cricket, Soccer, Netball, Volleyball, Touch Footy, AFL, Kabaddi, Hockey, Basketball and Athletics.



The Griffith Sikh Community celebrates the Shaheedi Tournament every June long weekend, attracting many thousands of people to Griffith from across Australia and overseas. This event has grown to the extent that some participants stay in accommodation one hour's drive from venues. Such is the demand there may be the potential to develop a similar event in Regional Victoria. Currently the Shaheedi Tournament attracts an estimated 8,000 to 12,000 visitors to the area.

Regional Victoria Hosting Opportunities

Based on the requirements for sporting infrastructure and accommodation both events could be hosted in a regional Victorian city.

7.1.2 The Australian Masters Games

The Australian Masters Games is a biennial sporting event that is regarded as one of the premier and largest participation sporting events on the Australian sporting landscape. The Confederation of Australian Sport is the rights holder for the Games. In 2019 the 17th edition of the Games will be hosted in Adelaide from Saturday 5th to Saturday 12th October.

As has occurred in previous Games, a successful event Bid requires significant support from state and local government. The 17th Australian Masters Games is sponsored by the South Australian Tourism Commission through Events South Australia.

It is expected that 8,000 to 10,000 participants will compete across 51 different sports. The social activities associated with Games are an important feature of the event.

Regional Victoria Hosting Opportunities

Advice from the organisers of the Australian Masters Games is that the Games are beyond the current capacity of most regional cities across Australia in relation to sporting venue infrastructure and accommodation.

Geelong hosted the Games in 2013 with organisers reporting that many of the participants travelled from Melbourne to participate each day which provided scheduling issues and impacted on social activities patronage. However, the projected growth in population, infrastructure and accommodation in many Regional Victorian cities may provide an opportunity to launch a Bid in the future.

The event organisers reported that they had trialled conducting the Games jointly across a number of Regional cities but found participant numbers dropped significantly and there a range of logistical difficulties for organisers and participants.

There are regional specific Masters games that are held across Australia such as the biennial Alice Springs Masters Games and the Great Barrier Reef Masters Games. The Great Barrier Reef Masters Games was first held in Cairns, Queensland in 2013, and has since been held every second year.

Two thousand masters-aged men and women from Australia, Oceania, USA, UK and South East Asia are anticipated to compete in 22 individual and team sports across the four days of competition with sports for all masters ages and interests in 2021. These types of events are a perfect fit for a regional city but would require the development of the concept with key stakeholders.

7.1.3 Australian University Games

The Australian University Games are comprised of two flagship events, The UniSport Nationals Division 1 and 2, as well as a number of standalone competitions throughout the year, including Nationals Snow, T20 cricket, 3x3 basketball, triathlon, and others. The Gold Coast is the current host of the UniSport Nationals.

The UniSport Nationals Division 1 and 2 events attract more than 8,000 student-athletes each year in 32 different sports. Held annually in September, Nationals Division 1 consists of 29 different sport competitions contested across men's, women's, mixed and open categories. It requires accommodation for between 7,500 and 8,500 participants for 6 nights, with some accommodation provided on campus at the host university.



The sporting competitions are run by the state and national sporting associations with most sports requiring venues to be similar to national championship standard. A summary of specific sport requirements is provided in Appendix 5. A consolidated summary of venue requirements identifies that in one city there is a need for the equivalent of:

- 30 indoor basketball/netball courts
- 25 outdoor fields/ovals/pitches
- National standard athletics track
- 50m pool supported by 2 water polo pools
- A range of other sport facilities.

Held annually in July, Nationals Division 2 consists of 13 different sport competitions contested across men's, women's, mixed and open categories and is an 'open entry' event. This means that any of the 43 member universities can enter teams into the competitions if they have not already qualified for Division 1 in that sport.

The top two ranked teams in each sport of the Div. 2 competition (who have not already qualified for Div. 1) will gain promotion into Nationals Division 1 the same year.

Until recently there was an event titled the Southern University Games which attracted approximately 2,000 participants from all over Victoria, South Australia and Tasmania. There were four regional University Games held simultaneously across Australia, serving as the qualifying competition for the Australian University Games.

7.1.3.1 Indigenous Nationals

In 2019, the Indigenous Nationals was hosted by The University of Western Australia, Perth and is contested in a mixed competition across four sports: touch football, basketball, netball, and volleyball. The event is a week-long multi-sport competition involving approximately 400 Indigenous student athletes from 25 universities.

Standalone national university events

Standalone national university events are reviewed yearly and for 2019 the events are:

- Nationals 3x3 Basketball
- Nationals Athletics
- Nationals League of Legends
- Nationals Marathon
- Nationals Orienteering
- Nationals Snow
- Nationals Surfing
- Nationals Swimming
- Nationals T20 Cricket
- Nationals Taekwondo

Regional Victoria Hosting Opportunities

Advice from the organisers of the national universities' events program is that the UniSport Nationals Division 1 Championships have grown beyond the capacity of most regional cities across Australia. The Division 2 championships may be capable of being hosted in a large regional city; however, the current scheduling arrangements has both events scheduled in the one city.



The organisers identified that the stand-alone championships provide an opportunity for hosting by Regional Victoria cities, as does the Indigenous Nationals.

7.1.4 Victorian Teachers' Games (VTG)

The Victorian Teachers Games has been operating as an annual event for 24 years. The Games aims to bring the community of educators together for four days and four nights of sporting and social events. Since the events' inception in 1996, VTG has been held at regional centres around Victoria by the regional offices of the Department of Education and Early Childhood Development.

In 2014, the responsibility for hosting VTG was transferred from regional offices to School Sport Victoria.

Regional Victoria Hosting Opportunities

Recently Ballarat hosted the Games (VTG23) with 45 events offered with over 100 different competition categories for over 2,000 teachers.

The previous Games were in Shepparton and the next Games is scheduled to be held in Geelong reinforcing the commitment of the organisers to base the Games in Regional Victoria. Up to 3,000 teachers from around the state will descend on the Geelong region for the 24th edition of the games from 22 to 25 September 2019.

7.1.5 Special Olympics

Special Olympics is a year-round multi-sports program for people with an intellectual disability. Each year there are hundreds of competitions from local through to international competition. During competition, athletes are placed in divisions so that they compete against people of similar ability. The following is a summary of events conducted by Special Olympics:

- **State Games** are held annually, with some states hosting multi-sport games, while others hold a separate competition for each sport.
- **Junior National Games and National Games** are held every four years. The National Games were held in Adelaide in 2018 with 1,000 athletes, 800 volunteers, 300+ events, 11 sports. The National Junior Games held in Gold Coast in 2017 with 200 athletes competed across four sports – athletics, basketball, football and swimming all held at Runaway Bay Sports Super Centre.
- **Invitational Games** are hosted regularly with invites from other states or countries.
- **Trans-Tasman Tournament** happens every two years between Australia and New Zealand.
- **Asia Pacific Games** is an international competition for Asia Pacific programs which was held for the first time in Australia in 2013.
- **World Games** which is hosted on a four-year cycle in summer and winter sports. Special Olympics Australia offers regular training in athletics, basketball, bocce, bowling, cricket, equestrian, football, golf, gymnastics, netball, sailing, softball, swimming, table tennis, tennis and winter sports (Alpine skiing, figure skating and snowboarding) and operate on a four year-cycle with a separate event for summer and winter sports. Athletes of all abilities can compete at the World Games if they meet the selection criteria over 8 days 24 different individual and team sports. The 2019 Special Olympics World Summer Games were held in Abu Dhabi, UAE with 7,000 athletes with an intellectual disability from 170 nations competing across 24 sports in front of half a million spectators. More than 40,000 spectators attended the Opening Ceremony.

Regional Victoria Hosting Opportunities

Based on the requirements for sporting infrastructure and accommodation all of the listed Special Olympic events, except the World Games, could be hosted in a Regional Victorian city.

7.1.6 Pacific School Games

The very first Pacific School Games were held in Brisbane in 1982 as a lead in to the Commonwealth Games. It has been held every two years with the last Games hosted in Adelaide in 2017. The Pacific School Games are currently in recess with the rights holder, School Sports Australia, reviewing the Games future.



The Games have been international school sport championship, providing opportunities for around 4000 school-aged students to participate in 11 different sports at the highest level. It has been flagship event of School Sport Australia, which provides educational opportunities for Australian and international students through the conducting of games in a range of sports.

Students aged between 10 - 19 years from at least 15 countries, including every Australian State and Territory, competed from 3-9 December, 2017. Australian students qualify for the Games through their state or territory school sport unit pathways and international students follow their national school sporting association pathways. There is normally a central games village established. The event's requirements could potentially be catered for in a large Victorian regional centre.

7.1.7 The Youth Olympic Games

The Youth Olympic Games are an elite sporting event for young people from all over the world. The sports programme is based on that of the Olympic Games, with 28 sports featured on the summer programme and 7 on the winter programme. The Summer Youth Olympic Games feature over 3,500 athletes and are held over a 12-day period.

Regional Victoria Hosting Opportunities

Generally, these Games have been held in large population centres, such as Singapore, Nanjing and Buenos Aires. The scale and size of the Games is probably beyond the capability of Regional Victoria cities. For example, the Opening Ceremony for the 2018 Games was held on the streets of Buenos Aires with 215,000 people watching the spectacle live.

7.1.8 Commonwealth Youth Games

The Commonwealth Youth Games is an international multi-sport event organized by the Commonwealth Games Federation. The games are held every four years. Bendigo hosted the Games in 2004. There were 1,000 participating athletes from 22 countries competing in 10 different sports. Trinidad and Tobago will host the 2021 Commonwealth Youth Games after they were selected as the host city of the seventh edition of the multi-sport event by the Commonwealth Games Federation. Sports vary from Games to Games with 2021 bid including aquatics, beach volleyball, boxing, cycling, netball, tennis and track and field.

Regional Victoria Hosting Opportunities

The Commonwealth Youth Games are an ideal fit for a large Regional Victorian city.

7.1.9 Regional Games

There are a large number of multi-sport event regional games held across Australia, such as Great Southern Youth Games, Albany and the Goldfields Games, Kalgoorlie. Many of the Regional Sports Assemblies Across Victoria coordinated Regional Games in 1980's and 90's. These types of events are a perfect fit for a regional city but would require the development of the concept with key stakeholders.

7.2 Single Sport Event Opportunities

Twenty sports that utilise infrastructure identified in the study as being capable of hosting more state, national and international events were contacted to determine opportunities for increasing their event presence in Regional Victoria. The following summarises key opportunities and any perceived challenges to increasing events in Regional Victoria.

7.2.1 Aquatics

Swimming Victoria (SV) advises that there are more swimming event opportunities for Regional Victoria, however many regional pools are unable to be considered for event bids because they fail to meet contemporary swimming event standards. Most major swimming events when scheduled for Victoria are conducted in indoor/roofed facilities.



The Victorian Country Swimming Championships are held in regional pools. However, SV is looking to develop new events and provide opportunity for regional pools to host other state level and national events. Events under consideration include the conduct of a National Country Championships. SV is interested in formalising long term commitments for some events and has been active in seeking that a number of the new and proposed regional aquatic developments be GRAC to be developed meet all “Swimming Australia - Facility Requirements for levels of provision” document to Regional Standard and to meet State/National level for a number of components.

The key components required for this standard are:

- 50m x 10 lanes plus boom/bulkhead and 25m wide, capable of providing 2 pools x 25m with touch pads in place.
- 2200 seats for most national events and a warm-up pool.
- Minimum depth of 2.0m at one end graduating to 1.35m (minimum for diving starts) at the other end.
- Supporting infrastructure.

Water Polo Victoria (WPV) advises that if a regional pool was designed to SV’s standards it would be close to meeting WPV’s standards for regional and some state events and activities. A key component is achieving an area of 30m x 20m with minimum depth of 1.8m in that space. The minimum water depth is 1.8m but 2m is preferred. There is a major shortfall of aquatic facilities in Regional Victoria that allow Water Polo competitions to be played.

7.2.2 Athletics

There are a number of national athletics events that could potentially be hosted in Regional Victoria if the appropriate infrastructure and support is available. A national level competition has a requirement for more equipment and event sites than other athletic events.

Currently in Australia the Australian Open and Junior Athletics Championships are held together as one event. As such there is the requirement for a track to have a second warm up track. The best placed tracks for that event are Brisbane and Sydney. However, Athletics Australia advises that it is looking at ways going forward where a second warm-up track wouldn’t be a requirement. National Cross Country and National All Schools are currently on a rotation between a number of cities and have smaller requirements than National Championships.

An important consideration in the allocation of host venues is the support (primarily financial) from the local or state governments. The support of the local and state athletics community is also key. AA reports that athletes are more willing to travel to regional facilities if it is proven to provide quality performances. Canberra is a good example of this as it regularly produces quality sprint times. Things like wind, temperature and track speed are important to athletes.

The Nationals are a permit level B which means it needs either a Level 1 or 2 level track as certified by the IAAF; noting that IAAF permit types regularly change.

The Australian All Schools Championships, organised by Athletics Australia, is the National Track and Field Championships for school sport. The 2018 Australian All Schools Championships was held in Cairns, QLD, with 3 days of competition. Victorian All Schools Track Relay Championships and Victorian All Schools Track & Field Championships will be held in Doncaster in 2019. The ALAC (Australian Little Athletics Championships) is a two-day event held every year, hosted by each State or Territory on a rotational basis. Generally held in the capital city of the host state.

7.2.3 Basketball

A significant number of national and state basketball events are conducted in Regional Victoria with Basketball Victoria active in encouraging associations and municipalities to consider event requirements in the development of regional facilities. Key requirements for national junior championships are to provide three compliant courts, not situated side-by-side, for use as game courts.



These are to be full regulation size (15m x 28m) with 2m run-off and all correct court markings. At a minimum the main court is to have seating for 1000, second court for 500 and third court for 300 plus supporting infrastructure.

As identified in the review of facility requirements for the Commonwealth Games many of the current indoor show-courts/competition spaces are not able to be configured for larger indoor events because of roof heights that limit size of spectator stands and/or that don't meet international competition requirements.

7.2.4 Boxing

Boxing Victoria identified the potential to host the National Championships as well as some of the smaller international events in Regional Victoria. The Oceania Continental Boxing Championships were held in Canberra in 2016. The National Championships involves approximately 400 participants and spectators each day. Whilst the Boxing specific infrastructure would need to be overlaid, most large Regional Victoria indoor centres are capable of providing an adequate base for meeting the competition and support services requirements.

The major barriers identified to conducting boxing events in Regional Victoria are the cost of accommodating officials and getting teams to and from this location.

7.2.5 Gymnastics

Gymnastics Victoria and Australia have both hosted a number of their major events in regional cities. Gymnastics Victoria currently hold 3 events in Geelong - the Senior Victorian Championships, Teams Championships and FusionFX and the Junior Victorian Championships. Gymnastics requires venues that can be utilised for a minimum of 5 days - this includes a pack in and out day so finding a venue that is able to provide a venue for this period of time is difficult.

They require a large venue, and currently utilise Geelong Arena. Bendigo Stadium has also hosted major gymnastics events, including the 2016 and 2017 National Clubs Gymnastics Carnivals.

Venue requirements for major events such as the Victorian Championship involve approximately 3000 people over 2.5 days. Key venue requirements are:

- 1 show court with program space of approximately 1200m².
- Up to 3 additional courts.
- Spectator Capacity of up to 500 per program space.
- Additional space for storage of additional equipment and space required to park up to 5 shipping containers.

Based on the requirements for sporting infrastructure and accommodation many of the national and state events, could be hosted in a large Regional Victorian city.

7.2.6 Judo

Judo Victoria indicated that it is interested in increasing its events presence in Regional Victoria. Potential events include the National Championships (sanctioned by Judo Australia) which involves 100 participants and 250 spectators on each of 3 days. Most of the large Regional Victoria indoor centres are capable of meeting the competition and support services requirements.

The major barriers identified to conducting judo events in Regional Victoria are the cost of transporting mats and equipment, skilled personnel to staff the venue and finding a suitable venue for 4 days.

7.2.7 Lawn Bowls

Lawn Bowls conducts a number of major events in Regional Victoria. These include:

- Under 18 Nationals are held this year in Bendigo.



- Held a state test against SA last February in Moama.
- State Champion of State Pennant (Moama).
- Victorian Open (Greater Shepparton). Shepparton hosted the 2009 Australian Bowls Open.
- State Championships (Bendigo).
- Region Sides (Swan Hill, Traralgon)
- Women's Country Carnival (Campaspe).

The large Regional Victoria Bowling Clubs are capable of meeting the competition and support services requirements of many of the major lawn bowls events. The major barriers identified to conducting lawn bowls events in Regional Victoria are travel, accommodation availability (if a large event) & local transport to get around.

7.2.8 Netball

Many of the indoor show-courts/competition spaces are not able to be configured for larger indoor netball events because of competition spaces, including run-offs and roof heights, are non-compliant. Most large recent multi-sport indoor developments have been constructed to take account of key netball event requirements.

Netball Victoria is active in seeking to locate major events in Regional Victoria with the 2018 State titles, which are conducted indoors and outdoors, held in Shepparton and Bendigo Stadium hosting a 2019 Australian Netball League Game.

7.2.9 Squash

Squash Victoria has indicated that it is interested in increasing its events presence in Regional Victoria. It has sanctioned two major events in regional cities, the Bendigo International Squash Championships and the Shepparton International Squash Championships.



8. Warranties and Disclaimers

The information contained in this report is provided in good faith. While Otium Planning Group has applied their own experience to the task, they have relied upon information supplied to them by other persons and organisations.

We have not conducted an audit of the information provided by others but have accepted it in good faith. Some of the information may have been provided 'commercial in confidence' and as such these venues or sources of information are not specifically identified. Readers should be aware that the preparation of this report may have necessitated projections of the future that are inherently uncertain and that our opinion is based on the underlying representations, assumptions and projections detailed in this report.

There will be differences between projected and actual results, because events and circumstances frequently do not occur as expected and those differences may be material. We do not express an opinion as to whether actual results will approximate projected results, nor can we confirm, underwrite or guarantee the achievability of the projections as it is not possible to substantiate assumptions which are based on future events.

Accordingly, neither Otium Planning Group, nor any member or employee of Otium Planning Group, undertakes responsibility arising in any way whatsoever to any persons other than client in respect of this report, for any errors or omissions herein, arising through negligence or otherwise however caused.

Appendix 1 - Training Facilities

The following is an indicative schedule for training venues by sport. It should be noted that the training venue requirements will ultimately be determined by a range of factors, including competition format, athlete numbers and any proposed venue sharing arrangements. These will be specific to each Games, and as such the following schedule should be used as a guide only.

Sport	Training Requirements	Potential Training Sites	Other Potential Training Sites for Pre and During Games
Core Sports			
Aquatics (Swimming - including Para Swimming)	In addition to the competition and warm-up pools, an additional 50m pool will be required for training, subject to the number of competing Athletes.	Leisure Link Waurm Ponds supplemented by Lara Outdoor Pool, Water World Norlane (25m pool only).	Bendigo Aquatic Centre Other planned aquatic developments such as Southern Mitchell Shire Aquatic Centre
Athletics (Track and Field - including Marathon and Para Athletics)	In addition to the Warm-Up track and throwing area, an additional 1 x 8 lane 400m track, and 1 x throwing area is required. Preferably one of these should be located in close proximity to the competition venue. It is preferable, though not mandatory, for these training facilities to have an identical track surface to the competition FoP.	John Landy Field, Geelong (as a training venue close to Main Village). Llanberris Reserve, Ballarat. (as a training venue close to Athletics Stadium and satellite village).	Trinity College, Colac The La Trobe University Bendigo Athletics Complex Brauerander Park, Warrnambool Joe Carmody Athletics Track, Newborough
Badminton	In addition to the competition and warm-up courts, 4 additional training courts are required. These can be at the competition venue or at a separate venue.	Ballarat Badminton Centre	Bluewater Leisure Centre, Colac Mansfield Indoor Stadium (proposed) Wangaratta Indoor Stadium Redevelopment
Boxing	A minimum of 1 training venue will be required in addition to the competition venue. The training venue should have a minimum of 4 training type Boxing rings. For each Boxing ring the following support areas are required: 2-3 different punching bags, 1 speed bag, 20m ² open area for shadow boxing, 20m ² open area for rope training.	Either a utilisation of a number of the private/ community boxing centres in Geelong or the setting up of a specific boxing training facility in one of the smaller indoor stadia.	
Cycling (Road)	Training will be undertaken on city streets with familiarization on the designated road course prior to competition.	Geelong based for village plus the establishment of agreed training routes in Shepparton.	Mansfield South Gippsland Shire

Sport	Training Requirements	Potential Training Sites	Other Potential Training Sites for Pre and During Games
Gymnastics (Artistic)	Assuming the provision of 2 x 40m x 20m warm-up/training areas at the competition venue, no additional training areas will be required for Gymnastics (Artistic).	Geelong Convention Centre supported by Geelong YMCA Gymnastics Arena North Geelong.	
Hockey	In addition to the 2 competition pitches, an additional 2 x full size training pitches are required, preferably co-located.	Most training will take place at the competition venue supported by potential training centres at Geelong Grammar and Geelong College, subject to synthetic surface required.	Dependant on FIH hockey surface requirements: Greater Shepparton Regional Sports Precinct Bendigo Hockey Centre Ballarat Hockey Centre Wodonga Hockey Centre Sunraysia Hockey Centre, Mildura
Judo	In addition to the 400m ² warm-up area at the competition venue, an additional training venue is required. It should have a minimum of 6 (preferably 10) areas of 8m x 8m, therefore a total open area of 400m ² - 650m ² .	Training at the Competition venue can be supplemented through utilising existing judo facilities, such as Katsumata Centre, Kardinia International College, Bell Post Hill, Geelong which is the home of Judo Geelong.	
Lawn Bowls (including Para Lawn Bowls)	Lawn Bowls training can be conducted at the competition venue; however, an additional venue would provide greater flexibility.	Mooroopna Bowling Club plus a lawn bowls club in Geelong near village.	Numerous bowling clubs in Regional Victoria
Netball	2 x full size Netball courts (preferably co-located) should be provided for training.	Training at the competition site can be supplemented through utilisation of courts at one of the Ballarat schools that have multi-indoor courts, such as the Arch Sports Centre, subject to provision of compliant courts. Training close to the Main Village is likely to be available at one of the new multi-sport indoor centres planned for the in the Northern and Western Geelong Growth Areas Framework Plan.	Bluewater Leisure Centre, Colac Flora Hill Stadium Bendigo Mansfield Indoor Stadium (proposed) Wangaratta Indoor Stadium Redevelopment Wallan Indoor Stadium Redevelopment
Rugby	A minimum of 6 training pitches (and preferably 8 pitches) will be required for a 16-team tournament.	Additional training pitches are available in the Shepparton Regional Sports Precinct and close to main village at Geelong Rugby Club, Corio and potentially in existing fields within Kardinia Park.	

Sport	Training Requirements	Potential Training Sites	Other Potential Training Sites for Pre and During Games
Squash	The competition venue will provide for all training. Should other courts be available these may be utilised but it is not mandatory to provide additional training courts.	At the proposed redeveloped Shepparton Sports Stadium.	
Table Tennis	A total of 10 courts are required at the competition venue for warm-up and training.	Bendigo Stadium and close to the Main Village at Geelong Table Tennis Centre, North Geelong	Bluewater Leisure Centre, Colac
Triathlon and optional sport Triathlon (Para)	Triathlon Athletes will require access to a swimming pool and running track, this can be scheduled with existing training venues for Athletes and Aquatics	Training for swimming at Aquamoves and close to Main Village at one of the designated Aquatic training venues.	
Weightlifting (including Powerlifting)	In addition to the required warm-up facilities at the competition venue, a minimum of 20 platforms will be required for Weightlifting training. Should this be located in a separate are to the competition venue, 2 saunas will be required at the training venue, in addition to the other required Athlete facilities	The main training venue will be at Traralgon Sports Stadium. This could be supplemented through the use of the Geelong Weightlifting Centre, North Geelong for athletes in the Main Village.	
Wrestling	A total of 10 mats should be provided at the competition venue for warm-up and training.	Bendigo Stadium. Training close to the Main Village is likely to be available by establishing training mats at one of the new multi-sport indoor centres planned for the in the Northern and Western Geelong Growth Areas Framework Plan.	

Sport	Training Requirements	Potential Training Sites	Other Potential Training Sites for Pre and During Games
Optional Sports			
Aquatics (Diving)	Diving training will be undertaken at the competition pool. An additional dry training area should be provided, with suitable support facilities and training equipment. Preferably, this would be located at the competition pool.	At the diving competition pool.	Faith Leach Centre, Bendigo
Archery	Archery training will be undertaken at the competition venue or venues.	At the Archery competition venue and Geelong Archer's training sites whilst located in Main Village. Potentially an indoor training area could be temporarily established in a school gymnasium near the Main Village.	
Athletics (Race Walks)	Race Walk Athletes will require access to the Athletics training tracks	Goulburn Valley Athletics Club as the base for training in Shepparton. John Landy Field as the base for training when located at Main Village.	
Basketball (3x3 - including Para)	All training will be undertaken at the competition venue	Geelong Arena.	Bluewater Leisure Centre, Colac Mansfield Indoor Stadium (proposed) Wangaratta Indoor Stadium Redevelopment Wallan Indoor Stadium
Cycling (Track - including Para)	Cycling (Track) training will be undertaken at the competition venue.	Tom Flood Centre, Bendigo or at an alternative competition venue. Whilst in the Main Village there are two indoor velodromes within one hour's drive. These are Melbourne Arena and the State Training Velodrome in Northcote. There is a 500-metre	
Cycling (Mountain Bike)	Cycling (Mountain Bike) training will be undertaken at the competition venue.	Bright	
Gymnastics (Rhythmic)	Should Rhythmic Gymnastics training be held at the competition venue, a separate area with acoustic separation and 12m clear height ceilings should be provided. Otherwise a separate training venue will be required with 1 x competition mat	Currently there are no indoor venues not being notionally allocated for the Games that could be used for Rhythmic Gymnastics training.	

Sport	Training Requirements	Potential Training Sites	Other Potential Training Sites for Pre and During Games
Shooting (Rifle and Pistol)	All Shooting training will be undertaken at the competition venue	Competition Venue	South Gippsland Shire
Shooting (Trap and Skeet)	All Shooting training will be undertaken at the competition venue	Competition Venue	South Gippsland Shire
Shooting (Full Bore)	All Shooting training will be undertaken at the competition venue	Competition Venue	
Table Tennis (Para)	A total of 10 courts are required at the competition venue for warm-up and training	Competition Venue	

Appendix 2 - Games Village Site Options

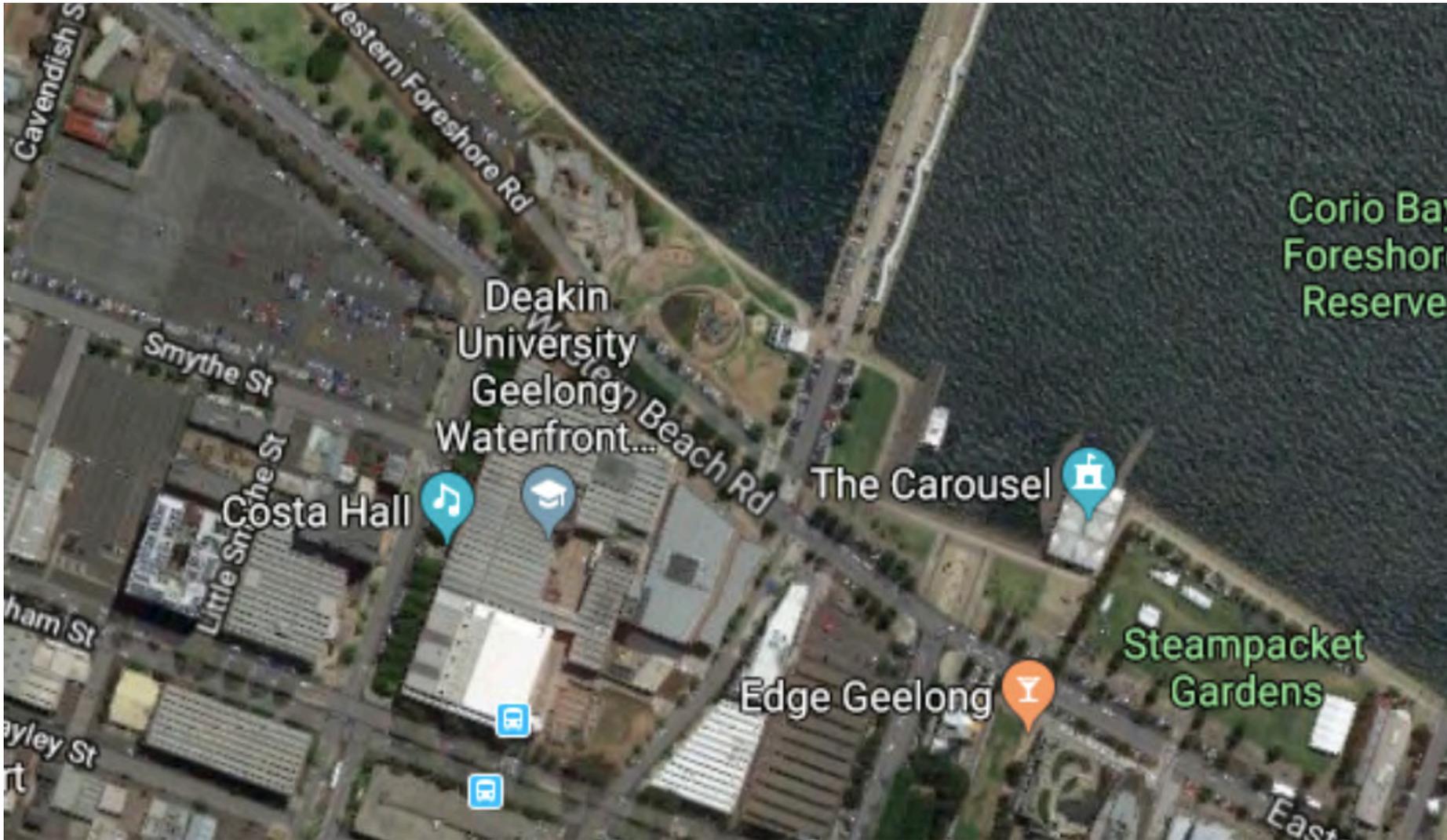


Figure 1: Geelong Waterfront Site



Figure 2: Avalon Airport Site Plan

Appendix 3 - Draft Games Sporting and Ceremonies Program

Table 58: Draft Games Sporting and Ceremonies Schedule Core Sports

Sport	Proposed Venue - Victoria	Number of Sessions	Day												
			1	2	3	4	5	6	7	8	9	10	11	12	
Aquatics - Swimming (incl para-sports)	Kardinia Park Aquatic Centre	12		●	●	●	●	●	●	●					
Athletics	Eureka Stadium (Mars Stadium), North Ballarat	13					●	●	●	●	●	●	●	●	●
Athletics - Marathon	Geelong Waterfront <i>Start and finish</i>	1													●
Badminton	Ballarat Sports and Events Centre	23		●	●	●	●	●	●	●	●	●	●	●	●
Boxing	Proposed Geelong Convention Centre	16		●	●	●	●	●	●	●		●	●		
Cycling - Road	Victoria Park Lake Precinct Shepparton <i>Start and finish</i>	4							●				●		
Gymnastics - Artistic	Proposed Geelong Convention Centre	8		●	●	●	●	●							
Hockey	Stead Park Hockey Centre, Geelong	23		●	●	●	●	●	●	●	●	●	●	●	
Judo	Proposed Geelong Convention Centre <i>3-day program, before or after Gymnastics Program</i>	6										●	●	●	
Lawn Bowls (incl para-sports)	Shepparton Park Bowls Club	9		●	●	●	●	●	●	●	●	●			
Netball (Preliminary Rounds)	Ballarat Sports and Events Centre	15		●	●	●	●	●	●	●	●				
Netball (Finals)	Bendigo Stadium	2											●	●	
Opening and Closing ceremonies	GMHBA Stadium (Kardinia Park), Geelong	2	●												●
Rugby 7's (Preliminary Rounds)	Shepparton Community Football Complex Precinct	3						●	●		●				
Rugby 7's (Finals)	GMHBA Stadium (Kardinia Park), Geelong	1													
Squash	Shepparton Sports Stadium, Shepparton	19		●	●	●	●	●	●	●	●	●	●	●	●
Table Tennis (incl para-sports)	Bendigo Stadium <i>Starts earlier and is a 10-day program - preference is to change to traditional day 2 start if venue arrangements allow</i>	20	●	●	●	●	●	●	●	●	●	●			
Triathlon	Victoria Park Lake Shepparton - <i>Start, finish and swim location</i>	2 + 2		●		●									
Weightlifting (incl Powerlifting)	Gippsland Regional Indoor Sports and Entertainment Complex, Traralgon <i>5-days for weightlifting, 1-day for powerlifting</i>	18		●	●	●	●	●	●						
Wrestling (Freestyle)	Bendigo Stadium <i>Second show court 3-day program</i>	6							●	●	●				

Table 59: Draft Games Sporting and Ceremonies Schedule Core Optional Sports

Sport	Proposed Venue - Victoria	Number of Sessions	Day											
			1	2	3	4	5	6	7	8	9	10	11	12
Aquatics - Diving	Mildura Waves Aquatic Centre	8					●	●	●	●				
Archery (Recurve)	Wimmera Events Centre, Longerenong, Horsham	6			●	●	●							
Athletics - Walks	Victoria Park Lake Precinct Shepparton <i>Start and finish</i>	2					●							
Basketball (3 x 3 incl wheelchair)	Geelong Arena	16		●	●	●	●	●	●			●	●	●
Cycling - Mountain Bike	Bright	1										●		
Cycling - Track (incl para-sports)	Tom Flood Centre Bendigo	7		●	●	●	●							
Gymnastics - Rhythmic	Proposed Geelong Convention Centre <i>Nb. Schedule would not allow rhythmic, artistic gym and judo in the one event space</i>	4								●	●	●		
Shooting - Clay Target	Echuca Clay Target Club/VCTA State Ground	8		●	●	●	●	●	●	●	●			
Shooting - Full Bore	Wellsford Forest	3				●	●	●						
Shooting - Pistol, Small Bore	Little River Shooting Range (Eagle Park)	9		●	●	●	●	●	●	●	●			

Appendix 4 - Location Maps, Travel Distances and Catchments

The following six maps identify the location of major games infrastructure.

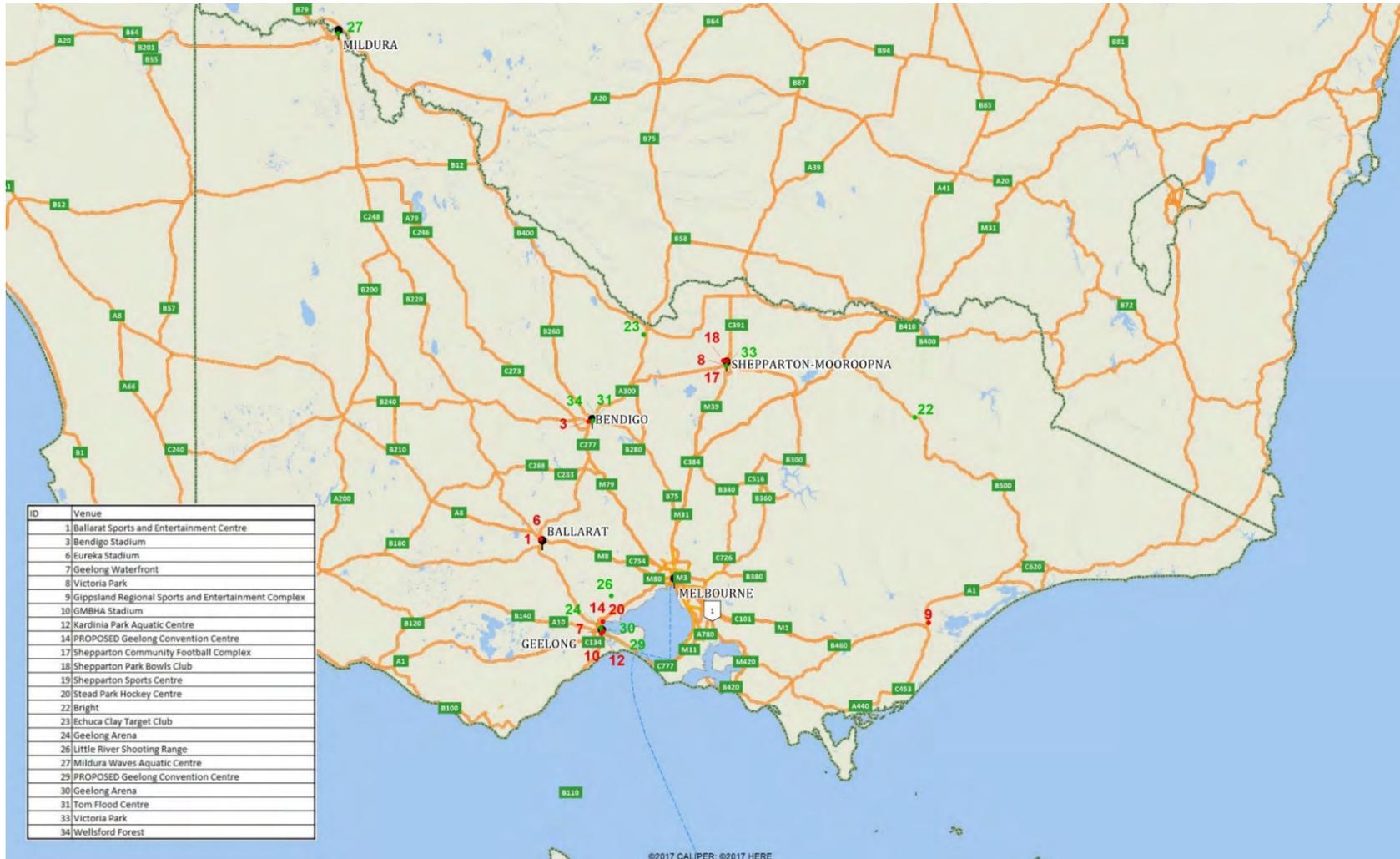


Figure 3: All Venue Locations

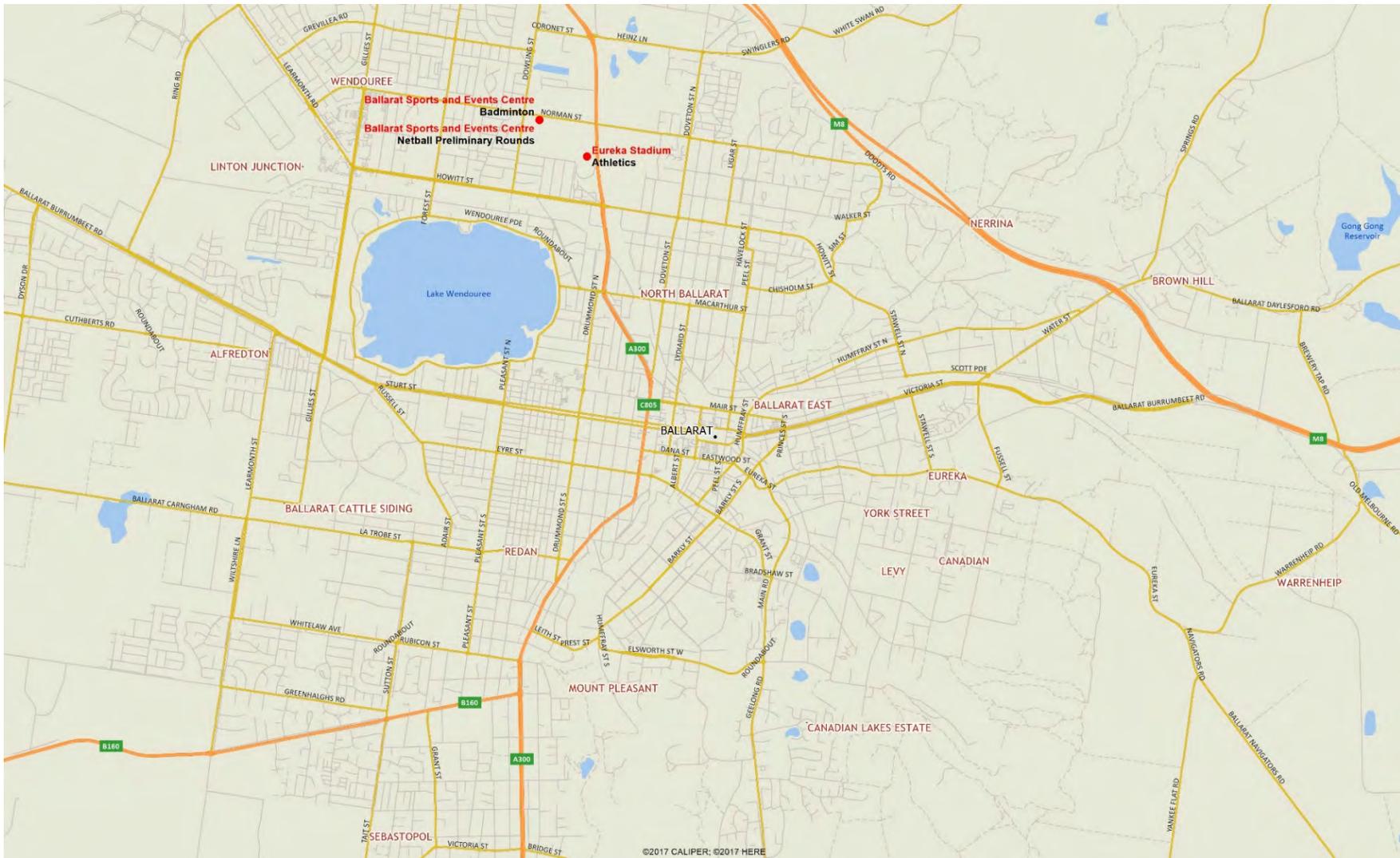


Figure 4: Ballarat Venue Locations

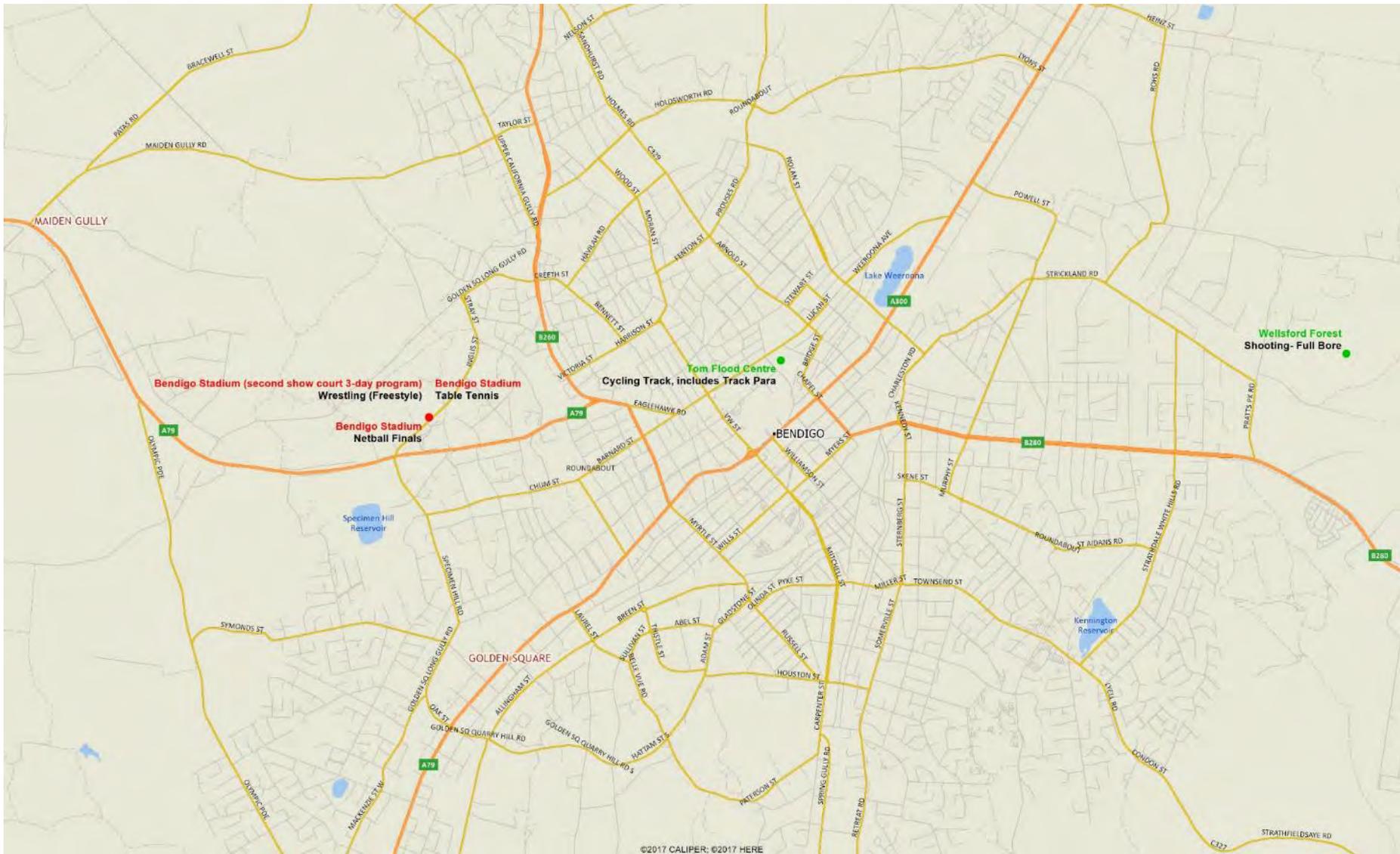


Figure 5: Bendigo Venue Locations

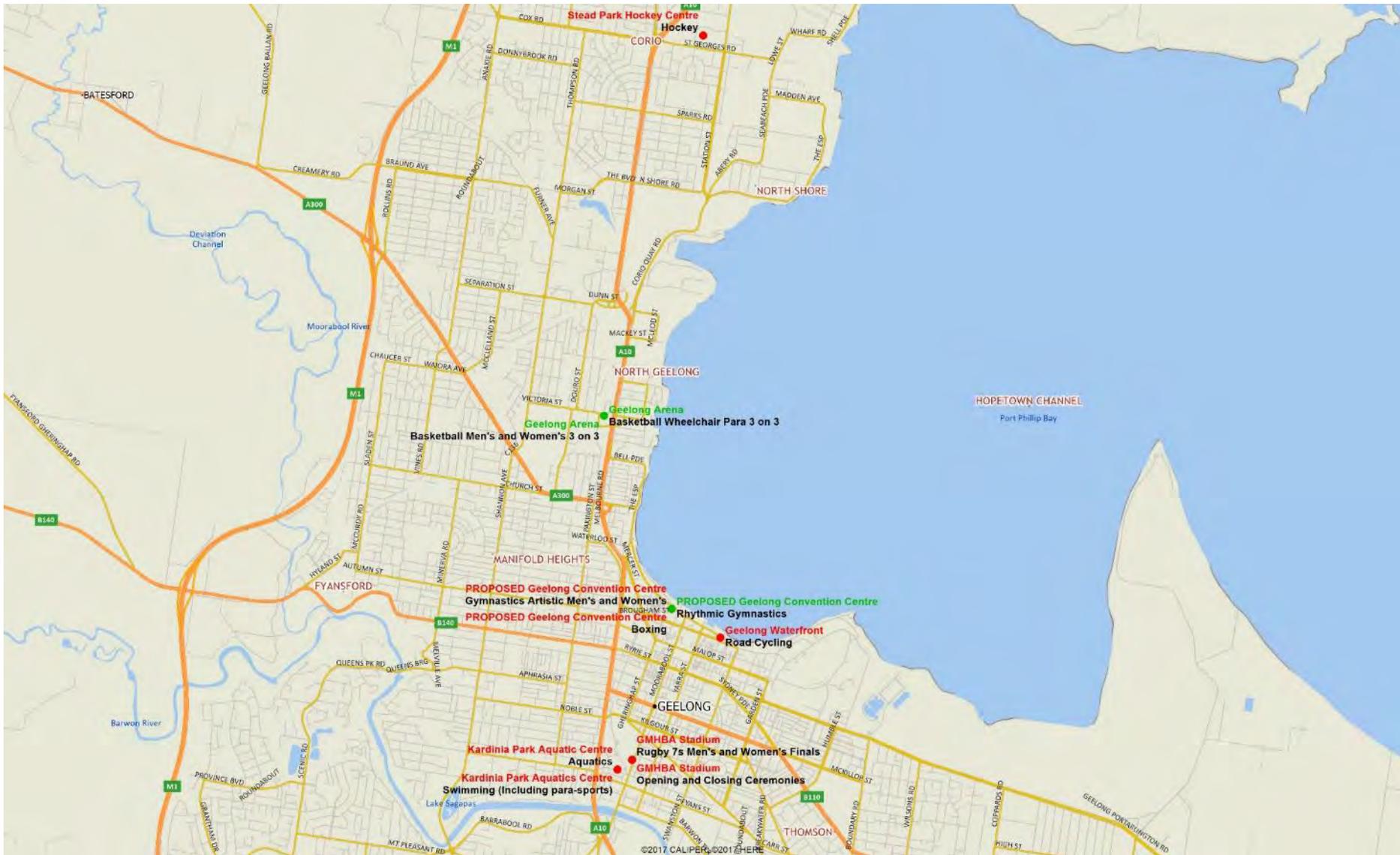


Figure 6: Geelong Venue Locations

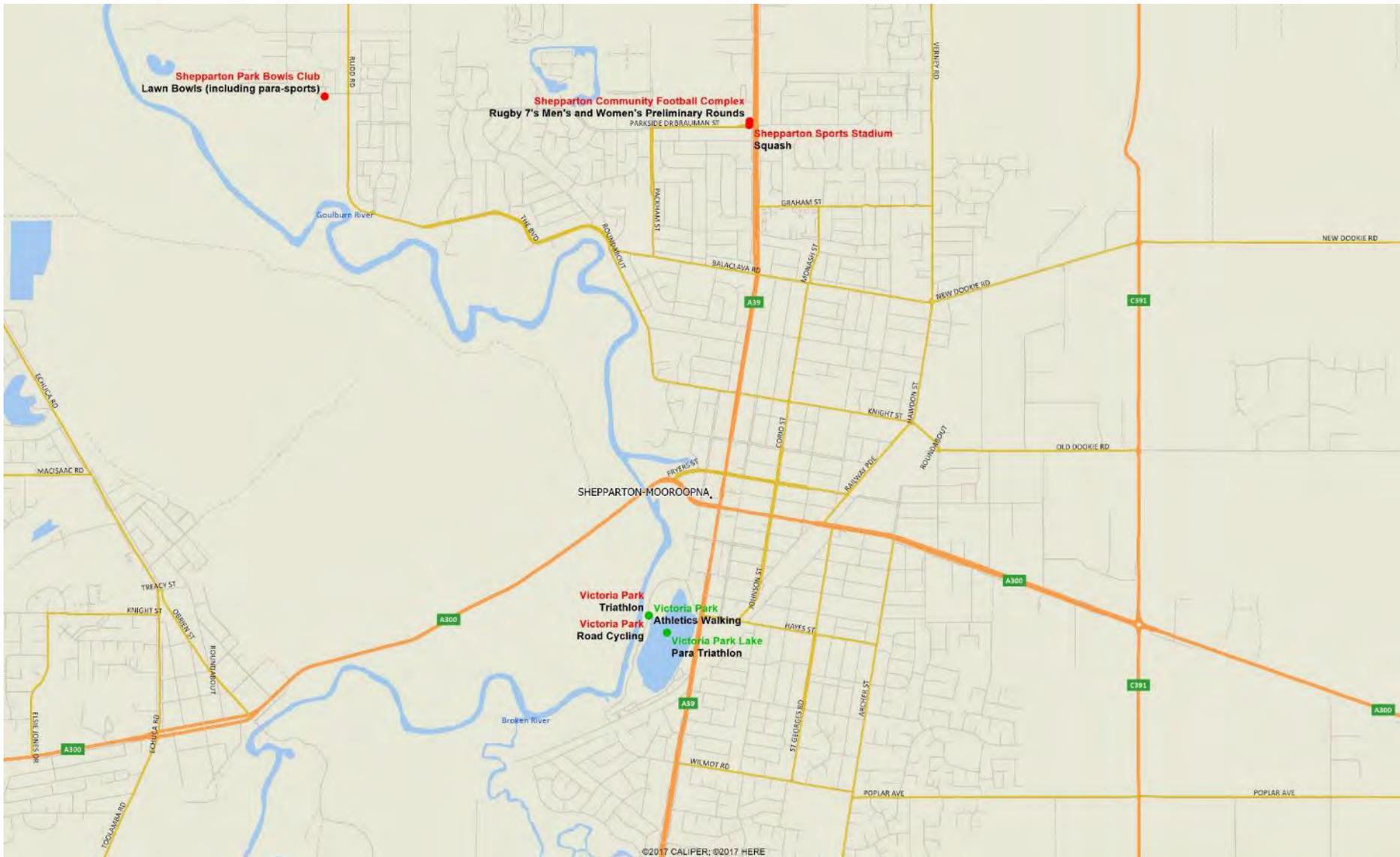


Figure 7: Shepparton Venue Location

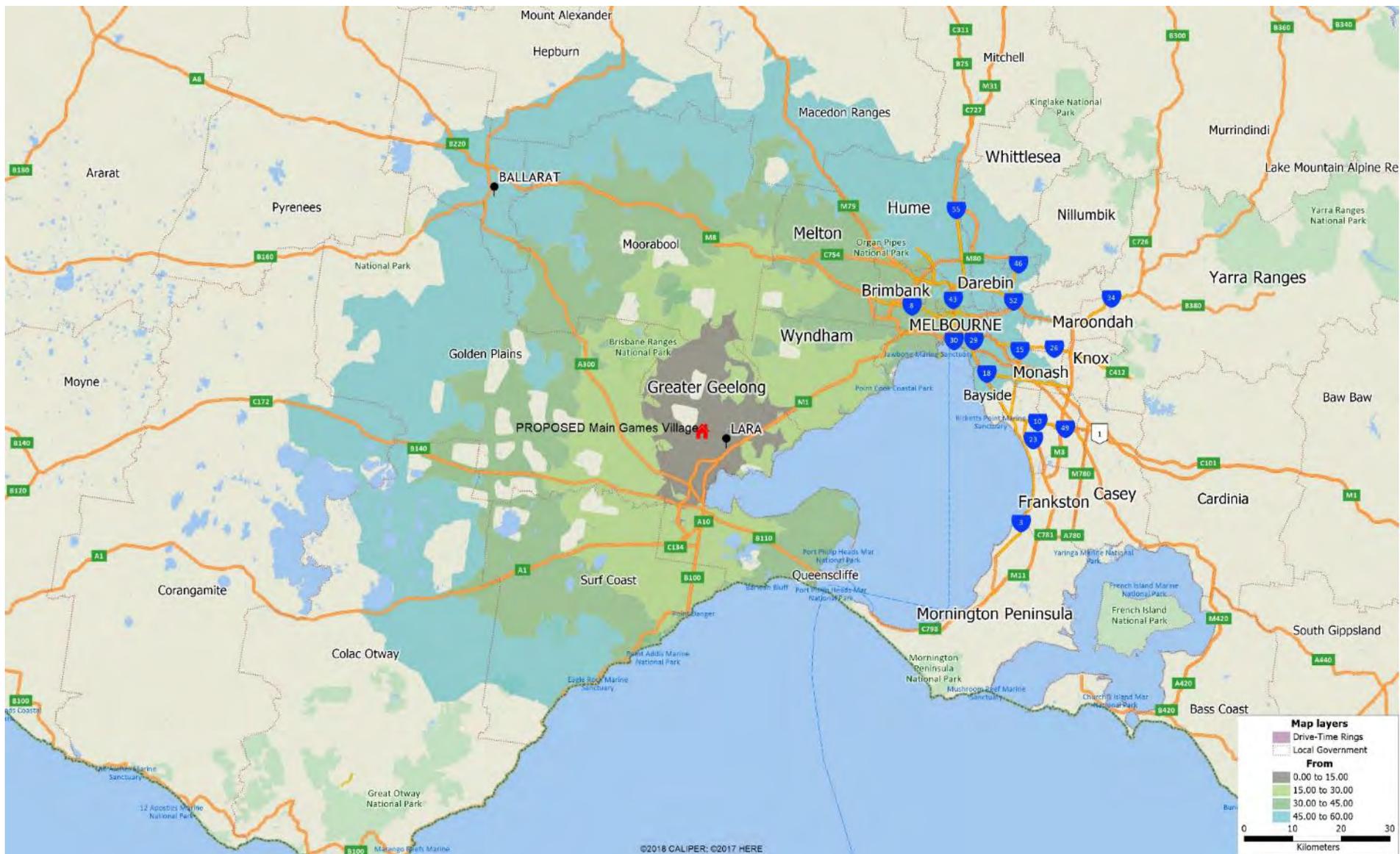


Figure 8: Travel times to Selected Venues from Lara

The following are Drive-time Rings Reports for each host city/ town. The Reports provide data on what are the current catchments for Host City/Town venues and assist in developing a better understanding of likely patronage for Games activities in those towns/ cities.

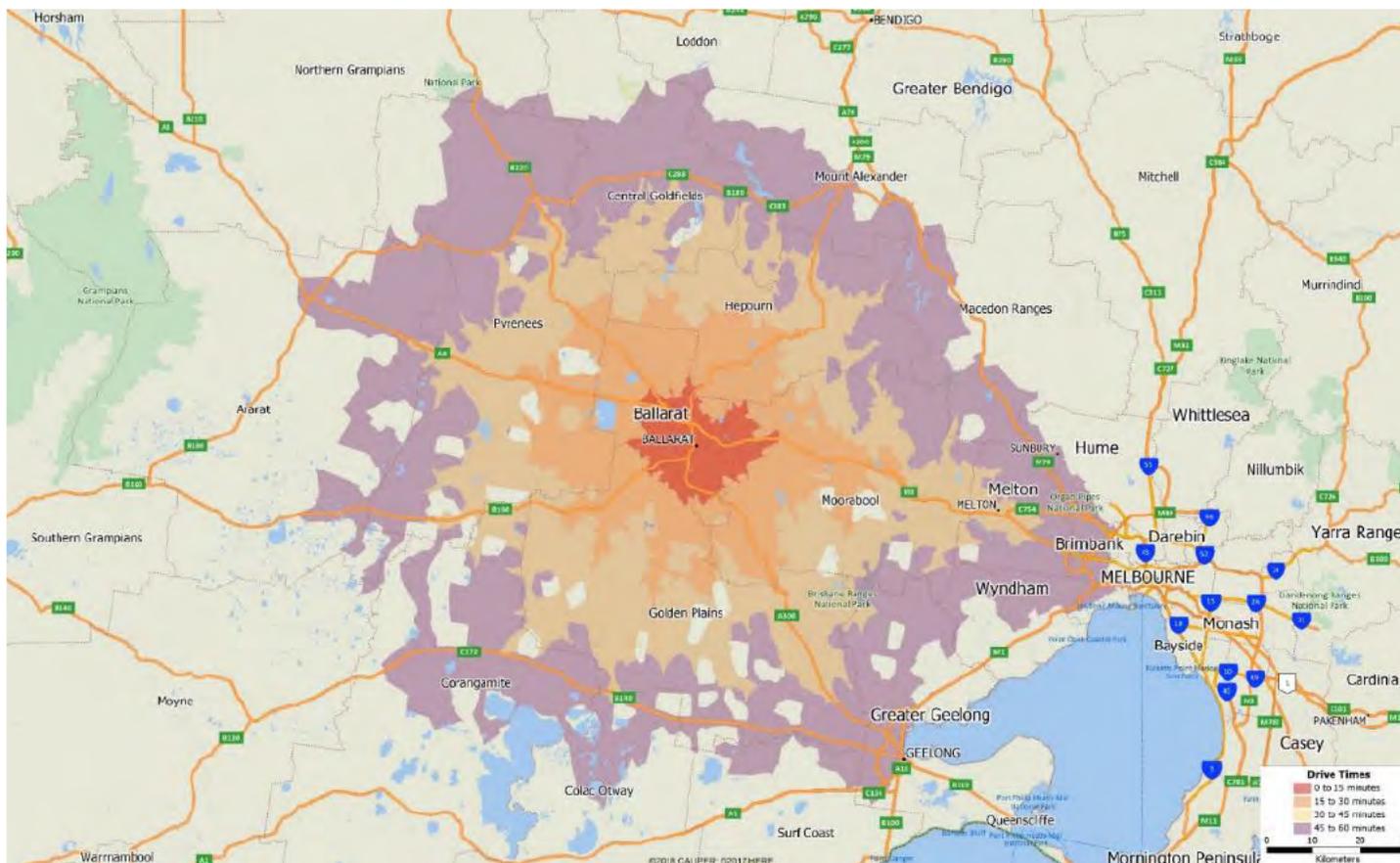


Figure 9: Ballarat Venues Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	100,175	125,513	216,876	879,923
Male	48,116	60,932	105,891	435,375
Female	52,096	64,602	111,016	444,726

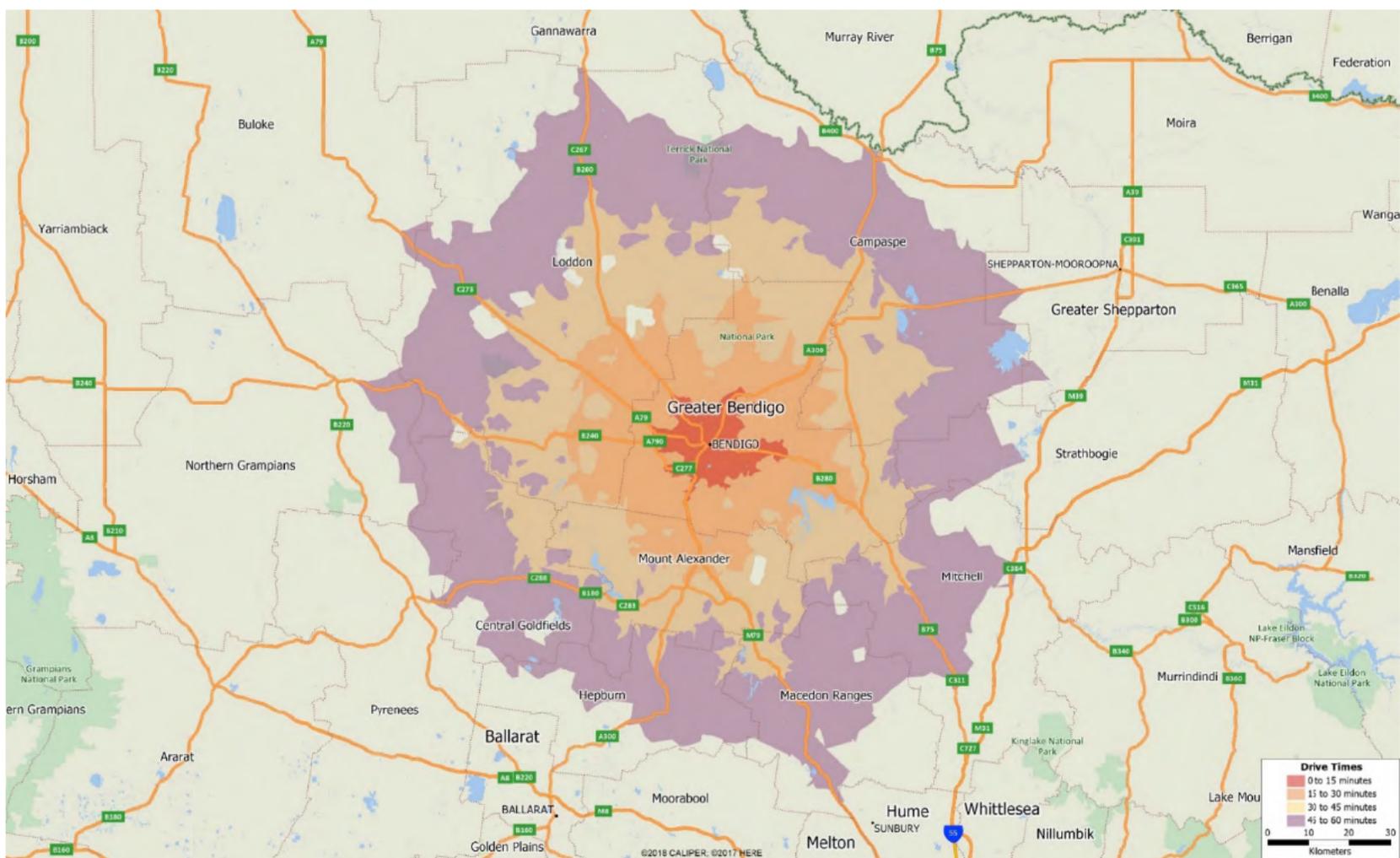


Figure 10: Bendigo Venues Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	96,156	122,726	145,231	212,487
Male	46,368	54,566	70,873	104,092
Female	49,744	58,123	74,281	108,280

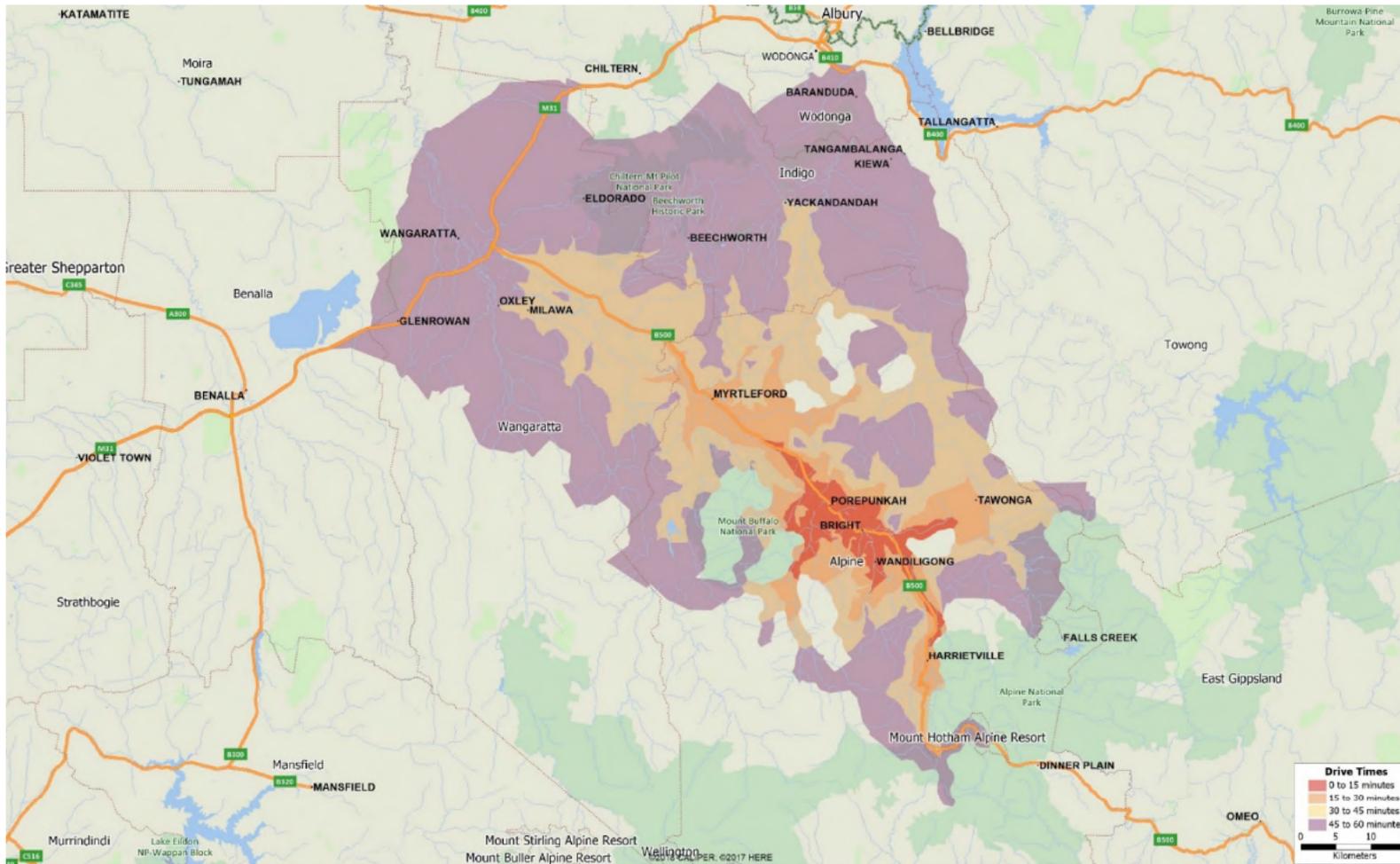


Figure 11: Bright Venue Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	3,555	8,576	13,402	51,696
Male	1,732	4,204	6,603	25,169
Female	1,835	4,409	6,840	26,576

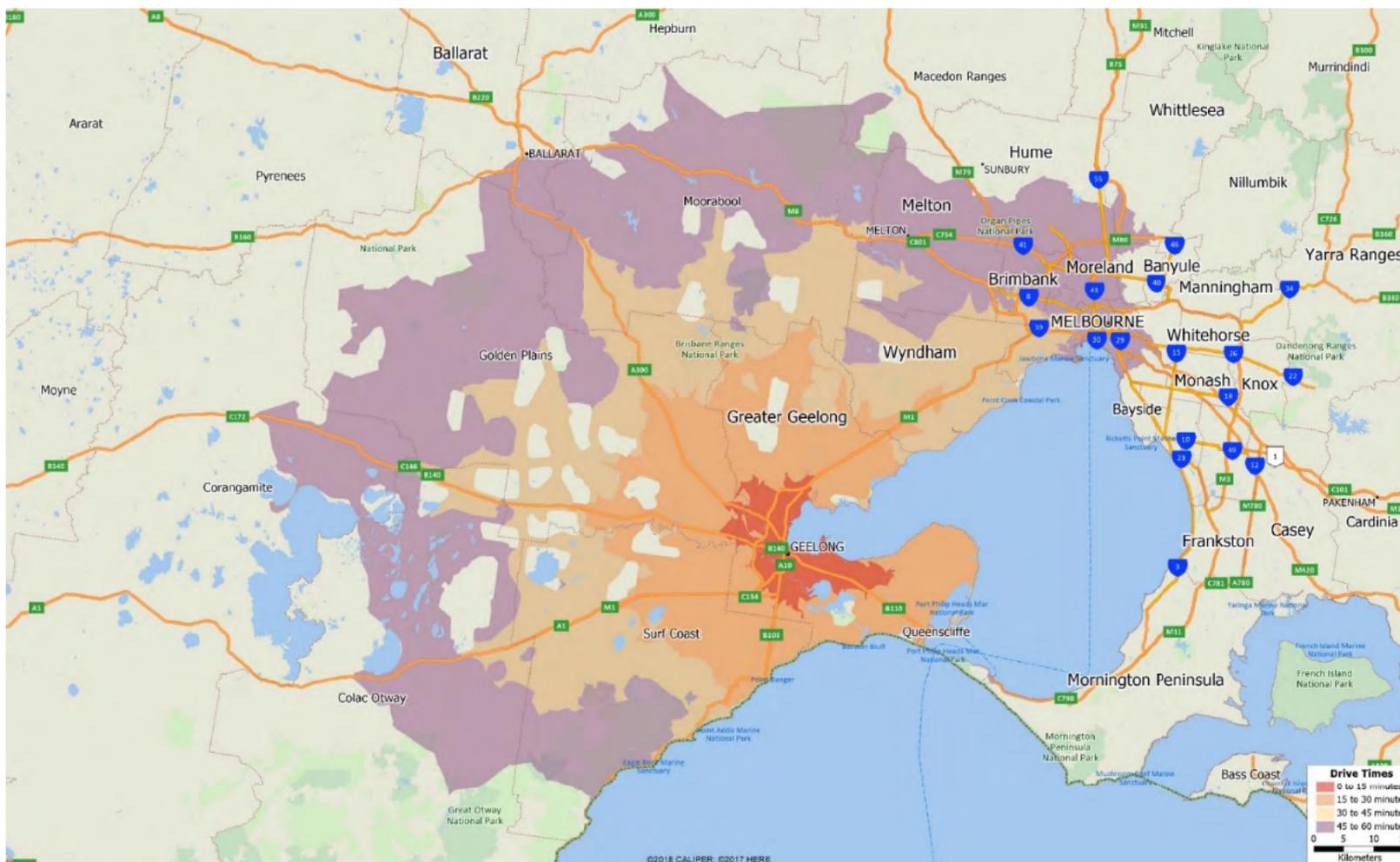


Figure 12: Geelong Venues Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	161,978	268,524	628,791	1,933,984
Male	77,852	130,640	310,125	950,449
Female	84,103	137,904	318,675	983,679

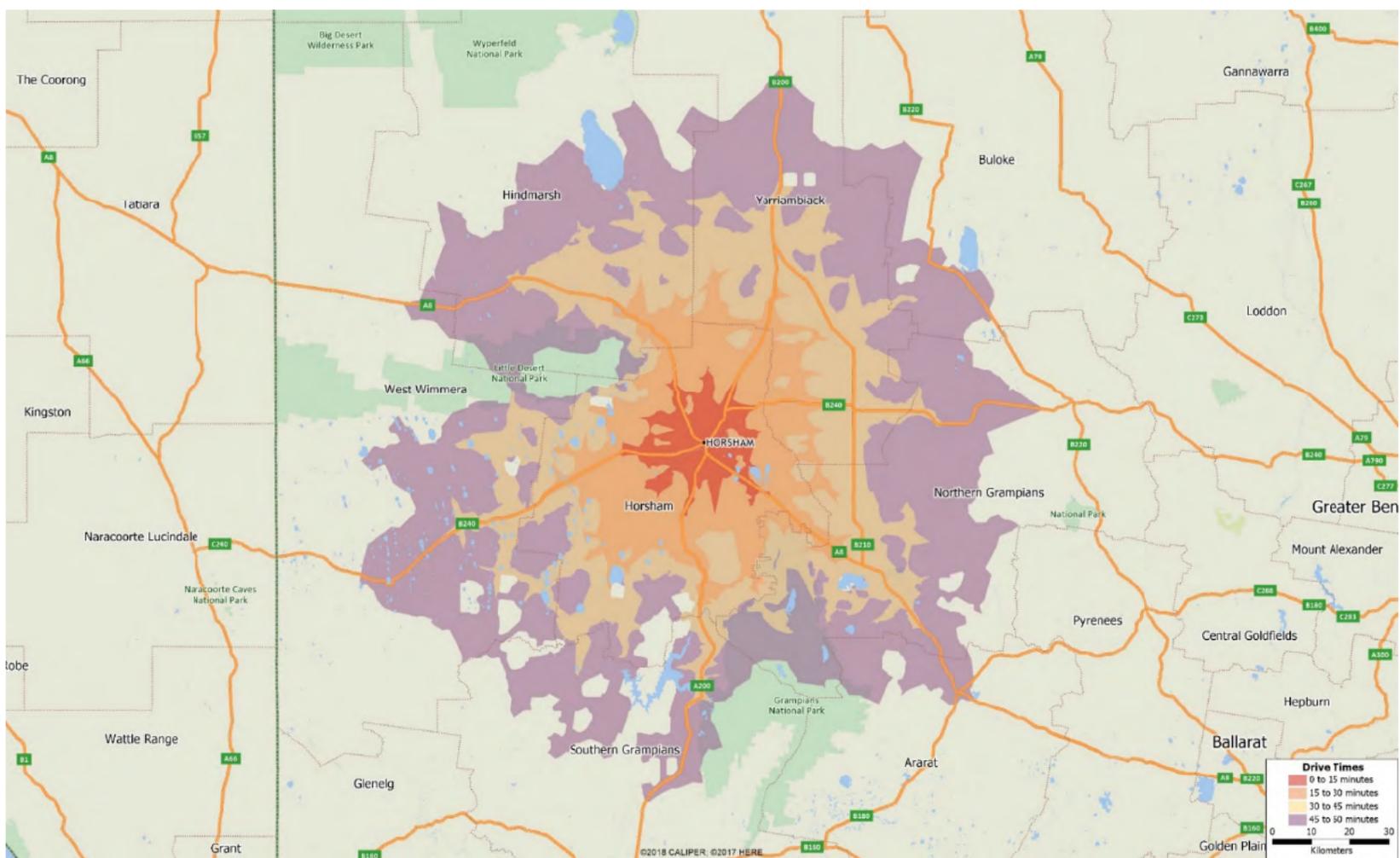


Figure 13: Horsham Venue Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	17,129	21,498	34,218	49,219
Male	8,301	10,509	16,796	24,386
Female	8,867	11,053	17,521	24,978

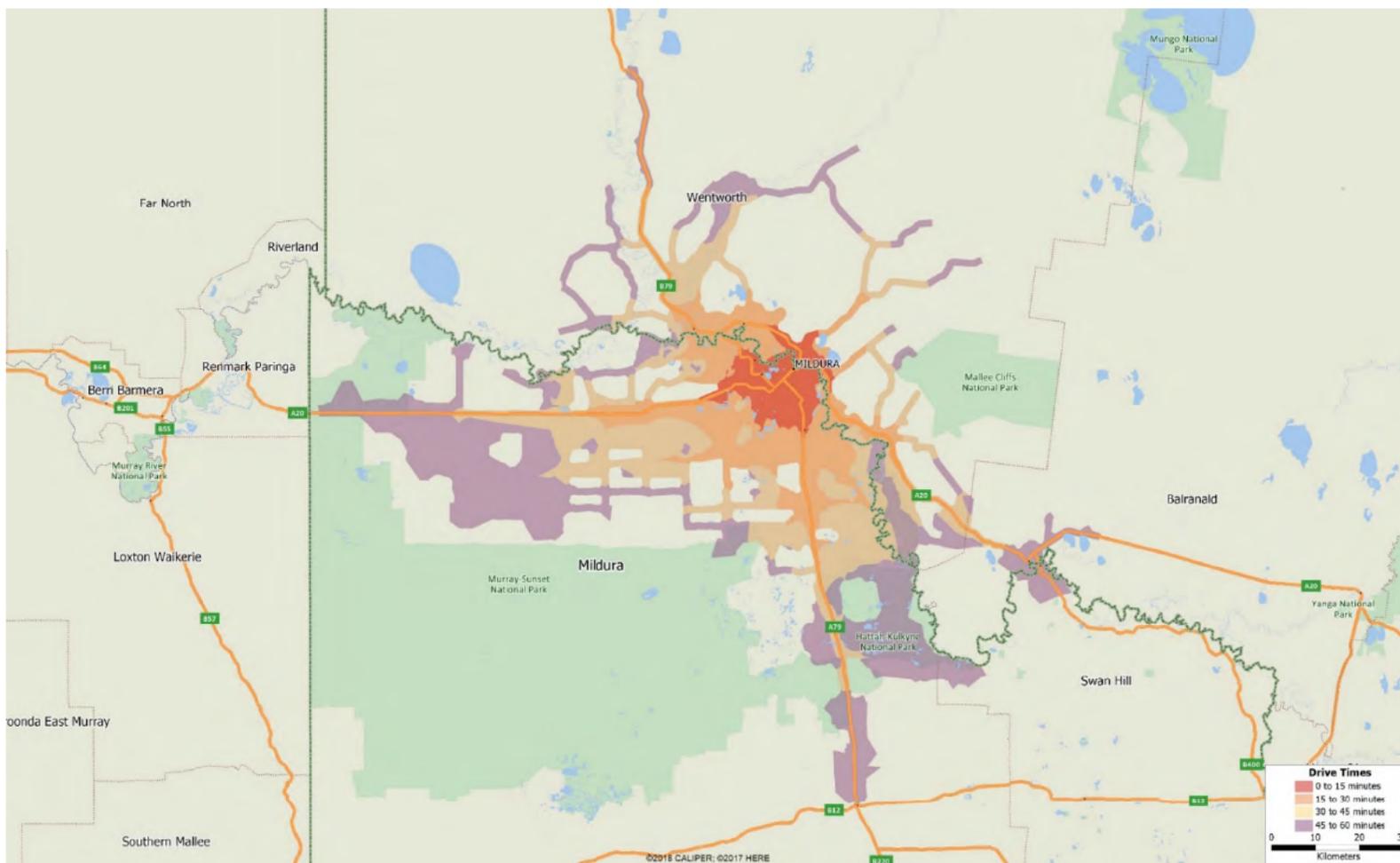


Figure 14: Mildura Venue Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	49,765	56,219	57,039	61,019
Male	24,318	27,636	28,089	30,109
Female	25,467	28,598	28,961	30,911

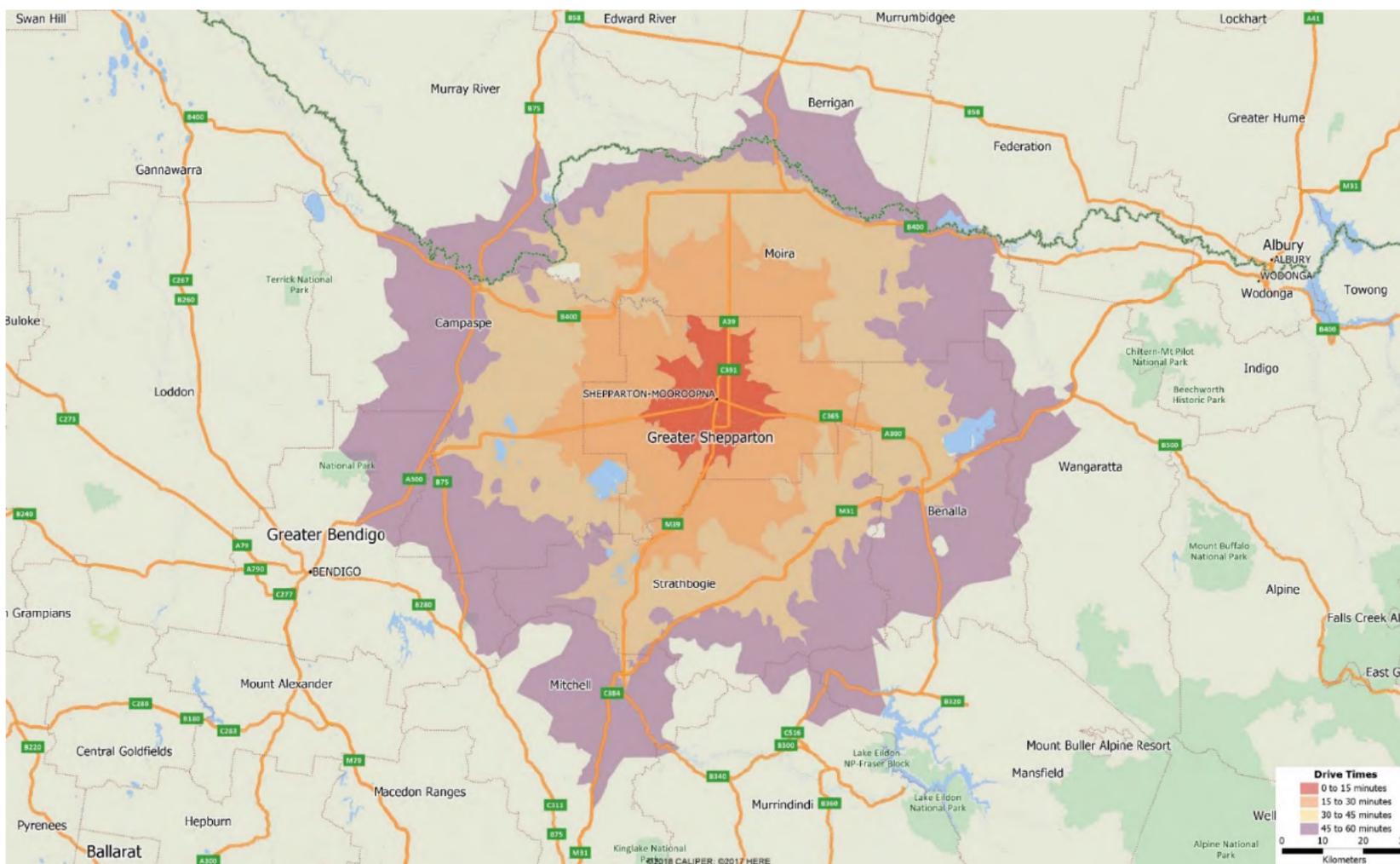


Figure 15: Shepparton Venues Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	53,596	81,473	129,326	193,195
Male	26,329	40,361	63,778	95,512
Female	27,165	41,019	65,375	97,541

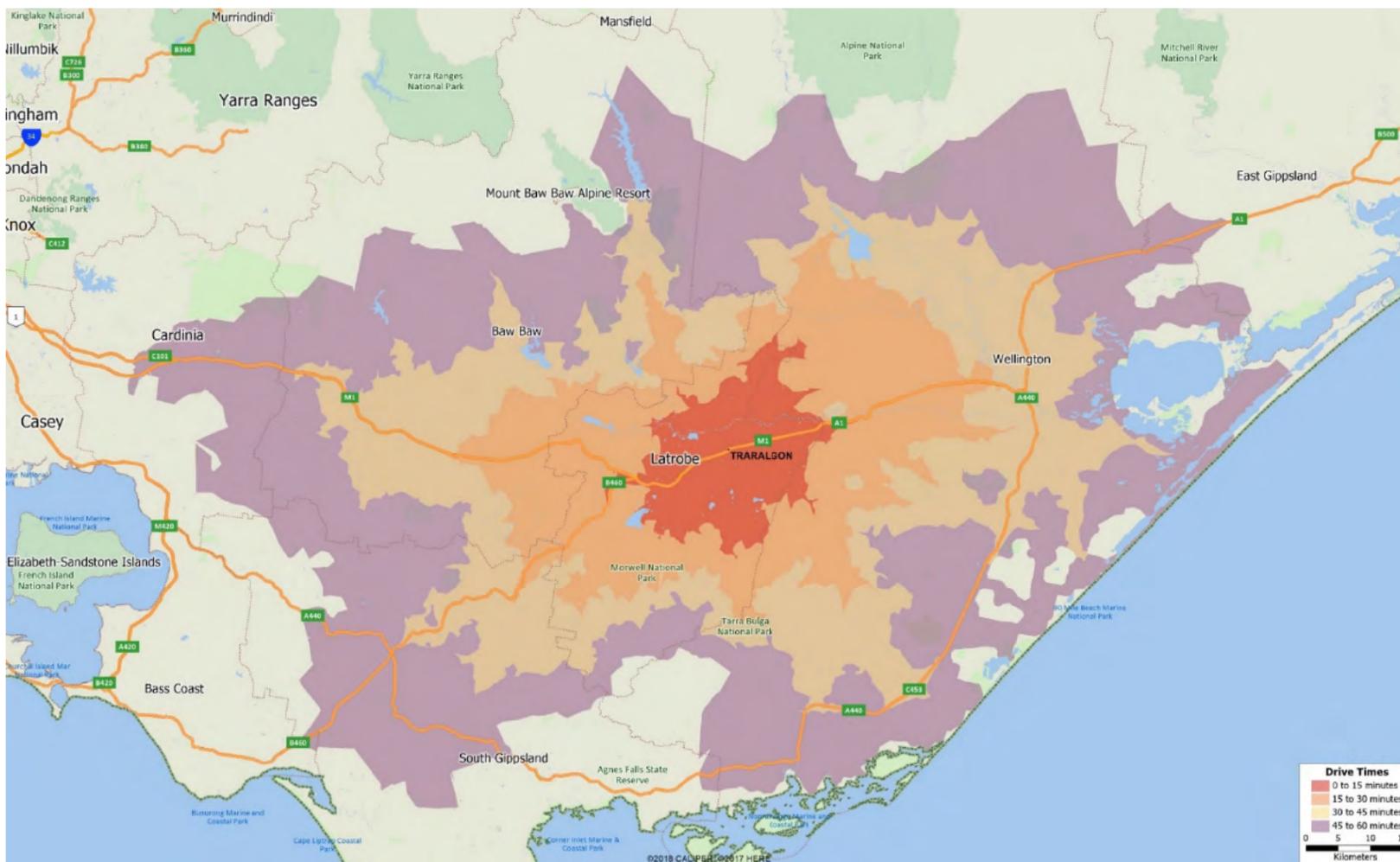


Figure 16: Traralgon Venue Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	47,312	86,338	149,983	198,289
Male	23,072	42,515	73,532	97,420
Female	24,283	43,854	76,519	100,892

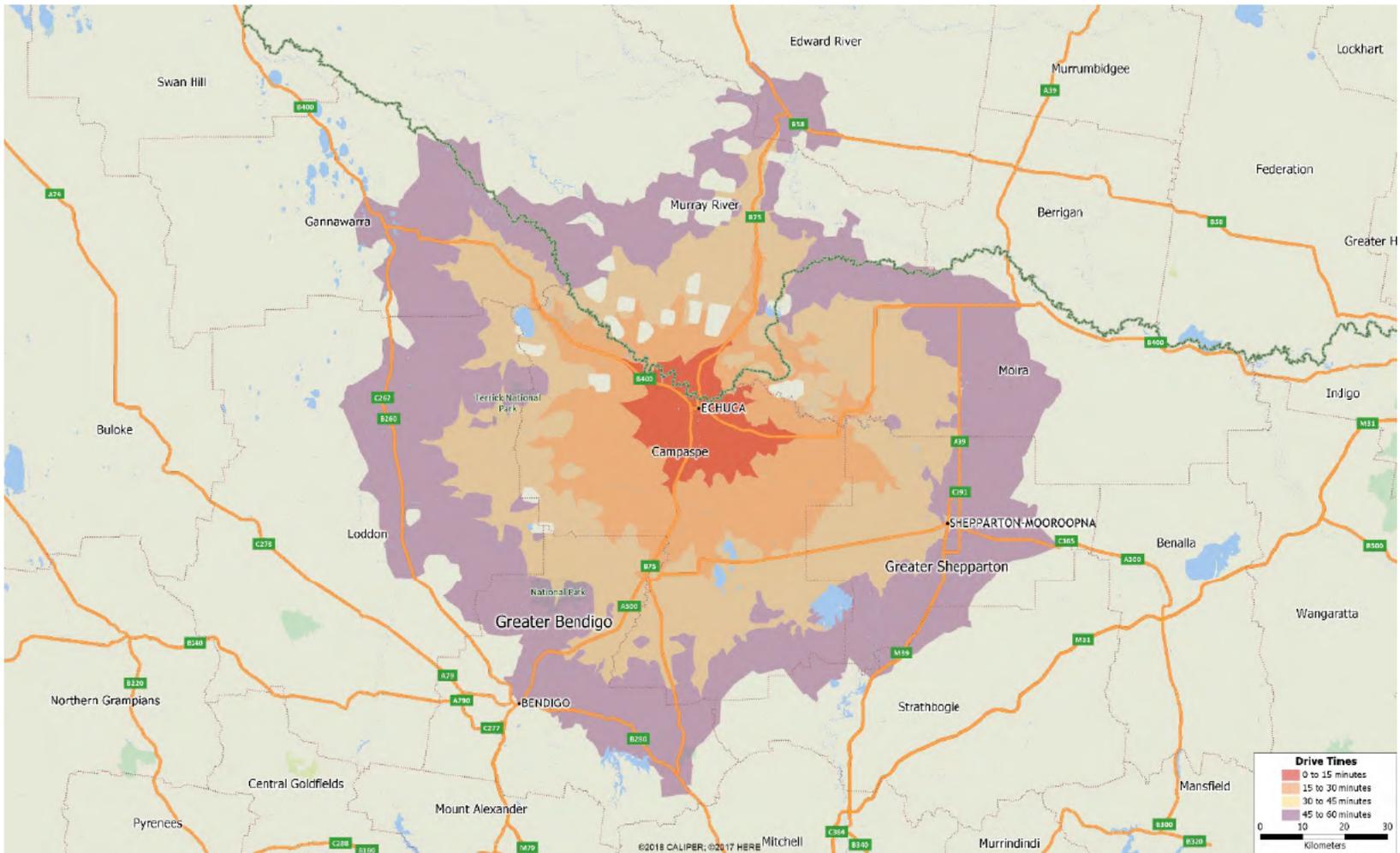


Figure 17: Echuca Venue Catchment

Attribute	0 to 15 Min	0 to 30 Min	0 to 45 Min	0 to 60 Min
Drive Time Rings.ID	1	2	3	4
Population	22,008	41,094	78,601	178,148
Male	10,635	20,185	38,843	87,778
Female	11,350	20,891	39,672	90,209

Appendix 5 - Australian University Games Venue Requirements



Sport	Divisions	FOP #'S
Athletics	Men, Women	1 comp track jumps and throws
Australian Football	Men, Women	2 ovals
Badminton	Men, Women	8 courts
Baseball	Open	3 diamonds
Basketball	Men, Women	4 - 6 courts indoor
Beach Volleyball	Men, Women, Mixed	6 - 8 courts
Cross Country (Road Relay)	Men & Women	1km looped circuit
Cross Country	Men, Women	2km looped circuit
Cycling (criterium)	Men, Women	1km looped circuit
Cycling (road race & time trial)	Men, Women	15-20km looped circuit
Fencing	Men, Women	6-8 pistes
Golf	Men, Women	2 x 18 Holes
Handball	Men, Women	4 Courts
Hockey	Men, Women	3 turf pitches
Judo	Men, Women	2 comp arenas
Kendo	Open	1 or 2 comp arenas
Lawn Bowls	Open	14 rinks
Netball	Women, Mixed	4 - 6 courts indoor
Rowing	Men, Women	2km surveyed course
Rugby Union 7's	Men, Women	2 field
Soccer	Men, Women	4- 6 fields
Softball	Women	3 diamonds
Squash	Men, Women	6 courts
Swimming	Men, Women	50m Pool with timing
Table Tennis	Men, Women	16 tables
Taekwondo	Men, Women	3 comp arenas
Tennis	Men, Women	12-15 courts same surface
Ten Pin Bowling	Open	16 lanes
Touch	Men, Women, Mixed	10 fields
Ultimate Frisbee	Mixed	10 fields
Volleyball	Men, Women	6 courts
Water Polo	Men, Women	2 pools