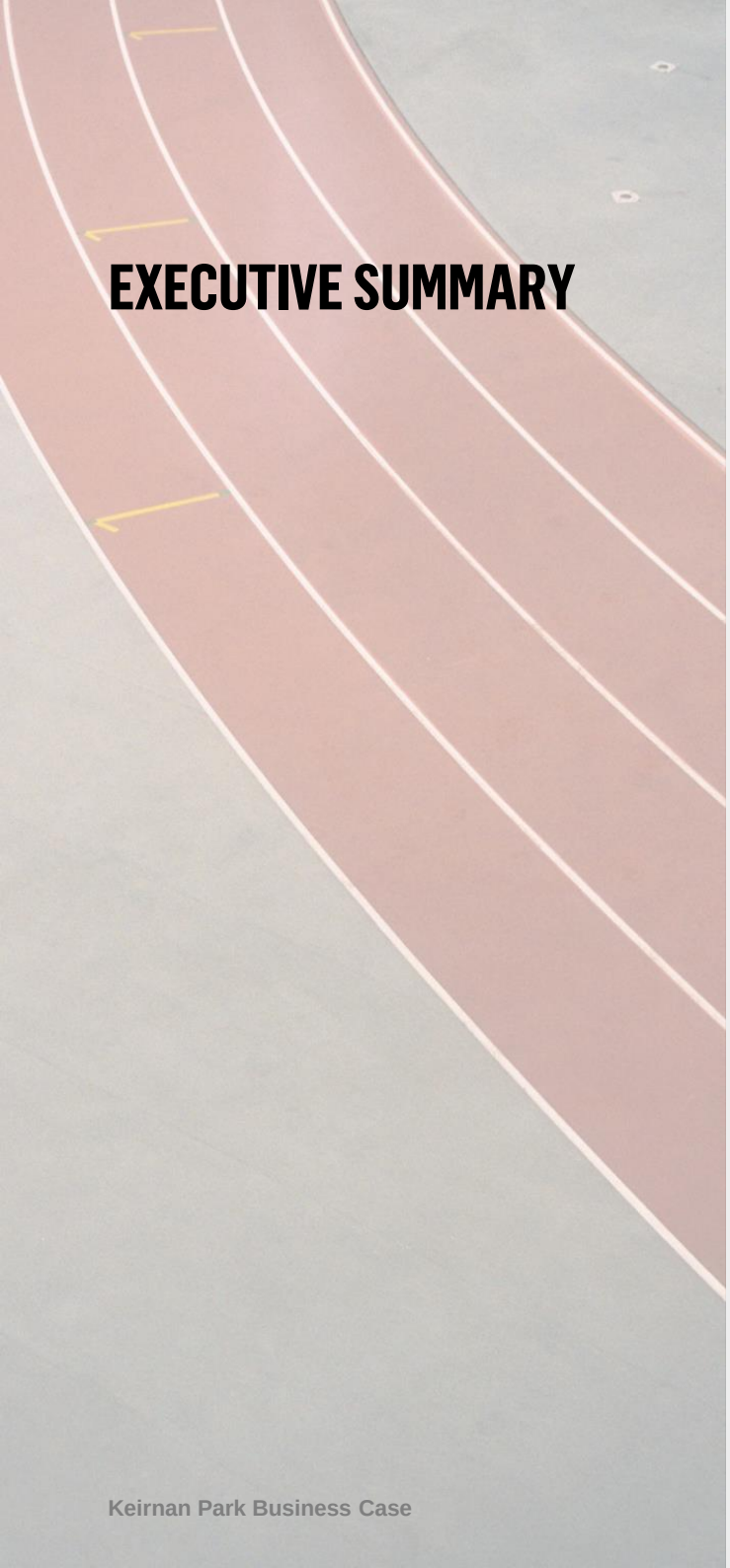
URBIS

KEIRNAN PARK
BUSINESS CASE

March 2021

Shire of Serpentine Jarrahdale

CONTENTS



EXECUTIVE SUMMARY

The Shire of Serpentine Jarrahdale (the Shire) is a major growth area supporting the expanding population of Perth and Peel. The Shire has experienced the fastest population growth rate in Western Australia over the past decade and it is expected to continue to increase from a population of 35,000 to 55,000 by 2030. Alongside this growth, sporting and recreation needs are increasingly in demand and additional facilities are needed.

In recognition of the significant population growth in the Shire, an assessment of community infrastructure and public open space needs identified the need for a district sporting space that can also perform a regional function for identified key sporting codes. Keirnan Park was identified as the most appropriate location for this sport space and this was supported by a decision by the State Government in August 2020 to provide $20 million for a first stage development.

To advance this project, the Shire undertook master planning for the **Keirnan Park Recreation Precinct** (the recreation precinct) to provide high quality multi-sport facilities in a single location, capitalising on the efficiencies of shared infrastructure and catering to modern sporting code requirements.

As part of this master planning, sporting needs analysis, stakeholder engagement, concept and master plan development and staging plans were undertaken. This process identified the following three priority stage one options.

- Stage 1A – AFL, cricket and shared pavilion
- Stage 1B – state-level BMX facility; and
- Stage 1C – Netball.

Stage 1A is designed to be funded by the State Government funding commitment, Stage 1B is subject to an application to the Federal Government's Building Better Regions Fund and Stage 1C will be subject to future state / federal government grant opportunities.

To support future decision making, the remaining elements of the master plan have been costed (in current dollar terms).

The recreation precinct will provide a number of economic and social benefits for the Shire. In particular, the project will:

- Address fast-growing sport and recreation needs that are being driven by population growth and increasing participation from key resident groups, ensuring residents are able to access all mainstream sports within the Shire in an inclusive manner;
- Drive an increase in sporting participation which will have a range of health cost and productivity benefits and help address identified child development and adult health challenges such as the high level of obesity in the region;
- Provide State and National-level sporting facilities for key identified sports to enable major sporting events that will attract visitors and tourists to the Shire; and
- Support the economic development of the Shire through increased employment in the construction and ongoing operations of the recreation precinct and greater expenditure in the local area.

The cost benefit analysis results for stages 1A and 1B demonstrated that the project will provide a positive economic return to the region once operational equivalent to approximately $21.1 million.

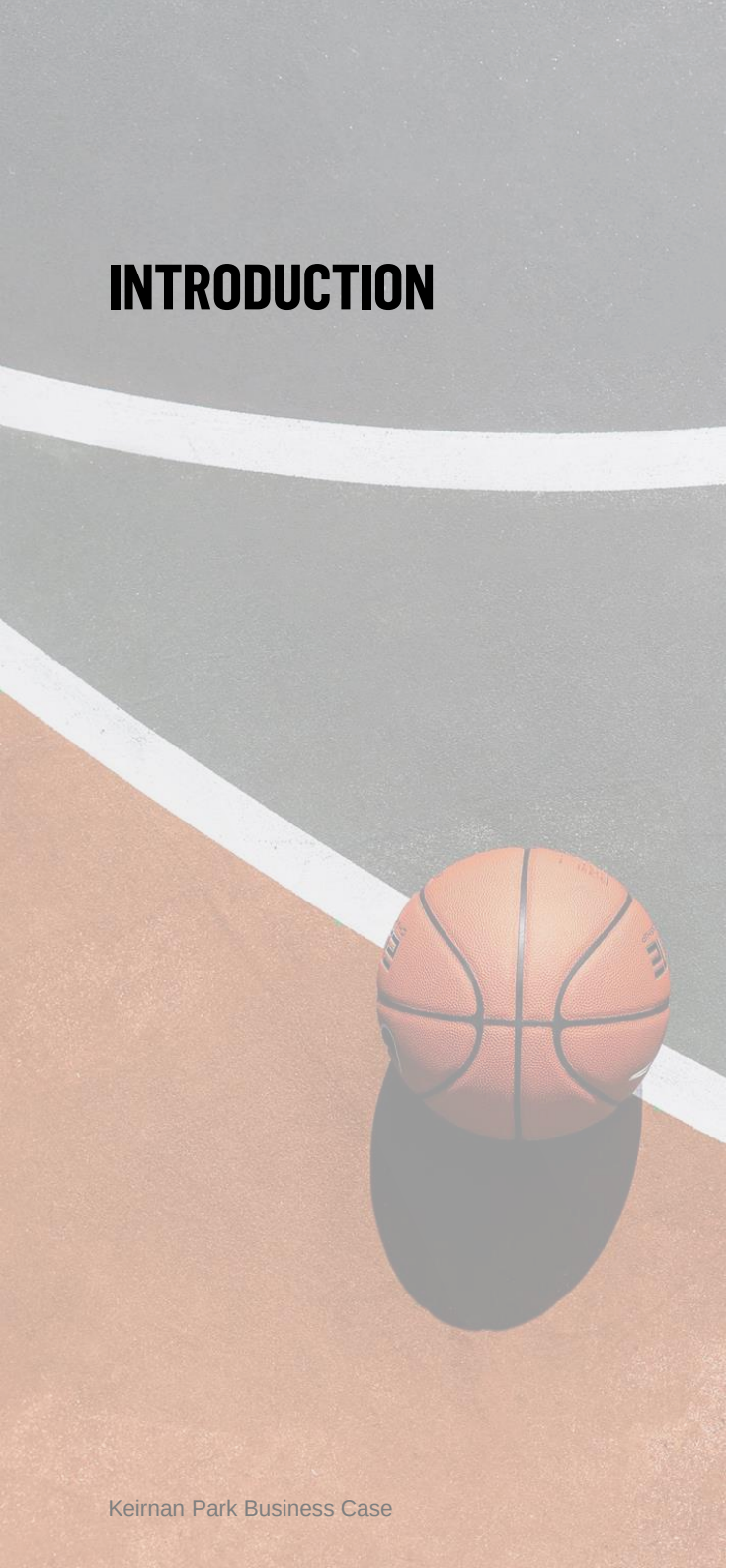
Detailed design, approvals and tendering of works are planned to be undertaken following the endorsement of this business case.

EXECUTIVE SUMMARY (CONT.)

STAGE	DESCRIPTION	COST
Stage 1A	Stage 1A is largely guided by a composition of establishing priority assets, facilities and site works that fit in with the longer-term master plan layout but are also within the allocated $20m State Government funding allocated for Keirnan Park. **Key components:** ▪ Two AFL ovals; ▪ Landscaping; ▪ Cricket batting cages; ▪ Parking and entry road; and ▪ Pavilion.	$19,997,268
Stage 1B	The competition-level BMX facility is located on the eastern most portion of the site to the north of the creek and south of the existing tree cluster. It is also located near a pump track and walking trail amongst the trees which together will create a unique precinct. This will be a relocation of the existing BMX Briggs Park facility to expand the capacity and enable State and national competitions to be held there. **Key components:** ▪ BMX facility; and ▪ Pavilion	$8,224,895
Stage 1C	Stage 1C looks to create a netball hub at the northern part of the site adjacent the future recreation facility footprint. **Key components:** ▪ Six netball courts; ▪ Fencing, lighting and retaining; ▪ Pavilion; and ▪ Car parking.	$5,496,261
Remainder of Masterplan	The remainder of the masterplan will cater for a large of additional sports and recreation activities needed by the Shire community. These include soccer, tennis, cricket, basketball, hockey, rugby, mountain biking, an aquatic centre and indoor recreation centre. Community facilities, playgrounds and fitness equipment / space will also be provided.	$128,119,791
Total cost		**$161,838,215**

Source: Urbis, Element, ABV Leisure Consultancy Services

INTRODUCTION



BUSINESS CASE PURPOSE

Urbis was engaged to prepare a business case to guide decision making. In particular, this business case sought to assist the Shire in deciding on the preferred strategy to deliver a regional sporting facility at Keirnan Park (the 'project').

Masterplanning and user group / stakeholder analysis, along with Shire of Serpentine Jarrahdale officer input, supported the development of this business case.

This business case seeks to:

- Describe the background to the project;
- Demonstrate the need for the project;
- Describe the project components and staging rationale;
- Demonstrate the key benefits expected from development of the project;
- Describe the alignment of the project with relevant government policy and stakeholder aspirations;
- Describe the funding and operating budget considerations; and
- Describe how the project can be delivered.

BUSINESS CASE STRUCTURE

This business case includes the following sections.

- **Project Scope**: Description of the project and its objectives.
- **Project Need**: Analysis of the need for the Keirnan Park Recreation Precinct.
- **Economic Analysis**: Analysis of the economic and social benefits of the preferred option.
- **Budget and Funding Strategy**: Identification of funding options to support the delivery of the project.
- **Stakeholder and Strategic Alignment**: Identification of alignment to stakeholder needs and roles and how a district / regional sporting facility at Keirnan Park could support the objectives of national, state and local government strategies and policies.
- **Implementation Plans**: Identification of implementation strategies and actions to deliver the project.

The masterplan and additional analysis which informed this business case are appended to this document.

01

PROJECT SCOPE

BACKGROUND

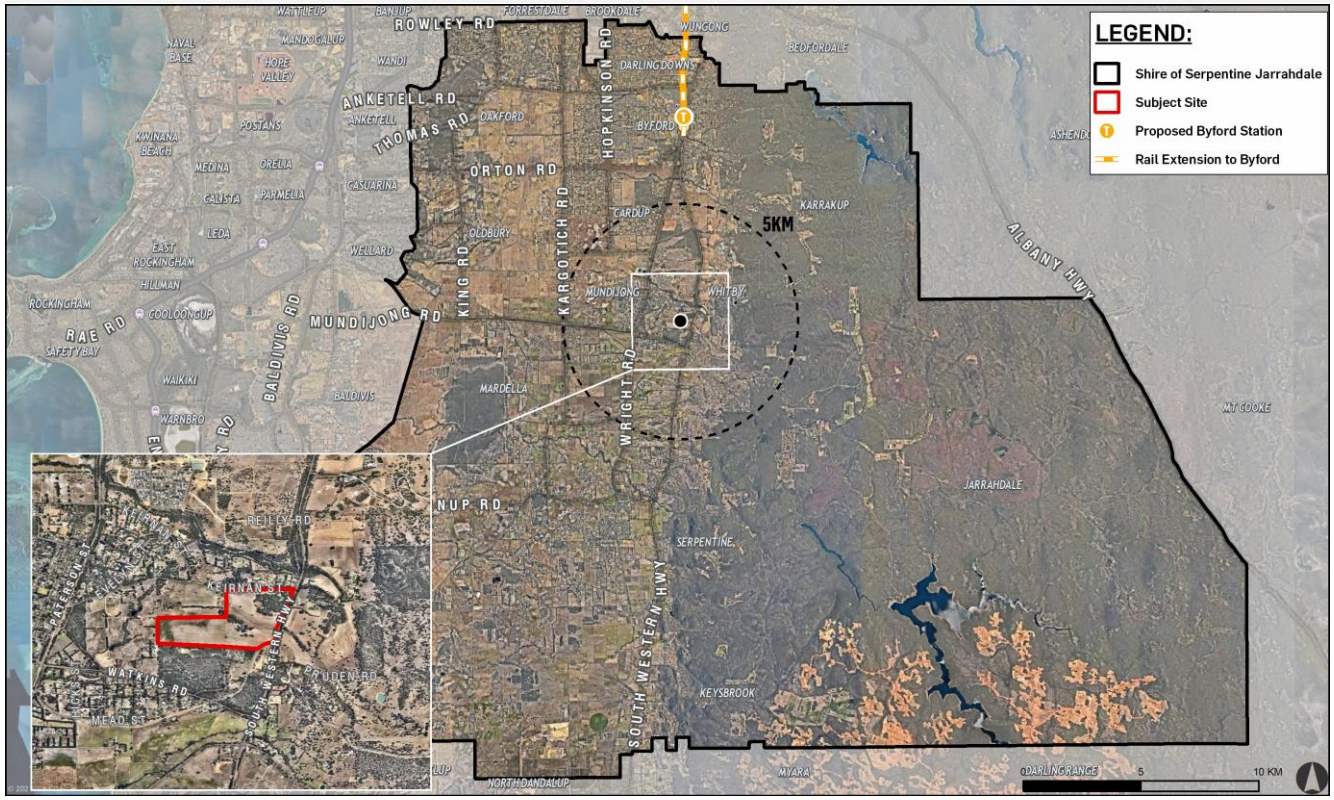
Background

In recognition of the significant population growth in the Shire of Serpentine Jarrahdale, the State Government announced $20 million funding in August 2020 towards a first stage of Keirnan Park.

Following this decision, the Shire advanced master planning for the Keirnan Park Recreation Facility as part of its overall plan for a comprehensive suite of sport, recreation and community facilities for Shire residents as the population grows over the next 30 years. This master planning builds on initial needs analysis and included more in-depth stakeholder engagement to inform staging options for this recreation precinct.

The site of Keirnan Park is located at 5 (Lot 4395) Keirnan Street. It is currently largely cleared with some mature trees on site. A flora and fauna reserve adjoins the site to the southern boundary. The site is bordered to the north by Keirnan Street which provides access the key residential areas across the Shire of Serpentine Jarrahdale and to the east by South Western Highway which connects to Armadale and the wider Perth metropolitan area.

Keirnan Park Site Location



PROJECT PURPOSE

Overview

The project aims to provide additional outdoor and indoor sporting facilities for the Shire of Serpentine Jarrahdale to achieve the following key outcomes:

- ***Address fast-growing sporting and recreation needs*** that are being driven by population growth, a high proportion of young people and corresponding high participation in sports;
- ***Provide high-quality sporting facilities*** to the standard enjoyed by residents of middle and inner Perth metropolitan suburbs which will attract people to visit the Shire from all over the state and country for competition in specific sports;
- ***Reduce the need to travel outside the Shire for training in sport*** due to the complete lack of facilities in some sports and inadequate provision for others despite high participation numbers;
- ***Improve the health of the current and future population*** to support greater economic activity and physical and mental wellbeing; and
- ***Support the economic development of the Shire*** through catalyst investment in the Keirnan Park Recreation Precinct.

These objectives guided both the need for the project and the identification of preferred staging options.

KEIRNAN PARK RECREATION PRECINCT

DESCRIPTION

The Keirnan Park Recreation Precinct is a multi-stage development set to be the future home for local sporting and community clubs within the Shire or Serpentine Jarrahdale.
The Precinct will be the premier facility for sporting and recreation activity within the Shire, offering high quality grounds and infrastructure for community and competition-level sport.

This option includes:

- AFL;
- Soccer;
- BMX;
- Netball;
- Tennis;
- Cricket;
- Basketball;
- Aquatic centre;
- Indoor recreation centre;
- Lawn Bowls;
- Hockey;
- Rugby;
- Mountain biking and trail running;
- Nature play;
- Youth Centre; and
- Fitness equipment and general fitness space.

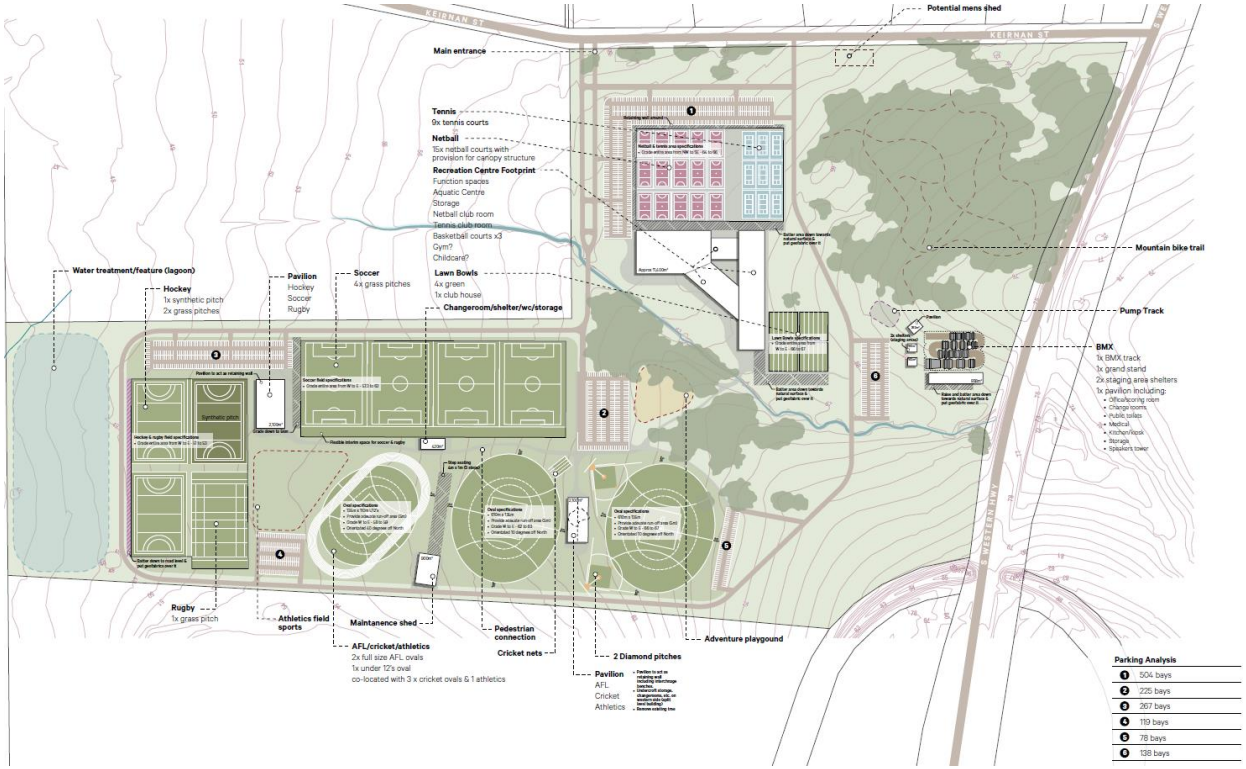
RATIONALE

Estimated cost:
$162 million

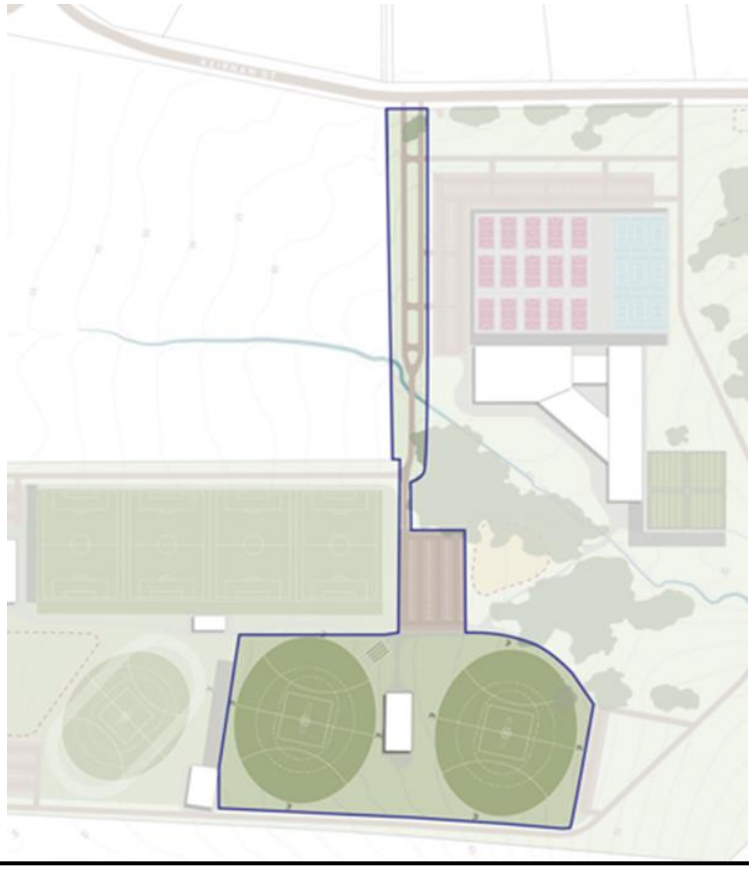
Required to:

- Provide adequate facilities to meet sporting demand from existing Shire residents.
- Meet additional demand from growth in Shire resident population.

MASTERPLAN



STAGE 1A

DESCRIPTION	RATIONALE	STAGE 1A PLAN
Stage 1A: Development of two AFL ovals, parking, access road and pavilion. **This option includes:** ▪ Entry road ▪ 2x senior AFL ovals (one of which could accommodate soccer/rugby) ▪ Pavilion (includes changerooms, clubroom facilities) ▪ Stream ▪ Landscaping ▪ Turf around ovals ▪ Cricket batting cages ▪ Signage, benches **Exclusions:** ▪ Water treatment allowance	**Estimated cost:** $20 million **Funding:** Funded through a State Government contribution. **Required to:** ▪ Replace Mundijong oval, which will be decommissioned between 2026-2031. ▪ Additional oval required by 2031 to meet demand from growth in Shire resident population and increased participation in women's football.	

Source: Urbis, Community Sporting Requirements – Needs Analysis (Keirnan Park), Keirnan Park Staging Plan.

KEY COMPONENTS – STAGE 1A

Stage 1A

Stage 1A is largely guided by a composition of establishing priority assets, facilities and site works that fit in with the longer-term master plan layout but are also within the allocated $20m State Government funding allocated for Keirnan Park. Stage 1A components are summarised below.

Entry Road

The entry road is located on the north western most portion of the site with the idea of providing a grand boulevard entrance into the site with separate lanes providing space for future tree planting and landscaping. The total entry road 'reserve' is approximately 22 m wide for a length of approximately 241 m before it narrows to a single carriageway before crossing the creek. It then continues approximately 176 m south into the site where it ends at the main car park for Stage 1A.

AFL Ovals

Two senior sized AFL ovals are located to the south of the car park toward the southernmost part of the site. Each oval:

- Has turf area for a senior AFL Oval of 165 m length and 135 m width;
- Has a run-off area of 5 m around the perimeter of the playing surface; and
- Is oriented 10 degrees east off the northern axis.

The ovals are set within a broader turfed area with the ability to be used flexibly outside the defined 'playing surface area'.

The eastern oval will likely be the 'premier' or preferred playing surface for AFL and cricket due to its orientation with the pavilion, with the western most oval servicing lower grades or enabling flexible use for other sports (i.e., soccer, rugby, diamond sports) to be introduced over time.

Four cricket nets (for training) are included to the north of the eastern oval.

100Lux lighting is assumed to both ovals to cater for big-ball night time requirements.

Pavilion

The pavilion is located between the two ovals and is intended to be a split-level design to work in with the natural contours of the site. This will allow for an elevated view over the western playing field, with storage located conveniently underneath.

A 1,500 sq.m footprint for the pavilion has been allowed for, which notionally includes:

- Six change rooms including wet areas (showers/toilets) – 50 sq.m each, 300 sq.m total;
- Four umpires' rooms – 20 sq.m each, 80 sq.m total;
- External covered viewing area over west oval –200 sq.m total;
- External covered viewing area over east oval - 150 sq.m;
- Kitchen kiosk – 30 sq.m First aid / medical room – 25 sq.m;
- Three flexible office / administration / meeting rooms – 45 sq.m;
- Public toilets (10 male, 10 female, 5 UAT) - 50 sq.m;
- Internal and external storage – 200 sq.m;
- Utility / cleaner room – 15 sq.m;
- Timekeeper / scorer box – 20 sq.m;
- Social / community space (divisible) including bar, kitchen, storage – 300 sq.m;
- Lobby space – 45m sq.m; and
- Utilities, refuse etc.- 40 sq.m.

This will be further refined through Concept and then Detailed Design.

The provision of six 50 sq.m change rooms allows for up to three home and three away teams to utilise the change rooms at any one time. The idea is that these change rooms will be designed/configured alongside one another so that two change rooms can be expanded into one larger change room to accommodate AFL seniors requirements, therefore providing three of these larger change rooms. This provides flexibility in providing more change rooms in the pavilion and is useful for junior changerooms in any sport as they require less room.

Car Park

The primary car park for Stage 1A is located at the southern end of the entry road and north of the pavilion and two ovals. The car park is designed to accommodate 225 parking bays inclusive of ACROD bays as well as lighting.

STAGE 1B

DESCRIPTION

Stage 1B: Competition level BMX facility

This option includes:

- 262 sq.m pavilion (includes changerooms, clubroom facilities)
- 2x staging shelters
- 938 sq.m grandstand
- Separate entry road
- Car park of 138 bays
- Lighting
- Drainage
- Contingencies and fees

Exclusions:

- Site preparation
- Cut and fill
- Edge treatment

RATIONALE

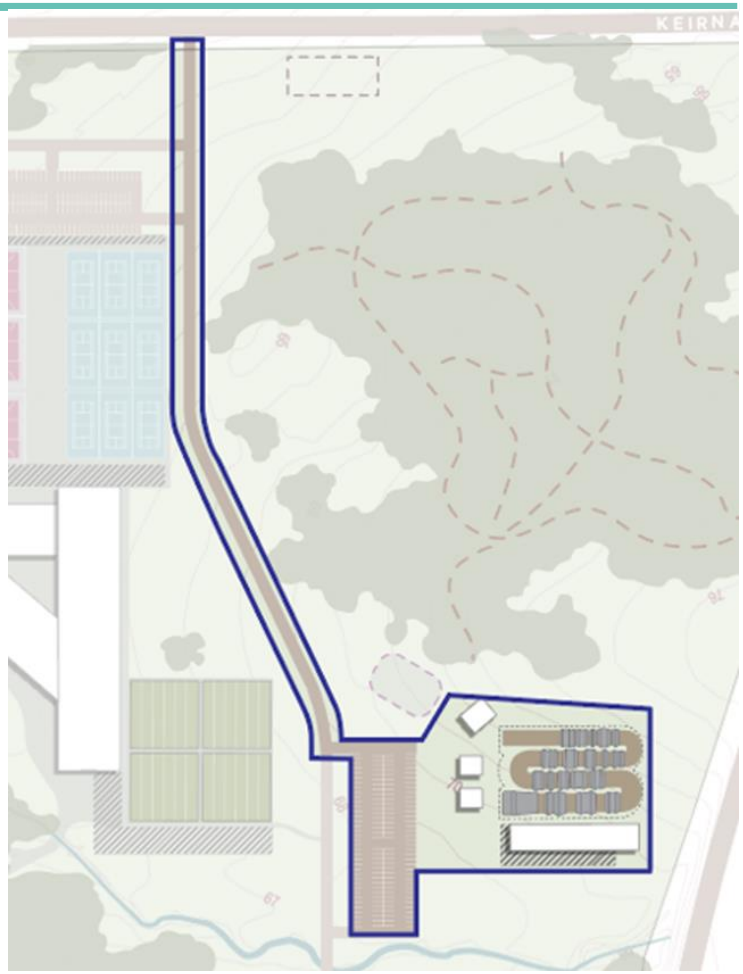
Estimated cost:
Additional $8.3 million

Funding:
To be funded through a BBRF application

Required to:

- Provide adequate facilities for the existing Byford BMX Club members and allow for additional members to join.
- Provide a State and National competition level BMX facility to perform a regional sporting facility function, and attract visitors and tourists to competitions in the Shire.
- Enable existing BMX facility at Briggs Park to be redeveloped into required pavilion.

STAGE 1B PLAN



Source: Urbis, Feasibility for the Relocation of Byford BMX Track, Community Sporting Requirements – Needs Analysis (Keirnan Park), Keirnan Park Staging Plan.

KEY COMPONENTS – STAGE 1B

Stage 1B

BMX Facility

The BMX facility is located on the eastern most portion of the site to the north of the creek and south of the existing tree cluster. It is also located near a pump track and walking trail amongst the trees which together will create a unique precinct. It is acknowledged that the Shire may wish to explore locating this facility closer to Keirnan Street in further studies.

The BMX facility comprises the following:

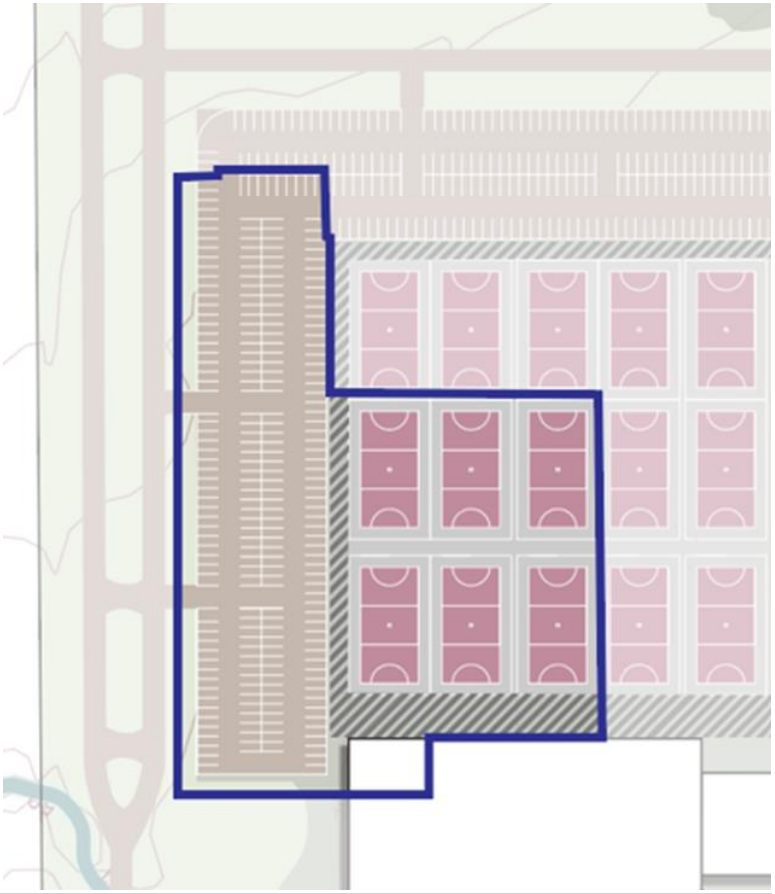
- State level track (turns, obstacles etc.) with 6 m high starting hill;
- Two shade structures for (119 sq.m each allowed for);
- Fencing around track;
- A 938 sq.m (approx. 14 x 67 m) grandstand that in the first instance would be limestone, grass and shade sails, but could be upgraded to a grandstand structure in future when funding becomes available; and
- Speakers tower.

The pavilion to support the BMX facility is 262 sq.m and notionally includes:

- Change rooms - male and female (55 sq.m);
- Two umpire rooms (24 sq.m);
- Office (15 sq.m);
- Public toilets (25 sq.m);
- Storage (20 sq.m);
- Medical room (15 sq.m);
- Kitchen / kiosk (20 sq.m); and
- Social space (88 sq.m).

The BMX facility will be further refined through concept and then detailed design.

STAGE 1C

DESCRIPTION	RATIONALE	STAGE 1C PLAN
Stage 1C: Netball **This option includes:** ▪ 324 sq.m pavilion building for basic amenities and kiosk ▪ Car parking ▪ Lighting ▪ 4 netball courts ▪ 2 multi-marked courts ▪ 100 lux lighting ▪ Fencing ▪ Retaining walls ▪ Contingencies and fees **Exclusions:** ▪ Site preparation ▪ Cut and fill ▪ Edge treatment	**Estimated cost:** Additional $5.5 million **Funding:** Other State and/or Federal funding sources **Required to:** ▪ Additional 8 netball courts are required by 2026 to meet additional demand from growth in Shire resident population.	

Source: Urbis,Community Sporting Requirements – Needs Analysis (Keirnan Park), Keirnan Park Staging Plan.

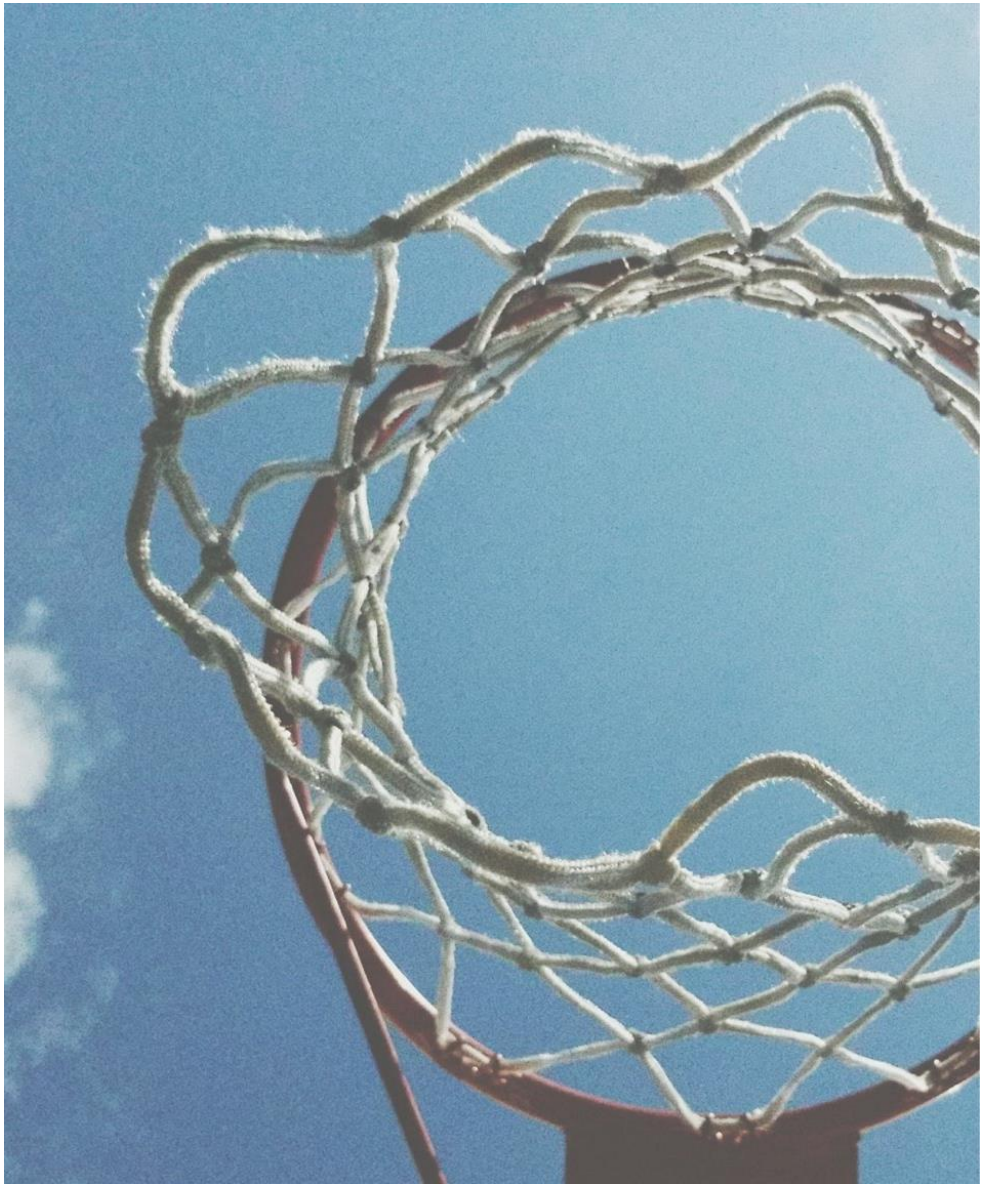
KEY COMPONENTS – STAGE 1C

Stage 1C

Netball Hub

Stage 1C looks to create a netball hub at the northern part of the site adjacent the future recreation facility footprint. This hub notionally includes:

- Six netball courts (two of which include multi-line marking for basketball and other sports);
- Car parking for 222 bays;
- Lighting to the courts – 100 Lux;
- Fencing and retaining walls;
- A small service pavilion of 324 sq.m, which notionally includes:
  - Four change rooms including wet areas (showers/toilets) – 45 sq.m each, 180 sq.m total;
  - Two umpire change rooms (inc. shower) – 12 sq.m each, 24 sq.m total;
  - First aid / medical room – 15 sq.m;
  - Office / administration room – 15 sq.m;
  - Public toilets (10 male, 10 female, 5 UAT) - 50 sq.m;
  - Storage – 20 sq.m; and
  - Kitchen/kiosk – 20 sq.m.



02

PROJECT NEED

SHIRE POPULATION FORECASTS

Key Findings

The Shire of Serpentine Jarrahdale is the fastest growing local council area in Western Australia. The population of the Shire increased by an average of 7.3% over the 2010-20 period.

With significant levels of undeveloped Urban zoned land in Byford and Mundijong / Whitby and key infrastructure investment in the extension of the Armadale line and Tonkin Highway, the Shire's population is expected to increase at a rate of 4%-5% per annum from an estimated 34,653 in 2020 to 55,627 in 2030.

Over the longer term, the Shire of Serpentine Jarrahdale estimates that its population will increase to approximately 130,000 by 2050.

The significant historical, current and future growth will drive increased need for local and accessible sport and recreation facilities.

This very high growth rate and high proportion of children and adolescents in the Shire have resulted in high demand for sporting and recreation activities. The Keirnan Park Recreation Precinct is needed to ensure an adequate level of amenity is provided for residents.

Population Forecasts, 2020-2035, Shire of Serpentine Jarrahdale

POPULATION (NO.)*	YEAR				CHANGE
Residents	**2020**	**2025**	**2030**	**2035**	**2020 to 2035**
Shire of Serpentine Jarrahdale	34,653	44,877	55,627	66,225	*31,683*
Aged 0 - 19	10,677	13,660	16,500	19,207	*8,530*
Aged 20 - 39	10,676	14,071	17,681	21,064	*10,388*
Aged 40 - 59	8,669	11,095	13,753	16,372	*7,703*
Aged 60+	4,502	6,008	7,698	9,562	*5,060*

POPULATION GROWTH	ANNUAL POPULATION GROWTH (%)		
	20-25	**25-30**	**30-35**
Shire of Serpentine Jarrahdale	5.3%	4.4%	3.5%
Perth	*1.3%*	*1.4%*	*1.5%*
Aged 0 - 19	5.1%	3.9%	3.1%
Aged 20 - 39	5.7%	4.7%	3.6%
Aged 40 - 59	5.1%	4.4%	3.5%
Aged 60+	5.9%	5.1%	4.4%

** As at June.*
Source: ABS; Forecast.id; Urbis

SPORTING NEEDS ASSESSMENT FINDINGS

Key Findings

A detailed sporting facility needs assessment was undertaken by ABV Leisure Consultancy Services as part of the development of the master plan. This assessment involved consultation with sporting clubs, a review of existing and planned facilities and analysis of participation rates.

This study undertook a multi-criteria assessment and identified current and short term needs for football (AFL), netball, diamond sports and cricket and longer term needs for football (soccer), rugby, athletics and tennis (note, a feasibility study was separately undertaken for the proposed BMX facility).

Of note, a key finding was that there were more than 750 residents playing sport outside of the Shire of Serpentine Jarrahdale due to the lack of locally available facilities.

The needs assessment findings are summarised on the following page and in the masterplan appended to this business case.

Sources: Urbis analysis of ABS Census 2016, Forecast.id, ABV Leisure Consultancy.

Sports Facilities Needs Assessment Findings

SPORT	CRITERIA				
	1	2	3	4	TOTAL
Football (AFL)	5	5	4	5	**19**
Netball	5	3	4	5	**17**
T-Ball / Baseball / Softball	5	4	4	4	**17**
Cricket	4	5	3	4	**16**
Football (Soccer)	1	1	5	5	**12**
Rugby (league & Union)	1	1	5	5	**12**
Athletics	1	1	4	5	**11**
Tennis	1	1	3	4	**9**
Hockey	1	1	5	1	**8**
Basketball (outdoor)	1	1	5	1	**8**

Sources: ABV Leisure Consultancy.

Criteria Rating 1-5 (1 considered low, 5 considered high)

CRITERIA	SCORE - 1	SCORE - 2	SCORE - 3	SCORE - 4	SCORE - 5
1. Current participation	<50	50-100	100-150	150-200	>200 participants
2. Existing facility capacity	Under capacity	Almost at capacity	At capacity	Over capacity	Extreme over capacity (e.g. overuse of playing fields)
3. Need for improved amenity	Excellent amenity	Very good amenity	Sufficient amenity	Insufficient amenity (e,g, no female change rooms)	Extremely insufficient amenity (e.g. non-compliant building, unsafe playing surface)
4. Assessment against PLA standards	Required by 2050	Required by 2041	Required 2036	Required 2031	Required now

Sources: ABV Leisure Consultancy.

SPORTING NEEDS ASSESSMENT FINDINGS (CONT.)

Sporting Provision and Needs Assessment Findings

SPORTING CODE	MASTERPLAN ELEMENT	RATIONALE
Aquatic Centre	▪ Provide indoor aquatic facilities within the Shire, centrally accessible to Shire residents.	▪ Facilitate running learn to swim programs for Shire residents. ▪ Provide a venue for competitive swimming. ▪ Promote water safety. ▪ Facilitate community wellbeing though water-based exercise programs, including rehabilitation, for adult and ageing residents. ▪ Provide water play areas for fast-growing population of children in the area.
Soccer	▪ Soccer fields and associated facilities.	▪ Soccer is a sporting code not currently accommodated within the Shire. ▪ 200 residents currently travel outside the Shire to participate in the sport.
Tennis	▪ Tournament-level tennis courts.	▪ Tennis courts to allow coaching, competition and casual use.
Cricket	▪ Cricket fields, batting nets, lights and changerooms.	▪ Cricket fields to accommodate high Shire resident participation (currently 179 participants) and increasing female participation. ▪ An additional 1-2 senior teams and 7 junior teams are expected in the next 5 years.
Athletics	▪ Athletics grass loop track, grass field sport area, jump pits, lighting, changing facilities to allow for regional competition events, and equipment storage.	▪ Athletics facilities will allow growth of the sport in the Shire, particularly program development for adults. ▪ Current facilities have no marked track and fixture times are limited and clashing with other sports.
Netball	▪ Outdoor and indoor netball courts and associated facilities including changerooms, kiosk and other amenities.	▪ Netball courts will enable competitions and social games to be played. Existing courts are cracked and subject to regular flooding. ▪ There are two existing netball clubs – Serpentine Jarrahdale Netball Association (670 players), and Mundijong Football and Sporting Club (45 players). ▪ There is scope to increase participation numbers from the current levels, especially for senior teams.
Hockey	▪ Hockey grass and synthetic fields.	▪ Hockey is a sporting code not currently accommodated south of Armadale. Existing resident demographics are favourable for high participation in the sport.
AFL	▪ Ovals and associated pavilion with changerooms to allow multiple games to be played concurrently, function area, offices.	▪ AFL is currently a high participation sport and growth sport, with two existing clubs. ▪ Mundijong Football and Sporting Club currently has 80 players and looking to put together additional teams. This is currently limited by the capacity of Mundijong Oval. Female participation is also limited by only a single set of changing rooms provided, limiting different sex games from being played one after another ▪ Mundijong Junior Football Club currently has 170 Auskick members and 480 juniors playing across 24 teams. This includes 100 girls and 4 girls-only teams. Participation is increasing, and has almost doubled in six years. They expect to grow beyond their current facilities on Briggs Oval within 5 years. The ageing single set of changerooms hampers female participation.

Sources: Urbis, Need and Nexus for Community Facilities, Keirnan Park Masterplan Consultation, Feasibility for the Relocation of the Byford BMX Track, Shire of Serpentine Jarrahdale Community Infrastructure and Public Open Space Strategy, SJ Local Clubs Consultation 29 Jan 2021..

BMX FACILITY FEASIBILITY FINDINGS

Separate to the sporting facility needs assessment, a feasibility study was undertaken in 2018 to determine the merit of re-locating the Byford BMX track.

This study recommended that Keirnan Park is best placed to accommodate a state-level BMX facility given this would enable the construction of a required pavilion at Briggs Park.

The BMX feasibility study is appended to this business case.

STUDY FINDINGS

Key findings are summarised below.

- **High usage:** The Shire of Serpentine Jarrahdale has one BMX facility currently located at Briggs Park Recreation Precinct. The current club using the facility, Byford BMX Club, has grown steadily to a membership of 245 as of 2018 which makes it one of the largest in the metropolitan area.
- **Large catchment:** The catchment of the Byford BMX Club is wide, extending into Armadale and potentially having the capability to attract members from Gosnells and Canning where existing provision is limited to non-club-based facilities on reserves. It is understood that 47% of current membership of the club reside within Armadale and the remaining portion from Byford and surrounds.
- **Capacity of current facility:** The club's growth and requirements exceeds the capacity at Briggs Park. Whilst the clubs co-exist reasonably at Briggs Road, there are issues created when there are events / competitions. Invariably this centres around the lack of available car parking space and the need to utilise the ovals as overspill car parking areas. Unfortunately, this is not a long-term solution given the investment in enhancing the oval provision to increase playing capacity at Briggs Park.
- **Ability to attract events:** The Byford BMX club has the capability to attract and run State and national level competitions and are able to resource the events through their own volunteer base.

STUDY RECOMMENDATIONS

The study recommended that Keirnan Park is best placed to accommodate a state-level BMX facility given this would enable the construction of a required pavilion at Briggs Park.

In order to provide a replacement BMX facility within the shire a site assessment was undertaken focused on five (5) potential sites. An analysis of all sites under confirmed Kiernan Park to be the preferred site option.

The key advantages of the Keirnan Park location are:

- Availability of space and potential co-location opportunities with other sporting infrastructure required to service the needs of Mundijong-Whitby;
- It will be located centrally within a future urban development area with strong local links;
- It has the potential to align closely with service infrastructure to minimise set-up and ongoing operational costs; and
- No significant constraints to development, including environmental and heritage concerns.

Concept plans and high level costings for developing a BMX facility at Keirnan Park and an alternative site were undertaken to test the options. This resulted in a recommendation that the Keirnan Park is pursued.

03

ECONOMIC ANALYSIS

CONSTRUCTION PHASE BENEFITS

Key Findings

The proposed masterplan is estimated to have a total construction cost of approximately $161.8 million (excluding GST and escalation). Of relevance to this study, stages 1A and 1B are estimated to have a cost of $28.2 million (excluding GST and escalation).

On average, 89 FTE direct & indirect jobs are likely to be supported during construction of the project with the potential for many jobs to be supported locally. This employment will include training and apprenticeship opportunities.

Based on the level of indigenous persons in the construction sector in the region, the construction phase could support 1 direct FTE and 1 indirect FTE indigenous jobs.

Total direct and indirect Gross Value-Added to the economy is estimated at $19.4 million over the construction period of the development.

Based on similar construction projects, approximately 100-150 persons are anticipated to be employed on site at various times. The number of personnel employed by contractors working off site supplying products for the project is expected to be approximately 50-80.

Construction Phase Impact Findings, Stages 1A and 1B

CATEGORY	DIRECT EFFECT	SUPPLY-CHAIN EFFECT	TOTAL EFFECT
Direct Economic Activity	$28,222,000	$22,386,000	$50,608,000
Employment (FTE Job Years)	40	49	89
Value Added	$10,329,000	$9,060,000	$19,389,000

Source: Urbis, REMPLAN
** Numbers rounded*

Construction Phase Impact Findings, Ultimate Masterplan

CATEGORY	DIRECT EFFECT	SUPPLY-CHAIN EFFECT	TOTAL EFFECT
Direct Economic Activity	$161,838,000	$137,883,000	$299,721,000
Employment (FTE Job Years)	228	297	525
Value Added	$55,598,000	$55,175,000	$110,773,000

Source: Urbis, REMPLAN
** Numbers rounded*

ONGOING EMPLOYMENT AND ECONOMIC BENEFITS

Key Findings

Recreational facilities have broad employment impacts on local economies through employment of sport staff, maintenance staff and increased expenditure related to events.

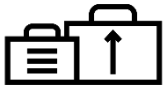
This study found that stages 1A and 1B could support the equivalent of 6.9 full-time equivalent ongoing jobs and the ultimate masterplan could support 36.3 full-time equivalent ongoing jobs.

This level of employment is however considered conservative. The attraction of events and organisations at Keirnan Park could greatly increase the level of supported employment.

Ongoing Employment and Economic Benefits, Stages 1A and 1B

6.1
DIRECT JOBS

Total direct jobs on an ongoing basis



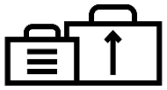
0.8
INDIRECT JOBS

Total indirect jobs supported by on-site employment

Ongoing Employment and Economic Benefits, Ultimate Masterplan

32.8
DIRECT JOBS

Total direct jobs on an ongoing basis



3.5
INDIRECT JOBS

Total indirect jobs supported by on-site employment

Source: Urbis, REMPLAN, ABS

SOCIAL AND HEALTH BENEFITS

Key Findings

The presence of a high-quality regional-level facility will encourage residents to undertake more exercise and participate in additional social events than they would otherwise if the facility was not constructed

This is expected to support the following benefits:

- Avoided health costs;
- Stronger social capital; and
- Improved early childhood development outcomes.

Summary of Social and Health Benefits

IMPACT	ANALYSIS FINDINGS
Health and Wellbeing	Research has shown that access to local recreational facilities influences the frequency at which people engage in exercise and improves health indicators by between 52% and 58%[1]. Based on modelled additional recreation activity levels, the health impacts for stages 1A and 1B were estimated at an average of $386,000 per annum over the assessment period.
Social Capital	The benefits of sport and recreation facilities expand beyond the personal health and wellbeing benefits resulting from participation in physical exercise and associated social programs. Sport and recreation facilities are focal points for engagement and connection to society. They are positively associated with creating social capital as they encourage involvement in community activities and support local enterprise, values and identity. The proposed project is expected to provide a range of opportunities for community engagement and participation in social activities and therefore deliver positive outcomes that could contribute to improved social capital. Additionally the proposed project is expected to provide better social and community service for different age cohorts and a range of opportunities for further social networking, employment opportunities and sense of pride and ownership hence create stronger association for community members and residents.
Early Childhood Development	As noted in the literature review, research demonstrates that there is a positive role for sport and recreation participation in reducing emotional problems and cognitive and non-cognitive skills for children. The proposed project is therefore expected to help address a number of early childhood development challenges through improved access to a range of recreational and sport facilities that can be used to deliver children targeted programs and services. As a result the proposed project is expected to positively contribute to children health and development in the catchment area.

Source: Urbis

[1] Roemmich, J. et al. (2006) Association of Access to Parks and Recreational Facilities with the Physical Activity of Young Children, Preventative Medicine, Volume 43; Sallis, J. et al. (1990) Distance between Homes and Exercise facilities Related to Frequency of Exercise among San Diego Residents, Public Health Rep, Volume 105; & Linenger, J., Chesson, C. & Nice, D. (1991) Physical fitness gains following simple environmental change, Journal of Preventative Medicine, Volume 7, Issue 5

ECONOMIC BENEFITS

Key Findings

The economic value of physical activity can be profound. As such, Keirnan Park is expected to support the following economic benefits:

- Increased local expenditure;
- Improved economic participation and productivity; and
- Increased private sector property development.

Summary of Economic Benefits

IMPACT	ANALYSIS FINDINGS
Local Expenditure	Keirnan Park will be home to a range of high quality regional facilities that will encourage visitation from persons based outside the Shire of Serpentine Jarrahdale. This visitation will, as per literature, have broader economic impacts on local economies, with visitors spending more at local shops and businesses than they would otherwise[1]. Based on visitation expenditure surveys, stages 1a and 1b are expected to support increased expenditure of approximately $485,000 per annum in the Shire of Serpentine Jarrahdale's economy over the assessment period. This level of expenditure is expected to support 1.9 full-time equivalent positions (largely in the retail sector). Moreover, major events hosted at Keirnan Park will further support visitation expenditure.
Economic Participation / Productivity	Sport facilities have been found to have an impact on the economy through improvements to productivity and labour participation. In particular, healthy, fit employees are more likely to be productive, with increased output due to attitude and motivation changes from positive leisure experiences improving their quality of life[2]. Regular physical exercise has also been found to reduce absenteeism, with studies indicating that obese persons likely to be absent 14 days a year more than normal-weight employees[3]. Based on research that has demonstrated that a moderate increase in recreation reduces absenteeism by 2.1 days per annum, the value to the economy has been modelled at $514,500 per annum over the assessment period for stages 1A and 1B.
Property Development	The urban amenity improvements associated with the proposed project are expected to lead to an increase in the desirability of living, visiting and working in the area. Published studies have revealed that subsequent to amenity improvements through public facility investment, property values increase and this improves the viability of development proposals by increasing equity and financing capacity and sales times. The project is estimated to have an equivalent one-off amenity uplift of $8.3 million for stages 1A and 1B.

Source: Urbis

[1] Bergstrom J. et al. (1990) Economic Impacts of Recreational Spending on Rural Areas: A Case Study, Economic Development Quarterly, Volume 4, Issue 1

[2] Ibid.

[3] Jans, M., van den Heuvel, S., Hildebrandt, V., Bongers P. (2007) Overweight and obesity as predictors of absenteeism in the working population of The Netherlands, Journal of Occupational and Environmental Medicine, Volume 49, Issue 9, pp. 975 & Australian Sports Commission (1997) Active Australia - A National Participation Framework, Sport and Recreation Ministers' Council Australia

COST BENEFIT ANALYSIS

Key Findings

The CBA results reveal that the project is expected to provides significant ongoing benefits. At the adopted discount rate of 4%, the net benefit is estimated to be approximately $21.1 million.

This analysis excludes benefits that could not be reliably monetised (e.g. major events visitor expenditure) or were not considered to be direct effects from the project. Indirect costs and benefits would include those costs and benefits obtained through multiplier effects (e.g. those indirect impacts associated with visitor expenditure).

This cost benefit analysis included the following inputs (as noted in the previous section):

- Capital costs;
- Avoided health costs
- Improved economic participation and productivity;
- Increased local expenditure; and
- Improved public amenity.

Cost Benefit Assessment, Stages 1A and 1B

IMPACT CATEGORY	4% (ADOPTED DISCOUNT RATE)	7%	10%
Costs (NPV)	$26.6m	$25.5m	$24.5m
Benefits (NPV)	$47.7m	$31.0m	$22.5m
Net Impact (NPV)	$21.1m	$5.5m	-$2.0m
Benefit Cost Ratio	**1.8**	**1.2**	**0.9**

Source: Urbis

04

BUDGET AND FUNDING STRATEGY

BUDGET SUMMARY

Budget Overview

The total budget estimated to design and construct the full master planned Keirnan Park Recreation Precinct is estimated at $162 million (ex GST).

Separate capital cost estimates have been provided for Stage 1A, 1B and 1C. These stages can be constructed separately, sequentially or concurrently.

Note that these cost estimates exclude price escalation and there are likely to be efficiency gains that could be captured through progressing certain works within the same works package.

Estimated Capital Costs

STAGE	ITEM		COST
Stage 1A	Buildings	$	4,500,000.00
	External works and landscaping	$	9,209,160.00
	Site services	$	2,199,960.00
	On-costs	$	4,088,147.90
	Stage 1A Total (State government funding already committed)	**$**	**19,997,267.90**
Stage 1B	Buildings	$	1,632,000.00
	External works and landscaping	$	3,556,440.00
	Site services	$	1,522,800.00
	On-costs	$	1,513,655.17
	Stage 1B Total	**$**	**8,224,895.17**
Stage 1C	Buildings	$	1,200,000.00
	External works and landscaping	$	2,468,205.00
	Site services	$	816,561.00
	On-costs	$	1,011,495.53
	Stage 1C Total	**$**	**5,496,261.53**
Masterplan Balance	Buildings	$	50,070,000.00
	External works and landscaping	$	41,554,923.12
	Site services	$	11,284,617.60
	On-costs	$	25,210,249.97
	Balance of Masterplan Total	**$**	**128,119,790.69**
Total	Buildings	$	57,402,000.00
	External works and landscaping	$	56,788,728.12
	Site services	$	15,823,938.60
	On-costs	$	31,823,548.56
	Total project cost	**$**	**161,838,215.28**

Sources: Element
Note: the cost excludes escalation

BUDGET SUMMARY (CONT.)

Ongoing Viability and Sustainability

Following practical completion, the Shire of Serpentine Jarrahdale will be responsible for the ongoing maintenance of the recreation precinct. The Shire will assess and undertake required maintenance as per the Shire's Asset Management Plan and fund and budget the required upgrades as required through its annual budget processes.

A high-level assessment of potential operational revenues and costs was undertaken to inform potential operating cost surpluses / deficits (see appendix). This analysis was based on the following assumptions.

- The rates for cleaning and maintenance of ovals are inclusive of personnel costs.
- Cost for staff and resourcing attributes to the facilities is not included.
- Assumption of 1% renewal rate of asset replacement as per Shire's advice.
- Rates and charges are either as per the existing Shire's Fees and Charges schedule or based on information provided by the Shire.
- Information provided by the Shire confirms oval and surrounds annual maintenance is between $4.50 and $8.00 / sq.m. The higher end for this project expenses as this is will be the regional centre and would expect a high level of maintenance.
- Court Maintenance is at $2,000 per court per annum.
- Income for social spaces in the pavilions is based on total hours available and then a projected % of that time actually booked.

Estimated Operational Budget (per annum), Stages 1A, 1B and 1C

ITEM	ANNUAL ESTIMATED INCOME	ANNUAL ESTIMATED EXPENDITURE
Sporting Clubs	$33,283	
Oval and courts – Casual Use	$17,976	
Lighting	$5,300	
Storage / Fridge / Freezer	$5,950	
Pavilions	$8,247	
Operational maintenance		-$544,508
Outgoings		-$144,000
Replacement Costs – Buildings		-$82,570
Total Expenditure		**-$771,078**
Total Costs (minus income)		**-$700,322**

Sources: Shire of Serpentine Jarrahdale, Element

FUNDING STRATEGY

Key Findings

The Shire of Serpentine Jarrahdale has already committed considerable funds to preparing the project up to the business case stage.

The WA State Government has committed a total of $20 million as part of the WA Recovery Plan to enable the deliver of Stage 1A.

A combination of external grant funding types were found to be most appropriate for the remainder of stage one for the following reasons.

- The Keirnan Park Recreation Precinct is demonstrated to delivery a range of positive economic and social benefits to the local community and state's economy; and
- The Keirnan Park Recreation Precinct is aligned with numerous State and federal government strategies.

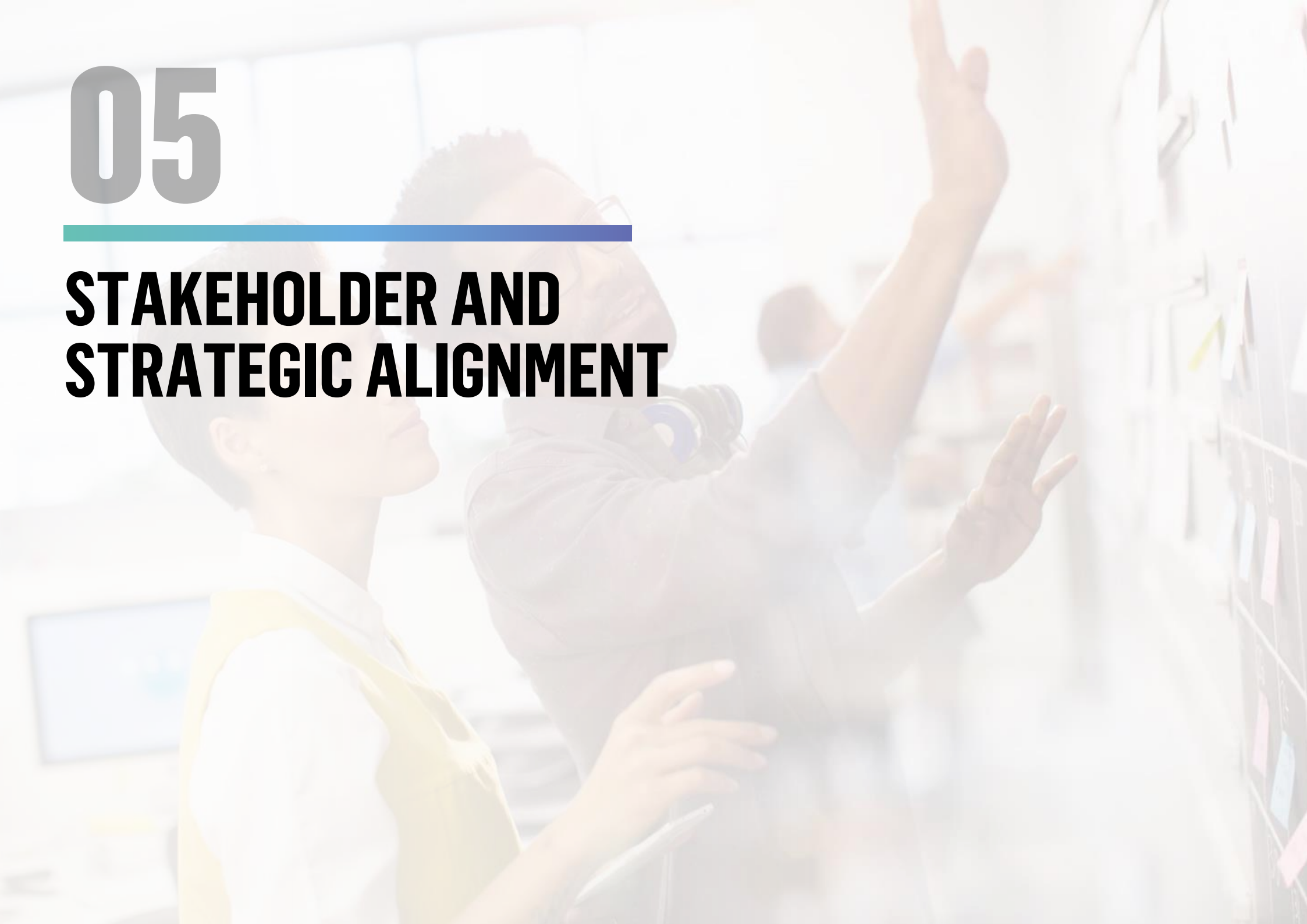
An application to the Building Better Regions Fund will be undertaken in early March, with funding decisions expected by June / July 2021.

Funding Options Assessment

FUNDING OPTION	ASSESSMENT FINDINGS	STRATEGY
Shire Reserves	▪ There is considered to be insufficient existing municipal reserves of this magnitude to cover the cost of the project. ▪ The current rate base is not yet established and there is limited capacity to raise rates in the short term (further, the Shire is home to largely first home buyers with high levels of mortgage stress prevalent compared to national averages).	Not pursued
Community Infrastructure Development Contributions Plan	▪ The Shire's Community Infrastructure Development Contribution Plan includes Keirnan Park. ▪ There are insufficient funds to support an initial stage of the Keirnan Park Recreation Precinct.	Not pursued
Western Australian Treasury Corporation Loan	▪ The WATC provides relatively low cost debt financing to local councils in Western Australia. ▪ There is a risk of being too highly geared, which would impact on further debt financing needs and future infrastructure investment, in which case pressure for rate rises and/or spending cuts may be evident. ▪ There is potential for higher long term interest rates due to higher debt burden which would limit future investment.	Not pursued
State Government WA Recovery Plan *Stage 1A Funding*	▪ Executed financial assistance agreement for $2 million.	Committed
	▪ Additional $18 million provided once detailed design process is completed.	Committed
BBRF *Stage 1B Funding*	▪ The project will deliver a range of demonstratable social and economic benefits to the community which are aligned with Round 5 of the Building Better Regions Fund.	Application underway
Other External Grant Funding *Stage 1C and/or Full Masterplan Funding*	▪ The Keirnan Park Recreation Precinct is aligned with a range of State and Federal Government policy and strategic priorities. ▪ Potential additional grant funding sources are: - Community Development Grants Programme - LotteryWest Grants	To be pursued

05

STAKEHOLDER AND STRATEGIC ALIGNMENT



POLICY AND STRATEGIC CONSIDERATIONS

Alignment to Strategic Imperatives

The Keirnan Park Recreation Precinct project was identified as a key initiative to fill a gap in the provision of sport and recreation facilities within the Shire and to cater for the Shire's expected very high population growth over the next few decades.

The recreation precinct importantly will support and form a key implementation measure for a range of national, state and local government objectives, ensuring the delivery of important infrastructure that meets community needs provided adequate State and Federal government support can be secured.

Importantly, the proposed Keirnan Park Recreation Precinct would help deliver the aims of key policies, including the following:

Federal Government Policies

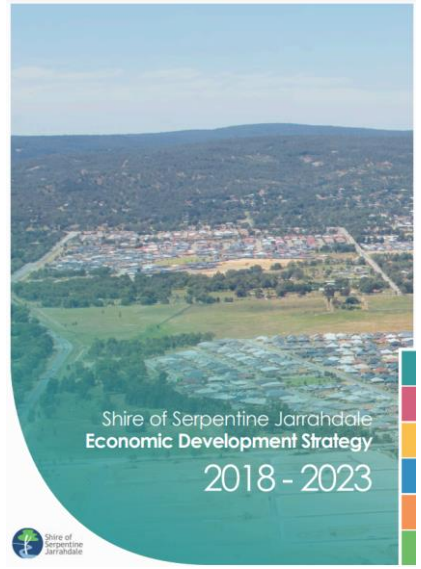
- Smart Cities Plan; and
- Australia's Regions: Investing in their Future.

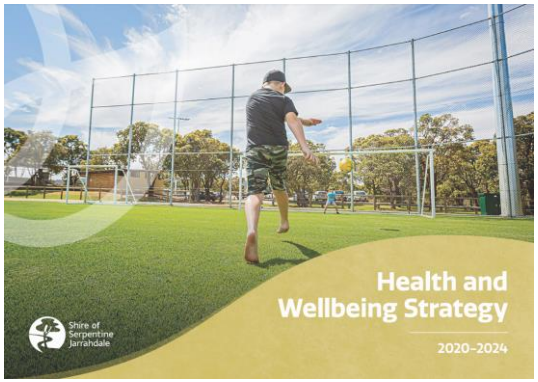
State Government Policy

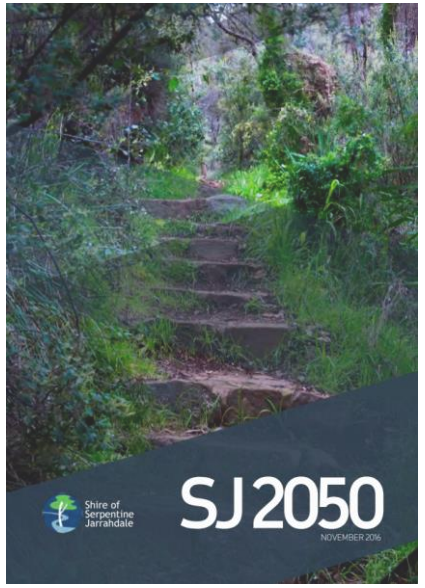
- Our Priorities: Sharing Prosperity;
- 2021 WA State Election: Priorities and Requests;
- Active Open Space (playing fields) in a growing Perth-Peel;
- Classification Framework for Public Open Space;
- Strategic Directions: 2020-2023 (DLGSC);
- More than Winning (DLGSC); and
- Strategic Priorities for Western Australian Sport.

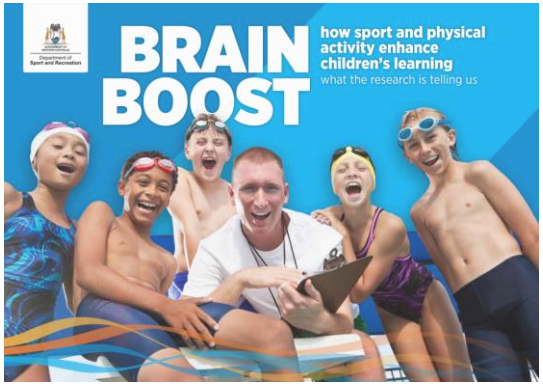
Shire of Serpentine Jarrahdale Policies

- SJ2050 and the Strategic Community Plan 2018-2027;
- Community Infrastructure and Open Space Strategy and Community Infrastructure Implementation Plan;
- Health and Wellbeing Strategy 2020-2024;
- Local Planning Strategy and
- Economic Development Strategy; and
- Corporate Business Plan.









ALIGNMENT TO STRATEGIC IMPERATIVES

STRATEGIC IMPERATIVE	ALIGNMENT FINDINGS
Provide Sport and Recreation Opportunities for the Growing Population	The Precinct will deliver on aligned State and Local government goals of developing a regional sporting facility within the Shire, specifically outlined in the Shire's ***Local Planning Strategy***. It will provide critically needed access to sport in recreation facilities, a goal identified in ***SJ2050*** and the ***Perth and Peel@3.5 million*** strategic plan. It will reduce the shortfall of active playing fields, especially prevalent in fringe growth sub-regions of Perth, identified in the ***Active Open Space (Playing Fields) in a Growing Perth-Peel***. It will also fulfill key objectives of the DLGSC's ***Strategic Directions: 2020-2023*** to promote participation and achievement in sport, in particular to build sustainability and capacity for women in sport and leadership. Elements within the Precinct will also perform the functions of a neighbourhood open space, district open space and regional open space, in line with DLGSC's ***Classification Framework for Public Open Space.***
Boost Shire Tourism Attractions	Elements of the Precinct will be of a high enough standard to attract people from the wider Perth and Peel area, the State and Nationally to train and compete in regional, State and National competitions. This will support an increase in the short stay tourism accommodation aspired to in ***SJ2050***, and will be an event that attracts people to the area, a key component of the Shire's ***Tourism Strategy***.
Support and Grow the Local Economy and Employment	Development of the recreation precinct is directly aligned with the Federal government's ***Smart Cities Plan*** to that will prioritise investment that will meet broader economic opportunities, infrastructure that provides amenity, and creates job opportunities in regional tourism and services. The Precinct will directly contribute to and further facilitate improvement of the Shire's current low employment self-sufficiency; supporting the Shire's draft ***Local Planning Strategy***, ***Economic Development Strategy***, the Shire's ***2021 WA State Election: Priorities and Requests***, the ***South Metropolitan and Peel Sub-Regional Planning Framework*** and the State Government's ***Our Priorities: Sharing Prosperity*** goal of creating and additional 150,000 jobs across WA. The Precinct will provide significant construction phase and ongoing employment benefits. Commencing the development of the Precinct is a goal identified to improve the Shire's prosperity in the ***Corporate Business Plan***.
Improve Physical and Mental Health and Wellbeing	The Precinct will be a key means of delivering on the goals of the Shire's ***Health and Wellbeing Strategy*** to increase opportunities for active lifestyles as the population grows. Participation in sport has been identified in DLGCS's ***More Than Winning*** policy as a key means to improving physical and psychological wellbeing of individuals, and there the community. This includes a reduction in the number of deaths resulting from low physical activity, and provides benefits key Australian national health priorities.

STAKEHOLDER ENGAGEMENT

Key Findings

The nature of this project means that buy-in and participation from key stakeholders is essential for the Keirnan Park Recreation Precinct to be successful and to maximise positive community outcomes.

Previous studies included extensive stakeholder consultation with key State sporting organisations and local community sporting clubs to assess the future sporting and recreation needs of Shire residents (see appendix for engagement summary). Targeted engagement was undertaken for this business case in order to better understand the sporting needs of the Shire's resident population, and the requirements for individual sporting codes. This information was used to inform the needs assessment and options.

In addition to the key stakeholders who have communicated a specific interest in being involved with sporting clubs and events at the recreation precinct, the following organisations and clubs were consulted with:

- SportsWest;
- Football West;
- Tennis West;
- Western Australian Cricket Association (WACA);
- Athletics West;
- Netball WA;
- Basketball WA;
- BMX WA; and
- Byford Tennis Club

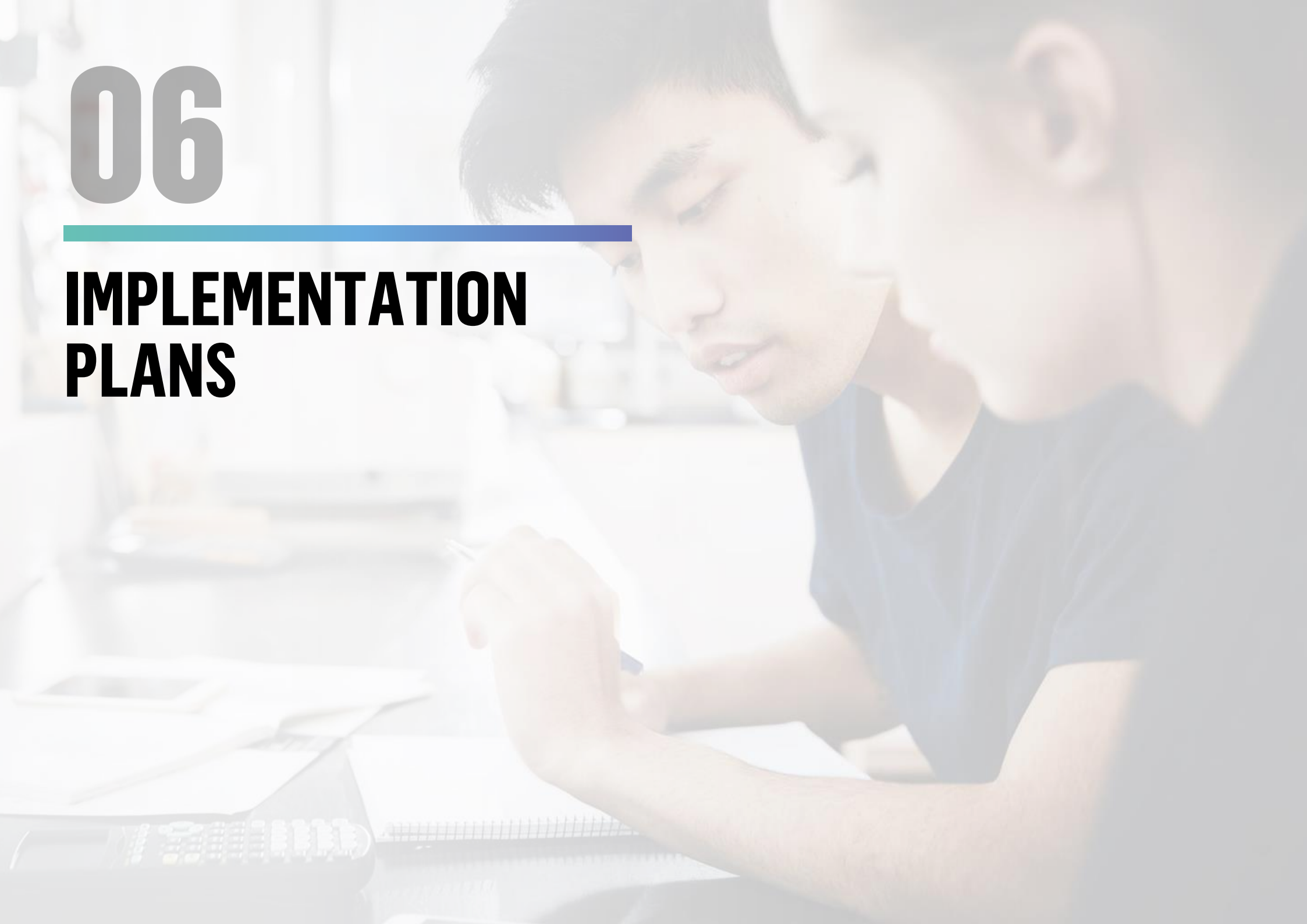
Future engagement activities will be guided by the communication plan in the following section.

Key Stakeholder Roles

STAKEHOLDER	POTENTIAL ROLES / OPPORTUNITIES
Shire of Serpentine Jarrahdale	▪ Need to ensure adequate sporting grounds planning is undertaken. ▪ Lead and manage the development of the Keirnan Park Recreation Precinct.
Hockey WA	▪ Will have some staff working from the pavilion.
BMX Sports WA	▪ Can run State and National competitions from the facility.
Perth Football Club	▪ Will commit to training / playing some games on the grounds.
Mundijong Football and Sporting Club	▪ Likely to move their team to play at the new facility, provided there is a minimum of two ovals and two sets of changerooms suitable for womens' teams. ▪ Expect to be able to introduce more teams, including a veterans team and womens' teams.
Mundijong Junior Football Club	▪ Would need a minimum of three ovals to move entire club there, but it is likely that the club could transition over time. ▪ Potential for club to split if it continues to grow quickly and move one club to Kiernan Park. ▪ Would prefer for multiple sports to be located in a single location to allow parents to better manage multiple children playing different sports.
Serpentine Jarrahdale Cricket Club	▪ Interested in using the facilities at Keirnan Park, in addition to current usage of the facilities at Briggs Park, Mundijong Oval and Kalimna Oval.
Mundijong Serpentine Little Athletics	▪ Facility at Keirnan Park would be ideal for a competition centre in time as the population grows.
Serpentine Jarrahdale Netball Association	▪ Would be interested in playing at Keirnan Park. ▪ Could assist with increasing membership numbers, including senior teams.
Byford Bushrangers T-Ball Baseball Club	▪ Current Briggs Park facility does not allow them to host finals or feature games of baseball. ▪ Interested in moving club to Keirnan Park, or if other sports move from Briggs Park expanding facilities / training there.
Byford BMX Club	▪ Current membership exceeds capacity of the existing facility. Growth expected in the future. ▪ Need a better quality facility to be able to run some types of competitions.

06

IMPLEMENTATION PLANS



PROJECT PLAN

Overview

Key milestones and anticipated timeframes were identified to support the delivery of the project. Key tasks include:

- Endorsement of this business case;
- Ongoing engagement with stakeholders, potential funding partners and sporting clubs;
- Technical investigations and detailed design;
- Building and site works approvals;
- Contract procurement and award; and
- Construction of preferred option.

A more detailed timeline is appended to this business case and this will be further refined following endorsement of the business case.

Of key importance, the Building Better Regions Fund requires works to be completed by December 2023.

Key Milestones

MILESTONE	TIMING	STATUS
Sporting needs analysis	Nov-18 to Nov-20	Completed
Initial stakeholder engagement	Jul-18 to Jan-21	Completed
Concept masterplan and staging plan	May-20 to Feb-21	Completed
Project management plan	Jul-19 to Dec-19	Completed
Cost estimation	Jun-19 to Oct-20	Completed
State government funding commitment	Aug-20	Completed
Preparation of business case	Dec-20 to Feb-21	Completed
Endorsement of masterplan and business case	Mar-21	-
Masterplan concept finalisation (electrical, hydrology)	Mar-21 to May-21	-
Aboriginal heritage studies	Mar-21 to May-21	-
Additional studies (to be determined)	Mar-21 to May-21	-
BBRF grant decision	Jun-21	-
Detailed design procurement commences	Jun-21 to Jul-21	-
Approvals (e.g. site works, building, Section 18, DWER, DCBA clearing permit, etc)	Jun-21 to Dec-22	-
Stage 1 detailed design	Jul-21 to Jan-22	-
Initial site preparation works (pending approvals)	Sep-21 to Dec-21	-
Tender Stage 1	Jan-22 to Apr-22	-
Construction Stage 1 commences	Dec-22	-
Recreation precinct operational	Dec-23	-

COMMUNICATION PLAN

Overview

The Shire of Serpentine Jarrahdale seeks to encourage community participation in decision-making processes, communicate information to stakeholders and the community generally and to ensure decision-making transparency. It therefore utilises a range of mechanisms to target a broad cross-section of the community to both engage and then inform residents, incorporated associations, community groups and business and industry stakeholders.

Communication of Shire initiatives, including proposal prior to final approval, generally involves online information provision and feedback mechanisms, traditional print advertising, direct mail both random and targeted, as well as information provision through outstation locations and direct community access to both informally and formally convened communication opportunities.

These communication activities are guided by the Shire's Community Engagement Policy (5.3.4). This policy applies to all Shire staff and contractors that deliver services, or undertake projects, that impact Shire community and stakeholders.

Preliminary promotion and communication mechanisms are recommended to be implemented by the Shire in relation to this project. These initiatives should be reviewed and amended as required during detailed planning for this project.

Further, the communication plan will need to align with financial agreement requirements.

Communication Plan

INITIATIVE	DESCRIPTION
Project Factsheets and Updates	Key project information and timelines presented in a simple fact sheet will be developed and made available on the Shire's website, through social media and other communication platforms and from the administration office and other distribution points.
Engagement with Sporting clubs	The Shire will engage with sporting clubs through workshops, one-on-one interviews, or information sessions as required to achieve the best outcome for the project.
Funding Announcement	Funding partners and relevant stakeholders will publicly announce the funding for the project and project timeline. The Shire will work with relevant government agencies to develop joint media statements.
Milestone Celebrations	Ceremonial events to mark project milestones, including sod-turning, lock-up, practical completion and grand opening/re-opening events. Related announcements, media statements and speeches will acknowledge the funding support of partner agencies.
Promotional Materials	The Shire will explore the use of promotional materials such as flyers and signage to acknowledge the benefits of the project and funding partners involved.

PROJECT MANAGEMENT AND GOVERNANCE

Overview

The Shire of Serpentine Jarrahdale will be the lead project manager as the continued owner of the recreation precinct.

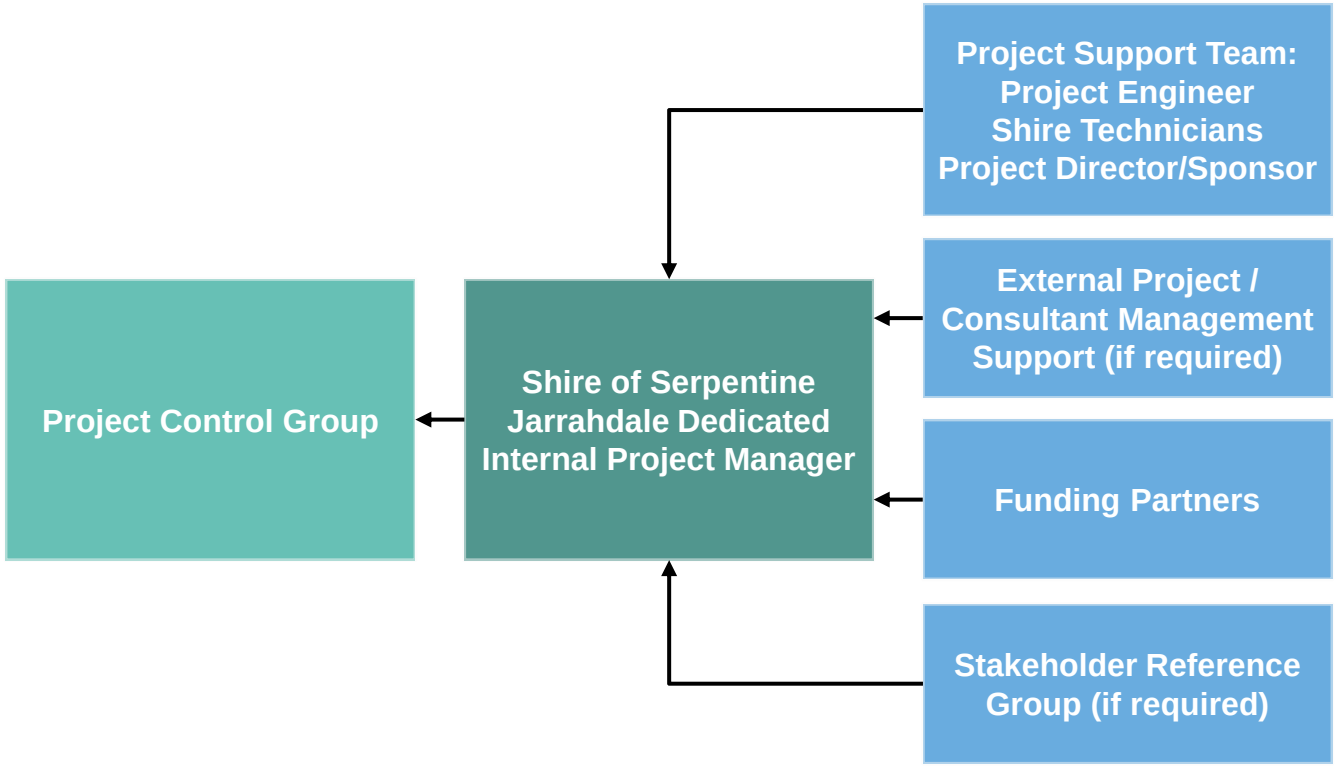
In the development of the project, the Shire will appoint a suitably qualified project manager to oversee project delivery. The project manager will be responsible for contract administration, superintending, QA, project managing, and liaising with stakeholders. This is estimated at 2 FTEs (1 full time PM during construction, with support from a PE, and Shire technical crew, and project director/sponsor time included as well).

Minimum reporting arrangements will exist whereby monthly progress reports, issues log and progress payment authorisation requests are provided to a project control group which would meet as required and quarterly as a minimum.

The project control group will be responsible for: monitoring the project deliverables and milestones, ensuring probity compliance, ensuring procurement and contract policies are consistent with the Shire's policies (and that of any funding partners) and reviewing and recommending any contract variations.

A project management plan for the construction of the recreation precinct will be developed to describe in detail the project management, governance, procurement, communication and risk procedures.

Project Governance Model



PROCUREMENT PLAN

Overview

The Shire of Serpentine Jarrahdale is committed to delivering best practice in the purchasing of goods, services and works that align with the principles of transparency, probity and good governance. The Shire has an established Procurement of Goods or Services through Public Tendering Policy (3.2.5). The purpose of this policy is to ensure consistency for purchasing and procurement across all the Shire's operational areas.

For services and goods below $250,000 in value, procurement is guided by the Purchasing Policy (3.2.4).

Procurement Services will compile and be responsible for the tender package, comprising the specifications received from the authorised officer and based on the Shire's standard terms and conditions of contract and decision matrix.

The Shire has strategies in place to prevent the misappropriation of funds and inappropriate use of public property that include a comprehensive Annual Audit Plan providing a balanced mix of financial, operational and information technology audits. In addition, risk management is considered an integral part of the annual business planning approach and risks are managed and monitored at all levels.

Potential Services Required to Deliver Project

#	SERVICE REQUIRED	SERVICE PROVIDERS
1	Stakeholder engagement	Shire officers or external engagement consultant
2	Project management	Shire officers or external project management consultant
3	Lead consultant	External consultants (e.g. civil, structural, mechanical and electrical, environmental, architect, hydrology, landscape)
4	Heritage consultant	External consultant
5	Public art consultant	External consultant
6	Building works supervisor/superintendent	Shire officers or external consultant
7	Head contractor	Shire officers or external project m consultant

ASSET MANAGEMENT PLAN

Overview

The Shire of Serpentine Jarrahdale will be responsible for the ongoing maintenance of Keirnan Park. Its management of this precinct will be guided by the Shire's Asset Management Policy (2.0.1).

This policy guides how the Shire can ensure that the recreation precinct will continue to function to the level of service required by Council.

A key component of asset performance is asset life – the greater the performance of an asset component, the longer the life. The Shire will therefore conduct maintenance services as required.

Asset Management plans will be prepared in accordance with the recommended format of the Institute of Public Works Engineering Australia's (IPWEA) International Infrastructure Manual. This will include long term (20 year) financial modelling of the renewal profile of each asset class and will be underpinned by long term financial plans.

Asset Management Policy Principles

#	PRINCIPLE
1	Philosophy of renewing assets before acquiring new assets and, where possible, rationalising assets that are no longer used or do not provide the necessary level of service required to sustainably deliver the service for which the asset was acquired.
2	Prior to consideration of any major refurbishment, improvement to an existing asset, construction or acquisition of a new asset, a critical review of the following shall occur as part of the evaluation and prioritisation process: ▪ Need for facility (short and long term) ▪ Legislative requirements ▪ Opportunities for rationalisation ▪ Future liability including ultimate retention/disposal ▪ Opportunities for multiple use
3	All capital projects will be evaluated in accordance with a Capital Evaluation model and take into account capital cost, ongoing cost of maintenance, refurbishment, replacement and operating cost ("whole of life" cost assessment).
4	Management of assets utilising a team approach supported by the multi discipline cross-functional asset management working group.
5	Developing and implementing a 10 year "rolling" financial plan that incorporates infrastructure renewal requirements as identified within the various Asset Management Plans.
6	The commitment to involve and consult with the community and key stakeholders when determining service levels.
7	Training in asset and financial management will be provided for councillors and relevant staff.

RISK MANAGEMENT PLAN

Overview

The Shire of Serpentine Jarrahdale manages and mitigates risks in accordance with its Risk Management Policy (3.3.3). The objective of this policy is to outline the strategies and processes applied in implementing an effective risk management system. This policy applies to all risk processes within the Shire and is subject to regular monitoring through the Audit, Risk and Governance ('ARG') Committee and Council.

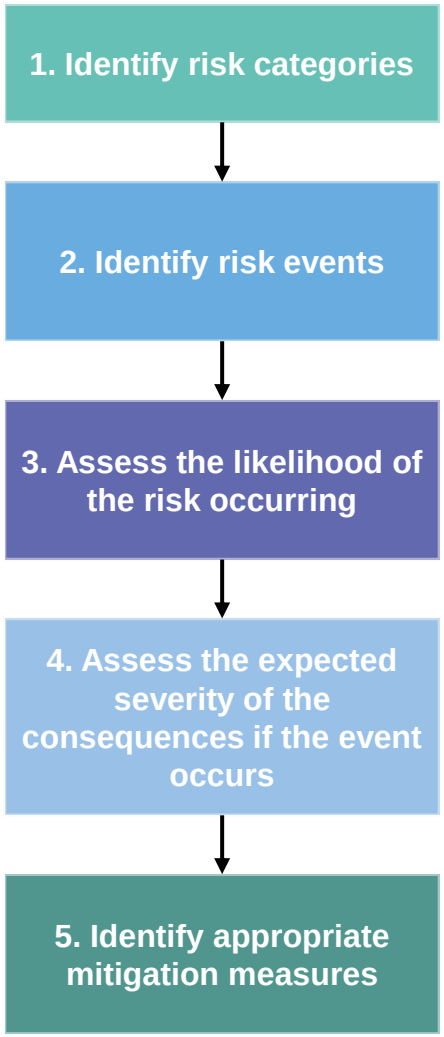
To guide the effective risk management of the health hub project, a preliminary risk identification process has been undertaken as part of this business case. A detailed risk workshop will be undertaken by the project director / manager as part of the development of the project management plan and this role will be responsible for maintaining the risk register.

The overall objectives of the risk management and assessment process were to identify risks to the successful delivery of the project and construction contract in respect to:

- Financial risks;
- Regulatory risks;
- Procurement risks;
- Site / construction risks;
- Public perception / stakeholder risks; and
- Operational risks.

A preliminary risk management plan is appended to this business case.

Risk Analysis Process



MONITORING AND EVALUATION PLAN

Overview

This Monitoring and Evaluation (M&E) Plan describes a proposed M&E process for the project. This plan helps to track and assess the results of the projects and provides timely insights that will inform the delivery of this project and future projects. It is a living document that should be referred to and updated on a regular basis.

The distinction between evaluation and monitoring can sometimes be blurred since both involve some form of data collection, analysis, and reflection on the implications for action. However, monitoring tends to be a continuous process, while evaluation is typically periodic and involves a greater element of analysis and reflection. Monitoring is critical for insightful evaluation because it provides a sufficient base of information about how a project or program was implemented, including whether and in what ways it deviated from its intended design.

Evaluation is an opportunity to reflect upon the approaches that worked well and those that did not work as well, to identify the reasons for success or failure, and to learn from both. This plan describes the conceptual outline of the M&E process for the project through the identification of potential performance measures and measurement approaches for each project objective identified in section one of this business case.

The Shire of Serpentine Jarrahdale will be responsible for implementing the M&E Plan. The Shire will work with relevant partner organisations to ensure information is accurately and cost-effectively obtained.

Project Outcomes and Measurement Methods

OBJECTIVE	PERFORMANCE MEASURE	MEASUREMENT METHOD/S
Address Fast-Growing Sporting and Recreation Needs	The number, types and usage of additional sporting facilities provided by the recreation precinct.	▪ Number of additional sporting clubs and additional club members at existing clubs. ▪ Number of additional sporting facilities not previously available within the Shire. ▪ Usage of sporting facilities provided from the recreation precinct. ▪ Additional sporting options available to groups with typically low participation rates, including older adults and cultural minorities.
Provide National-Level Sporting Facilities	Development of a sporting facility/ies which meets State and National competition standards for that sporting code.	▪ At least one sporting facility which meets State and National competition standards for that sporting code. ▪ Sporting facility to host at least one State level competition annually, and bid for one National level competition every 5 years.
Reduce the Need to Travel Outside the Shire for Training in Sport	Lower levels of residents undertaking sport outside of Shire due to lack of local facilities.	▪ Reduced levels of residents undertaking key sports outside the Shire.
Improve the Health of the Current and Future Population	Improvements in the reported levels of health of the Shire's resident population.	▪ Increased levels of physical activity in the Shire's resident population. ▪ Decreased levels of health risk factors including smoking, alcohol/other drug consumption and overweight/obesity.
Support the Economic Development of the Shire	Increased economic activity within the Shire.	▪ Number of jobs created during the construction process. ▪ Number of permanent jobs resulting from the ongoing operations of the recreation precinct. ▪ Level of additional investment in sporting activities across the Shire.

URBIS

APPENDIX A
MASTER PLAN

GALVIN RD

KEIRNAN ST

KEIRNAN ST

S WESTERN HWY

S WESTERN HWY

Main entrance

Potential mens shed

Tennis
9x tennis courts

Netball
15x netball courts with provision for canopy structure

Recreation Centre Footprint
Function spaces
Aquatic Centre
Storage
Netball club room
Tennis club room
Basketball courts x3
Gym?
Childcare?

Lawn Bowls
4x green
1x club house

Changeroom/shelter/wc/storage

Water treatment/feature (lagoon)

Hockey
1x synthetic pitch
2x grass pitches

Pavilion
Hockey
Soccer
Rugby

Soccer
4x grass pitches

Mountain bike trail

Pump Track

BMX
1x BMX track
1x grand stand
2x staging area shelters
1x pavilion including:
- Office/scoring room
- Change rooms
- Public toilets
- Medical
- Kitchen/kiosk
- Storage
- Speakers tower

Rugby
1x grass pitch

Athletics field sports

Maintanence shed

AFL/cricket/athletics
2x full size AFL ovals
1x under 12's oval
co-located with 3 x cricket ovals & 1 athletics

Pedestrian connection

Cricket nets

2 Diamond pitches

Pavilion
AFL
Cricket
Athletics

- **Pavilion to act as retaining wall including interchnage benches.**
- **Undercroft storage, changerooms, etc. on western side (split level building)**
- **Remove existing tree**

Adventure playgound

Retaining wall around

Netball & tennis area specifications
- Grade entire area from NW to SE - 64 to 66

Approx 11,400m²

Batter area down towards natural surface & put geofabric over it

Lawn Bowls specifications
- Grade entire area from W to E - 66 to 67

Batter area down towards natural surface & put geofabric over it

Pavilion
260m²

2x shelters (staging areas)
162m²
162m²

938m²

Raise and batter area down towards natural surface & put geofabric over it

Pavilion to act as retaining wall

Synthetic pitch

Hockey & rugby field specifications
- Grade entire area from W to E - 51 to 53

2,100m²

Grade down to 56m

Batter down to road level & put geofabrics over it

Soccer field specifications
- Grade entire area from W to E - 57.3 to 62

Flexible interim space for soccer & rugby

420m²

Step seating 4m x 1m (3 steps)

Oval specifications
- 135m x 110m U12's
- Provide adeuate run-off area (5m)
- Grade W to E - 58 to 59
- Orientated 40 degrees off North

Oval specifications
- 610m x 135m
- Provide adeuate run-off area (5m)
- Grade W to E - 62 to 63
- Orientated 10 degrees off North

2,100m²

900m²

Oval specifications
- 610m x 135m
- Provide adeuate run-off area (5m)
- Grade W to E - 66 to 67
- Orientated 10 degrees off North

5m

Parking Analysis

1	504 bays
2	225 bays
3	267 bays
4	119 bays
5	78 bays
6	138 bays

TOTAL BAYS:
1,331

Keirnan Park Draft Masterplan

Shire of Serpentine Jarrahdale

Date: 05 Feb 2021 Scale: 1:2,000 @ A1 File: **20-163** Staff: TG BS Checked: AH

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URBIS

APPENDIX B
COST ESTIMATES

2021-02-12 Keirnan Park Masterplan - Scenarios Final

Business Case Budget

3/03/2021

DONALD CANT WATTS CORKE

KIERNAN PARK MASTERPLAN SCENARIOS	ULTIMATE MASTERPLAN	INDICATIVE SCENARIO 1	INDICATIVE SCENARIO 1A	INDICATIVE SCENARIO 1B - BMX	INDICATIVE SCENARIO 1C - NETBALL ONLY
	$ 161,838,215	$ 34,024,461	$ 19,997,268	$ 8,224,895	$ 5,496,262

KIERNAN PARK MASTERPLAN SCENARIOS		ULTIMATE MASTERPLAN				INDICATIVE SCENARIO 1				INDICATIVE SCENARIO 1				INDICATIVE SCENARIO 1B - BMX				INDICATIVE SCENARIO 1C - NETBALL ONLY			
Item	Description	Quantity	Unit	Rate ($)	Total ($)	Quantity	Unit	Rate ($)	Total ($)	Quantity	Unit	Rate ($)	Total ($)	Quantity	Unit	Rate ($)	Total ($)	Quantity	Unit	Rate ($)	Total ($)
1.00	**BUILDINGS**																				
1.01	Allowance for Recreation Centre	13,440	m2	3,000	40,320,000	400	m2	3,000	1,200,000		Note		Excluded		Note		Excluded	400	m2	3,000	1,200,000
1.02	Allowance for Hockey/Soccer/Rugby Pavillion	2,100	m2	3,000	6,300,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
1.03	Allowance for Baseball/Softball Pavillion			3,000	Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
1.04	Allowance for Soccer Change Rooms	600	m2	3,000	1,800,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
1.05	Allowance for AFL / Cricket Pavillion	2,100	m2	3,000	6,300,000	2,100	m2	3,000	6,300,000	1,500	m2	3,000	4,500,000		Note		Excluded		Note		Excluded
1.06	Allowance for Athletics Pavillion	350	m2	3,000	1,050,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
1.07	Allowance for BMX Grandstand (basic tiered mound with shade cover)	940	m2	900	846,000		Note		Excluded		Note		Excluded	940	m2	900	846,000		Note		Excluded
1.08	Allowance for BMX Pavillion	262	m2	3,000	786,000		Note		Excluded		Note		Excluded	262	m2	3,000	786,000		Note		Excluded
	TOTAL BUILDING COST	**19,792**	**m2**	**2,900**	**57,402,000**	**2,500**	**-**	**6,000**	**7,500,000**	**1,500**	**-**	**3,000**	**4,500,000**	**1,202**	**-**	**3,900**	**1,632,000**	**400**	**-**	**3,000**	**1,200,000**
2.00	**External Works & Landscaping**																				
2.01	Allowance for Site Clearance	630,000	m2	1	787,500	100,000	m2	1	125,000	100,000	m2	1	125,000	20,000	m2	1	25,000	20,000	m2	1	25,000
2.02	Allowance for demolition of buildings / structures		Note		Not Applicable		Note		Not Applicable		Note		Not Applicable		Note		Not Applicable		Note		Not Applicable
2.03	Allowance for demolition / removal of hardstandings		Note		Not Applicable		Note		Not Applicable		Note		Not Applicable		Note		Not Applicable		Note		Not Applicable
2.04	Allowance for general cut to fill	105,000	m3	7	735,000	52,000	m3	7	364,000	52,000	m3	7	364,000	1	P.Sum	100,000	100,000		Note		Included in 1A
2.05	Allowance for imported fill material	200,000	m3	27	5,400,000	37,000	m3	27	999,000	37,000	m3	27	999,000	10,000	m3	27	270,000	1	P.Sum	400,000	400,000
2.06	Allowance for removal of unsuitable cut	1	Sum	500,000	500,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.07	Allowance for formation of batters including fabric cover	7,700	m2	40	308,000	2,000	m2	40	80,000	2,000	m2	40	80,000	700	m2	40	28,000	2,000	m2	40	80,000
2.08	Allowance for retaining walls	655	m	1,000	655,000	300	m	1,000	300,000		Note		Excluded		Note		Excluded	200	m	1,000	200,000
2.09	Allowance for temporary battering / retaining to suit staging (no details)		Note		Excluded	2,300	P.Sum	250	575,000	2,300	P.Sum	250	575,000	700	m2	250	175,000	1	P.Sum	250,000	250,000
2.10	Allowance for sub soil drainage		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.11	Allowance for ground remediation		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.12	Allowance for car parking complete	33,941	m2	75	2,545,575	17,315	m2	75	1,298,625	5,400	m2	75	405,000	4,000	m2	75	300,000	5,405	m2	75	405,379
2.13	Allowance for roads complete	51,512	m2	90	4,636,080	11,400	m2	100	1,140,000	11,400	m2	100	1,140,000	6,000	m2	100	600,000				Not required
2.14	Allowance for cross overs complete	2	No	10,000	20,000	1	No	10,000	10,000	1	No	10,000	10,000	1	No	10,000	10,000		Note		Excluded
2.15	Allowance for bridge structures	2	No	250,000	500,000	1	No	250,000	250,000	1	No	250,000	250,000	1	No	250,000	250,000		Note		Excluded
2.16	Allowance for outdoor 50m pool and surrounds	1	Sum	2,500,000	2,500,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.17	Allowance for leisure pool	1	Sum	750,000	750,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.18	Allowance for Tennis Courts (9)	5,400	m2	135	729,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.19	Allowance for Netball Courts (15)	12,500	m2	185	2,312,500	12,500	m2	185	2,312,500		Note		Excluded		Note		Excluded	5,000	m2	185	925,000
2.20	Allowance for Soccer Pitches - Grass	35,000	m2	75	2,625,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.21	Allowance for Hockey Pitches - Grass	14,667	m2	75	1,100,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.22	Allowance for Hockey Pitches - Synthetic	7,333	m2	185	1,356,667		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.23	Allowance for Rugby Pitches - Grass	8,400	m2	75	630,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.24	Allowance for Baseball Diamonds - Grass	2	No	100,000	200,000	2	No	100,000	200,000		Note		Excluded		Note		Excluded		Note		Excluded
2.25	Allowance for Baseball pitch - Grass	2	No	400,000	800,000		Note		Included		Note		Excluded		Note		Excluded		Note		Excluded
2.26	Allowance for AFL Pitches - Grass	48,000	m2	75	3,600,000	32,000	m2	75	2,400,000	32,000	m2	75	2,400,000		Note		Excluded		Note		Excluded
2.27	Extra over Soft Landscaping Allowance for Athletics Track - Grass including infill	15,000	m2	55	825,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.28	Allowance for general grassed areas between playing surfaces	186,600	m2	40	7,464,000	26,600		40	1,064,000	26,600		40	1,064,000		Note		Excluded		Note		Excluded
2.29	Allowance for Cricket Pitch	3	No	15,000	45,000	2	No	15,000	30,000	2	No	15,000	30,000		Note		Excluded		Note		Excluded
2.30	Allowance for Cricket Pitch and Net	4	No	20,000	80,000	4	No	20,000	80,000	4	No	20,000	80,000		Note		Excluded		Note		Excluded
2.31	Allowance for Bowls - Grass / Lawn	5,700	m2	110	627,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.32	Allowance for BMX Track	1	Sum	900,000	900,000		Note		Excluded		Note		Excluded	1	Sum	900,000	900,000		Note		Excluded
2.33	Allowance for Pump Track	1	Sum	250,000	250,000		Note		Excluded		Note		Excluded	1	Sum	250,000	250,000		Note		Excluded
2.34	Allowance for BMW Shade Structures	1	Sum	200,000	200,000		Note		Excluded		Note		Excluded	1	Sum	200,000	200,000		Note		Excluded
2.35	Allowance for fencing to BMX	1	Sum	100,000	100,000		Note		Excluded		Note		Excluded	1	Sum	100,000	100,000		Note		Excluded
2.36	Allowance for Mountain Bike Trail	1	Sum	250,000	250,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.37	Allowance for works to shrub areas	1	Sum	750,000	750,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.38	Allowance for works to stream	1	Sum	250,000	250,000	1	Sum	250,000	250,000	1	Sum	250,000	250,000		Note		Excluded		Note		Excluded
2.39	Allowance for formation of water treatment pond	40,000	m2	35	1,400,000	20,000	m2	35	700,000		Note		Excluded		Note		Excluded		Note		Excluded
2.40	E.O Allowance for feature lagoon to above	1	Sum	750,000	750,000				Excluded				Excluded		Note		Excluded		Note		Excluded
2.41	Allowance for hard landscaping / pavements generally (20% balance of site area)	33,189	m2	60	1,991,364	10,000	m2	60	600,000	1	P.Sum	250,000	250,000		Note		Excluded		Note		Excluded
2.42	Allowance for soft landscaping / shrubs generally (40% balance of site area)	66,379	m2	25	1,659,470	5,000	m2	25	125,000	1	P.Sum	25,000	25,000		Note		Excluded		Note		Excluded
2.43	Allowance for works to balance of site		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.44	Allowance for playground / equipment	1	Sum	500,000	500,000	1	Sum	250,000	250,000	1	Sum	250,000	250,000		Note		Excluded		Note		Excluded
2.45	Allowance for shelters etc	1	Sum	300,000	300,000	1	Sum	125,000	125,000	1	Sum	75,000	75,000	1	Sum	50,000	50,000		Note		Excluded
2.46	Allowance for fitments; bins, seats, furniture	1	Sum	500,000	500,000	1	Sum	125,000	125,000	1	Sum	50,000	50,000	1	Sum	25,000	25,000		Note		Excluded
2.47	Allowance for stepped seating	1	Sum	100,000	100,000				Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.48	Allowance for signage	1	Sum	350,000	350,000	1	Sum	250,000	250,000	1	Sum	105,000	105,000	1	Sum	10,000	10,000		Note		Excluded
2.49	Allowance for site fencing	4,000	m	150	600,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
2.50	Allowance for Main Contractors Preliminaries and Margin	8%	Sum	52,582,156	4,206,572	8%	Sum	13,653,125	1,092,250	8%	Sum	8,527,000	682,160	8%	Sum	3,293,000	263,440	8%	Sum	2,285,375	182,830
	External Works & Landscaping Sub Total				**56,788,728**				**14,745,375**				**9,209,160**				**3,556,440**				**2,468,205**
3.00	**Site Services**																				
3.01	Allowance for common service trench to each building	1,700	m	500	850,000	250	m	500	125,000	250	m	500	125,000	600	m	500	300,000	50	m	500	25,000
3.02	Allowance for services infrastructure to Recreation Centre	1	P.Sum	1,375,000	1,375,000	1	P.Sum	687,500	687,500		Note	-	Excluded	1	Note	-	Excluded	1	P.Sum	250,000	250,000
3.03	Allowance for services infrastructure to Hockey/Soccer/Rugby Pavillion	1	P.Sum	485,000	485,000		Note	-	Excluded		Note	-	Excluded		Note	-	Excluded		Note	-	Excluded
3.04	Allowance for services infrastructure to Baseball/Softball Pavillion	1	P.Sum	310,000	310,000		Note	-	Excluded		Note	-	Excluded		Note	-	Excluded		Note	-	Excluded
3.05	Allowance for services infrastructure to Soccer Change Rooms	1	P.Sum	310,000	310,000		Note	-	Excluded		Note	-	Excluded		Note	-	Excluded		Note	-	Excluded
3.06	Allowance for services infrastructure to AFL / Cricket Pavillion	1	P.Sum	460,000	460,000	1	P.Sum	460,000	460,000	1	P.Sum	460,000	460,000	1	Note	-	Excluded		Note	-	Excluded
3.07	Allowance for services infrastructure to Athletics Pavillion	1	P.Sum	460,000	460,000		Note	-	Excluded		Note	-	Excluded		Note	-	Excluded		Note	-	Excluded
3.08	Allowance for services infrastructure to BMX Pavillion	1	P.Sum	460,000	460,000		Note	-	Excluded		Note	-	Excluded	1	P.Sum	460,000	460,000		Note	-	Excluded
3.09	Allowance for lighting to car parks; 1 light per 400sqm	1	P.Sum	509,115	509,115	1	P.Sum	259,725	259,725	1	P.Sum	81,000	81,000	1	P.Sum	60,000	60,000	1	P.Sum	81,075	81,075
3.10	Allowance for lighting to roads; 1 light per 400sqm	1	P.Sum	772,680	772,680	1	P.Sum	171,000	171,000	1	P.Sum	171,000	171,000	1	P.Sum	90,000	90,000		Note	-	Excluded
3.11	Allowance for sports lighting to Tennis	1	P.Sum	500,000	500,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
3.12	Allowance for sports lighting to Netball	1	P.Sum	1,000,000	1,000,000	1	P.Sum	1,000,000	1,000,000		Note		Excluded	1	Note		Excluded	1	P.Sum	400,000	400,000
3.13	Allowance for sports lighting to Soccer	1	P.Sum	1,680,000	1,680,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
3.14	Allowance for sports lighting to Hockey	1	P.Sum	1,260,000	1,260,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
3.15	Allowance for sports lighting to Rugby	1	P.Sum	420,000	420,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
3.16	Allowance for sports lighting to Baseball / softball	1	P.Sum	400,000	400,000	1	P.Sum	400,000	400,000		Note		Excluded	1	Note		Excluded		Note		Excluded
3.17	Allowance for sports lighting to AFL	1	P.Sum	1,500,000	1,500,000	1	P.Sum	1,000,000	1,000,000	1	P.Sum	1,000,000	1,000,000	1	Note		Excluded		Note		Excluded
3.18	Allowance for sports lighting to Athletic Track	1	P.Sum	500,000	500,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
3.19	Allowance for sports lighting to Lawn Bowls	1	P.Sum	400,000	400,000		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
3.20	Allowance for sport lighting to BMX and Pump Track	1	P.Sum	500,000	500,000		Note		Excluded		Note		Excluded	1	P.Sum	500,000	500,000		Note		Excluded
3.21	Allowance for general CCTV coverage	1	P.Sum	500,000	500,000	1	P.Sum	250,000	250,000	1	P.Sum	200,000	200,000		Note		Excluded		Note		Excluded
3.22	Allowance for Main Contractors Preliminaries and Margin	8%	Sum	14,651,795	1,172,144	8%	Sum	4,353,225	348,258	8%	Sum	2,037,000	162,960	8%	Sum	1,410,000	112,800	8%	Sum	756,075	60,486
	External Services Sub Total				**15,823,939**				**4,701,483**				**2,199,960**				**1,522,800**				**916,561**
	TOTAL CONSTRUCTION COSTS				**130,014,667**	**2,800**	**-**		**26,546,358**	**1,800**	**-**		**15,905,120**	**1,202**	**-**		**6,711,240**	**400**	**-**		**4,464,766**
4.01	Design Contingencies	5.00%			6,500,733	5.00%			1,347,343	5.00%			795,456	5.00%			335,562	5.00%			224,238
4.02	Construction Contingencies	7.50%			10,238,655	7.50%			2,122,065	7.50%			1,252,843	7.50%			528,510	7.50%			353,175
4.03	Headworks and Statutory Charges	1	P.Sum	2,500,000	2,500,000	1	P.Sum	1,000,000	1,000,000	1	P.Sum	500,000	500,000	1	Note		Excluded	1	Note		Excluded
4.04	Building Act Compliance		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.05	Percent for Public Art	1.00%			1,467,547	1.00%			304,163	1.00%			179,574	1.00%			75,753	1.00%			50,622
4.06	Land Costs (if applicable)		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.07	Other Costs - FFE		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.08	Other Costs - ICT		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
4.09	Professional Fees	7.50%			11,116,620	7.50%			2,304,032	7.50%			1,360,278	7.50%			573,830	7.50%			383,460
	On-Costs - Sub Total				**31,823,549**			**1,000,000**	**7,077,603**			**500,000**	**4,088,148**				**1,513,655**				**1,011,496**
	GROSS PROJECT COST				**161,838,215**	**2,891**	**-**	**1,000,000**	**34,024,461**	**1,501**	**-**	**500,000**	**19,997,268**	**1,203**	**-**	**-**	**8,224,895**	**401**	**-**	**-**	**5,496,262**
5.00	**Escalation**																				
5.01	Base date of pricing - September 2020	177.00				177.00				177.00				177.00				177.00			
5.02	Escalation to Start of Construction				Excluded				Excluded				Excluded				Excluded				Excluded
	Escalation - Sub Total				**-**				**-**				**-**				**-**				**-**
	ESCALATED NET PROJECT COST				**161,838,215**				**34,024,461**				**19,997,268**				**8,224,895**				**5,496,262**
6.00	**Local Authority Managed Costs**																				
6.01	Special Client Agency Provisions		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
6.02	Project Director / Professional Fees		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
6.03	Administration Fees		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
6.04	Commissioning, Relocation Costs and Disbursements		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
6.05	Land Acquisition & Native Title Compensation (if applicable)		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
6.06	Loose Furniture and Equipment		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
6.07	Computing Equipment and Services		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
6.08	Site Master Planning		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
6.09	Other Provisions		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded		Note		Excluded
	Total Local Authority Costs				**-**				**-**				**-**				**-**				**-**
	ESTIMATED GROSS PROJECT (COMMITMENT) TOTAL COST				**161,838,215**				**34,024,461**				**19,997,268**				**8,224,895**				**5,496,262**

Notes:
Excludes GST
Excludes Environmental Offset / Management Plans etc
Specific exclusions as above
Excludes abnormal ground conditions / contamination etc
Excludes major services diversions
Excludes major utility upgrades / contributions & headworks
Excludes works to any conservation areas
Excludes fences to grassed pitches
Excludes FF&E
Excludes client costs, legal costs, site costs, agents fees, finance etc
Excludes land purchase costs
Excludes Client Representative / Project Management Fee / Professional Fees
Excludes escalation - costs are current day
Costs assume Competitive Tender process with local builders using basic selection of materials

Notes :
OPC based on Masterplan Scenarios dated 4 February 2022
All scope, quantities and rates are provisional therefore subject to adjustment
Earthworks quantities based on PF email dated 23 December 2020 and for Scenarios dated 4 February 2021
Earthworks exclude BMX Area

STAGE 1A

Year 1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total estimate per annum
INCOME													
Sporting Clubs													
Senior AFL			$ 4,800.00										$ 4,800.00
Senior Cricket									$ 7,200.00				$ 7,200.00
Senior Baseball/Softball									$ 4,800.00				$ 4,800.00
Senior Soccer			$ 4,800.00										$ 4,800.00
Senior Rugby			$ 2,400.00										$ 2,400.00
Junior Sports Player ($5)			$ 3,937.50						$ 1,312.50				$ 5,250.00
Junior Sports Player ($6)			$ 1,575.00						$ 525.00				$ 2,100.00
Oval - Casual Use													
Community Use	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 7,488.00
Commercial Use				$ 500.00				$ 500.00				$ 500.00	$ 1,500.00
Lighting													
Lighting - 50 lux	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 240.00	$ 2,880.00
Lighting - 100 lux	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 21.67	$ 260.00
Lighting - 200 lux	$ -												
Lighting - 300 lux	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 60.00	$ 720.00
Pavilion													
Room Hire Occupancy - 8am - 5pm (Mon - Sun)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	25%	30%	
Community - small meeting room	$ 171.50	$ 171.50	$ 171.50	$ 171.50	$ 171.50	$ 171.50	$ 171.50	$ 171.50	$ 171.50	$ 171.50	$ 214.38	$ 257.25	$ 2,186.63
Community - large social room	$ 215.60	$ 215.60	$ 215.60	$ 215.60	$ 215.60	$ 215.60	$ 215.60	$ 215.60	$ 215.60	$ 215.60	$ 269.50	$ 323.40	$ 2,748.90
Room Hire Occupancy - 6pm - 10pm	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	15%	30%	
Commercial - small meeting room	$ 10.56	$ 10.56	$ 10.56	$ 10.56	$ 10.56	$ 10.56	$ 10.56	$ 10.56	$ 10.56	$ 10.56	$ 31.68	$ 63.36	$ 200.64
Community - large social room	$ 16.80	$ 16.80	$ 16.80	$ 16.80	$ 16.80	$ 16.80	$ 16.80	$ 16.80	$ 16.80	$ 16.80	$ 50.40	$ 100.80	$ 319.20
													$ -
Total Income	*$ 1,360.33*	*$ 1,360.33*	*$ 18,872.83*	*$ 1,860.33*	*$ 1,360.33*	*$ 1,360.33*	*$ 1,360.33*	*$ 1,860.33*	*$ 15,197.83*	*$ 1,360.33*	*$ 1,511.87*	*$ 2,190.78*	*$ 49,655.92*
EXPENDITURE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Operational Maintenance - Oval Playing Surfaces	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 14,666.67	$ 176,000.00
Operational Maintenance - Oval Surrounds	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 5,541.67	$ 66,500.00
Operational Maintenance - Pavilions	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 4,475.00	$ 53,700.00
Outgoings - Pavilions	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 72,000.00
Operational Maintenance - Roads and Car parks	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 812.50	$ 9,750.00
Replacement Costs - Buildings (1%)	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 3,750.00	$ 45,000.00
Total Expenditure	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	*$ 35,245.83*	$ 422,950.00
Total Costs (minus income)	**-$ 33,885.51**	**-$ 33,885.51**	**-$ 16,373.01**	**-$ 33,385.51**	**-$ 33,885.51**	**-$ 33,885.51**	**-$ 33,885.51**	**-$ 33,385.51**	**-$ 20,048.01**	**-$ 33,885.51**	**-$ 33,733.96**	**-$ 33,055.06**	**-$ 373,294.09**

STAGE 1B

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total estimate per annum
Year 1	**INCOME**													
	Sporting Clubs													
	BMX					$ 110.00								$ 110.00
	Community Use													$ -
	Lighting													
	Lighting - 300 lux													$ -
	Pavilion													
	Room Hire Occupancy - 8am - 5pm (Mon - Sun)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	25%	25%	
	Room Hire Functions - Community Rate	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Room Hire Functions - Commercial Rate	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Room Hire Occupancy - 6pm - 10pm	40%	15%	15%	20%	20%	20%	20%	20%	40%	40%	60%	60%	
	Room Hire Functions - Community Rate	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Room Hire Functions - Commercial Rate													$ -
														$ -
	Total Income	*$ 0.20*	*$ 0.20*	*$ 0.20*	*$ 0.20*	*$ 110.20*	*$ 0.20*	*$ 0.20*	*$ 0.20*	*$ 0.20*	*$ 0.20*	*$ 0.25*	*$ 0.25*	*$ 112.50*
	EXPENDITURE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
	Operational Maintenance - BMX Track	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 4,500.00	$ 54,000.00
	Operational Maintenance - Pavilions	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 759.80	$ 9,117.60
	Replacement Costs - Buildings (1%)	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 1,360.00	$ 16,320.00
	Total Expenditure	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	*$ 6,619.80*	$ 79,437.60
	Total Costs (minus income)	**-$ 6,619.60**	**-$ 6,619.60**	**-$ 6,619.60**	**-$ 6,619.60**	**-$ 6,509.60**	**-$ 6,619.60**	**-$ 6,619.60**	**-$ 6,619.60**	**-$ 6,619.60**	**-$ 6,619.60**	**-$ 6,619.55**	**-$ 6,619.55**	**-$ 79,325.10**

STAGE 1C

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total estimate per annum
Year 1	**INCOME**													
	Sporting Clubs													
	Senior Netball			$ 1,600.00										$ 1,600.00
	Junior Players			$ 220.00										$ 220.00
	Courts - Casual Use													
	Community Use	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 624.00	$ 7,488.00
	Commercial Use				$ 500.00				$ 500.00				$ 500.00	$ 1,500.00
	Lighting													
	Courts Lighting	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 120.00	$ 1,440.00
	Pavilion													
	Room Hire Occupancy (Mon - Sun)	18%	18%	18%	35%	35%	35%	35%	35%	18%	18%	18%	18%	
	Room Hire Functions - Community Rate	$ 166.95	$ 166.95	$ 166.95	$ 324.63	$ 324.63	$ 324.63	$ 324.63	$ 324.63	$ 166.95	$ 166.95	$ 166.95	$ 166.95	$ 2,791.78
														$ -
	Total Income	*$ 910.95*	*$ 910.95*	*$ 2,730.95*	*$ 1,568.63*	*$ 1,068.63*	*$ 1,068.63*	*$ 1,068.63*	*$ 1,568.63*	*$ 910.95*	*$ 910.95*	*$ 910.95*	*$ 1,410.95*	*$ 15,039.78*
	EXPENDITURE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
	Operational Maintenance - Netball Courts	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 30,000.00
	Operational Maintenance - Pavilions	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$ 12,120.00	$145,440.00
	Outgoings - Pavilions	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 72,000.00
	Replacement Costs - Buildings (1%)	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 1,770.83	$ 21,250.00
	Total Expenditure	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	*$ 22,390.83*	$268,690.00
	Total Costs (minus income)	**-$ 21,479.88**	**-$ 21,479.88**	**-$ 19,659.88**	**-$ 20,822.21**	**-$ 21,322.21**	**-$ 21,322.21**	**-$ 21,322.21**	**-$ 20,822.21**	**-$ 21,479.88**	**-$ 21,479.88**	**-$ 21,479.88**	**-$ 20,979.88**	**-$253,650.23**

URBIS

APPENDIX C
ECONOMIC EVALUATION

URBIS

KEIRNAN PARK
ECONOMIC EVALUATION

Prepared for the Shire of Serpentine Jarrahdale
February 2021

CONTENTS

EXECUTIVE SUMMARY

Keirnan Park is expected to provide significant and tangible benefits to the Shire of Serpentine Jarrahdale region during both the construction and operation phases.

This study found that one of the major quantifiable economic benefits of the project is the expected increase in physical activity, with the location of the facility in the fast-growing catchment expected to enable residents to exercise and undertake social recreation activities more often. This will have a range of health cost and productivity implications and help address identified child development and adult health challenges such as the high level of obesity in the region.

The project will also encourage residents from adjacent local government areas to frequent the Shire of Serpentine Jarrahdale more often and it will reduce the need for residents to use sporting facilities located outside of the Shire. This will support expenditure at local businesses and employment opportunities.

Of relevance to this study, stages 1A and 1B are estimated to have a cost of $28.2 million (excluding GST and escalation). On average, 89 FTE direct & indirect jobs are likely to be supported during construction of the project with the potential for many jobs to be supported locally. This employment will include training and apprenticeship opportunities.

The facility itself will also support local employment (directly and indirectly). This study found that stages 1A and 1B could support the equivalent of 6.9 full-time equivalent ongoing jobs.

Furthermore, the urban amenity improvements associated with the proposed project are expected to lead to an increase in the desirability of living, visiting and working in the area.

The cost benefit analysis results (which excluded benefits unable to be robustly monetised) demonstrated that the project will provide a positive economic return to the region once operational. At the adopted discount rate of 4%, the net benefit is estimated to be approximately $21.1 million.

It is important to note that this assessment is considered conservative in nature given the Shire of Serpentine Jarrahdale and sporting clubs are expected to drive increased economic outcomes through the attraction of major events. The BMX facility, in particular, is a state-level facility which can accommodate major events and the Byford BMX club has the capability to attract and run state and national level competitions and are able to resource the events through their own volunteer base. Furthermore, the facility is expected to host WAFL training sessions as part of club outreach programmes.

INTRODUCTION

STUDY BACKGROUND

In recognition of the significant population growth in the Shire of Serpentine Jarrahdale, the Shire is advancing planning for the Keirnan Park Recreation Facility as part of their overall plan for a comprehensive suite of sport, recreation and community facilities for Shire residents as the population grows over the next 30 years.

The project aims to achieve the following key outcomes:

- Address fast-growing sporting and recreation needs that are being driven by population growth;
- Provide national-level sporting facilities that will attract people to visit the Shire;
- Improve the health of the current and future population to support greater economic activity and physical and mental wellbeing; and
- Support the economic development of the area through catalyst investment in the Keirnan Park Recreation Precinct.

The Keirnan Park Recreation Precinct is a multi-stage development. A master planning exercise identified three stage one options. This report affords focus to the Stage 1A and 1B options (referred to as the “project”) which includes the construction of:

- Entry road and car parking;
- Two senior sized ovals for AFL and cricket (and flexibility for a range of junior sports (e.g. soccer, rugby, diamond sports), including lighting and cricket training nets;
- A 1,500 sq.m pavilion; and
- A state-level BMX facility with pavilion and grandstand.

STUDY PURPOSE AND APPROACH

Urbis was engaged to undertake an assessment of the likely positive and negative economic and social impacts of the project. The impacts were measured using three approaches:

- ***Construction phase impacts*** – estimates of the economic effect of the construction activity;
- ***Ongoing employment and economic impacts*** – estimates of the employment and economic activity supported by the operation of the recreation facilities; and
- ***Cost benefit analysis*** – estimates of the net economic and social benefits of the investment in the project.

All effects were assessed in terms of the incremental impact of implementing the project compared to not implementing the project (i.e. status quo).

This cost benefit analysis approach complies with the WA Department of Treasury and Finance, Project Evaluation Guidelines 2005; the SAMF Options Analysis guidelines; the IA Assessment Framework (2018); and the CBA guidelines for the Building Better Regions Fund (BBRF).

01

LOCAL CONTEXT

POPULATION TRENDS

Population Trend Findings

The Shire of Serpentine Jarrahdale is the fastest growing local council area in Western Australia. The population of the Shire increased by an average of 7.3% over the 2010-20 period.

With significant levels of undeveloped Urban zoned land in Byford and Mundijong / Whitby and key infrastructure investment in the extension of the Armadale line and Tonkin Highway, the Shire's population is expected to increase from an estimated 34,653 in 2020 to 55,627 in 2030.

Over the longer term, the Shire of Serpentine Jarrahdale estimates that its population will increase to approximately 130,000 by 2050.

The significant historical, current and future growth will drive increased need for local and accessible recreation facilities.

Population Forecasts, 2020-35

	Population (no.)[1]			
	2020	2025	2030	2035
Serpentine-Jarrahdale	34,653	44,877	55,627	66,225
South Metropolitan Region[2]	569,462	650,178	733,533	811,824
		Annual Population Growth (%)		
		20-25	25-30	30-35
Serpentine-Jarrahdale		5.3%	4.4%	3.5%
South Metropolitan Region[2]		2.7%	2.4%	2.0%
Perth		*1.3%*	*1.4%*	*1.5%*
		Annual Population Growth (no.)		
		20-25	25-30	30-35
Serpentine-Jarrahdale		2,045	2,150	2,120
South Metropolitan Region[2]		16,143	16,671	15,658

1. As at June.
2. South Metropolitan Region includes the municipalities of Armadale, Serpentine-Jarrahdale, Gosnells, Cockburn, Kwinana and Rockingham.
Source: ABS; Forecast.id; Urbis

DEMOGRAPHIC PROFILE

Key Findings

The age profile illustrates that the Shire of Serpentine Jarrahdale has a population with a high proportion of younger people (e.g. the average age is almost four years less than the Perth average) with a notably high proportion of residents aged 0-14 years.

Based on current age-based sport participation rates relevant to regional sport space, the demographics suggest that the Shire of Serpentine Jarrahdale has a relatively high level of need for sporting facilities.

Demographic Profile, 2016

	Serpentine-Jarrahdale	South Metropolitan Region	*Greater Perth*
Household Metrics:			
Average Household Income	$108,353	$94,261	*$100,524*
Var'n from Perth Avg.	*+8%*	*-6%*	
Average Household Size	2.9	2.7	*2.6*
Per Capita Income:			
Per Cap. Income	$37,648	$36,408	*$40,693*
Var'n from Perth Avg.	*-7%*	*-11%*	
Age Distribution:			
Aged 0-14	24%	22%	*19%*
Aged 15-24	13%	13%	*13%*
Aged 25-39	24%	24%	*23%*
Aged 40-59	26%	26%	*26%*
Aged 60+	13%	16%	*19%*
Average Age	32.8	34.6	*36.6*
Labour Force:			
Labour Force Participation	72%	69%	*68%*
% Unemployed	7%	9%	*8%*
% Managers and Professionals	23%	26%	*34%*
% Other White Collar	34%	35%	*34%*
% Blue Collar Occupations	43%	39%	*32%*
Birthplace:			
Australian Born	73%	62%	*61%*
Overseas Born	27%	38%	*39%*
- Asia	4%	11%	*10%*
- Europe	11%	12%	*12%*
- Other	12%	15%	*16%*

Source : ABS Census (2016); Urbis

SPORTING NEEDS

Key Findings

A sporting facility needs assessment was undertaken by ABV Leisure Consultancy Services as part of the development of the master plan. This assessment involved consultation with sporting clubs, a review of existing and planned facilities and analysis of participation rates.

This study identified current and short term needs for football (AFL), netball, diamond sports and cricket and longer term needs for football (soccer), rugby, athletics and tennis.

Further, a key finding was that there were more than 750 residents playing sport outside of the Shire of Serpentine Jarrahdale due to the lack of locally available facilities.

Key Sporting Facility Assessment Findings

SPORT	FINDINGS
Football (AFL)	AFL is currently a high participation sport and growth sport, with two existing clubs. This is currently limited by the capacity of Mundijong Oval (especially for female participation). Given these constraints, there are estimated to be 386 players playing outside of the Shire.
Netball	There are four courts currently in poor condition in Mundijong for the Serpentine Jarrahdale Netball Association (SJNA). There are an estimated 445 registered netballers living within the Shire and a 171 residents playing for clubs located outside of the Shire.
Cricket	Cricket fields are required to accommodate high Shire resident participation (currently 179 participants) and increasing female participation. An additional 1-2 senior teams and 7 junior teams are expected in the next 5 years.
Football (Soccer)	Soccer has up to 200 players playing outside of Shire. There are currently no facilities to accommodate this sport in the Shire.
Athletics	Athletics facilities will allow growth of the sport in the Shire, particularly program development for adults. Current facilities have no marked track and fixture times are limited and clashing with other sports.
Hockey	There is no Hockey club in the Shire of Serpentine Jarrahdale, with no facility south of Armadale. It is recognised a large Indian population resides within the region which supports need for this facility.

Source: ABV Leisure Consultancy Services

SPORTING NEEDS

Key Findings

Separate to the sporting facility needs assessment, a feasibility study was undertaken in 2018 to determine the merit of re-locating the Byford BMX track.

This study recommended that Keirnan Park is best placed to accommodate a state-level BMX facility given this would enable the construction of a required pavilion at Briggs Park.

BMX Need Assessment Findings

FINDING	DESCRIPTION
High Usage	The Shire of Serpentine Jarrahdale has one BMX facility currently located at Briggs Park Recreation Precinct. The current club using the facility, Byford BMX Club, has grown steadily to a membership of 245 as of 2018 which makes it one of the largest in the metropolitan area.
Large Catchment	The catchment of the Byford BMX Club is wide, extending into Armadale and potentially having the capability to attract members from Gosnells and Canning where existing provision is limited to non-club-based facilities on reserves. It is understood that 47% of current membership of the club reside within Armadale and the remaining portion from Byford and surrounds.
Capacity of Current Facility	The club's growth and requirements exceeds the capacity at Briggs Park. Whilst the clubs co-exist reasonably at Briggs Road, there are issues created when there are events / competitions. Invariably this centres around the lack of available car parking space and the need to utilise the ovals as overspill car parking areas. Unfortunately, this is not a long-term solution given the investment in enhancing the oval provision to increase playing capacity at Briggs Park.
Ability to Attract Events	The Byford BMX club has the capability to attract and run state and national level competitions and are able to resource the events through their own volunteer base.

Source: Feasibility for the Relocation of the Byford BMX Track (Dave Lanfear Consulting)

RESIDENT HEALTH FACTORS

Key Findings

The Shire of Serpentine Jarrahdale was found to have a range of health risks which could be partly alleviated through the expansion of recreation facilities. The key health risks include:

- ***High overweight and obesity and low adult physical activity levels*** which increases the risk of premature death and chronic disease;
- ***High alcohol consumption and smoking*** and which are leading causes of preventable diseases and death in Australia;
- ***High chronic disease*** which are the prominent cause of death for people aged 45 and over in Australia (and low utilisation of GPs to manage chronic disease); and
- ***High mental health prevalence*** which can severely impact all aspects of a person's life, including their physical health, ability to work, study and interactions with family and friends.

Health Risk Indicators, Shire of Serpentine Jarrahdale

HEALTH RISK INDICATOR	ANALYSIS FINDINGS
Overweight and obesity, adult physical activity levels	The proportion of obese adults in the Shire is only slightly higher than the WA benchmark, however the proportion of overweight adults in the Shire is 5% higher at 42.2%. Men were much more likely than women to be overweight. High levels of children aged 2-17 in the Shire are overweight (17.2%), and obese (6.1%). 42.1% of Shire residents did not exercise at levels sufficient to provide health benefits, slightly higher than the WA estimate.
Alcohol consumption and smoking	14% of Shire residents smoke compared to the WA benchmark of 12%. Alcohol consumption in the Shire is significantly higher than benchmark areas, and at levels likely to cause short and long-term harm.
Chronic disease	The prevalence of heart disease, cancer, stroke, respiratory problems, osteoporosis and diabetes in the Peel Region is significantly higher than the WA benchmark. Within the Shire there are a high number of deaths from cancer which may be avoidable, including skin cancer. Screening rates for some cancers in the Shire are relatively low compared to WA. Male residents are of particularly high risk of a number of cancers. Utilisation of GP services to manage chronic disease in the Shire is low.
Mental health	The proportion of Shire residents experiencing mental health problems, anxiety, depression, stress-related problems and high / very high psychological distress is higher than the WA benchmark, and for the majority of categories, higher than the Peel Region benchmark. Between 2017/18 and 2019/20 4% of all emergency department presentations by Shire residents were for mental health conditions, with key age groups being young adults and people aged over 65. The proportion of presentations by indigenous Shire residents were even higher, with an average of 9%. Youth suicide for Shire residents is much higher than the Perth metropolitan and WA figures, with young men at highest risk.

Sources: Urbis, Serpentine-Jarrahdale LHA Health Profile, Australia's Health 2020 in brief, WA Health and Wellbeing Surveillance System, WA Primary Health Alliance.

02

LITERATURE REVIEW

THE VALUE OF SPORT

Parklands and pathways, leisure and aquatic centres, sportsgrounds and playing fields, clubrooms and community facilities play a substantial role in local communities across the globe. The importance of these facilities in community life and the positive outcomes of participation in physical activity, social programs and activities have been well-documented.

In order to understand the value of sport and recreation, the WA Department of Sport and Recreation (now known as the Department of Local Government, Sport and Cultural Industries) summarised literature across core areas of interest. The key findings are summarised.

THE SOCIAL VALUE OF SPORT

The literature reviews found that international research is largely unanimous in its conclusion that increasing community participation in organised sport and recreation contributes to what is known as 'social capital'. According to research, sports clubs and community organisations that use community facilities are important conduits for developing such capital and are good barometers of community strength. They provide the opportunity for social interaction and more cohesive communities – for participants, volunteers and supporters.

For many, forming friendships and a sense of belonging are powerful reasons why they become involved and remain active in sport, with access to social support consistently emerging in research as a factor influencing participation in physical activity. Furthermore, a 2002 study in Western Australia showed 'more than half of the respondents participate in physical activity with another person, providing further evidence that social support is an important factor in decisions about being physically active.'

Sport and recreation has additionally been found to be a key medium for creating friendships and engaging with marginalised groups. As a result of a program in Perth, new bonds have been formed between sports organisations and various immigrant groups, resulting in ethnic youth being exposed to sport and recreational activities they may not otherwise have considered.

Moreover, this social value often results in improved community safety. In particular, sport and recreation can help to divert young people from crime and anti-social behaviour.

THE BENEFITS OF PARTICIPATION

Participation in sport has a number of direct and secondary impacts on physical and mental health, education outcomes and participation and employment productivity.

In particular, research has demonstrated that sport and physical recreation plays a key role in improving the physical and psychological wellbeing of individuals (with physical inactivity found to cause 8,000 deaths in Australia every year). Participation in sport can contribute to higher levels of self-esteem, motivation and self-worth. It can contribute to the prevention of obesity, relieve symptoms of arthritis and positively influence the immune system. It helps people improve and maintain cognitive abilities into older age, and may prevent the development of dementia and Alzheimer's disease.

Studies have additionally identified a strong positive relationship between physical activity and cognitive functioning and academic ability. This research demonstrates that:

- There may be some short-term benefits of physical activity on concentration;
- There is a positive relationship between physical activity and cognitive functioning; and
- Acute bouts of physical activity exert short-term benefits on cognitive functioning of youths' ability.

Research has found that children engaged in sport and recreation do better academically and are more likely to enjoy school. Sport and recreation also contributes to lifelong learning. For example volunteers such as sports administrators, coaches and officials, develop new skills through training and professional development courses; adding to each volunteer's body of knowledge.

THE VALUE OF SPORT (CONT.)

THE ECONOMIC VALUE OF SPORT AND PHYSICAL RECREATION

The economic value of physical activity is an area of much more recent research. Major impacts include:

- Increased visitation to events, functions and local activities which has flow-on impacts for local businesses;
- Direct employment in a range of roles from turf managers, sports administrators, trainers, coaches, officials and athletes, to educators and event managers;
- Increased productivity through reduced absenteeism and increased work enjoyment and performance;
- Increased property development due to improved amenity and increased desire to live in areas with ease of access to quality recreation facilities; and
- Reduced health, crime and welfare costs as a result of improved health, wellness and education outcomes of participants.

There is considerable research to suggest that sporting events stimulate local economies. Locally, more than 700,000 Western Australians attend sporting events which generate employment and infrastructure investment. Major events and competitions also attract interstate and overseas visitors, with, for instance, the Rugby World Cup in 2003 is estimated to have generated $41.8m for the Western Australian economy.

The Department of Sport and Recreation's research in 2004 showed Western Australian households spent more than $409 million on selected sports and physical recreation products, including sport and recreation vehicles, products, fees and services ($4.1 billion nationally). This level of spending directly supports employment within the sport and recreation sector – a sector which employed approximately 7,500 people in 2006 – and across the broader economy.

Sport and physical recreation has also been found to have a secondary impact on the economy through improvements to productivity and labour participation. Healthy, fit employees are more likely to be productive, with increased output due to attitude and motivation changes from positive leisure experiences improving their quality of life according to published research. Regular physical exercise has also been found to reduce absenteeism, with studies indicating that obese persons likely to be absent 14 days a year more than normal-weight employees.

Another significant secondary impact of exercise is a substantial reduction in health costs, with research demonstrating that if more Australians were physically active for at least 30 minutes a day the Australian healthcare system could save $1.5 billion a year. Research has shown that the lack of physical activity is second only to tobacco as the leading contributor to the overall burden of disease among Australians, contributing to around 13,000 deaths per annum or 1.5 deaths per hour. Engagement in physical activity is also associated with improved mental wellbeing and dementia prevention.

Moreover, investment in the facilities that enable sport and recreation can help to revitalise areas and increase the desire to live, visit and work in an area. It is generally acknowledged that properties near health, fitness and leisure facilities usually sell for more than those farther away from these facilities.

THE ENVIRONMENTAL VALUE OF SPORT

Developing specific areas for physical activity has been found to contribute to improved streetscapes, open spaces, flood control and the preservation of natural landscapes. This investment has also been found to encourage increased use of active transport modes that can significantly contribute to a reduction in air and noise pollution.

THE VALUE OF RECREATION INFRASTRUCTURE INVESTMENT

This study investigated a range of social, economic and environmental benefits delivered by investment in recreational infrastructure. The review found that the benefits of improved sport and recreation infrastructure can be significant, flowing through to residents' health and wellbeing, population attraction and retention, ongoing employment opportunities and government and household budget savings. Recreation facility improvements also have the capacity to unlock business opportunities and property development.

The following conclusions were consistent across reviewed studies (see appendix for references).

IMPROVED PHYSICAL HEALTH

Having access to local parks, recreation and sports facilities leads to higher levels of physical activity for both youth and adults, with closer proximity and higher density of exercise facilities significantly associated with increased frequency of exercise. Moreover, increasing the availability of physical activity-related equipment and facilities was found to lead to significant positive changes in overall fitness measures within local communities and decrease the risk of death by 20% to 30%.

IMPROVED EARLY CHILD DEVELOPMENT

Usage of sports facilities has strong effects on children's cognitive and non-cognitive development with evidence supporting that engagement in sport leads to better physical and emotional health outcomes for children.

IMPROVED SOCIAL INCLUSION

A lack of appropriate sport facilities in Western Australia has been found to be a key constraint to the attraction and retention of youth and young adults. Studies however have concluded that opportunities for community involvement, especially through sport, help to reverse feelings of isolation and create a stronger association with the community, encouraging youth and families to remain in a region. Other positive outcomes in studies include reduced social and ethnic tensions and more collective action and community involvement through sport, particularly volunteering.

REDUCED CRIME AND ANTI-SOCIAL BEHAVIOUR

Sport and recreation infrastructure research has found evidence of lower levels of recidivism, drunk driving, use of illegal drugs, crime and suspensions at school, property crime, shoplifting and juvenile crime (for facility users compared with non-users). Research has also found that usage of sport and physical recreation facilities leads to higher levels of trust in people.

IMPROVED EDUCATION AND WORK PARTICIPATION

Use of recreation facilities has been linked to improved participation in extra-curricular activities and increased energy levels and productivity. A widely cited study found that increased participation in physical activities reduces absenteeism by an average 2.1 days off per annum. Meanwhile, other studies demonstrate that our 'mental firepower' is directly linked to participation in exercise activities.

AMENITY IMPROVEMENTS

Infrastructure investments which cater for the social and community space needs of current and future residents increase the visual appeal of areas, as measured by increases in property values, faster sales times and enhanced marketability. This enables developments to occur earlier than may otherwise be the case due to improved development viabilities. This can also lead to higher property tax revenues for local governments.

ECONOMIC ACTIVITY

Recreational facilities have been found to have broader economic impacts on local economies, with visitors and locals spending more at local shops and businesses.

03

IMPACT EVALUATION

CONSTRUCTION PHASE IMPACTS

Impact Modelling Methodology

This study undertook an assessment of the potential economic activity supported by this project. The following impacts of the project were measured.

- ***Direct impacts*** are the initial round of economic output, employment and household income generated by an economic activity.
- ***Indirect impacts*** are the sum of production-induced (i.e. supply chain) effects and consumption-induced effects. Production-induced effects (Type I) are additional output, employment and household income resulting from re-spending by firms that receive payments from the sale of services to firms undertaking production.

The modelling assessed:

- ***Economic activity*** – the total dollar amount impact (or contribution to gross domestic product);
- ***Employment*** – the full time equivalent per annum employment generated by the project (referenced as FTE job years);
- ***Value added*** – the value added to materials and labour expended on the project; and
- ***Supply chain impacts*** – the value of further spending in the supply chain.

Construction Phase Impact Modelling Steps

TASK	DESCRIPTION
Estimate Direct Impacts	Line item costs were allocated to relevant industry classifications based on project experience.
Calculate Consumption and Supply Chain (Indirect) Impacts	This study used an Economic Impact Assessment (EIA) approach to estimate the impact of the project. At the core of EIAs are Input–Output (IO) tables. IO tables are part of the national accounts by the ABS and provide detailed information about the supply and use of products in the Australian economy, and the structure of and inter–relationships between Australian industries. IO tables are converted, through statistical analysis, into a series of economic multipliers. These multipliers represent the relationship between the direct expenditure associated with a project. The EIA assessed the additional effects from further rounds of spending in the supply chain, but has not included a consumption effect (Type II), which may result from consumer spending generated in the region.

Source: Urbis

CONSTRUCTION PHASE IMPACTS (CONT.)

Key Findings

The proposed masterplan is estimated to have a total construction cost of approximately $161.8 million (excluding GST and escalation). Of relevance to this study, stages 1A and 1B are estimated to have a cost of $28.2 million (excluding GST and escalation).

On average, 89 FTE direct & indirect jobs are likely to be supported during construction of the project with the potential for many jobs to be supported locally. This employment will include training and apprenticeship opportunities.

Based on the level of indigenous persons in the construction sector in the region, the construction phase could support 1 direct FTE and 1 indirect FTE indigenous jobs.

Total direct and indirect Gross Value-Added to the economy is estimated at $19.4 million over the construction period of the development.

Based on similar construction projects, approximately 100-150 persons are anticipated to be employed on site at various times. The number of personnel employed by contractors working off site supplying products for the project is expected to be approximately 50-80.

Construction Phase Impact Findings, Stages 1A and 1B

CATEGORY	DIRECT EFFECT	SUPPLY-CHAIN EFFECT	TOTAL EFFECT
Direct Economic Activity	$28,222,000	$22,386,000	$50,608,000
Employment (FTE Job Years)	40	49	89
Value Added	$10,329,000	$9,060,000	$19,389,000

Source: Urbis, REMPLAN
** Numbers rounded*

Construction Phase Impact Findings, Ultimate Masterplan

CATEGORY	DIRECT EFFECT	SUPPLY-CHAIN EFFECT	TOTAL EFFECT
Direct Economic Activity	$161,838,000	$137,883,000	$299,721,000
Employment (FTE Job Years)	228	297	525
Value Added	$55,598,000	$55,175,000	$110,773,000

Source: Urbis, REMPLAN
** Numbers rounded*

ONGOING EMPLOYMENT IMPACTS

Key Findings

As noted in the literature review, recreational facilities have broad employment impacts on local economies through employment of sport staff, maintenance staff and increased expenditure related to events.

This study found that stages 1A and 1B could support the equivalent of 6.9 full-time equivalent ongoing jobs.

This level of employment is however considered conservative. The attraction of events and organisations at Keirnan Park could greatly increase the level of supported employment.

Estimated Net Additional Ongoing Employment (FTEs),

ATTRIBUTE	STAGES 1A AND 1B	ULTIMATE MASTERPLAN
Estimated Paid Sport Club Staff*	2.2	16.6
Direct Maintenance Employment**	2.3	11.5
Indirect Maintenance Employment**	0.5	2.6
Direct Local Expenditure Employment***	1.6	4.7
Indirect Local Expenditure Employment***	0.3	0.8
Total Direct Employment	**6.1**	**32.8**
Total Indirect Employment	**0.8**	**3.5**

Source: Urbis, REMPLAN, ABS
** Paid sport staff estimated at equivalent to 0.32% of estimated competitive club members (ABS).*
*** Estimates are based on maintenance employment multipliers and indicative maintenance expenditure estimates (REMPLAN, Shire of Serpentine Jarrahdale) .*
**** Estimates are based on retail employment multipliers and indicative net additional local expenditure (REMPLAN).*

SOCIAL AND HEALTH BENEFITS

Key Findings

The presence of a high-quality regional-level facility will encourage residents to undertake more exercise and participate in additional social events than they would otherwise if the facility was not constructed

This is expected to support the following benefits:

- Avoided health costs;
- Stronger social capital; and
- Improved early childhood development outcomes.

Summary of Social and Health Benefits

IMPACT	ANALYSIS FINDINGS
Health and Wellbeing	Research has shown that access to local recreational facilities influences the frequency at which people engage in exercise and improves health indicators by between 52% and 58%[1]. Based on modelled additional recreation activity levels, the health impacts for stages 1A and 1B were estimated at an average of $386,000 per annum over the assessment period.
Social Capital	The benefits of sport and recreation facilities expand beyond the personal health and wellbeing benefits resulting from participation in physical exercise and associated social programs. Sport and recreation facilities are focal points for engagement and connection to society. They are positively associated with creating social capital as they encourage involvement in community activities and support local enterprise, values and identity. The proposed project is expected to provide a range of opportunities for community engagement and participation in social activities and therefore deliver positive outcomes that could contribute to improved social capital. Additionally the proposed project is expected to provide better social and community service for different age cohorts and a range of opportunities for further social networking, employment opportunities and sense of pride and ownership hence create stronger association for community members and residents.
Early Childhood Development	As noted in the literature review, research demonstrates that there is a positive role for sport and recreation participation in reducing emotional problems and cognitive and non-cognitive skills for children. The proposed project is therefore expected to help address a number of early childhood development challenges through improved access to a range of recreational and sport facilities that can be used to deliver children targeted programs and services. As a result the proposed project is expected to positively contribute to children health and development in the catchment area.

Source: Urbis

[1] Roemmich, J. et al. (2006) Association of Access to Parks and Recreational Facilities with the Physical Activity of Young Children, Preventative Medicine, Volume 43; Sallis, J. et al. (1990) Distance between Homes and Exercise facilities Related to Frequency of Exercise among San Diego Residents, Public Health Rep, Volume 105; & Linenger, J., Chesson, C. & Nice, D. (1991) Physical fitness gains following simple environmental change, Journal of Preventative Medicine, Volume 7, Issue 5

ECONOMIC BENEFITS

Key Findings

The literature review demonstrated that the economic value of physical activity can be profound.

Keirnan Park is expected to support the following economic benefits:

- Increased local expenditure;
- Improved economic participation and productivity; and
- Increased private sector property development.

Summary of Economic Benefits

IMPACT	ANALYSIS FINDINGS
Local Expenditure	Keirnan Park will be home to a range of high quality regional facilities that will encourage visitation from persons based outside the Shire of Serpentine Jarrahdale. This visitation will, as per literature, have broader economic impacts on local economies, with visitors spending more at local shops and businesses than they would otherwise[1]. Based on visitation expenditure surveys, stages 1a and 1b are expected to support increased expenditure of approximately $485,000 per annum in the Shire of Serpentine Jarrahdale's economy over the assessment period. This level of expenditure is expected to support 1.9 full-time equivalent positions (largely in the retail sector). Moreover, major events hosted at Keirnan Park will further support visitation expenditure.
Economic Participation / Productivity	Sport facilities have been found to have an impact on the economy through improvements to productivity and labour participation. In particular, healthy, fit employees are more likely to be productive, with increased output due to attitude and motivation changes from positive leisure experiences improving their quality of life[2]. Regular physical exercise has also been found to reduce absenteeism, with studies indicating that obese persons likely to be absent 14 days a year more than normal-weight employees[3]. Based on research that has demonstrated that a moderate increase in recreation reduces absenteeism by 2.1 days per annum, the value to the economy has been modelled at $514,500 per annum over the assessment period for stages 1A and 1B.
Property Development	The urban amenity improvements associated with the proposed project are expected to lead to an increase in the desirability of living, visiting and working in the area. Published studies have revealed that subsequent to amenity improvements through public facility investment, property values increase and this improves the viability of development proposals by increasing equity and financing capacity and sales times. The project is estimated to have an equivalent one-off amenity uplift of $8.3 million for stages 1A and 1B.

Source: Urbis

[1] Bergstrom J. et al. (1990) Economic Impacts of Recreational Spending on Rural Areas: A Case Study, Economic Development Quarterly, Volume 4, Issue 1

[2] Ibid.

[3] Jans, M., van den Heuvel, S., Hildebrandt, V., Bongers P. (2007) Overweight and obesity as predictors of absenteeism in the working population of The Netherlands, Journal of Occupational and Environmental Medicine, Volume 49, Issue 9, pp. 975 & Australian Sports Commission (1997) Active Australia - A National Participation Framework, Sport and Recreation Ministers' Council Australia

03

COST BENEFIT ANALYSIS

APPROACH

Approach Summary

A Cost Benefit Analysis (CBA) is the most commonly used and most comprehensive of the economic evaluation techniques. It compares the monetised benefits and costs of a project to determine the desirability of a project.

This study uses a net benefit approach. This only analyses the incremental, or additional, benefits and costs that can be estimated with a degree of accuracy. This approach is considered to be the most appropriate to assess the net economic benefits that accrue from the project as it enables direct comparisons with alternative proposals.

The steps in CBA include:

- Identify the quantifiable benefits that are able to be monetised;
- Calculate the value (in monetary terms) of the quantified incremental benefits and costs in net present value (NPV) terms using the discount rates;
- Calculate the 40-year total net present value – the total present value of all net benefits minus the present value of economic costs to determine whether net benefits exceed (or undershoot) costs related with the project; and
- Sensitivity analysis based on alternative economic impact assumptions and discount rates.

A CBA was only undertaken for stages 1A and 1B given the uncertainty as to the timing of the delivery of future components of the master plan.

Assessment Assumptions

ASSUMPTIONS	DESCRIPTION
Discount Rate	Discounting is the reverse of compounding (adding) interest. It reduces the monetary value of future costs and benefits back to a common time dimension – the base date (i.e. 2021). Discounting satisfies the view that people prefer immediate benefits over future benefits (social time preference) and it also enables the opportunity cost to be reflected. A real discount rate of 4% was adopted for this assessment. A sensitivity test involved utilisation of 7% and 10% discount rates.
Timeframe	The benefits were identified on an annual basis over a set period and calculated in net present value terms at the defined discount rate. For this study, a 40-year timeframe was assessed as this represents the notional life span of the improvements before significant future investment is required.
Benefit Escalation	This assessment assumed a 3% uplift in economic and social impacts which is conservative in nature given the population growth in the region.

Source: Urbis

COST BENEFIT ANALYSIS RESULTS

Key Findings

The CBA results reveal that the project is expected to provides significant ongoing benefits. At the adopted discount rate of 4%, the net benefit is estimated to be approximately $21.1 million.

This analysis excludes benefits that could not be reliably monetised (e.g. major events visitor expenditure) or were not considered to be direct effects from the project. Indirect costs and benefits would include those costs and benefits obtained through multiplier effects (e.g. those indirect impacts associated with visitor expenditure).

This cost benefit analysis included the following inputs (as noted in the previous section):

- Capital costs;
- Avoided health costs
- Improved economic participation and productivity;
- Increased local expenditure; and
- Improved public amenity.

Cost Benefit Assessment, Stages 1A and 1B

IMPACT CATEGORY	4% (ADOPTED DISCOUNT RATE)	7%	10%
Costs (NPV)	$26.6m	$25.5m	$24.5m
Benefits (NPV)	$47.7m	$31.0m	$22.5m
Net Impact (NPV)	$21.1m	$5.5m	-$2.0m
Benefit Cost Ratio	**1.8**	**1.2**	**0.9**

Source: Urbis

SENSITIVITY ANALYSIS

Sensitivity Analysis Findings

As the analysis excluded assumptions surrounding the attraction of major events, this study estimated what the cost benefit analysis findings could be in different scenarios. The scenarios included:

- Five major events per annum (circa 500 visitors for each); and
- Ten major events per annum (circa 500 visitors for each).

The sensitivity analysis has assumed a discount rate of 4% for all scenarios.

Sensitivity Analysis (4% Discount Rate), Stages 1A and 1B

IMPACT CATEGORY	BASE CASE	FIVE MAJOR EVENTS	TEN MAJOR EVENTS
Costs (NPV)	$26.6m	$26.6m	$26.6m
Benefits (NPV)	$47.7m	$52.0m	$56.4m
Net Impact (NPV)	$21.1m	$25.4m	$29.8m
Benefit Cost Ratio	**1.8**	**2.0**	**2.1**

Source: Urbis

APPENDIX

GLOSSARY OF TERMS

Benefit Cost Ratios are indicators to determine whether the benefits of a project exceed the costs. A value greater than 1 implies there are net benefits.

Construction Cost is the estimated investment value for each development over the anticipated delivery period, measured in constant 2021 dollar (i.e. excluding inflation) excluding GST.

Direct Impacts are the initial round of economic output, employment and household income generated by an economic activity.

Discount Rates represent the view that people prefer immediate benefits over future benefits and additionally enable for opportunity costs to be reflected when making judgements about the value of a project.

Economic Output is a measure of the gross revenue of goods and services produced by commercial organisations and gross expenditure by government agencies.

Full-Time Equivalent (FTE) Job Years refers to the total number of full-time equivalent jobs that can be supported over a 12-month period.

Gross Value Added (GVA) is a measure of the value of goods and services produced in an area, industry or sector of an economy during a certain period of time. GVA is measured in constant 2020 dollar (i.e. excluding inflation) excluding GST.

Indirect Impacts are production-induced effects. Production-induced effects (Type I) are additional output, employment and household income resulting from re-spending by firms that receive payments from the sale of services to firms undertaking production. Consumption-induced effects (Type II) are additional output, employment and household income resulting from re-spending by households that receive income from employment in direct and indirect activities. These Type II effects were not assessed.

Induced Impacts are the expected outcomes of a project versus the business of usual approach whereby the project is not implemented.

Net Present Value is the sum of the present value of benefits and costs over a period of time.

Present Value reflects the current dollar value using a prescribed discount rate.

REMPLAN METHODOLOGY

Analysis presented here uses REMPLAN economic modelling to assess current and potential economic impacts. REMPLAN is an Input-Output model that captures inter-industry relationships within an economy. It can assess the area-specific direct and flow-on implications across industry sectors in terms of employment, wages and salaries, output and value-added, allowing for analysis of impacts at the State of Western Australia level.

Key points regarding the workings or terminology of the model are as follows:

- REMPLAN uses either the value of investment or employment generation as the primary input. For this analysis, the value of total upfront investment has been used as the key input to assess the benefits of the construction phase.
- Outputs from the model include employment generated through the project and economic Gross Value Added (GVA) at the State level
- Outputs from the model include employment generated through the project at both the local and the state level.
- Employment generated is calculated over the life of the construction phase; or in terms of the on-going operations, total on-going jobs generated.
- Both the direct and indirect employment are modelled:
  - *Direct* refers to the effect felt within the industry as a result of the investment. For example, the construction phase will directly result in the creation of construction jobs.
  - *Indirect* effects are those felt within industries that supply goods to the industries directly affected.
- It should be noted that the results presented in this report are estimates only based on the existing state of economic activity in the area. Due to the static nature of input-output modelling, they have the potential to overstate the actual effects. Nonetheless, the analysis still reflects the fact that employment growth will be positive for the State and the local area.
- Urbis consider that in the absence of the investment package it is unlikely that similar projects would be undertaken within the same period, and therefore the investments can be considered additional.

COST BENEFIT INPUT METHODOLOGIES

IMPACT CATEGORY	DESCRIPTION
Health Benefits	Health savings per hour of physical activity were applied ($3.02 per hour of physical activity re-based to 2021[$3.68]) in order to monetise the health cost savings (Australian Sports Commission). This was applied to the estimated 700 users of stage 1A and 1B (based on the assumed capacity of two AFL / cricket ovals and the BMX facility) and average additional exercise of 150 hours per annum.
Economic Participation and Productivity	In line with published literature, the study assumed that the facility would reduce absenteeism by 2.1 fewer days (Trubka, 2010). This is below other study findings that indicated that obese persons are likely to be absent 14 days a year more than normal-weight employees. This reduced absenteeism was applied to the estimated number of local users and the average cost of personal leave per day of $350 (Direct Health Solutions).
Local Expenditure	Estimated expenditure per visit by non-resident was based on Tourism Research Australia day trip visitor expenditure survey results for the Perth region. Only the expenditure for food and drinks and fuel was used (i.e. $56.00).
Amenity Improvement	Literature has supported positive amenity impacts of sport facility investment, with proximity to recreation facilities found to have a significant impact on land and property values. A conservative 1% uplift was applied to the Mundijong area (equivalent to 1,000 hectares).

Source: Urbis

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COVID-19 AND THE POTENTIAL IMPACT ON DATA INFORMATION

The data and information that informs and supports our opinions, estimates, surveys, forecasts, projections, conclusion, judgments, assumptions and recommendations contained in this report (Report Content) are predominantly generated over long periods, and is reflective of the circumstances applying in the past. Significant economic, health and other local and world events can, however, take a period of time for the market to absorb and to be reflected in such data and information. In many instances a change in market thinking and actual market conditions as at the date of this report may not be reflected in the data and information used to support the Report Content.

The recent international outbreak of the Novel Coronavirus (COIVID-19), which the World Health Organisation declared a global health emergency in January 2020 and pandemic on 11 March 2020, is causing a material impact on the Australian and world economies and increased uncertainty in both local and global market conditions.

The effects (both directly and indirectly) of the COVID-19 Outbreak on the Australian real estate market and business operations is currently unknown and it is difficult to predict the quantum of the impact it will have more broadly on the Australian economy and how long that impact will last. As at March 2020, the COVID-19 Outbreak is materially impacting global travel, trade and near-term economic growth expectations. Some business sectors, such as the retail, hotel and tourism sectors, are already reporting material impacts on trading performance now and potentially into the future. For example, Shopping Centre operators are reporting material reductions in foot traffic numbers, particularly in centres that ordinarily experience a high proportion of international visitors.

The Report Content and the data and information that informs and supports it is current as at the date of this report and (unless otherwise specifically stated in the Report) necessarily assumes that, as at the date of this report, the COVID-19 Outbreak has not materially impacted the Australian economy, the asset(s) and any associated business operations to which the report relates and the Report Content. However, it is not possible to ascertain with certainty at this time how the market and the Australian economy more broadly will respond to this unprecedented event. It is possible that the market conditions applying to the asset(s) and any associated business operations to which the report relates and the business sector to which they belong could be (or has been) materially impacted by the COVID-19 Outbreak within a short space of time and that it will have a lasting impact. Clearly, the COVID-19 Outbreak is an important risk factor you must carefully consider when relying on the report and the Report Content.

Any Report Content addressing the impact of the COVID-19 Outbreak on the asset(s) and any associated business operations to which the report relates or the Australian economy more broadly is (unless otherwise specifically stated in the Report) unsupported by specific and reliable data and information and must not be relied on.

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This report is dated February 2021 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (Urbis) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of the Shire of Serpentine Jarrahdale (Instructing Party) for the purpose of an Economic Evaluation (Purpose) and not for any other purpose or use. Urbis expressly disclaims any liability to the Instructing Party who relies or purports to rely on this report for any purpose other than the Purpose and to any party other than the Instructing Party who relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events including wars, civil unrest, economic disruption, financial market disruption, business cycles, industrial disputes, labour difficulties, political action and changes of government or law, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or made in relation to or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

Urbis has made all reasonable inquiries that it believes is necessary in preparing this report but it cannot be certain that all information material to the preparation of this report has been provided to it as there may be information that is not publicly available at the time of its inquiry.

In preparing this report, Urbis may rely on or refer to documents in a language other than English which Urbis will procure the translation of into English. Urbis is not responsible for the accuracy or completeness of such translations and to the extent that the inaccurate or incomplete translation of any document results in any statement or opinion made in this report being inaccurate or incomplete, Urbis expressly disclaims any liability for that inaccuracy or incompleteness.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the belief on reasonable grounds that such statements and opinions are correct and not misleading bearing in mind the necessary limitations noted in the previous paragraphs. Further, no responsibility is accepted by Urbis or any of its officers or employees for any errors, including errors in data which is either supplied by the Instructing Party, supplied by a third party to Urbis, or which Urbis is required to estimate, or omissions howsoever arising in the preparation of this report, provided that this will not absolve Urbis from liability arising from an opinion expressed recklessly or in bad faith.

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Project code	P0029642
Report number	v2

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APPENDIX D
BMX FEASIBILITY STUDY

FEASIBILITY FOR THE RELOCATION OF THE BYFORD BMX TRACK

Dave Lanfear Consulting | Shire of Serpentine Jarrahdale | July 1, 2018

Contents

Executive Summary

The Shire of Serpentine Jarrahdale has one BMX facility currently located at Briggs Park Recreation Precinct. The current club using the facility, Byford BMX Club, has grown steadily over the last three years to a membership of 220 (BMXWA) making it one of the largest in the metropolitan area. The club's growth and requirements exceeds the capacity at Briggs Park and as a result this relocation study was initiated. Furthermore, the track occupies an area of land which has been identified for a new pavilion under the Briggs Park Recreation Precinct Master Plan.

The Shire of Serpentine Jarrahdale Strategic Community Plan 2017 – 2027 advocates the provision of a wide variety of infrastructure to meet the needs of a diverse community. The focus is on well-planned and maintained community infrastructure. The Community Infrastructure Implementation Plan (Sept 2017) advocates for the relocation of the BMX facility from Briggs Park to Kiernan Street but also recommends further investigation be made to determine the most appropriate site.

The State Sporting Association (BMXWA) and Peak umbrella sporting bodies (Westcycle and BMX Australia) have identified the importance of the current BMX site within Byford as serving the broader needs of the sport. Enhanced level of infrastructure within Western Australia is required if riders are to be able to compete with riders from the Eastern States. Given the projected population growth within the Shire, it is evident that a growing youthful population will demand the provision of age appropriate infrastructure. BMX facilities are dominated by youth participation and provide for a growing demand in more extreme sports. The recent introduction of BMX at the Olympics has raised the profile of the sport and is likely to continue to raise the profile as a youth dominated activity. Current BMX provision within Metropolitan Perth is limited to 8 clubs and a series of smaller tracks in local parks. The catchment of the Byford BMX Club is wide, extending into Armadale and potentially having the capability to attract members from Gosnells and Canning where existing provision is limited to non-club-based facilities on reserves.

Consultation with the Byford BMX Club highlighted the extent of current club growth and future aspirations. The club identified a current membership level of 245 (slightly above that indicated by BMXWA) and wish to grow further by extending the level of provision on site or an alternative site. Current use is on Monday, Tuesday, Thursday and Saturday for coaching and events are operated on Friday nights. They have currently secured the BMX Super Series State Round and have aspirations to attract additional events. The extended club activity and desire to attract events will not be possible with the eventual development of the Briggs Park Master Plan. The club facility requirements are for a track, canteen, appropriate storage for maintenance equipment and an office facility for registrations. A start ramp of 6m is desired, rather than the current 3m. The club have $45k in reserve of which $25k is going into the replacement lighting at Briggs Park. The club will set money aside this year for a future relocation. In respect of track requirements BMXWA advise that a 2.5m ramp is the minimum but 6m is preferred as this is the minimum used for competitions.

Byford BMX Club is a viable club with a strong membership base and good governance structure. It has proven over the past 5 years to have a capability of managing the business well through an open and transparent process. This can be seen through the strong membership growth and healthy financial situation.

Based on an analysis of national and international facility requirements to operate a BMX facility with the capability of facilitating state and national events the following are necessary:

- The Track to have a 6m ramp and be 10m wide. The first straight at 8 - 10m wide. The remainder of the track at 6m width (the 6m ramp should be considered as a temporary overlay on top of a 3m ramp). 400m length – 4 straights and three turns (maximum allowable height difference is 4m). Internal pro-straight.
- Direct Power and water supply
- Lighting of 100 lux
- Canteen and clubhouse (inbuilt within the ramp potentially)
- Viewing Tower and officials area (including bike check, repairs and storage)
- Good road access with capability of accommodating up to 2,000 vehicle movements for an event.

- 50-100 bay permanent parking with overspill capacity of up to 1,500 (within an adjacent site – larger sporting complex or industrial area)
- Spectator viewing areas (no formal seating necessary, but the potential to provide space for event overlay is important. A banked limestone terracing would be an effective measure, as is commonly used at rectangular and oval sports facilities where raised spectator viewing areas are required.

In addition, consideration should be given to the co-location with other wheeled sports. The club have suggested the development of a pump track and other strategic documents provided by the Shire have suggested the need to develop all abilities skate parks to meet the needs of the growing youth population.

In order to provide a replacement BMX facility within the shire a site assessment was undertaken focused on five (5) potential sites which included:

- Briggs Park, Byford: The existing site.
- Keirnan Road (Park), Whitby: The site identified for a regional sporting complex by the Shire.
- Webb Road Reserve, Mundijong: An existing site utilised for equine purposes and informal bicycle activities.
- Kiln Road Cardup: The site identified in the recently published growth strategy for Perth and Peel.
- Elliot Road, Keysbrook: Land adjacent to the Keysbrook Fire Station Hall.

An analysis of all sites under 17 different site characteristic criteria confirmed Kiernan Park to be the preferred site option

The key advantages of the Keirnan Park site are:

- Availability of space and potential co-location opportunities with other sporting infrastructure required to service the needs of Mundijong-Whitby.
- It will be located centrally within a future urban development area with strong local links.
- It has the potential to align closely with service infrastructure to minimise set-up and ongoing operational costs.
- No significant constraints to development including environmental and heritage concerns.

Two concept designs were undertaken to determine the feasibility or otherwise of developing the BMX track and ancillary wheeled sport provision at both Keirnan Park and Webb Road Reserve (second potential site as per criteria scores). These are provided at Appendix G to this report. Both design options developed indicate they have capability to develop a BMX track and associated infrastructure. The costs associated with each potential development is provided in the table below:

Options	**Kiernan Park**		**Webb Road Reserve**	
	6m Ramp	3m Ramp	6m Ramp	3m Ramp
Scenario 1: BMX Track alone (including 6m and 3m Ramp).	$3,975,028	$3,934,815	$4,219,578	$4,179,365
Scenario 2: BMX Track & Pump Track (including 6m and 3m Ramp).	$4,317,250	$4,277,037	$4,561,799	$4,521,587
Scenario 3: Complete Development (including 6m and 3m Ramp).	$5,073,624	$5,033,411	$5,300,316	$5,260,103

It is recommended that the Kiernan Park site be pursued as a viable option in the first instance and an implementation plan identifying key planning and development milestones (including the need to develop a funding plan) has been provided.

1. Background

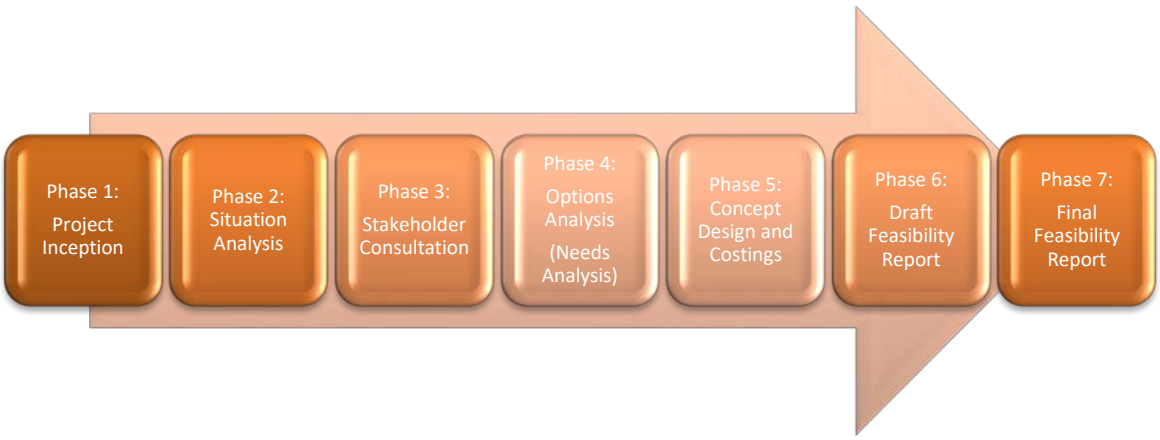
The Shire of Serpentine Jarrahdale has one BMX facility currently located at Briggs Park Recreation Precinct. The current club using the facility, Byford BMX Club, has grown steadily over the last three years to a membership of 220 (BMX WA) making it one of the largest in the metropolitan area. There are only a small number of BMX facilities available within Metropolitan Perth, therefore this facility provides a relatively unique opportunity for residents and visitors to the local area to take participate in this growing youth sport. The club's growth and requirements are exceeding the capacity at Briggs Park and as a result this relocation study was initiated. Furthermore, the track occupies an area of land which has been identified for a new pavilion under the Briggs Park Recreation Precinct Master Plan.

The Shire, as the fastest growing local government in Australia with an annual average growth rate of 6.38% compared with Peel at 4.4% and WA at 2.6% is conscious of the need to facilitate the development of a wide range of sporting facilities to serve the current and future needs of its resident population. There is significant population growth forecasted within Byford, which is going to be dominated by young families and youth. This will create even greater pressure on the Shire to maximise the use of existing reserves for a variety of sporting opportunities. Consequently, this has put extra pressure on the land currently occupied by the BMX facility and compromised the ability for the club to promote and extend its commitment to operating local and state level competitive events.

The feasibility study aims to identify an alternative site for the club's long-term development and provide a permanent solution for the long-term viability of the club. The feasibility for the BMX track relocation includes:

- Setting a clear direction for the Byford BMX facility requirements.
- Establishing land and facility requirements for Byford BMX Club.
- Considering the colocation of various cycling sport, skate and youth facilities in order to maximise the use of the facility and encourage greater use by the wider Shire community
- Identifying potential options to locate the facility within the Shire.
- Undertaking concept plans and order of magnitude costings associated with the full development of the chosen site.
- The development of an implementation plan to inform the staged development and ultimate relocation of the Byford BMX Club which can be incorporated within the long term financial planning process for both capital investment and ongoing operational budgeting.

This report is structured to conform to its methodology. In order to undertake the feasibility study, the following methodology was used:



2. Document Review and Situation Analysis

The following section references existing plans, policies and strategic documentation which informs the approach to the development of the BMX facility to service the needs of the Byford BMX Club.

2.1 Shire of Serpentine Jarrahdale Planning Documentation

The Shire of Serpentine Jarrahdale has produced a number of strategic planning documents, policies, plans and master plans which have a direct impact on the provision of BMX infrastructure within the Shire. These are summarised below with a more detailed precis of each document and their implications contained at Appendix A:

- **Shire of Serpentine Jarrahdale Strategic Community Plan 2017 – 2027:** The Strategic Community Plan advocates the provision of a wide variety of infrastructure to meet the needs of a diverse community. The focus is on well-planned and maintained community infrastructure and to ensure there is an opportunity to provide a healthy community environment. The importance of maintaining and enhancing connectivity within the community is also important. Any new infrastructure should be placed within close proximity to where people live and readily accessible by walking, cycling, private motor vehicles and public transport. Residents within the Shire value public open spaces and were strongly in favour of maintaining current infrastructure rather than building new.
- **Long Term Financial Plan 2013 and Budget for year end June 2016 and June 2017:** A commitment of $337k is allocated for the Byford BMX facility and a further $100k allocated to undertake the Briggs Park Master Plan. The minor upgrades to Briggs Park Lower Oval will negate the use of the oval for overflow car parking for events and re-enforces the need for BMX to be relocated as soon as practicable.
- **Serpentine Jarrahdale 2050 (November 2016):** The key aspect of this plan is to identify key values and core outcomes to provide the Shire with a vision until built out scenario in 2050. It references to the main growth areas and enhance connectivity through an east west link. The growth corridors are clearly identified as Byford (currently expanding) and Mundijong (projected high growth). The provision of youth services is identified as a critical gap in current service provision which needs to be addressed, particularly as the area will continue to expand its young family base.
- **Community Infrastructure and Public Open Space Strategy (10 January 2017):** The key underlying principles in the development of new infrastructure include:
    - Equality of access
    - Close proximity to the catchment population.
    - Multi-functional and multi-dimensional community hub, as far as practical.
    - Flexibility
    - Integration with existing opportunities and transport networks.
    - Be undertaken in partnership with others.

  The guiding principles raised within the Strategy will underpin the investigation of the Byford BMX facility relocation. To accommodate future growth, it is likely that the only solution will be to relocate the existing facility elsewhere. The document references BMX specifically and advocates the requirement for both a district level bitumen track and local level dirt track facility in the Mundijong-Whitby catchment and a subsequent local level dirt track in Byford. It further states that a bitumen track will not need to include a Union Cycliste Internationale (UCI) elevated starting platform or other embellishments for competition as this level of competition would go to the sub-regional facility in Byford. The sites identified for the replacement BMX facility are as follows:
    - Kiln Road, Cardup
    - Kiernan Street

- **Community Infrastructure Implementation Plan (Sept 2017):** The Community Infrastructure Implementation Plan advocates for the relocation of the BMX facility from Briggs Park to Kiernan Park but also recommends further investigation be made to determine the most appropriate site. Kiernan Park is favoured due to its central location, while Woodland Grove was identified for a local BMX track or skate park.
- **Shire of Serpentine Jarrahdale Health and Wellbeing Strategy 2016-2019:** Identifies that enhancing the communities' health and wellbeing can be undertaken in a variety of ways. A critical component however, is the development of good quality accessibility sport and recreational infrastructure. The high proportion of young children and adults aged 35 to 54 highlights the importance of providing infrastructure that both supports young family units but also provides the opportunity for residents to actively pursue activities of their choice. Walking and cycling to improve health outcomes is raised as a priority.
- **Shire of Serpentine Jarrahdale Annual Residents Survey of November 2016:** The annual survey of residents undertaken in November 2016 highlights the provision of connections between facilities and to facilities are particularly important. Whilst residents are satisfied with the provision of public open space in the northern wards, care needs to be taken to ensure the southern wards are not disadvantaged.
- **Community Sport and Recreation Precinct Feasibility Study (September 2013):** The study identified numerous key facility requirements. There is a danger however in developing a multi-purpose sporting precinct, that infrastructure may be spread too thinly and not achieve its overall purpose. A focus on 2 or 3 key strategic sports and aligned activities is strongly recommended to avoid this scenario.
- **Advocacy Strategy (2017):** The Shire has committed to showcase fresh and innovative tourism strategies. As part of a broader tourism agenda, sport should be recognised as having a significant contribution to play within a coordinated events strategy. The relocation of the Byford BMX Club to a piece of land which permits extensive event overlays and provides sufficient off-road car parking is important to achieve this approach.
- **Byford BMX draft concept 2014 (Dirtz):** The draft concept plan undertaken in 2014 follows the core guidelines produced by Union Cycliste Internationale (UCI). It was estimated that the current Byford BMX track contains 5,000 cubic metres of material which could be used and transported to a relocated site to offset costs. Nevertheless, costings identified for the facility was estimated at $863,344. With the development on a new site with limited servicing, this cost would increase substantially.
- **Briggs Park and Brickwood Reserve Draft Management Plan (2015):** The plan references the history of the BMX facility with the construction at Briggs Park in 1982. The Pegasus BMX Club originally constructing the facility to provide the sport for their children. It was very active, attracting over 2000 spectators and 400 riders for some events. In recent years the condition of the track is considered to have declined. The Recreation Precinct Master plan promotes the redevelopment of the BMX track on site. A similar treatment to the existing track installation is to be repeated in the new location.
- **Concept Plans for Byford BMX Track (CR14/112) – Council Resolution 26/08/14:** The council have previously shown strong support for the upgrade and development of the track to meet the long-term needs of the club. The extent of further development to meet the needs of hosting national level events needs to be balanced against the potential financial return which may accrue with ongoing maintenance and potential risk profile of extensive infrastructure.

2.2 State Planning and Influencing Strategies

Relevant State level planning documentation which influence the growth within the Shire and potential development of BMX infrastructure include:

- **The South Metropolitan Peel Sub-Regional Planning Framework - Towards Perth and Peel@3.5million (March 2018)** This document identifies the extensive growth both within the

southern coastal corridor and inland foothills area. Both Byford and Mundijong are recognised as critical settlements to meet the growth of Perth and Peel reaching 3.5 million by 2050. This however will require significant upgrades to services including water storage, rail and road infrastructure which is referenced in the document.

- **The Peel Sub-Regional Planning Framework (WAPC March 2018).** The document states that all people should be able to easily meet their education, employment, recreation, service and consumer needs within a reasonable distance of their home. This must make effective use of public transport. Both Byford and Mundijong are identified as District Level Activity Centres where the main residential development within the Shire will occur.
- **Strategic Directions for the Western Australian Sport and Recreation Industry 2016-2020 (Department of Sport and Recreation).** This document which was developed on behalf of the industry identifies the following which need to be considered in the development of regional level sporting infrastructure:
    - In order to deliver sporting facilities which meets the needs of communities into the future we must be efficient with resources, focus on the function of sites, provide equitable access to facilities and secure strategically important regional scale spaces.
    - Community-based sport and recreation organisations are increasingly reliant on public investment for their survival. Public investment in sport and recreation organisations should factor in the capacity of these organisations to source commercial revenue (in the case of the Byford BMX Club the likely capability of attracting such funding is low).
    - The sport and recreation industry must optimise the value derived from public and private funding in tight fiscal circumstances.
    - The achievement of improved participation rates in sport and recreation, and more broadly active lifestyles, will require innovative responses to the life course and life stage circumstances of Western Australians. A combination of expanding pioneering initiatives and adapting successful concepts from other jurisdictions can stimulate healthier and socially beneficial outcomes for our community.
- **Feasibility Study Guide** (Department of Sport and Recreation July 2007): The feasibility study should consider:
    - the marketplace;
    - usage and management issues;
    - the facility components;
    - location options;
    - financial viability

  In the case of the Byford BMX Club, they have demonstrated the capability to be financially viable in their current state through the effective management of the use of club resources (which is open and transparent on their web site). The Byford BMX Club are formerly constituted and have shown an ability to grow and maintain a sound membership base. This will be alluded to later in the report.

2.3 Westcycle and BMX WA Influencing Factors

The following documentation has been developed by BMX WA (Western Australia) and BMXA (Australia). State documentation has been developed in conjunction with Westcycle who represents the cycling based disciplines within Western Australia.

- **BMXA Strategic Plan 2015 – 2018:** The strategy identifies the importance of both the Byford BMX Club and State Sporting Association working in partnership with the Shire to achieve shared aims and objectives. The importance of the local club is emphasised in maintaining a high level of engagement and participation. The performance pathway, it states, will require an enhanced level of infrastructure within Western Australia if riders are to be able to compete with eastern states

competitors. A decision however needs to be made as to whether it is a local governments responsibility (rather than the sports) to invest in state level infrastructure which attracts users from beyond the local government boundary.

- **Our Bike Path 2014 – 2020:** A strategic framework for cycling in Western Australia (Westcycle): The strategy provides a series of overarching objectives which are to get more people participating in cycling across a range of disciplines. The redevelopment and enhancement of existing infrastructure will assist in Westcycle generally and BMX WA specifically to achieve their core objectives of increasing the number of cycling infrastructure/facilities in metropolitan and regional WA. An important component of the strategy is to get current clubs and members to work in partnership with local governments to achieve this common aim.
- **BMX Club Pump Track Policy (2016):** Pump tracks are advocated as a mechanism to get participants (particularly children) engaged in BMX. The design for the BMX pump track will enable the club to promote and develop activities with the younger age range. The outcomes of the use and development of pump tracks strongly align to those of the Shire's Strategic Community Plan and can be located at a relatively low cost and if desired, of a temporary construction (which could be movable to other sites to increase activity and extended use).
- **BMX Australia Limited - Lighting Policy:** This policy highlights the core recreational level lighting of 100 lux as being suitable for all sanctioned BMX events. Whilst there is an intention to increase this to 200, it is currently not the standard and is unlikely to be undertaken in isolation without an appropriate contribution through the club and/or BMX WA.
- **BMX Australia Starting Hill Policy (Updated 10 March 2015):** The safe use of the track is a prime consideration. A 2-3 metre high starting gate is considered to be a suitable level of provision for a local government to invest in. It is however questionable whether a local government would invest in a permanent 5-8 metre ramp having regard to the frequency of use, general public risk and its relative cost. It is preferable to provide the opportunity to extend a lower level ramp should the need to provide for a major national and international championship be desired. Any concept plans subsequently developed should incorporate this element as an alternative temporary option rather than a fixed solution.

BMX Australia Track Guidelines identify the following requirements depending on the level of infrastructure:

TRACK REQUIREMENTS	**2: National Championships**	**3: National Series**	**4: State Championships / Series**	**5: Regional**	**6: Club**
Class Race	**CN**	**CN**	**Class S**	**Class R**	**Class C**
Starting Hill	Height: 5m Width: 8m		Height: 2.5m Width: 8m		
Total Length of Track	300M – 400M		280M – 450M		
Width of Track	First Straight 8m All other straights: 5m First Turn: 5m Turns: 5m (for competitions, maximum riders 8, minimum 5)		First Straight 8m All other straights:5m First Turn: 4m Turns: 4m (for competitions, maximum riders 8, minimum 5)		
Number of Straights	Minimum 4				
Minimum Number of Turns	3				
Starting Gate **-Width** **-Height**	7.3m wide 50cm high Slip resistant				

Length First Straight (minimum)	Men / Women: 70m Challenge: 50m		Men / Women: 50m Challenge: 50m		
Markings	White lines clearly marked on the track				
Transponder Cable	Start Hill and Finish Line		NO		
Fencing	On straights minimum 2m from track				
TRACK AMENITIES					
Class of Race	CN	CN	CN	CN	CN
Staging	10x8 Covered		10x8 Preferred		
Grandstands – Available Space for Seating	3000	1000	500	250	250
Lighting	Yes	Preferred	No		
Available Parking Bays	1000	500	250	100	50
Drug Testing Area	Yes		If Required	No	

2.4 International BMX Guidelines

The following documentation has been developed by the Union Cycliste Internationale (UCI) - the international governing body of the various disciplines of cycle sport:

- **UCI Cycling Regulations: Part 6 BMX Rule Book:** The document provides clear guidance on the spatial requirements of a BMX track and associated built infrastructure. The BMX track needs to be a compact, closed looped design, forming a circuit where length measured along its centre line is not less than 300 metres nor greater than 400 metres. This is a critical design consideration which determines the potential space allocation for the infrastructure. The dimensions should not be compromised due to site constraints. It is important that any replacement track is no-worse than the current provision and wherever possible opportunities to provide event overlay are maximised.
- **UCI BMX Track Guide (2014):** The track guide produced by Union Cycliste Internationale highlights the importance of providing sufficient safety margins to operate a track safely. These safety margins can be achieved at Briggs Park as also identified in the initial Briggs Park Master Plan and further worked by Trackz. It however does not take into account the surrounding off-road parking infrastructure which for events would require up to 1,000 temporary or permanent parking bays. The minimum depth of the start ramp is 5m. This however may not be appropriate for a local government investment in community based infrastructure.
- **UCI BMX Track Building Guide:** The document provides the building solution to a track being developed. The most important factors when assessing a sites capability is:
    - Availability of power and water.
    - Topography
    - Free from obstructions
    - Capability of the site to be freely drained.

2.5 Current BMX Infrastructure at Briggs Park

A visual audit was undertaken of the existing BMX facilities at Briggs Park. The various elements of the infrastructure were photographed and this is provided at Appendix B. The main considerations related to the site is highlighted below:

- **Starting Gate:** The starting gate provides approximately 2.5m of height which although viable for state and national events is below current guidelines for such events. The eight- bike grid accommodates the optimum number of riders.

  The construction appears sound and incorporates fencing and a concrete ramp with manual grid and starters hut. A proliferation of old tyres has been used to shore up the gate mounding.

- **Track:** Good quality bound surface but with continuing issues to those raised in previous track analysis. The third straight runs uphill, thereby reducing flow and speed for riders. The first and second corners inside diameter is currently too narrow, reducing speed of track and creating gate bias. There are areas of tread path which are level with surrounding ground which impacts on effective drainage. In addition, the track alignment does not take into consideration predominant wind direction.

- **Associated Infrastructure:** The centralised race monitoring and officials tower provides a good all-round view of the circuit. The public address (PA) and lighting systems appear reasonable although of a basic structure with wiring located above the track.

  There is shade over the starting tower and around two storage containers, however generally shade and shelter is limited.

- **Clubrooms:** The clubrooms currently service the Byford Bushrangers T-ball Club and the Byford BMX Club. The building offers a basic level of provision for storage and a kiosk. It has limited changing infrastructure and does not meet current day sports facility guidelines. The shade around the building is provided via a roof overhang but there is a limited viewing area at ground floor on a narrow concrete plinth.

  It is understood the previous toilets and changing room block was vacated due to the presence of asbestos and is now unused.

- **Car Parking:** This is mainly located adjacent to the community recreation centre; on the access road around the perimeter of the cricket pitch and adjacent to the vacated former changing and toilet block. Car parking throughout the Briggs Park site is extremely limited and often results in cars parked in the surrounding road network at high usage times. There is currently flexibility to park on the lower oval, however this will cease once the works are initiated on improving the ground quality and reticulation.

2.6 Demographic Analysis

Appendix C provides a detailed breakdown of the demographic considerations related to the Shire of Serpentine Jarrahdale and to the key population growth areas of Byford and Mundijong. A summary of the findings is provided below:

Shire Wide Indicators:

- The 2016 population of Shire of Serpentine Jarrahdale was 27,654. The population trends indicate that since 2006 the population of Shire of Serpentine Jarrahdale has increased each year from 13,246 in 2006 to 27,654 in 2016. This equates to an increase of 14,408 people (+108.8%) in ten years.

- The projections indicate that 69.9% population growth is expected between 2016 and 2026 with the population expected to grow from 27,654 in 2016 to an estimated 46,995 in 2026. The population is expected to continue to grow reaching an estimated 68,335 by 2036.

- Based on 2016 Australian Bureau of Statistics (ABS) data, the median age for Shire of Serpentine Jarrahdale is 32 years, which is lower than both Greater Perth Region (36 years) and Western Australia as a whole (36 years).

- The Shire of Serpentine Jarrahdale has a higher proportion of people in the younger age groups (under 15) than both Greater Perth Region and WA as whole. The age groups with the largest percentage of people in the Shire are 0 to 4 years (8.7%), and 30 to 34 years (8.5%) followed by the 5 to 9 years and 25 to 20 years (both with 8.2%). In comparison the age groups with the highest

population in Greater Perth region is 30 to 34 years (8.0%) and 25 to 29 years (7.7%) and WA as a whole with 30 to 34 years (7.9%) and 25 to 29 years (7.5%).

- Median weekly household income was $1,855, which is higher than the Greater Perth region ($1,636) and Western Australia as a whole ($1,582).
- In the Shire of Serpentine Jarrahdale there is a higher proportion of couple families with child(ren) as well as a similar proportion of one-parent families compared to Greater Perth region and WA as a whole. Overall, 42.0% of total families were couple families with child(ren), compared with 32.3% in Greater Perth region and 30.9% in WA as a whole.
- In 2016, there was a smaller proportion of people born overseas compared with Greater Perth region and a higher proportion to WA as a whole.
- In 2016, 9% of people in the Shire of Serpentine Jarrahdale were from non-English speaking background compared with 19.3% for Greater Perth region and WA as a whole with 16.6%.

Byford Indicators:

- The 2016 population of Byford was 15,383. The population trends indicate that since 2012 the population of Byford has increased each year from 8,738 in 2012 to 15,383 in 2016. This equates to an increase of 6,645 (+76.0%).
- The projections indicate that 89% population growth is projected between 2016 and 2026 with the population expected to grow from 15,375 in 2016 to an estimated 29,055 in 2026. The population is expected to continue to grow reaching an estimated 35,399 by 2036. This equates to an increase of 130.2% between 2016 to 2036 with an average growth rate of 4.3%.
- Based on 2016 ABS data, the median age for Byford area is 29 which is lower than Shire of Serpentine Jarrahdale as a whole with 32 and Greater Perth Region (36) and Western Australia (36).
- The Byford area has a higher proportion of people in the younger age group (under 15) than Shire of Serpentine Jarrahdale, Greater Perth region and WA as a whole. The proportion of people aged of 0 – 14 years in the Byford area was 27.6% compared to Shire of Serpentine Jarrahdale with 23.9%, Greater Perth region, 19.1% and WA as a whole with 19.2%

Mundijong Indicators:

- The 2016 population of Mundijong was 15,383. The population trends indicate that since 2012 the population of Mundijong has increased by a small amount each year except for 2014. Overall the population increased from 1,896 in 2012 to 1,946 in 2016. This equates to an increase of 50 people or 3.0%.
- The projections indicate that 223.4% population growth is projected between 2016 and 2026 with the population expected to grow from 1,979 in 2016 to an estimated 6,398 in 2026. The population is expected to continue to grow reaching an estimated 20,961 by 2036. This equates to an increase of 959.3% between 2016 to 2036 with an average growth rate of 12.5%.
- Based on 2016 ABS data, the median age for Mundijong area is 38 which is higher than Shire of Serpentine Jarrahdale as a whole with 32 and Greater Perth Region (36) and Western Australia (36).
- The Mundijong area has a lower proportion of people in the younger age group (under 15) than Shire of Serpentine Jarrahdale, and a higher proportion than Greater Perth region and WA as a whole. The proportion of people aged of 0 – 15 years in the Mundijong area was 19.8% compared to Shire of Serpentine Jarrahdale with 23.9%, Greater Perth region, 19.1% and WA as a whole with 19.2%.

2.7 Summary Conclusions

The review of key documents underpinning the feasibility study identifies the following important considerations which influence the development of a new or relocated BMX facility:

- The Strategic Community Plan advocates the provision of a wide variety of infrastructure to meet the needs of a diverse community. Given the current demographic mix and future growth it is clear that young families and a relatively low age profile will dominate. This will necessitate infrastructure

which meets the growing needs of the youth and young families. With the recognised gap in youth infrastructure within the Shire, the continued provision of a BMX facility would be deemed to be a high priority.

- The existing financial commitment from the Shire to develop a BMX facility is unlikely to meet the overall cost of a redevelopment. This will need to be factored into any potential relocation which would also likely necessitate additional service infrastructure costs.
- Both Byford and Mundijong are recognised as being District Level Activity Centres where new infrastructure is likely to be located in order to meet the desired outcomes of Shire policies and guidelines and the Peel Sub-Regional Planning Framework. Both centres will experience significant growth over the next 20 years. Both Activity Centres will also experience growth within the young age demographic and young families which will need to be catered for.
- Whilst residents, through the community survey process, are strongly in favour of maintaining existing infrastructure rather than building new, this is unlikely to be achieved due to the high levels of projected growth. This will put greater pressure on existing infrastructure which will need to adapt and develop. For instance, the Briggs Park Recreational precinct operates at or near capacity in servicing existing sporting groups. Whilst oval capacity will be increased with the investment in the lower oval within the precinct, this will in turn have a serious implication on the future use of the site by BMX for the running of competitions and events. The only alternative to meet the ongoing needs of the Byford BMX Club and to enable its expansion is to relocate elsewhere. This would need to be within close proximity to Byford or Mundijong where the main Shire growth centres are.
- The location of a BMX facility will be important, particularly the consideration of a strong alignment with other sports and in particular wheeled sports opportunities. The ideal location for any relocated BMX facility would be on existing or proposed multi-functional sporting reserves, subject to capacity being available.
- The importance of regional level sporting infrastructure as a mechanism to attract tourists through an integrated events strategy should not be underestimated. The Shire will need to determine whether additional investment into a state and national level facility is merited based on the need to service the local community and broader economic return. The Byford BMX Club will not have the financial capability to invest significantly and will be reliant on external support if higher level track infrastructure is to be achieved.
- The State Sporting Association and Peak umbrella sporting bodies have identified the importance of the current BMX site within Byford as serving the broader needs of the sport. Enhanced level of infrastructure within Western Australia is required if riders are to be able to compete with riders from the eastern states.
- The State Strategy for Cycling in Western Australia seeks to encourage greater provision for all cycle sports and cycling in general. It will be important to consider other alternative infrastructure which meets the needs of both the sport and wider community in any potential relocation. It will be important to connect cycleways and develop a pump track (either as a temporary or permanent feature) to expand the use and encourage young cyclists to take up BMX as a chosen sport.
- It is clear that whilst the BMX infrastructure within Briggs Park is valued, there are a number of deficiencies with the current level of provision. There needs to be a decision as to whether to expend money on addressing these deficiencies within Briggs Park or to invest in a new and industry standard compliant facility in an alternative location.
- The changing demographic considerations are critical if the usage of a BMX facility is to be maintained and increased. It is evident that the youthful population dynamics will demand the provision of age appropriate infrastructure. BMX facilities are dominated by youth participation and provide for a growing demand in more extreme sports. The recent introduction of BMX at the Olympics has raised the profile of the sport and is likely to continue to raise the profile as a youth dominated activity.

3. Industry Trends

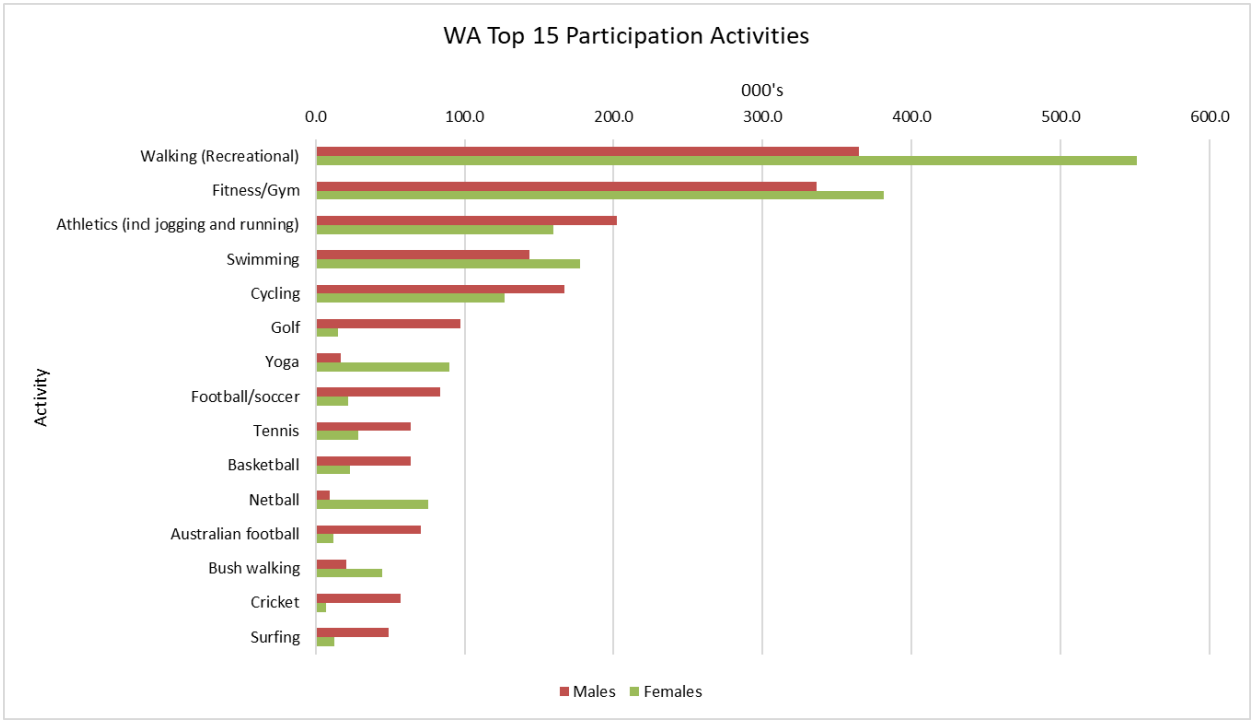
A review of current industry trends in relation to the provision of general club infrastructure; current participation rates in cycling disciplines and the development of BMX infrastructure within Australia and worldwide was undertaken. It is to be noted that there has been significant investment in BMX circuits throughout the world following the recent introduction as an Olympic accredited sport.

3.1 General Sporting Trends

The Australian Sports Institute in December 2016 published the latest participation data for sport and recreational pursuits in Australia (AUSplay). This was subsequently supported by specific participation data related to Western Australia. A full detailed breakdown is provided as part of Appendix D. The following highlights the key trends associated with sporting provision, participation rates and club development generally:

- Australian adults tend to play sports for longer durations than non-sport related physical activities. However, they participate in non-sport related physical activities more often than sport.
- Women are more likely to participate in sport or physical activity for physical and mental health reasons and to lose or maintain weight than men.
- Men are more motivated by fun/enjoyment and social reasons than women.
- For adults, up to middle-age, time pressure is by far the main barrier to participating in sport or physical activity. Poor health or injury then also becomes a main factor.
- Sport clubs are the primary avenue for children to be active (except for children aged 0–4, who are more likely to be active through other organisations).
- Sport clubs are not the main choice for participation in sport or physical activity in Australia for adults aged 18 years and over. They do however make significant contribution to sports development opportunities for children

Figure 1: Top 15 Activities by Participation in WA



- Table 1 above identifies the relative strength of cycling as an adult participation sport within Western Australia. It is to be noted however, that this incorporates a wide variety of disciplines. Participation is high across the genders and relatively evenly split in comparison to other participatory activities. The value of cycling is for fitness as much as a competitive sport. Participation numbers are significantly higher for sports which are undertaken in a range of settings outside of club-based activities. The importance of club based activities for providing a developmental structure for the sport should however not be underestimated as a way to attract others into a sporting environment.
- Children's participation rates highlight the main participatory sports as swimming, football/soccer, Australian football and recreational dancing. Basketball, gymnastics, cricket, netball, tennis and gymnastics have similar participation rates with projected upward increase to meet the future anticipated needs of the projected age profile.

3.2 Cycling and BMX Trends

Westcycle have recently developed the Western Australian Strategic Cycling Facilities Review to establish a high-level understanding of current provision and need for road, track and BMX facilities. Membership Data collated by Westcycle in 2015 indicates a significant shift in demographic profiling between disciplines. The following information has either been provided by Westcycle having regard to the current participation trends acknowledged within cycling or obtained from their strategic review. It is provided on a discipline by discipline basis:

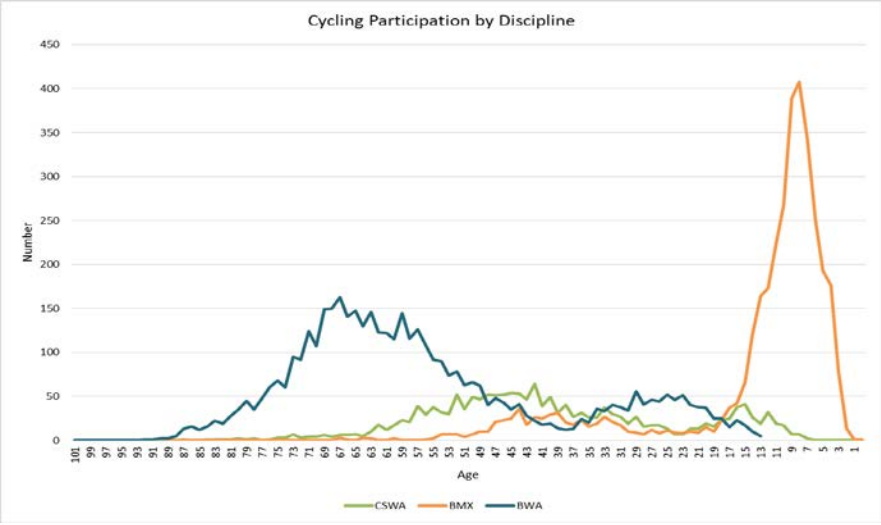
BMX WA (the peak body responsible for the development of BMX as a sport)

- Demographic data for BMX Sports WA, including member numbers from 2011 to 2015 indicated that BMX is being dominated by the 5-15 age range.
- The male female split is 80% male and 20% female for BMX.
- BMX has shown an almost 3-fold growth in participation since 2011.

CycleSport WA (the peak body for road and track cycling development) and Bicycling Western Australia (the body responsible for encouraging bike riding to be part of everyday life).

- Bicycle membership/participation peaks from 45 years of age through to 79 years of age.
- A road and telephone survey undertaken by Bikewest prior to the formation of Westcycle captured specific data on participation which suggests a decline in WA cycling participation on a per capita basis. This however did not take into account the trends associated with formalised cycle sports which is showing a gradual upwards trend from 2011 onwards.

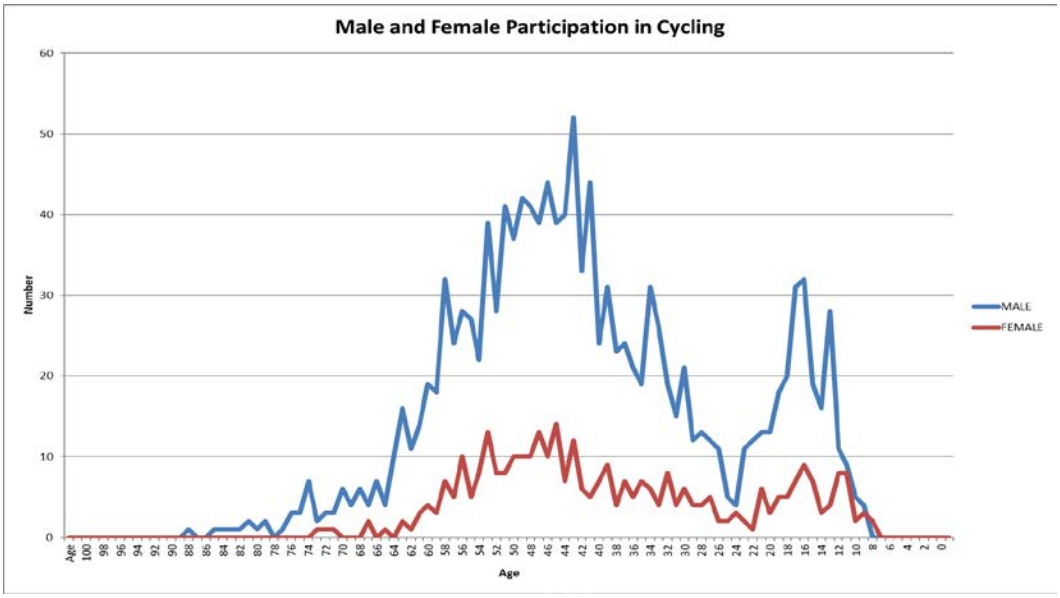
Figure 2: Demographic Nuances in Cycle Sport (Source: Westcycle)



Key: CSWA (Cycle Sport Western Australia); BWA (Bicycling)

CycleWest advocate the importance of ensuring that any site providing cycling infrastructure should be accessible, connected and convenient for active transport modes (walking, cycling) to encourage all users to travel to the site by bike. This includes people using sport and recreation facilities other than the cycling facilities. Separated paths, bike parking and other end-of-trip facilities should also be provided throughout a site where cycling infrastructure such as a BMX facility is provided.

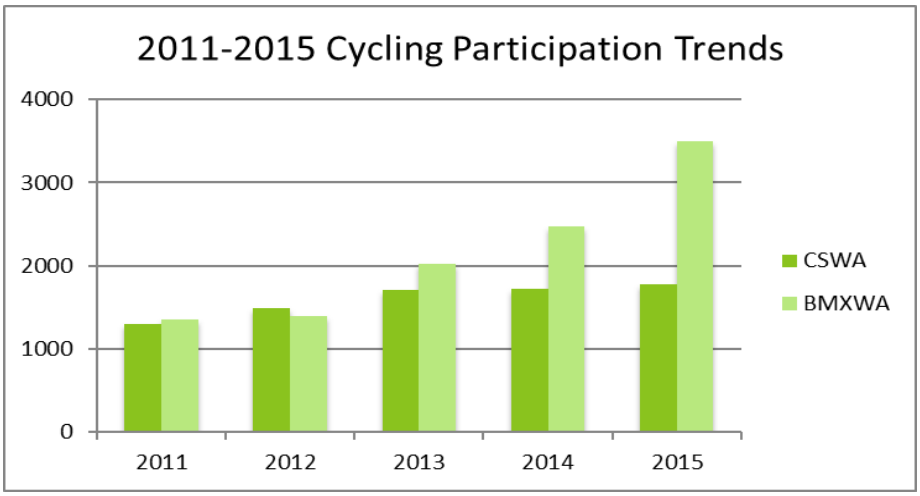
Figure 3: Male Female Member Participation in Cycling (Source: Westcycle)



Previously captured cycling participation data in WA suggests a decline in cycling. Data suggests that 720,000 cyclists aged 5+ participated in a form of cycling activity in 1993 and 432,512 cyclists aged 14+ in 2015, a reduction of 287,488 participants. There were 261,413 West Australians aged 5 to 13 in 2015 and if all of them cycled it wouldn't make up the shortfall in adult participation. A road and telephone survey data collection undertaken by Bikewest also suggests a decline in WA cycling participation which has been ongoing till 2015 on a per capita basis. This decline in cycling is partly attributed to compulsory requirement to wear a helmet and in part to the greater dominance of the car and road safety issues.

This however does not take into account the trends associated with formalised cycle sports which is showing a gradual upwards trend from 2011. BMX participation is showing an almost 3-fold growth in participation (figure 4 below refers).

Figure 4: 2011-2015 Cycle Sport and BMX participation trends (Source: Westcycle)



Figures 5 and 6 below highlight the legacy data (source: ABS census data resources published between 1976 to 2011 and collected as part of the Australian Cycling Participation Survey) which the Strategic Cycling Facilities Review is seeking to address. The data was originally published by cycling lobby groups who opposed the enactment of helmet laws in Australia in the early 1990s. The introduction of helmets had a major impact on cycle use. Whereas cycle use prior to the laws had been generally increasing, as soon as laws were passed and enforced cycle use fell sharply.

The decline in cycling trips has been a concern, particularly with the greater focus on improved dual use tracks and trail master planning. The expansion of the cycling network and provision of critical 'end-of-trip' facilities are seen as critical to addressing the decline in participation. In addition, the provision of dedicated cycling facilities for each different cycling discipline is seen as having a critical role to play. More recent developments have seen the provision of temporary pump tracks being placed adjacent to dual use paths or within sporting and youth precincts on available hardstanding

Figure 5: Total Cycling Trips (Source: Bikewest Cycle movement Data supplied by Westcycle)

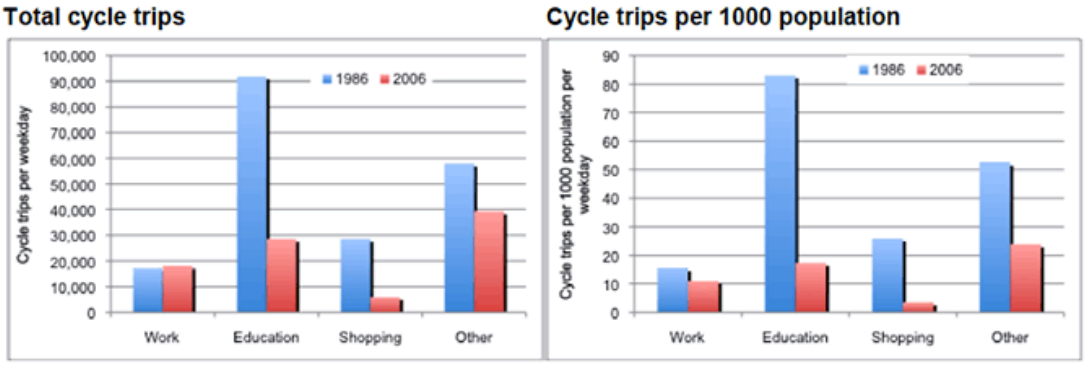


Figure 4 Cycle trips per weekday: 1986 and 2003-6

Figure 6: Total Cycling Travel per week day in km (source: ABS Census supplied by Westcycle)

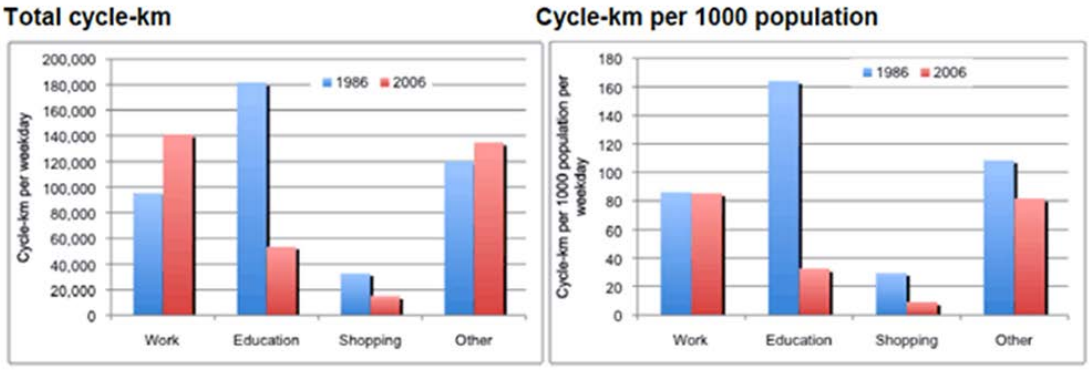


Figure 10 Cycle travel per weekday: 1986 and 2003-6

3.3 Current State and Perth Metropolitan BMX Provision

Current BMX provision across Metropolitan Perth has been developed in an ad hoc manner without any strategic plan identifying the optimum location for facilities. Invariably these facilities perform a district or regional function with extensive catchment areas.

The Byford BMX Club covers an extensive catchment as do other existing BMX tracks. Invariably BMX facilities will draw from catchments beyond a 5-10km radius due to the nature of participants within the sport who are prepared to travel to access dedicated infrastructure. Figure 7 below identifies the Byford BMX Club

and a 5km catchment around the current Briggs Park site. The catchment extends beyond Byford and to the south of Armadale. It is understood that 47% of current membership of the club reside within Armadale and the remaining portion from Byford. It therefore indicates that the facility services a much broader catchment.

Figure 7: Byford BMX Club and associated 5km catchment

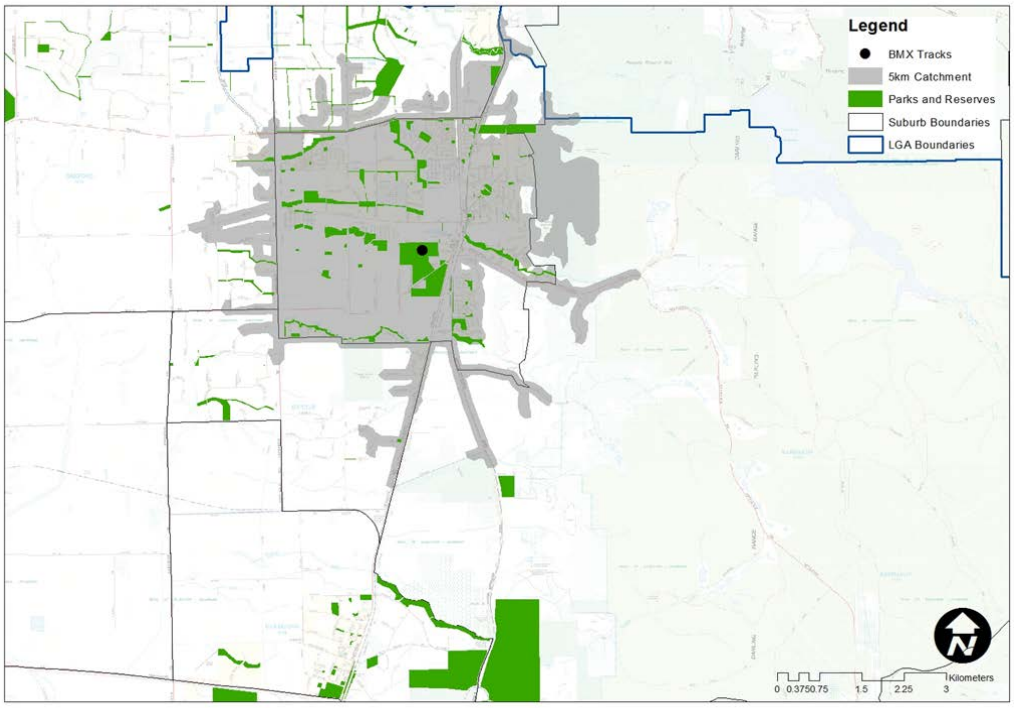


Figure 8 below identifies the spread of BMX infrastructure across Metropolitan Perth and identifies the 10km catchments around each BMX facility. It can be seen that based on these catchment areas the inner Metropolitan Perth area is well serviced. The outer lying areas are however deficient in provision. For the most part the coastal corridor of Metropolitan Perth has adequate provision, whilst the foothills and emerging growth areas have a limited level of provision. Table 1 below provides all BMX facilities across Metropolitan Perth and also references the type of BMX infrastructure (including identified dirt track BMX facilities). Naming of the circuits is generally associated with the broader parks or suburbs within which they are developed.

Most importantly the mapping identifies the popularity of the sport that the Byford BMX facility enables. Without the Byford facility the southeast Metropolitan growth area of Greater Perth would be lacking in provision, particularly in the servicing of major growth corridors within City of Canning and City of Gosnells which do not provide a dedicated BMX track.

Figure 8: Current BMX provision within Metropolitan Perth and associated 10km catchments (BMX tracks by ID - see table 1 below)

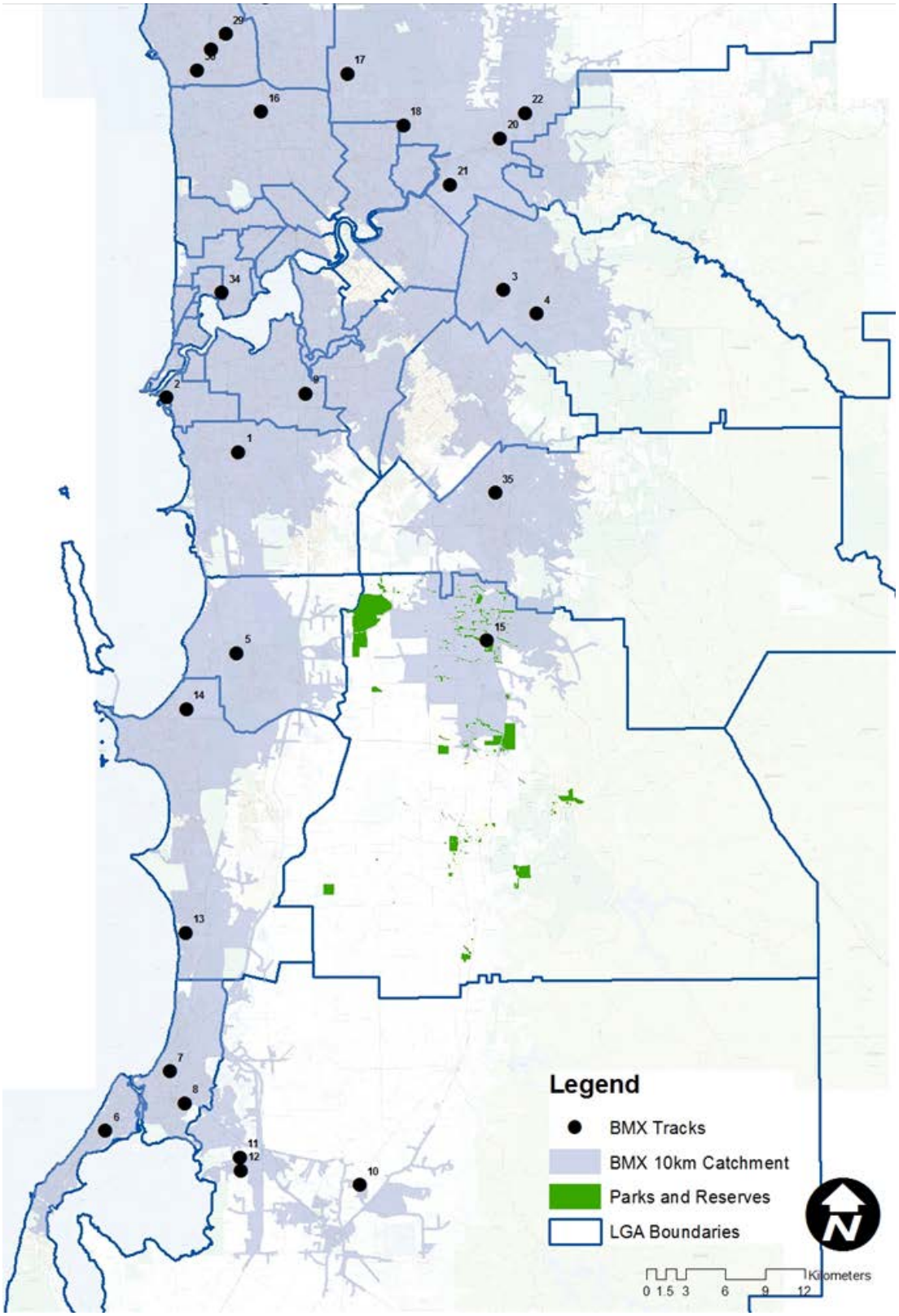


Table 1: BMX Infrastructure (including BMX WA Affiliated Clubs) within Metropolitan Perth

ID	BMX_Club	LOCATION	SUBURB	LGA
1	Cockburn BMX Club	Malabar Park	Bibra Lake	Cockburn
2	No formal club		Fremantle	Fremantle
3	No formal club		Forrestfield	Kalamunda
4	Hills BMX Club	Ray Owen Reserve	Lesmurdie	Kalamunda
5	Southern Districts BMX Club	cnr Tucker St & Atkinson Rd	Medina	Kwinana
6	No formal club		Halls Head	Mandurah
7	No formal club		Mandurah	Mandurah
8	No formal club		Coodanup	Mandurah
9	Southside BMX Club	Bob Gordon Reserve	Bull Creek (WA)	Melville
10	No formal club	Wandoo Drive	Pinjarra	Murray
11	No formal club		North Yunderup	Murray
12	No formal club		South Yunderup	Murray
13	No formal club		Golden Bay	Rockingham
14	Rockingham BMX Club	Ennis Ave	East Rockingham	Rockingham
15	Byford BMX Club	Briggs Park	Byford	S-Jarrahdale
16	Westside BMX Club	cnr Vasto PL & Balcatta Rd	Balcatta	Stirling
17	No formal club		Ballajura	Swan
18	No formal club		Beechboro	Swan
19	No formal club		Ellenbrook	Swan
20	No formal club		Midland	Swan
21	No formal club		South Guildford	Swan
22	No formal club		Stratton	Swan
23	Wanneroo BMX Club	Mary Street	Wanneroo	Wanneroo
24	No formal club	Mirror Park	Ocean Reef	Joondalup
25	No formal club	Candlewood Park	Joondalup	Joondalup
26	No formal club	Quarry Ramble Park	Edgewater	Joondalup
27	No formal club	Haddington park	Beldon	Joondalup
28	No formal club	Menteith Park	Kinross	Joondalup
29	No formal club	Shepherds Bush Park	Kingsley	Joondalup
30	No formal club	Galston park	Duncraig	Joondalup
31	No formal club	Kanangra Park	Greenwood (WA)	Joondalup
32	No formal club	Christchurch park	Currambine	Joondalup
33	No formal club	Pickett Park	Bullsbrook	Swan
34	No formal club	College Park	Nedlands	Nedlands
35	BMX facility recently decommissioned	John Dunn Memorial Park	Kelmscott	Armadale
36	No formal club	Nannatee Park	Wanneroo	Wanneroo
37	No formal club	Houghton Park	Carramar (WA)	Wanneroo
38	No formal club	Peridot Park	Banksia Grove	Wanneroo
39	No formal club	Kingsbridge Park / oval	Butler (WA)	Wanneroo

40	No formal club	Clarkson Youth Centre	Clarkson	Wanneroo

3.4 Facility Benchmarks

In order to gain an understanding of the key facility components associated with new and existing BMX tracks, an assessment of tracks within WA and overseas was undertaken. The key considerations with any facility is:

- A number of tracks have received recent investment to upgrade facilities in accordance with new and emerging guidelines
- The majority of facilities include a clubroom building which incorporates changing rooms, toilets, canteen/kiosk and storage.
- The start ramps associated with new club infrastructure range from 3m to 6m. The BMX facility at Sleeman, Queensland consists of dual start ramps of 5m and 8m ($4.2m construction cost)
- All tracks are configured in a similar manner with a shaded starting grid, 3 bends, a split track (incorporating a pro straight), central officials tower and a small number of car parking bays on site with the ability to utilise extensive external space for overspill event parking.
- Elevated viewing areas for spectators is ideal but not essential.
- The ability to bring in event infrastructure to accommodate state and national events without increasing static building costs.
- Floodlighting to accommodate events in the evening (a common theme is Friday night competitions).
- Overall costs of the development of a new facility varies significantly in response to the size of the site and associated infrastructure.

3.5 Summary Conclusion

The current trends associated with cycling and more broadly the wider sporting industry indicates:

- Cycling has experienced a decline in participation for a number of reasons since 2000. One reason sited is the lack of quality infrastructure which supports both club and casual development.
- Cycling is consistently high in respect of overall participation amongst adults. The mixture of non-contact and fitness elements encourage use as people age and move away from club based competition.
- BMX specifically caters for the lower age ranges being seen as the key introduction for children into the broader cycle disciplines.
- BMX within WA has grown significantly since 2011, providing the largest upward growth curve of all cycling disciplines. This is unlikely to diminish with the introduction of pump tracks being considered across a number of local governments within Metropolitan Perth.
- Current BMX provision within Metropolitan Perth is limited to 8 clubs and a series of smaller bound tracks in local parks. These facilities do not have formalised clubs but are casual play areas.
- The catchment of the Byford BMX Club is wide, extending into Armadale and potentially having the capability to attract members from Gosnells and Canning where existing provision is limited to non-club-based facilities on reserves.
- Typically, the main infrastructure costs are associated with the track and clubhouse. Whilst substantial car parking is generally required for events, the ability to make use of adjoining land is important to avoid excessive and unnecessary ongoing operational and asset management costs.
- The width and length of the track vary but the physical components are very similar. The provision of a pro-straight within the circuit is seen to be a valuable asset which will attract and retain membership by providing challenging alternative race opportunities.
- Floodlighting is an essential component of any new development to ensure its usage can be maximised.

4. Consultation Outputs

The following section outlines the key outcomes from the consultation process undertaken. A full transcript of the consultation sessions is attached at appendix F.

4.1 Byford BMX Club

The following represents the history of the Byford BMX Club:

- Established in the early 80's and has ebbed and flowed with membership and re-opened after an initial difficult period.
- The break in membership growth have been as a result of committee issues. Club is now very active. Facility is ok but not practical for a larger event.
- The club have secured the Super Series (State Round) but must be able to provide a minimum level of parking. The club cannot see a solution at Briggs Park for the club due to the oval upgrade.
- Previously the Club did not want facility to be relocated. This has been reconsidered given the current context and the Club's Strategic plan identifies future direction regrading relocation.
- Canteen facility was built by the Shire as storage unit and then later has been converted to a canteen. As a result, there is a constant power issue. The canteen turns over $1k to $1.5k on a Friday night
- Track lighting is being upgraded and completed in May 2018.
- Minimum requirements – Track, canteen and appropriate storage for maintenance equipment. Office facility for registrations. Precast concrete for storage under start ramp (ramp to be 6m rather than current 3m).
- Current Use: Mon, Tues, Thurs, Sat for coaching. Events operate on Friday nights.
- Funding: The club have $45k in reserve of which $25k is going into the replacement lighting. The club will set money aside this year for future relocation.

- Co-location opportunities:
    - Clear alignment with other wheeled sports such as:

        - Potential colocation with the skate park
        - Pump tracks (clay base with coating)
        - Scooters
        - Remote control cars
        - Road cycling – who currently have no facility (potential location with outdoor velodrome)

- Site Options:
    - Ideally would be on the main road artery – Tonkin Highway, on land in and around the extended road.
    - Car parking bays - lowest level is 300 with capability to accommodate 1,500 for the national championships
    - Areas also need to be available for gazebo's, toilets and tents.
- Centenary Plains in Queensland was identified as an optimum solution
- Management:
    - The club would seek to manage the facility and maintain it and for the Shire to maintain the buildings.
    - Vandalism is a big issue at present as it is not a closed facility. If closed off, the club would be willing to take on the responsibility. Lesmurdie BMX Club get a contribution from local government to maintain their facility.
    - During approved session (see below schedule), the Byford BMX Track is closed by an approved Club Official (Coach, Committee Member). Outside of these times, the track is open to the public for general use. The Byford BMX Club may from time to time need to close the track to conduct track maintenance or run special events (Come'n'Try Days, Inter-Club Events, etc.).
- In addition to the consultation undertaken, additional documents were produced by the club for review. These included:
    - A mini-wheeler track proposal (dated March 2018): The Byford BMX Club has a Mini Wheeler class of riders who are aged from 2 years old up to 4 years old (23 members). The Mini Wheeler class is split into 2 types – Strider & Pedal. Strider Mini Wheelers ride on a bike which doesn't have pedals and is propelled along using the riders' legs. Pedal Mini Wheelers are those riders who are transitioning from a Strider bike to a Pedal bike but are still gaining the necessary skills to conquer the entire BMX track. The Byford BMX Board would like to establish an area specifically for the Strider Mini Wheelers to utilise while the BMX track is in use. The most ideal space for the proposed Mini Wheeler Track is in the South East corner (closest to football over) of the BMX fence line.
    - 2017-202 Byford BMX Club Strategic Plan: The Club's vision is 'to be recognised by the community as the leading BMX club in Peel region with state of the art facilities'. The Byford BMX Club plan focuses on five key strategic objectives. These are:
        - Improve the visibility and profile of BMX
        - Improve the facilities
        - Attract and retain members
        - Improve volunteer attraction, retention, and coordination
        - Build revenue in support of financial sustainability

      As part of the identified targets, the Club are seeking to improve the existing facility and build a combined BMX and Skate Facility. It is also the intention of the club to improve and expand the annual calendar of competitions and events. This is unlikely to be achieved without developing a new facility on a new site.

4.2 BMX WA

The following comments were received from BMX WA:

- BMX Strategic Plan being undertaken in 2018
- 8 clubs in the metropolitan area – all at different levels.
- Byford is considered to be a country level facility. It has the potential to hold state championships.
- Ideal facility would be one ramp with 2 straights. Bunbury BMX track is one ramp and holding the 2018 Australia National Championships. It was chosen as the most suitable and benefits from close proximity to the soccer facility.
- BMX WA would like one state facility with an 8m ramp. They are looking to develop the business case in 2018. Cockburn has been considered but not ideal due to boundary and access constraints. Rockingham and Westside have also been looked at.
- For Byford, a 2.5m ramp is the minimum but 6m is preferred as this is the minimum used for competitions. An 8m ramp requires the whole facility to be fenced.
- Unless the track is open access, it must be licensed. Bull Creek is used 24/7 and has problems with motorbikes and remote control cars. A half fence is generally required to provide safe and secure access.
- Every club races each year throughout the year.
- Pump track could be located adjacent (not within the centre of the track).
- Competition structure: 2-4 mini wheelers; 5-7 sprockets; Individual age groups up to 17; 17+, 30+ and Elite class. These are all dependent on entry numbers. National championships have junior elite and elite.

4.3 Byford Bushrangers Inc. T-Ball

The following comments were received from representatives of the Byford Bushrangers:

- Relationship with BMX is good although it hasn't always been.
- They share the canteen and storage facility
- BMX will hinder the operations of the club – they operate Saturday mornings only at present and wish to operate on a Friday night which would conflict with BMX. The relationship would need to be strong.
- Current membership is 183 and want to get to 220
- For two expanding clubs there is no opportunity to celebrate. There is nothing in the redevelopment plan to include an enhanced changing room. The clubhouse was designed to build up but it is not in the best location – there is a need to know where a replacement clubhouse could be.
- They do not use the old toilet block /canteen – BMX/T-Ball has always used a shared facility but asbestos has been an issue with the old building although it has been left due to power being in place.
- Club will need use of canteen – match and training. Clubroom is required to house up to 50. They require an increase in storage as the netting needs to be removed and stored securely.
- Toilets need to increase in size as do changing facilities (none currently available). There is no officials room, no first aid and the serving of alcohol is not available at present. There will be a seniors team next year and they are planning to increase year on year. Car parking is a significant issue. Inter-club carnivals will require much more than is there at present.

- They require temporary mounding to facilitate play.

4.4 Serpentine Jarrahdale Cricket Club

The following comments were received from representatives of the Serpentine Jarrahdale Cricket Club:

- Currently 4 senior teams with 50 playing members. 145 juniors last year (6/7 sides). They train 5 days per week. All are based at Briggs Park. They are lacking space in the Shire and have to travel to Mundijong.
- The bottom oval improvements will be a significant benefit to the club – field is uneven and dangerous. The club require 1 x cricket pitch and 2 nets.
- Relationship with BMX is satisfactory – they do not impact upon each other significantly other than through using the oval as a car park.
- Future growth of club: looking to increase girls and senior women's team. The aim is to be a family orientated club (95% male at present). Looking to put in 3 to 4 more teams and therefore need to find additional oval space. Juniors will increase next year and seniors likely to increase to 5.
- The ideal solution would be to construct a pavilion in the centre of Briggs Park with 2-sided viewing. The two ovals on one site is essential.
- The general maintenance of the whole area is a problem – fencing is needed for the oval

4.5 Summary Conclusions

In summary the following conclusions can be reached from the consultation process undertaken:

- It highlighted the issues associated with capacity at Briggs Park. Whilst the clubs co-exist reasonably well there are issues created when there are events/competitions. Invariably this centres around the lack of available car parking space and the need to utilise the ovals as overspill car parking areas. Unfortunately, this is not a long-term solution given the investment in enhancing the oval provision to increase playing capacity at Briggs Park.
- Byford BMX Club is a viable club with a strong membership base and good governance structure. It has proven over the past 5 years to have a capability of managing the business well through an open and transparent process. This can be seen through the strong membership growth and healthy financial situation.
- The club desire a 6m starting ramp and also desire to have control over the kiosk which generates additional resources for the club.
- The club clearly has the capability to attract and run state and national level competitions and are able to resource the events through their own volunteer base.
- The club would wish to locate near the Tonkin Highway, however site availability is extremely limited there.
- BMXWA similarly recognise the club as being a critical member of the 8 Metropolitan affiliated BMX clubs with strong capability. They also referenced the importance of aligning the facility with other wheeled sports user groups and in particular the development of a pump track. They also advocated for a ramp of 6m.

5. Site Analysis

This section identifies the facility requirements for the Byford BMX relocated facility; establishes site assessment criteria and identifies the optimum site for the development of the re-located BMX facility.

5.1 Desired Facility Composition

The facility composition of a relocated BMX track should consider the following which may be developed in discrete phases:

- The Track to have a 6m ramp and be 10m wide. The first straight at 8 - 10m wide. The remainder of the track at 6m width (the 6m ramp should be considered as a temporary overlay on top of a 3m ramp). 400m length – 4 straights and three turns (maximum allowable height difference is 4m). Internal pro-straight.
- Direct Power and water supply
- Lighting of 100 lux
- Canteen and clubhouse (inbuilt within the ramp potentially)
- Viewing Tower and officials area (including bike check, repairs and storage)
- Good road access with capability of accommodating up to 2,000 vehicle movements for an event.
- 50-100 bay permanent parking with overspill capacity of up to 1,500 (within an adjacent site – larger sporting complex or industrial area)
- Spectator viewing areas (no formal seating necessary, but the potential to provide space for event overlay is important. A banked limestone terracing would be an effective measure, as is commonly used at rectangular and oval sports facilities where raised spectator viewing areas are required)
- Pump track adjacent
- Consideration of other wheeled sports – skate park and pump track.
- Site should be readily accessed by dual use footpaths with the capability of connecting through to emerging/future surrounding uses and residential estates.
- Capability to extend into a wheeled sports plaza

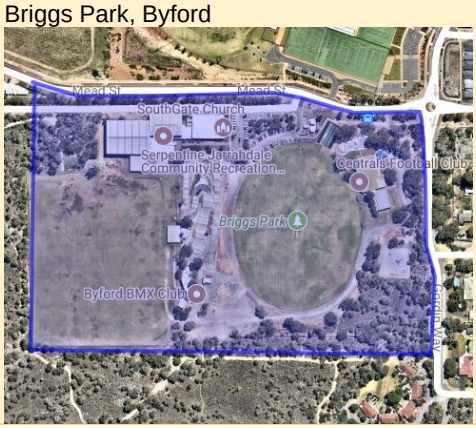
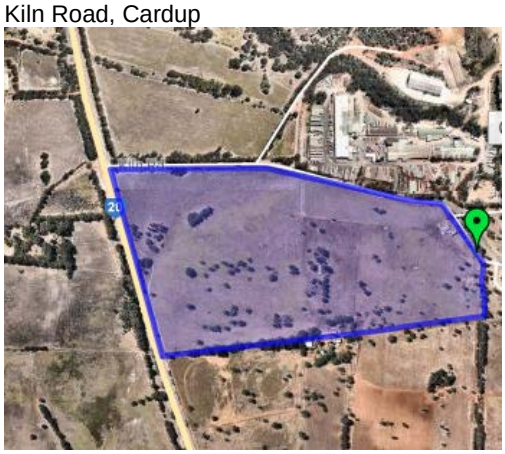
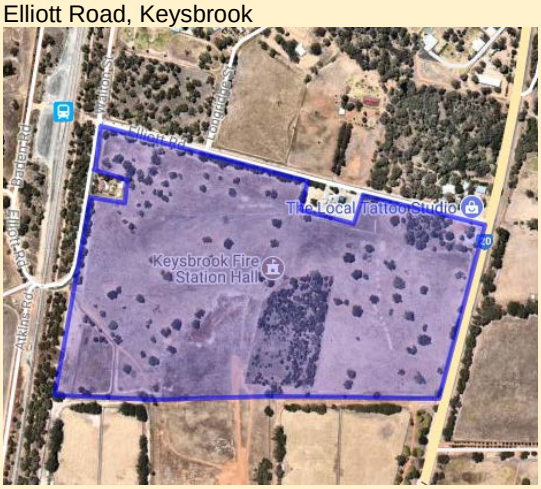
Based on land availability and capacity the sites to be assessed have been narrowed down to 5 potential opportunities (fenced or unfenced), include:

- Briggs Park, Byford
- Keirnan Road, Whitby
- Webb Road Reserve, Mundijong
- Kiln Road Cardup
- Elliot Road, Keysbrook

These are highlighted in table 2 below.

A site assessment criteria was developed having regard to the key functional aspects of each site and to provide rationale for developing concept plans.

Table 2: Sites under consideration for the BMX Facility

Sites under Consideration	
Keirnan Street, Whitby 	Briggs Park, Byford 
Webb Road Reserve, Mundijong 	Kiln Road, Cardup 
Elliott Road, Keysbrook 	

5.2 Site Assessment Criteria

The following table represents the site assessment criteria upon which all of the potential site for the BMX facility were assessed:

	Site Selection Criteria	1-3	4-7	8-10
1	Size	Site is severely restricted due to existing legislative or local controls limiting capability to develop.	Site has capability to develop but will have limitations impacting on future expansion.	Size and capability is relatively unhindered with capability of significant expansion and co-location with other wheeled sports.
2	Ease of Access to the Site (Car, Walk, Cycle, Public Transport)	Site is not on a major access road accessible by the majority of the community who are likely to use it.	Access is reasonable but there is need to take a circuitous route to get there.	Access to the site is excellent. There is safe access to the site by road.
3	Existing Infrastructure	Little or no existing infrastructure capable of being used.	Some existing infrastructure which could be utilised but ageing and in need of replacement over time.	High quality safety and quality of sealed roads which could be utilised. Additional supporting infrastructure and potential to re-purpose buildings and road infrastructure.
4	Utilities availability on site or distance from site (Communications, Gas, Electricity, Water)	No utilities available within close proximity of the site.	Some utilities are available but will require substantial costs to redirect/redesign/ connect.	Access to existing utilities within close proximity of the site and relatively cost-effective connections.
5	Site Design/Topography	Features (including road, natural features and landscaping) are at basic level only and add little to the value of its intended function.	Features (including road, natural features and landscaping) are more than a basic level and adds reasonable value for its intended function.	Features (including road, natural features and landscaping) are of a high level and add significantly to the value of the site for its intended function.
6	Land ownership/Tenure	No opportunity to acquire or leased the land.	Opportunity for future land management.	Freehold ownership / Shire managed for recreation purposes.
7	Noise – impact on neighbouring uses	Close Proximity to Residential or other noise sensitive developments.	Relatively isolated but some noise attenuation measures will be required to minimise impact.	No noise attenuation measures are required.
8	Timing – When land will be available and potential issues.	Site development capability will not be presented for 5+ years.	Site availability likely to be known within 1-5 years.	Site is readily available.
9	Funding Costs and Opportunities	No additional partnership contributions and funding opportunities exist.	Could involve site remediation and/or additional partnership investment which may be incorporated within the overall project costs.	Overall project cost may be offset by significant remediation investment and/or partnership investment which would be secured from current landowners.
10	Stakeholder and Regulatory Implications	Highly regulated and controlled site which has significant cost implications.	Some minor to medium planning and environmental regulations required to be addressed but would not prevent development.	Site is unencumbered and available to develop immediately without regulatory demands.

11	Water management – ability to contain pollution	Water management solutions are cost prohibitive.	Ability to contain and manage pollution within the site and develop is reasonable but has some significant cost implications.	No water management concerns.
12	Environmental – flora and fauna impact	Extensive flora and fauna issues which impact on development potential.	Site can be developed subject to the development of an environmental management plan explicitly addressing flora and fauna protection issues.	No flora and fauna issues.
13	Heritage – Aboriginal and other cultural heritage implications	Significant heritage issues which will inhibit development.	Some minor heritage issues which require management and signposting.	No cultural heritage issues present.
14	Alignment with existing complementary users	Currently no existing complementary users within close proximity.	Potential to build alignment with existing users within close proximity to the site.	Existing users present and may be developed as an integral part of a wheeled sport precinct.
15	Level of stakeholder support for location	No stakeholder support.	Reasonable level of stakeholder support but will require formal agreements and potential for conflict.	Strong Stakeholder support.
16	Potential community partnerships	No existing partnerships exist or have the potential to be developed.	Initial discussions have occurred but are marginal and will not significantly contribute to the sites tourism, club or economic development potential.	Existing committed partnerships.
17	Distance to current and future projected major population densities	Isolated location with limited accessibility from current and future major population areas (more than 10km distance from the site).	Reasonable access to current and future high-density population areas (within 10km of site).	Excellent access to current and future high-density population areas within 5km of the site.

5.3 Site Assessment

The following table identifies the site considered and the assessment undertaken

Site	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Commentary
Keirnan Park	10	8	2	5	8	10	10	10	9	9	9	7	7	7	5	6	8	TOTAL SCORE: 130 Score is likely to increase in a number of areas as the population grows in Mundijong Whitby.
Webb Road Reserve	10	8	2	5	7	8	10	8	5	7	7	8	7	5	5	5	7	TOTAL SCORE: 114 Overall development of site may be compromised by existing gated access to equine use at the site entry
Cardup Recreation Area	10	8	2	5	8	4	10	3	5	7	9	8	6	7	7	4	8	TOTAL SCORE: 111 40ha of land identified in the recent South-Metropolitan and Peel Sub-Regional Planning Framework.
Briggs park (current site)	2	8	7	8	5	10	6	4	1	3	9	2	9	2	3	4	10	TOTAL SCORE: 93 Land capability is limited and will not serve the best interests of the sport.
Keysbrook Reserve	10	2	2	5	7	8	10	6	4	7	9	8	5	2	1	3	2	TOTAL SCORE: 91 Land is too isolated from the main population centres

5.4 Recommended Site

Based on the site analysis there are two sites that have been identified as preferred site options:

- Keirnan Park
- Webb Road Reserve

It is recommended that the Keirnan Park option be pursued in the first instance due to the clear advantages presented across the assessment criteria process.

6. Concept Plan and Indicative Costing

Two concept designs have been undertaken. The first for Keirnan Park and the second for Webb Road Reserve (denoted as Lampeter Road Option). For Keirnan Park indicative regional level sporting precinct concept plans, produced by the Shire, were used as the template against which the potential development could be assessed. The purpose of this undertaking was to determine whether the facility would fit in with the other community infrastructure proposed on site. In ideal scenario, however, the track would be facing east west due to the requirement to have the prevailing wind behind the riders at the start. This however can be compromised when riding into the setting sun.

The concept design has been produced detailing the dimensions of track, car parking, landscaping, consideration of event overlay, clubhouse requirements and associated supporting infrastructure. The plans have been based around the following design principles which are based on UCI recommendations (with the potential capability of providing for international standard competition):

- Height of gate (denote as 6m or alternative as 3m which will be dependent on the site being identified as the State Administrative and Competition Centre for BMX).
- Elements of the Track: Start Ramp, 4 straights, 3 turns and the finish area. Areas immediately adjacent to the track are considered relevant for the safety of riders where the zone of influence covers 2.0m either side of the track marking.
- Assuming no greater elevation across the site of the BMX track of 4m.
- First straight starts at the start gate and ends with the first turn. The beginning of a turn is defined as a line at the inner side of the turn perpendicular to the middle line of the straight.
- Bottom of Starting ramp to foot of first jump: minimum 5m. The minimum distance between the exit of turn 1 and the peak of the first jump is 20m to ensure that the riders can align themselves after turn 1. The distance from the foot of the final jump to the finish line must be minimum 10m. Finish Zone minimum 35m.
- Overall length of a BMX track is to be 400m.
- The start ramp must be 10m wide. The first straight must be 8 - 10m wide. The remainder of the track must be a minimum 6m width.
- The circuit is to have a pro straight centrally located.
- Areas to be shown for event overlay - gazebo's, toilets and tents for camping
- Water points need to be available for watering the track and suppressing dust.
- Track, canteen, appropriate storage for maintenance equipment. Office facility for registrations. Precast concrete for storage under start ramp.
- Track lighting
- Tail wind should be provided in the first straight (if practicable).
- A pump track is to built in at 250sqm (adjacent to the track). A permanent facility is included within the concept design. However, a pre-fabricated modular design could be incorporated on a sealed flat surface if the Shire determine that the structure is required to have the capability to be relocated to an alternative location and replaced as the demand may dictate.
- The introduction of an all abilities skate park adjacent as a development option to enhance the sites capability as a wheeled sports centre should funding become available.

DCWC Quantity Surveyors have ascertained the likely costs of the full development. The costs have been split into the following options

- Option A references Kiernan Park
    - Scenario 1: Cost for BMX Track alone (including 6m and 3m Ramp).

- Scenario 2:Cost for BMX Track and Pump Track (including 6m and 3m Ramp).
- Scenario 3: Cost for Complete Development (including 6m and 3m Ramp).

- Option B references Webb Road (Lampeter Road) for both scenarios (including 6m and 3m Ramp).
  - Scenario 1: Cost for BMX Track alone (including 6m and 3m Ramp).
  - Scenario 2: Cost for BMX Track and Pump Track (including 6m and 3m Ramp).
  - Scenario 3: Cost for Complete Development (including 6m and 3m Ramp).

The full detailed cost breakdowns are contained at Appendix H and incorporates a cost for fencing. Should the facility be dedicated as an international standard, fencing of the site would be required. It should also be noted that the baseline costs for the clubhouse and viewing tower accounts for almost 25% of the overall project costs. This can be modified depending on the extent of infrastructure required to facilitate club activities. Event overlay infrastructure will be required for state, national and international events on an as needs basis.

Table 3: Option A and B Scenario 1: BMX Development Only

BYFORD BMX FEASIBILITY
15/05/2018

DONALD CANT WATTS CORKE

SUMMARY

Option	Option A - 6m Ramp BMX Only	Option A - 3m Ramp BMX Only	Option B - 6m Ramp Incl Pump Track	Option B - 3m Ramp Including Pump Track
	Total	Total	Total	Total
Building Works	$706,000	$706,000	$706,000	$706,000
External Works and Services	$2,366,841	$2,335,755	$2,555,887	$2,524,801
Construction Works Sub-Total	**$ 3,072,841**	**$ 3,041,755**	**$ 3,261,887**	**$ 3,230,801**
Design Contingency	5% $ 153,642	5% $ 152,088	5% $ 163,094	5% $ 161,540
Construction Contingency	10% $ 322,648	10% $ 319,384	10% $ 342,498	10% $ 339,234
Professional Fees @ 12%	12% $ 425,896	12% $ 421,587	12% $ 452,098	12% $ 447,789
Construction Works Sub-Total	**$ 3,975,028**	**$ 3,934,815**	**$ 4,219,578**	**$ 4,179,365**

Table 4: Option A and B Scenario 2: BMX and Pump Track

BYFORD BMX FEASIBILITY
15/05/2018

DONALD CANT WATTS CORKE

SUMMARY

Option	Option A - 6m Ramp BMX and Pump Track	Option A - 3m Ramp BMX and Pump Track	Option B - 6m Ramp BMX and Pump Track	Option B - 3m Ramp BMX and Pump Track
	Total	Total	Total	Total
Building Works	$706,000	$706,000	$706,000	$706,000
External Works and Services	$2,631,391	$2,600,305	$2,820,437	$2,789,351
Construction Works Sub-Total	**$ 3,337,391**	**$ 3,306,305**	**$ 3,526,437**	**$ 3,495,351**
Design Contingency	5% $ 166,870	5% $ 165,315	5% $ 176,322	5% $ 174,768
Construction Contingency	10% $ 350,426	10% $ 347,162	10% $ 370,276	10% $ 367,012
Professional Fees @ 12%	12% $ 462,562	12% $ 458,254	12% $ 488,764	12% $ 484,456
Construction Works Sub-Total	**$ 4,317,250**	**$ 4,277,037**	**$ 4,561,799**	**$ 4,521,587**

Table 5: Option A and B Scenario 3: Full Build Out

BYFORD BMX FEASIBILITY 15/05/2018									DONALD CANT WATTS CORKE
	SUMMARY								
Option	Option A - 6m Full Development		Option A - 3m Ramp Full Development		Option B - 6m Ramp Full development		Option B - 3m Ramp Full Development		
	Total		Total		Total		Total		
Building Works		$706,000		$706,000		$706,000		$706,000	
External Works and Services		$3,216,096		$3,185,010		$3,391,337		$3,360,251	
Construction Works Sub-Total		**$ 3,922,096**		**$ 3,891,010**		**$ 4,097,337**		**$ 4,066,251**	
Design Contingency	5%	$ 196,105	5%	$ 194,551	5%	$ 204,867	5%	$ 203,313	
Construction Contingency	10%	$ 411,820	10%	$ 408,556	10%	$ 430,220	10%	$ 426,956	
Professional Fees @ 12%	12%	$ 543,603	12%	$ 539,294	12%	$ 567,891	12%	$ 563,582	
Construction Works Sub-Total		**$ 5,073,624**		**$ 5,033,411**		**$ 5,300,316**		**$ 5,260,103**	

For all of the cost management models referenced in table 3 to 5 above the following exclusions apply:

- Excludes GST
- Excludes abnormal ground conditions / contamination etc.
- Excludes major services diversions
- Excludes major utility upgrades / contributions & headworks
- Excludes Fixtures Furniture & Equipment
- Excludes client costs, legal costs, site costs, agent's fees, finance etc.
- Excludes land purchase costs
- Excludes Client Representative / Project Management Fee / Professional Fees
- Excludes escalation - costs are current day
- Excludes % for Public Art
- Excludes Environmentally Sustainable Design
- Costs assume Competitive Tender process with local builders using basic palette of materials
- Excludes roads as assumed part of larger development

Notes:

- OPC based on indicative proposal drawings provided (Option A Kiernan Park Landscape Master Plan -15/05/2018 and Option B Webb Road Reserve Landscape Master Plan - 15/05/2018).
- All quantities and rates are provisional therefore subject to adjustment
- All external works and service allowances are Provisional

7. Implementation Plan

The following table identifies the implementation timeframe for delivery and investment in the BMX facility and associated infrastructure:

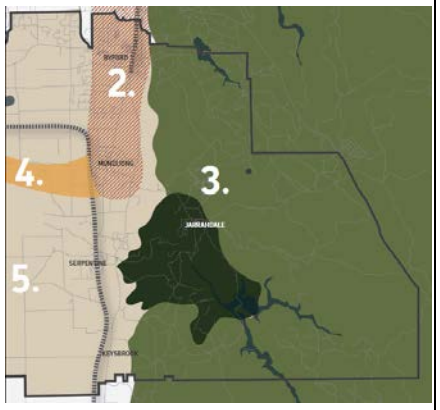
Actions	Deliverables	Major Activities	Key Milestone	Responsibility	
1. Further consultation with Byford BMX Club and BMX WA to refine and develop the BMX and confirm preferred site	Agreed facility composition and acceptable Shire and club financial contribution model.	Finalise facility specification and design brief.	Agree specifications for track and associated buildings (including floodlighting)	Shire Community Services and Byford BMX Club	
2. Agreed compensation for replacement trees undertaken in a phased manner (potential removal to be assessed)	Agreed tree replacement strategy and compensation process.	Detailed tree appraisal and compensation strategy agreed.	Reviews completed	Shire Community Services	
3. Identify and confirm power and service upgrade requirement for future budget planning	Analysis of all service requirements to service the site.	Review of power and services supply and capability.	Instillation of power upgrade budgeted in forward financial plan	Shire Infrastructure Services	
4. Finalise funding plan and secure partner contributions with BMX WA and others	Funding secured.	Clarify position with regard to investment commitment.	Funding confirmed and legally bound	Shire Community Services	
5. Appoint Project Manager	Project Manager appointed either within Shire or contracted.	Appointment Process to be undertaken (potentially across all projects).	Appointment confirmed after securing comprehensive funding commitment	Shire Community Services	
6. Review leasehold arrangements and re-enter or renegotiate lease	Lease for expanded ground established.	Lease to be drafted by Shire.	Lease updated as per agreed lease terms	Shire Corporate Services	
7. Prepare design brief, tender submissions and approval of final design	Design brief produced, tender application process completed and consulting team appointed.	Documentation produced in accordance with Shire requirements.	Brief approved by Shire	Project Manager, Shire Community Services	

Actions	Deliverables	Major Activities	Key Milestone	Responsibility	
8. **Review planning requirements** a. Refine Design and finalise planning submission b. Planning Approval and Satisfy Planning Conditions	Identify full planning approval requirements, planning reports. Floor plan and elevations produced. Approval notice. Action Plan to address conditions.	Check requirements against guidance and through consultation with relevant planning personnel. Design development and plans finalised in accordance with user requirements. Respond to planning requirements. Clarify requirements and ensure all conditions are met during design and construction phase.	Produce check list for submission. Planning approval submission completed. Conditional approval obtained. Action Plan developed.	Project Manager and Design Consultant Shire Development Services	
9. Develop detailed design and Subsequent contract documentation a. Value management review b. Cost plan developed c. Approve design development d. Contract documentation and head contract documents e. Prepare bill of quantities f. Approve tender docs g. Assess and appoint preferred bidder	Refine detailed design specification. Full assessment of scope of project. QS report against which tenders can be assessed. Design finalised.	Ongoing consultation with Byford BMX Club Value Management workshop and analysis. Cost analysis based on current market. Design revised in accordance with VM review, ESD analysis and stakeholder/ user group feedback.	Detailed design specification developed. Scope of project refined in response to VM output. Final QS costing Shire approve design.	Design Consultant Project Manager/QS Project Manager and Shire Development and Infrastructure Services	
10. Site establishment and mobilisation	Secure sites and ensure compliance with Australian Standards.	Secure site, install portable units, first aid and emergency systems, signage, H&S requirements etc.	Sites secured in accordance with the Acts and WorkSafe requirements	Project Manager and Builder	

Actions	Deliverables	Major Activities	Key Milestone	Responsibility	
11. Construction period	Construction commences.	Ensure compliance with approved plans, agree modifications, if necessary with Shire and ongoing monitoring.	Construction to conform to agreed contractual deliverables (on time and within budget)	Project Manager and Builder	
12. Practical completion	Construction completed.	All snagging and rectifications undertaken.	Certificate of Occupancy	Project Manager and Builder	

Appendix A: Document Review

Document	Precis of Main Considerations	Implications
Shire of Serpentine Jarrahdale		
Strategic Community Plan 2017 - 2027	- As part of the Integrated Planning and Reporting Framework it is the Council's principal 10-year strategy and planning tool. - Our vision: City living offering a rural lifestyle with abundant opportunities for a diverse community. - Of the 9 outcomes to improve the quality of life, the following are relevant: 1. Wellbeing - Our Shire will be noted for its healthy living, inclusive communities and integration with nature; a. Provide well planned and maintained public open space and community infrastructure. b. Provide a healthy community environment 2. Connected communities - Our Shire will be known for its vibrant, connected and resilient communities - In referencing responses to previous community perception surveys the Shire recognises there is a lack of value for money perception by residents for rates paid. Public facilities, parks, reserves and open spaces do however rank highly with satisfaction with services and facilities. - Participants in the panel and attendees at the community workshops were strongly in favour of maintaining existing assets as opposed to providing new facilities. - Participants in the panel and attendees at the community workshops appeared to be almost equally divided on the concept of user fees and charges, with 40-44% stating that groups should pay a significant contribution where they have exclusive use, and almost 35% said all users should be able to use facilities for minimal fees as is currently the case.	- The Strategic Community Plan advocates the provision of a wide variety of infrastructure to meet the needs of a diverse community. - The focus is on well planned and maintained community infrastructure and to ensure there is an opportunity to provide a healthy community environment. - The importance of maintaining and enhancing connectivity within the community is also important. Therefore, any new infrastructure should be placed within close proximity to where people live and readily accessible by walking, cycling, private motor vehicles and public transport. - Residents within the Shire value the public open spaces and were strongly in favour of maintaining current infrastructure rather than building new.

Document	Precis of Main Considerations	Implications
Serpentine Jarrahdale 2050 (November 2016)	The plan references the Shire of Serpentine Jarrahdale's 13 localities and townships inclusive of Byford, Cardup, Darling Downs, Hopeland, Mundijong, Serpentine, Jarrahdale, Karrakup, Mardella, Oakford, Oldbury, Whitby and Keysbrook. The Shire is expected to add nearly 100,000 people by 2050. 5 precincts are referenced: - Western Growth Corridor - identifies strategic activity centres which form a vital link for the Shire to connect with the wider network. - Eastern Growth Corridor – where it is important to define development limits to preserve its distinctive character and environmental qualities unique to the region. - Darling Scarp - The State Forest - Development Link - The proposed upgrade of Mundijong Road and the realignment of the freight rail within this corridor provides an important east-west link - Rural Agricultural - Maintaining access to fresh, locally grown food and preservation of the rural farmland for future generations will continue to be an important asset to the region. Key outputs from the consultation process includes: – Provision of youth services was identified as a gap in services (for youth and teens) within the Shire. The community is predominantly comprised of young families but there is little infrastructure to support families throughout their lifecycle. This may lead to a growing rate of antisocial behaviour as young children grow up within the Shire with nothing to do. There is a need for more entertainment, retail and sporting options for children and youth. – As the most common theme, a number of responses mention a 'connected community,' as residents believe the Shire currently is not connected through each neighbourhood. Other common words associated with community were 'community spirit', 'integration', 'vibrant' and 'inclusive'. 	- The key aspect of this plan is the reference to the main growth areas and enhance connectivity through an east west link. The growth corridors are clearly identified as Byford (currently expanding and Mundijong (projected high growth). - The provision of youth services is identified as a critical gap in current service provision which needs to be addressed, particularly as the area will continue to expand its young family base.

Document	Precis of Main Considerations	Implications
Community Infrastructure and Public Open Space Strategy (10 January 2017)	The document identifies the councils general approach and philosophy in planning for community infrastructure and public open space: – Equitable provision of community facilities and services across the Shire with regard to the local area needs. – Connecting future facility provision to areas of population growth to ensure community facilities and service address future community needs – Encouraging the development of community hubs that act as focal points for community activity and encourage greater integration of services and ease of access for service users – Planning and designing community facilities to ensure flexibility and the capacity to adapt to changing community needs – Planning community facilities in an integrated way that includes integration with public spaces, business opportunities and active transport networks – Recognition of the importance of partnerships including the possible involvement of a range of other stakeholders including state government and the private sector. The vision and 12 guiding principles include: 1. A co-ordinated network of facilities – to allow distinct, unique or specialist services or amenities to be provided in appropriate locations. 2. Central to catchment and equitable access – to be outward facing, welcoming and designed to be accessible to all. 3. Location to promote visibility and accessibility – to be highly visible and easily accessible 4. Integrated/co-located - providing opportunities for people to meet, learn, play, socialise and express their culture. 5. Resilient and multiple use - readily modified or expanded to adapt as needs change delivering a range of programs and services. 6. Serving identified social needs - to respond to the needs and interests of the people that live and work within the particular catchment area to foster long term social benefits for the community. 7. Contribute to public domain and sense of place - becoming important focal points and gathering places for the community 8. Connected to public transport, pedestrian and cycling networks - ideally be located within a 400 metres walking distance of a regular public transport stop. 9. Sufficient size and design to enable expansion and adaptation.	- The key underlying considerations in the development of new infrastructure is: o Equality of access o Close proximity to the population it is intended to serve. o As far as practicable be part of a multi-functional and multi-dimensional community hub. o Be flexible. o Be integrated with existing opportunities and transport networks. o Be undertaken in partnership with others. - The guiding principles raised within this document should underpin the development of the relocated Byford BMX facility if it is determined the only solution to accommodate future growth is to provide an alternative facility elsewhere. - The document references BMX specifically and advocates the requirement for both a district level bitumen track and local level dirt track facility in the Mundijong-Whitby catchment and a subsequent local level dirt track in Byford. It further states that a bitumen track will not need to include a UCI elevated starting platform or other embellishments for competition as this level of

Document	Precis of Main Considerations	Implications
	10. Financial viability and environmental sustainability - which may include an agreed operating loss in recognition of a broader community benefit. 11. Safety and security – to be designed in accordance with Crime Prevention through Environmental Design (CPTED) principles. 12. Master planned and staged strategy – to locate facilities and spaces in areas where utilisation can be optimised and negative or consequential impacts on the community, environment and other uses can be minimised. The hierarchical approach identifies regional, district, neighbourhood and local provision, each having specific hierarchical descriptors. Sport spaces provide a venue for formal structured sporting activities such as team competitions, physical skill development and training. Sport spaces are designed to accommodate playing surface, buffer zones and infrastructure requirements of specific or general sporting activity. In referencing BMX tracks the document states: Previous work has highlighted the requirement for both a district level bitumen track and local level dirt track facility in the Mundijong-Whitby catchment and a subsequent local level dirt track in Byford. Given there is already a local informal track in Serpentine's Recreation Precinct, a district level bitumen track may still be required within the Shire but the bitumen track will not need to include a UCI elevated starting platform or other embellishments for competition. This level of competition would go to the sub-regional facility in Byford. A potential location for consideration for a smaller track could be collocated is the regional sports space site on Kiln Road in Cardup or at Kiernan Street in Mundijong. The intention is to develop skate facilities in association with the youth facilities and/or BMX facilities promoting the community hub model.	competition would go to the sub-regional facility in Byford. - Of the sites to be investigated for a replacement BMX facility the following have been identified: o Kiln Road, Cardup o Kiernan Street
Community Infrastructure Implementation Plan (Sept 2017)	The primary cluster of facilities is at Briggs Parks Recreation Precinct and demand is creating pressures on the site. Planning of the integration of the Briggs Park site with the school sites to the North would allow this space to function more effectively for the community. The community prioritised the development of the youth centre at Briggs Park. The site therefore requires the relocation of the BMX track to Keirnan Park. Further investigation should be undertaken to determine an appropriate site for the BMX track. This is identified for 2019/20 at a cost of $1m. Site options for BMX infrastructure include:	- The Community Infrastructure Plan advocates the relocation of the BMX facility from Briggs Park to Kiernan Street but also recommends further investigation be made to determine the most appropriate site. Kiernan Park is favoured due to its central location with Woodland Grove identified for a local BMX track or skate park.

Document	Precis of Main Considerations	Implications
	– Keirnan Park Recreation Precinct (being centrally located) - Adequate lighting provision, parking and a clubhouse administration centre with storage will need consideration as part of concept plans and designs. Further studies can determine the implementation of the BMX track. – Woodland Grove for a local BMX track or Skate Park	
Long Term Financial Plan 2013 and Budget for year end June 2016 and June 2017	– Budgeted Revenue for 2016/17 is $30,183,898 whilst expenses is budgeted at $37,348,883. After taking into account the grants, subsidies and contributions the net result is -$3,890,320. This compares to a surplus in 2015/16 of $228,904 (budgeted for $4,996,046). – The main budgets indicate 2016/17 revenue from Community amenities = $4,048,514 (expenditure ($8.657M); Recreation and culture is $306,862 (expenditure of $6.713M). – A figure of $337,715 is allocated for Byford BMX carried over from the 2015/16 budget (subject to a 2.1% increase). $100k is allocated for the Briggs Park Reserve to facilitate the development of the master plan. Briggs Park Youth Precinct Facilities - Skate Park has a figure of $200,000 allocated for recreational amenities. – Previous investment (2016) of $35k was provided for the Briggs Park Youth Services Room (conversion of existing building) and $150k to undertake minor upgrades to Briggs Park Lower Oval.	- In 2015/16 the Shire created the Byford BMX Track Reserve to provide for future facility requirements. Money has been drawn from the reserve for various projects related to the facility since this time, such as the recent lighting upgrade project. The current 2018/19 forecast opening amount for the reserve is in the vicinity of $300,000. - The minor upgrades to Briggs Park Lower Oval will negate the use of the oval for overflow car parking for events and re-enforces the need for BMX to be relocated as soon as practicable.
Shire of Serpentine Jarrahdale 2015-2016 Annual Report	– The report identifies interim upgrades to the Briggs Park BMX facility as having been commenced. This was reported under the Built Environment: Sustainable planning, design and building of appropriate and accommodating places and spaces for the Shire's diverse population.	
Shire of Serpentine Jarrahdale Health and Wellbeing Strategy 2016-2019	– The Shire recognises that its legislative role in promoting health and wellbeing is through urban planning, social and physical infrastructure, contemporary health protection initiatives, community programs and the creation of healthy and safe environments. – Serpentine Jarrahdale has a low proportion of adults aged 20 to 34 years and 65 years and over, and a higher proportion of children aged 0 to 14 years and adults aged 35 to 54 years, compared with the State. Most deaths in the region were associated with chronic health conditions, including ischemic heart	- Enhancing the communities' health and wellbeing can be undertaken in a variety of ways. A critical component however, is the development of good quality accessibility sport and recreational infrastructure.

Document	Precis of Main Considerations	Implications
	disease, cerebrovascular disease (strokes) and cancers. Encouraging a healthy diet and physical activity is critical in addressing this. – A community survey indicated: o 28% unhappy with their current health and lifestyle choices. o 55% regularly exercising for 30 minutes, 15% said they did no exercise. o 36% want more walk trails and 41% want more public exercise equipment in our parks. o Between 35% to 55% of people stated they would use parks more frequently if there was more access to adult exercise equipment, drinking fountains, more bbq areas, better facilities for children and dog exercise areas. – Under Active Lifestyles it states 'It is important that the environments where we live and work support physical activity. The urban and built environment can have a significant impact on our health. The environment influences opportunities for walking, cycling and public transport use, as well as recreational physical activity'. Of the key programs, objectives and strategies the following are relevant: o Healthy Built Environments: Advocate the need for the built environment to be designed to support, encourage and enable active living. It will be achieved by supporting planning, transport and land use opportunities which encourage people to be more active. o Healthy Active Communities: Promote healthy lifestyles in the community to address obesity and increase physical activity. It will be achieved by encouraging physical activity opportunities and promoting the use of alternative, sustainable transport options such as walking and cycling to improve health outcomes.	- The high proportion of young children and adults aged 35 to 54 highlights the importance of providing infrastructure that both supports young family units but also provides the opportunity for residents to actively pursue activities of their choice. - Walking and cycling to improve health outcomes is raised as a priority.
Shire of Serpentine Jarrahdale Annual Residents Survey of November 2016	A statistically robust survey conducted by telephone and online with a sample of 407 randomly selected residents across the Shire. Relevant outcomes included: – Residents of the Shire of Serpentine Jarrahdale are mostly satisfied with the various services, infrastructure and facilities that are provided and maintained by their Shire. – While satisfaction with services and facilities is high (particularly with public facilities, parks, reserves and open spaces and waste and rubbish disposal),	- The annual survey of resident's survey of November 2016 highlights the provision of connections between facilities and to facilities are particularly important. - Whilst residents are satisfied with the provision of public open space in the northern wards, care needs to

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	residents are not recognising that the rates they pay represent value for money or recognising the quality of the Shire's financial management. – Availability of footpaths and provision of dedicated walkways and cycleways represents a good opportunity for improvement. – Significantly more residents of the North Ward (where Byford is located) are satisfied with the maintenance of open spaces compared to both the North West and Southern wards. Residents in the North West ward were less satisfied with multi-use trails	be taken to ensure the southern wards are not disadvantaged
Sport and Recreation Precinct Feasibility Study (September 2013)	The report assessed the provision of a centrally located multipurpose sporting precinct. Short term development options included: AFL Football Ovals, cricket oval(s), rugby fields, soccer fields, netball courts, BMX Park, Skate Park. Alternative management options and risks were assessed together with the potential financial implications associated with phased development and operational costs. Further consultation and lobbying to develop the site was recommended.	- There is a danger in developing a multi-purpose sporting precinct that infrastructure may be spread too thinly and not achieve its overall purpose. A focus on 2 or 3 key strategic sports and aligned activities is strongly recommended to avoid this scenario.
Advocacy Strategy	The document seeks to promote investment opportunities within the Shire. It states that 'Unfortunately, the population growth rate has meant that even with our normal revenue streams and developer contributions, we are struggling to finance the infrastructure our community needs.' A lot of the priority projects rely on strong government relationships and acquiring commitments to project funding from essential State and Federal partners. The Shire has committed to showcase the Shire with fresh and innovative tourism strategies. Under Our People the themes of wellbeing, connected communities and education – youth services are reinforced. Of the opportunities identified is to establish Serpentine Jarrahdale as a leader in best practice for community development, by adapting and improving on existing models to suit its unique position. In addition, to be a destination for the wider community by attracting regional events and programs to the Shires facilities. A regional sporting complex is referenced as a challenge where significant areas of land would need to be identified and potentially rezoned for community development. This would then be held in statutory processes, with long timeframes expected for progression and approval. Population growth is stated as increasing from 29,258 to 113,058 by 2050 with the current demographic breakdown indicating a youth and child population of 37.6% (0-24 years).	- The Shire has committed to showcase fresh and innovative tourism strategies. As part of a broader tourism agenda sport should be recognised as having a significant contribution to play within a coordinated events strategy. - The relocation of the Byford BMX Club to a piece of land which permits extensive event overlays and provides sufficient off-road car parking is important to achieve this approach.

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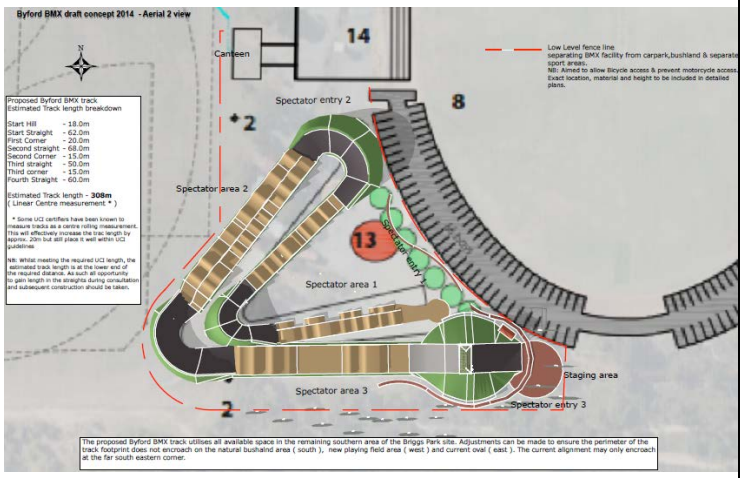
	The regional sporting complex is specifically referenced with land acquisition by 2021/22, construction by 2022/23 through to 2030/31 at a cost of $75-100M with the following partners identified: Federal and State governments, Department of Sport and Recreation, Department of Health, Department of Regional Development, State and regional sporting clubs and associations, Serpentine Jarrahdale Community Recreation and Sport Group (Inc.), key sporting bodies such as the WA Cricket Association and Netball WA, local sporting clubs and associations. Stage 1 under the preliminary investigation would include ovals, grandstands, change room facilities, and a main building housing indoor courts, bar, function area, commercial grade kitchen, canteen, and a gym. Stage 2 would involve the building of an indoor swimming pool facility, hydrotherapy pool, leisure play pool, spas and saunas. The document advocates the Department of Land to transfer the vesting of land at Keirnan Street, Mundijong to the Shire of Serpentine Jarrahdale for a regional sporting complex and the Metropolitan Regional Improvement Fund to fund the State government headworks of the building of the regional sporting complex. The Shire is also seeking to fund a youth strategy to underpin the development of youth services	
Byford BMX draft concept 2014 (Dirtz)	Negative observations of current Byford BMX track are identified as: – First and third straight of current track currently run up hill, reducing flow and speed for riders – First and second corners inside diameter is currently too narrow, reducing speed of track and creating gate bias.	- The draft concept plan undertaken in 2014 follows the core guidelines produced by UCI. - It was estimated that the current Byford BMX track contains 5,000 cubic metres of material which could be used and transported to a relocated site to offset costs. - Nevertheless costings identified for the facility was estimated at $863,344. With the development on a new site with limited servicing, this cost would increase substantially.

Document	Precis of Main Considerations	Implications
	– Too many areas of tread path are level with  surrounding ground, reducing effective drainage – Track alignment does not take into consideration predominant wind direction. – Start Hill height is outdated compared to modern guidelines The key points to consider are: – All straight to be raised (300mm) above surrounding ground and crowned to assist proper track drainage. – Alignment of 'bigger jump' straights should attempt to take predominant wind direction into account – Alignment of straight to take site fall into account if possible. – Lighting will be required to be revised and trees trimmed or removed between new first straight and second straight Estimated base material between 6,500 - 7,500 cubic metres, will be required to complete construction of the proposed Byford BMX track, excluding start hill construction. The current Byford BMX track is estimated to contain approximately 5,000 cubic metres, leaving an offset of 1,500-2,500 cubic metres of required base material. Costings identified for the facility included an overall cost of upgrade of $863,343.81. This allowed for cost offsets with the club removing existing structures and materials which were not to be re-used in the construction of the track (reference OCM054.2/09/14).	

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Briggs Park and Brickwood Reserve Draft Management Plan (01/11/15)	The protection of the threatened ecological communities within the reserve is of paramount importance. Reconciling the protection of this significant environmental feature with community demands for access and recreation is a major aim of this management plan. Key recommendations included: – Implement the Master Plan for Briggs Park Recreation Precinct to increase, renovate or upgrade reserve and park facilities, including public lighting as appropriate, over the life of this management plan. – Isolate and restrict access to dieback (Phytophthora cinnamomi) free areas. – Develop a public education program that targets local landowners and users of the reserve, to protect rare and beautiful species in the reserve, and to protect the reserve from impacts of domestic cats and dogs, impacts of weeds, dieback (Phytophthora cinnamomi), physical disturbance and impacts of fire. Reference is made to the BMX, facility or bike racing, which was initiated at Briggs Park in 1982 when the track was originally constructed. The Pegasus BMX Club constructed the facility to provide the sport for their children and it was substantially upgraded in 1999. The club was very active and in 1984 the national titles were held at Briggs Park over four days. An open day in 2001 attracted 2000 spectators and 400 riders. In recent years the condition of the track has declined. The area of the reserve mapped as Pinjarra Plain P1a soil type is used for a variety of recreation facilities. The area includes the top oval, the BMX track, the club change rooms, the car parks and the Briggs Park Pavilion. There are also some small areas still supporting disturbed remnants of the original vegetation. Much of the surface area of this unit has been extensively altered, particularly the areas of the top oval and the BMX tracks. This has completely changed their properties in relation to infiltration, water logging and nutrient retention. The BMX track and the car park areas are hard surfaced areas that generate high levels of runoff. The runoff can carry sediments and other pollutants into the drainage system. The materials used to create the jumps include used tyres, soil and gravel. The course has a surface of bitumen and granite fines that is quite stable and impermeable. The high steep-sided jumps shed rainfall, which tends to erode the unsealed edges of the jumps and the bare soil surfaces adjacent to the jumps. The dust created by the use of the course through summer is suppressed by irrigating the course prior to use. The Recreation Precinct Master plan promotes the redevelopment of the BMX track on site. A similar treatment to the existing track installation is to be repeated in the new location.	- The plan references the BMX, facility when it was constructed at Briggs Park in 1982. The Pegasus BMX Club in originally constructing the facility to provide the sport for their children was very active, attracting over 2000 spectators and 400 riders for some events. In recent years the condition of the track is considered to have declined. The area of the reserve mapped as Pinjarra Plain. The Recreation Precinct Master plan promotes the redevelopment of the BMX track on site. A similar treatment to the existing track installation is to be repeated in the new location.

Document	Precis of Main Considerations	Implications
Serpentine Cemetery Reserve Draft Management Plan (01/11/15)	Approximately 1 hectare of the 2.4 hectare Serpentine Cemetery Reserve is built cemetery and associated infrastructure, while the majority of the reserve is recognised and protected as an Environmentally Sensitive Area and is formally managed and recognised as a portion of Bush Forever Site No. 371. The Serpentine Cemetery Reserve is adjacent to the Serpentine River near the Darling Scarp and Serpentine Falls. The water resources of the Serpentine Cemetery include the artificial drainage system and the groundwater natural resource. This area is part of the Peel Harvey Catchment. The Serpentine River and its tributaries flow into the Peel Harvey Estuary, an internationally significant wetland, within which nutrient eutrophication is a significant issue affecting both conservation and recreational values of the estuary and its wetlands. Key priority actions included: - Change of reserve purpose to include Conservation along with the current purposes of Public Recreation, Public Open Space and Public and Community Purposes. - Encourage, support and facilitate connectivity to heritage walk trail networks and associated community group and committee ongoing participation in the management of the reserve (No. 31).	- The Serpentine Cemetery Management Plan has been prepared to provide a clear direction for the future management and enhancement of the values of the Serpentine Cemetery.
Concept Plans for Byford BMX Track (SJ514-04) – Council Resolution 26/08/14	The upgrade of the Byford BMX Track – which the community built – has been a vision of the Byford BMX Club's for a number of years. The Shire's strategic planning processes have supported this. The Concept Plans provide for a BMX track that is capable of hosting National level competition. In order to allow for this development, the Department of Parks and Wildlife was consulted and a clearing permit will be required to allow for the minimal removal of trees and any off set to accommodate demolition of the old track and the footprint of the new track. Approval of the concept plans and progression of the clearing permit was authorised.	- The council have previously shown strong support for the upgrade and development of the track to meet the long term needs of the club. The extent of development to meet the needs of hosting national level events needs to be balanced against the potential financial return which may accrue and the ongoing maintenance and potential risk profile of extensive infrastructure.
Ordinary Council Meeting Minutes:	OCM131/09/17 – Community Sport and Recreation Facility Fund - Briggs Park Recreation Precinct Redevelopment Stage 1 (SJ1213). The council was requested to endorse the Shires funding application to the Department of Local Government, Sport	- There are clearly capacity issues related to the sue of open space. The BMX facility in its current location, after the investment in the

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Tuesday 26 September 2017	and Cultural Industries through the Community Sport and Recreation Facility Fund for the Briggs Park Recreation Precinct Redevelopment Stage 1. The Shire is requesting $1,295,481 from a total estimated project cost of $3,948,000 (ex GST). The Briggs Park Lower Oval Redevelopment was first identified as a priority in 2008 in the 'Community Facilities and Services Plan 2020'. Nine years on the need for the Lower Oval to be fully functional has become critical due to the rapid population growth in Byford. The project funding strategy identifies the CSRFF as the only confirmed opportunity to source funds from State or Federal government in the immediate future.	lower oval, would become isolated with limited capability to utilise the site for competitions or significant club events. This would have a detrimental effect on the ongoing viability and operational sustainability of the club. - Given the investment being made to increase the capacity of the lower oval it would be unreasonable for the Byford BMX Club to expect to use the POS as overflow parking.
State and Regional Strategic Planning Documents		
Perth and Peel@3.5 million (WAPC March 2018)	In referencing growth within Byford and Mundijong the strategic document states: A significant amount of future development will occur on land already zoned for urban purposes. This includes the continuing development between Kwinana–Rockingham and Mandurah–Pinjarra, as well as within emerging urban areas throughout the sub-region including Byford and Mundijong. Consistent with the planning principle established in 1999's Coastal and Lakelands Planning Strategy, urban development will not extend south of a line from Dawesville–Pinjarra. Other Urban Expansion/Investigation areas will consolidate and round off existing urban areas. These areas include, amongst others land identified at Byford (south), Cardup, and Mundijong. .	This document identifies the extensive growth both within the southern coastal corridor and inland foothills area. Both Byford and Mundijong are recognised as critical settlements to meet the growth of Perth and Peel to 3.5 million by 2050. This however will require significant upgrades to services including water storage, rail and road infrastructure which is referenced in the document.
The South Metropolitan Peel Sub-Regional Planning Framework- Towards Perth and Peel@3.5million (March 2018)	The Peel framework guides the future growth of the region along with all metropolitan areas as a compact, consolidated and connected city that can accommodate a population of 3.5 million by 2050. The framework covers almost 5,000 square kilometres of land and aims to strengthen key activity centres and employment nodes to meet the future needs of industry, commerce and the community. Byford and Mundijong are identified as District Level Activity Centres. The framework seeks to identify sites to meet the growing requirements for regional sport and recreation facilities and establish the elements and functions of the green network in supporting an active and healthy community. A 40 hectare site at Cardup is identified as a potential future regional sports facility to meet the needs of greenfield developments.	The document states that all people should be able to easily meet their education, employment, recreation, service and consumer needs within a reasonable distance of their home. This must make effective use of public transport. Both Byford and Mundijong are identified as District Level Activity Centres where the main residential development within the Shire will occur. A decision will need to be taken on whether Cardup is a

Document	Precis of Main Considerations	Implications
		viable solution as a regional sporting precinct when assessed against Kiernan Street.
Strategic Directions for the Western Australian Sport and Recreation Industry 2016-2020 (Department of Sport and Recreation)	The document provides vision and direction for Western Australia's Sport and Recreation Industry. The following key challenges relevant to the relocation of the Byford BMC Club track: • PUBLIC OPEN SPACE AND URBAN FORM: Urban parklands and green spaces for sport and active recreation are integral components of urban infrastructure and make a significant contribution to community health and wellbeing. In order to deliver public open space which meets the needs of communities into the future we must be efficient with resources, focus on the function of sites, provide equitable access to facilities and secure strategically important regional scale spaces. • COMMERCIALISATION: A small number of high profile sports with significant participation bases and integrated competition structures now have robust commercially oriented business models, while community-based sport and recreation organisations are increasingly reliant on public investment for their survival. Public investment in sport and recreation organisations should factor in the capacity of these organisations to source commercial revenue. • FINANCIAL [UN]CERTAINTY: The sport and recreation industry must optimise the value derived from public and private funding in tight fiscal circumstances. Sport and recreation stakeholders must be strong advocates for the many benefits that are enabled by continued investment. • LIFE COURSE AND LIFE STAGE PARTICIPATION: The achievement of improved participation rates in sport and recreation, and more broadly active lifestyles, will require innovative responses to the life course and life stage circumstances of Western Australians. A combination of expanding pioneering initiatives and adapting successful concepts from other jurisdictions can stimulate healthier and socially beneficial outcomes for our community.	Strategic Directions for the Western Australian Sport and Recreation Industry 2016-2020 identifies the following which need to be considered in the development of regional sporting infrastructure: - In order to deliver sporting facilities which meets the needs of communities into the future we must be efficient with resources, focus on the function of sites, provide equitable access to facilities and secure strategically important regional scale spaces. - Community-based sport and recreation organisations are increasingly reliant on public investment for their survival. Public investment in sport and recreation organisations should factor in the capacity of these organisations to source commercial revenue (in the case of the Byford BMX Club the likely capability of attracting such funding is low). - The sport and recreation industry must optimise the value derived from public and private funding in tight fiscal circumstances. - The achievement of improved participation rates in sport and recreation, and more broadly active lifestyles, will require innovative

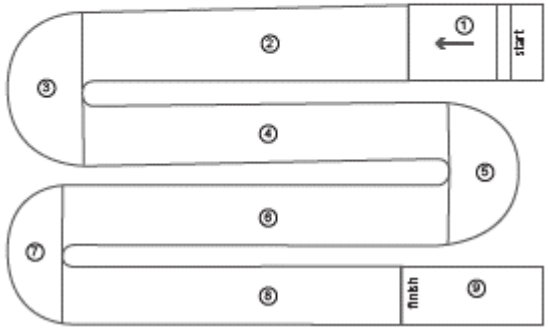
Document	Precis of Main Considerations	Implications
		responses to the life course and life stage circumstances of Western Australians. A combination of expanding pioneering initiatives and adapting successful concepts from other jurisdictions can stimulate healthier and socially beneficial outcomes for our community.
Feasibility Study Guide (Department of Sport and Recreation July 2007)	Clarifies the purpose of undertaking a feasibility study in critically assessing a proposal to build a facility and enabling the owner/operator to make an informed decision about whether to proceed with the proposed project. Consideration of all the alternatives is required in order to establish the most effective investment of funds. The analysis of social and financial impacts of the proposal and risks involved is critical by studying: • the marketplace; • usage and management issues; • the facility components; • location options; • financial viability.	The feasibility study should consider: - the marketplace; - usage and management issues; - the facility components; - location options; - financial viability
Life Cycle Cost Guidelines (Department of Sport and Recreation May 2005)	Identifies the four primary principles to consider when assessing life cycle costs. • A recognition that a facility development project begins at the concept and preplanning stage and is complete when the asset is sold or the site returned to its original condition. • Examine the full cost of each project component across the life of a project rather than choose the cheapest option. This may mean a higher initial outlay but lead to reduced ongoing operational, maintenance and disposal costs and a net lower total ownership cost. • Consider all of the economic and financial costs associated with constructing, procuring and operating a facility at a level for which it was originally planned. • Developing a life cycle cost analysis is an intrinsic part of the overall asset management strategy.	In assessing lifecycle costs the main issues to be addressed include: - Facility development project begins at the concept and preplanning stage. - Project components should be assessed across the life of a project to ensure the optimum solution is chosen and not just the cheapest option. - It should be incorporated as part of the sites asset management strategy.
State Sporting Facilities Plans		

Document	Precis of Main Considerations	Implications
BMXA Strategic Plan 2015 - 2018	BMX Australia has adopted 3 strategic priorities as the pillars upon which the sport is nurtured and promoted. Each pillar has specific aims and outcomes yet require complementary action to support and deliver the vision of BMX Australia. - Partnerships – Generate relationships that maximise opportunities for BMX. - Participation - The local BMX club is the key delivery channel for BMX participation. To work to improve the quality and quantity of BMX facilities across Australia in partnership with Governments Federal, State, Council and non-Government identities. Identify suitable BMX facilities and promote use as state centres of excellence. - Performance - Providing best practice services, support and programs from the grassroots to the elite level is integral to the growth of BMX in Australia.	- The strategy identifies the importance of both the BMX Club and State Sporting Association working in partnership with local governments to achieve shared aims and objectives. - The importance of the local club is emphasised in maintaining a high level of engagement and participation. - The performance pathway will require enhanced level of infrastructure within Western Australia if riders are to be able to compete with eastern states competitors. A decision however needs to be made as to whether it is local governments responsibility to provide state level infrastructure which attracts users from beyond the local government boundary.
BMX Club Pump Track Policy (01/07/2016)	The benefits identified by BMXA include - a place where children and adults can be introduced to or practice their BMX riding in a safe and low risk environment. BMX Club Pump tracks can: – Attract new members – Promote an active and healthy lifestyle – promoting physical activity to members of all abilities. – Provide opportunities for practicing balance, learning new skills and improving confidence on the bike. – Be built in areas as small as 250sqm or in previously unused areas. – Attract council support/grants as they can be promoted as improving resources in the area. Pump tracks can be constructed of dirt, asphalt, concrete, or composite materials. They can be permanent or pre-fabricated modular designs.	- The design for the BMX pump track will enable the club to promote and develop activities with the younger age range is to be encouraged. - The outcomes strongly align to those of the Strategic Community Plan and can be located at a relatively low cost and if desired, of a temporary construction (which could be moved to other sites to increase activity and extended use.

Document	Precis of Main Considerations	Implications
	Adequate drainage is important and a source of water should be located nearby (for dirt constructed) to dampen the track. Some examples of activities that can include BMX Club pump tracks include, but are not limited to: - Mini-wheeler programs - Sprocket Rocket programs - Come and Try Days and National Sign On Day activities - Coaching pumping skills - Warm up/Cool down	
UCI Cycling Regulations: Part 6 BMX Rule Book	For UCI sanctioned events: - A rider must be at least 5 years of age to compete in a UCI sanctioned BMX event. The minimum age of 5 refers to the real calendar age on the day of race commencement. - BMX events can be distinguished in three competing levels, the Championship level, comprising elite and junior categories, the Challenge level and the Masters level. - The track must be of a compact, closed looped design, forming a circuit where length measured along its centre line is not less than 300 metres nor greater than 400 metres. - The track must be a minimum of 10 metres wide at its start and may not taper to a width of less than 5 metres at any point along its track. - The starting hill must accommodate a track width of at least 10 metres and be at an elevation at least 1.5 metres above the grade of the first straight. - The initial incline extending from the starting gate to level grade must be at least 12 metres in length. - The starting gate shall be a minimum of 8 metres in width and for all international events an electronically controlled system is mandatory. - The gate shall have a height of at least 50 cm, with no greater angle than 90 degrees with the slope of the ramp which supports the bicycles' wheels when they are in their starting position. - Starting positions 1 through 8 must be clearly marked on the gate. - The initial straight shall be a minimum of 40 metres in length. - The first turn may go in either direction and shall be banked to a degree which allows safe entry and exit for riders of all ages at race speeds. At the first turn,	- The document provides clear guidance on the spatial requirements of a BMX track and associated built infrastructure. - The need for the BMX track to be of a compact, closed looped design, forming a circuit where length measured along its centre line is not less than 300 metres nor greater than 400 metres is a critical design consideration which determines the potential space allocation for the infrastructure. - Other dimensions should not be compromised due to site constraints. It is important that any replacement track is no-worse that the current provision and wherever possible opportunities to provide event overlay are maximised. -

Document	Precis of Main Considerations	Implications
	the track shall be a minimum of 6 metres wide measured along a straight line extending from its surface at the inner radius to the top of the berm at its outer radius. - The track shall have a minimum of 3 turns. - The track shall be a minimum of 5 metres wide throughout each turn. - In order to provide a barrier between the event's participants and it spectators, the track must be - enclosed by a perimeter fence which shall not be located at any point closer than 2 metres from the competition track. - The track must have a clearly marked finish line to indicate the point at which competitors will be scored.	
Our Bike Path 2014-2020: A strategic framework for cycling in Western Australia	The plan maps a vision and framework that will be used to guide the future development and growth of cycling in Western Australia. - Participation: To get over 1 million Western Australians regularly riding by 2020. - Transport: For cycling to achieve a transport mode share of 5% by 2020. - Female Participation: To reduce the disparity between men's and women's participation in cycling. - Children's Participation: To move the % of kids riding to school closer to the levels of the 1970's. - Safety: To reduce the number of serious bicycle injuries every year. – Image: To dramatically improve community perceptions of cycling as a safe and enjoyable activity. – Sporting Success: To increase the number of Western Australian cyclists winning gold at national championships. – Infrastructure: To increase the number of cycling infrastructure facilities in metropolitan and regional WA (includes cycle paths, mountain bike trails and cycle sport facilities) every year. Of the challenges the following are relevant to the Byford BMX Facility: – We have an inadequate number of cycle sport facilities. – The financial and workforce capacity of our cycling organisations and clubs is fragile, which is limiting the breadth and depth of impact they can have in our community. – Our cycling organisations still tend to operate in isolation, with operational and functional duplication in many areas, and limited instances of collaboration and resource sharing.	- The strategy provides a series of overarching objectives which are advocated in this document is to get more people participating in cycling across a range of disciplines. - The redevelopment and enhancement of existing infrastructure will assist in Westcycle generally and BMX WA specifically to achieve their core objectives of increasing the number of cycling infrastructure/facilities in metropolitan and regional WA. - An important component of the strategy is to get current clubs and members to work in partnership with local governments to achieve this common aim.

Document	Precis of Main Considerations	Implications
BMX Australia Limited - Lighting Policy	The required minimum lighting standards for all sanctioned BMX events run by members of BMXA (including but not limited to clubs and Member States) is for there to be sufficient average lux to allow the safe conduct of a sanctioned BMX event as is determined appropriate by the person/s in control of the relevant event. - an average of 100 lux. - lighting should be designed so as to provide an even spread over the surface of the track so as to avoid definite pools of light. It is noted that moving forward BMXA will expect the minimum lighting standard to increase to a level of 200 lux with a 100 lux minimum.	- This policy highlights the core recreational level lighting of 100 lux as being suitable for all sanctioned BMX events. Whilst there is an intention to increase this to 200, it is currently not the standard and is unlikely to be undertaken in isolation without an appropriate contribution through the club and/or BMX WA
BMX Australia Starting Hill Policy Updated 10 March 2015	Adherence to this policy by BMXA Member States and Clubs will ensure training and racing using any start hill which is above the standard 5 metre start hill is conducted safely and in accordance with BMXA recommendations. It is designed to regulate the safe use of BMX Australia endorsed 8 metre bicycle motocross (BMX) start ramps (8m Ramp) and their use by licensed BMX Australia (BMXA) members. The 8m Ramp is considered to be a significantly more difficult skill for BMX competitors to undertake compared to alternate starting methods and can often be viewed as quite daunting.	- The safe use of the track is a prime consideration. A 2-3 metre high starting gate is considered to be a suitable level of provision for a local government to invest in. - It is however questionable whether a local government would invest in a permanent 5-8 metre ramp having regard to the frequency of use, general public risk and its relative cost. It is preferable to provide the opportunity to extend a lower level ramp should the need to provide for a major national and international championship be desired. Any concept plans subsequently developed should incorporate this element as an alternative temporary option rather than a fixed solution.
BMX TRACK GUIDE: Union Cycliste Internationale (26/02/14)	Key elements which need to be considered are: - Elements of the Track: Start Ramp, 4 straights, 3 turns and the finish area. - It is not within the remit of the UCI BMX Track certification process to approve / certify anything other than the track itself, however areas immediately adjacent	- The track guide produced by Union Cycliste Internationale highlights the importance of providing sufficient safety margins to operate a track safely.

Document	Precis of Main Considerations	Implications
	to the track are considered relevant for the safety of riders. The zone of influence covers 2.0m either side of the track marking. - Any elevation across the site of a BMX track must be favourable to the direction of the course. The maximum allowable height difference is 4m. - First straight starts at the start gate and ends with the first turn. The beginning of a turn is defined as a line at the inner side of the turn perpendicular to the middle line of the straight. - Bottom of Starting ramp to foot of first jump: minimum 5m. The minimum distance between the exit of turn 1 and the peak of the first jump is 20m to ensure that the riders can align themselves after turn 1. The distance from the foot of the final jump to the finish line must be minimum 10m. Finish Zone minimum 35m. - Overall length of a BMX track is required to be between 300- 400m. - The start ramp must be 10m wide. The first straight must be 8 - 10m wide. The remainder of the track must be a minimum 6m width. - It is important that the first straight provides an equal opportunity for all riders, no matter what their starting gate. 1 Start Ramp 2 Straight 1 3 Turn 1 4 Straight 2 5 Turn 2 6 Straight 3 7 Turn 3 8 Straight 4 9 Finish Area 	- This document merely re-enforces earlier advice and confirms the approach taken by Trackz in developing the initial master plan at Briggs Park as being a viable approach. It does however not take into account the surrounding off-road parking infrastructure which for events would require up to 1,000 temporary or permanent parking bays. - The minimum depth of the start ramp is 5m. This however may not be appropriate for a local government investment in community based infrastructure.
Union Cycliste Internationale BMX Track Building Guide	An important factor to consider is wind and sun. The track should be placed so that side wind is avoided and having sunrise/sundown facing the riders.	- As with other guidelines produced by UCI, this provides the building solution to a track being developed. - The most important factors when assessing a sites capability is:

Document	Precis of Main Considerations	Implications
	The site should also be free from obstacles such as trees, rocks etc. For safety reason obstacles should not be closer to the track than Sm. The track should be built above ground level for proper drainage. The construction steps are identified as: 1. Choose a site with of an adequate size, free from rocks, trees and other obstacles. 2. Mark the ground where the dump trucks should place the soil. 3. Start off working with the bulldozer, laying out the straightaways and turns, remember to have the straights slightly angled to allow drainage. Drainage pipes in between the straights should also be in the ground at this point. 4. Allow the soil to dry before placing the obstacles. 5. Once the straightaways, start hill and the rough layout of the turns are laid out, the work to place obstacles begins. 6. Once the obstacles have been placed and shaped, the top-soil is brought in. A layer of 15-20 cm is necessary to create a good surface. 7. Once the topsoil is in place, raking it out to a smooth surface begins. Once complete the top-soil needs to be packed in with a roller while watering it heavily. 8. The asphalt in the turns is the last step, once the soil has settled. The asphalt should be hand-raked and not rolled in (to keep a rough surface with good grip). Basic infrastructure includes: – Finish Line: The end of the course must have a permanent, visible finish line. There should be no obstacle in the last 35m of the track after the finish line. Finish line poles should be placed well off the sides of the track. There must also be adequate stopping distance for the riders after the finish line. – Parking & Spectators: A BMX track may be built on 1 acre of ground, but you will need at least 2 to 3 acres of parking. The track should be built with spectator viewing open along three sides of the racecourse. Spectator areas should be placed with consideration of any high berms on the track, which would block spectator viewing. All spectator areas must be protected from the course and located in non-hazardous areas. – Track Fencing: Should be erected between the track and the spectators. It should be around 1m high. A property fence should be constructed to enclose the track and spectator area.	o Availability of power and water. o Topography o Free from obstructions o Capability of the site to be freely drained.

Document	Precis of Main Considerations	Implications
	– Staging: The staging area should be large enough to accommodate at least 150 riders and their bicycles. The pre-staging zone should be separated from the staging lanes by a rope barrier, controlled by the pre-stager. – Motoboards: Permanent, conveniently located 2 sided boards should be set aside for the posting of motosheet. – Electricity: It will be needed for the starting gate system - a 200 Amp power pole with outlets near the starting gate, announcing tower and registration/concession building will need to be provided. – Water: two outlets around the track if available buried at least 5-l0cm deep. – Public Address System: he basic system is a microphone, 4 speakers and an amplifier. – Track Lighting: Lights offer a great deal of flexibility and allow a track to escape the heat of day in warm weather and make weekday racing or practice possible. – Restrooms: Portable toilets are sufficient A cost plan should incorporate: – Material: Soil Natural soil: 6'000 m^3, Top soil 0/16: 500 m^3; Asphalt 150 ton (rocks between 12-15 mm, thickness 5-9 cm); Starting system Start gate welded, Concrete pad, Star gate electronic system, Air Compressor and Drainage PVC pipes. – Equipment Rental: Bulldozer 4 days; Front End Loader 11 days; Bobcat 6 days; Roller/compacter 6 days; ATV (Quad) 6 days; Transportation (of machines) and Insurance (of machines). – Maintenance: Water outlets Possibility to water all track; Electricity; Equipment (Shovels, rakes, etc.).	
National Participation Data		
AusPlay: Participation data for the sport sector: Summary of key national findings October 2015 to September 2016 data (Australian Sports Commission)	The national data output identified: – Over 17 million Australians aged 15 or over (87%) participated in a sport or physical activity in the last 12 months. – Nearly 3.2 million children (69%) participated in some form of organised sport or physical activity outside of school hours. – Adult men and women participate at similar levels across the life stages. – However, girls 9-11 years old are slightly more likely to participate in sport or physical activity (at least once a year) compared to boys of the same age.	Key Conclusions highlight: - Australian adults tend to play sports for longer durations than non-sport related physical activities. However, they participate in non-sport related physical activities more often than sport. - Women are more likely to participate in sport or physical

Document	Precis of Main Considerations	Implications
	– 11.6 million Australians (59%) aged 15 or over are participating in sport or non-sport related physical activity three or more times per week. – 2.5 million Australian children (54%) aged 0 to 14 are active at least once a week through organised sport/physical activity outside of school hours. Only 19% or 0.9 million children are active at least three times per week. – Australian adults tend to play sports for longer durations than non-sport related physical activities. However, they participate in non-sport related physical activities more often than sport. – Women are more likely to participate in sport or physical activity for physical and mental health reasons and to lose or maintain weight than men. – Men are more motivated by fun/enjoyment and social reasons than women. – For adults up to middle-age, time pressure is by far the main barrier to participating in sport or physical activity. Poor health or injury then also becomes a main factor. – The main barrier to young children‘s participation in organised out of school hours sport or physical activity is their parents’ perception that they are too young to start playing. – Sport clubs are the primary avenue for children to be active (except for children aged 0–4, who are more likely to be active through other organisations). – Sport clubs are not the main choice for participation in sport or physical activity in Australia for adults aged 18 years and over. – While sport clubs are the main avenue for both girls and boys, throughout childhood boys (50%) are more likely to be active through club sport than girls (33%). – The use of technology for sport or physical activity is popular with 39% of the Australian adult ‘playing’ population. Its popularity is highest amongst younger adults, particularly younger women. – Recreational walking is the most popular physical activity for Australians overall followed by fitness/gym activities. – Swimming is the activity of choice for a large proportion of Australian children, ahead of football in second.	activity for physical and mental health reasons and to lose or maintain weight than men. - Men are more motivated by fun/enjoyment and social reasons than women - For adults up to middle-age, time pressure is by far the main barrier to participating in sport or physical activity. Poor health or injury then also becomes a main factor. - Sport clubs are the primary avenue for children to be active (except for children aged 0–4, who are more likely to be active through other organisations). - Sport clubs are not the main choice for participation in sport or physical activity in Australia for adults aged 18 years and over.

Appendix B: Facility Audit

Facility		Commentary
		**Starting Gate:** The starting gate provides approximately 3m of height which although viable for state and national events is below current guidelines for such events. The eight- bike grid accommodates the optimum number of riders. The construction appears sound and incorporates fencing and a concrete ramp with manual grid and starters hut. A proliferation of old tyres has been used to shore up the gate mounding.
		
		**Track:** Good quality bound surface but with continuing issues to those raised in previous track analysis. The third straight runs uphill, thereby reducing flow and speed for riders. The first and second corners inside diameter is currently too narrow, reducing speed of track and creating gate bias. There are areas of tread path which are level with surrounding ground which impacts on effective drainage. In addition, the track alignment does not take into consideration predominant wind direction. In comparison to other metropolitan tracks it is however of a reasonable quality, although access is compromised by its centralised location within the broader Briggs Park sporting precinct.
		
		**Associated Infrastructure:** The centralised race monitoring and officials tower provides a good all-round view of the circuit. The PA and lighting system appears reasonable although of a basic structure with wiring located above the track. Shade and shelter is limited although there is shade over the starting tower and around two storage containers.
		
		**Clubrooms:** The clubrooms currently service the Byford Bushrangers T-ball Club and the Byford BMX Club. The building offers a basic level of provision for storage and a kiosk. It has limited changing infrastructure and does not meet current day sports facility guidelines. The shade around

		the building is provided via a roof overhang but there is a limited viewing area at ground floor on a narrow concrete plinth. It is understood the previous toilets and changing room block was vacated due to the presence of asbestos and is now unused.
		**Car Parking:** This is mainly located adjacent to the leisure centre; on the access road around the perimeter of the cricket pitch and adjacent to the vacated former changing and toilet block. Car parking throughout the Briggs Park site is extremely limited and often results in cars being parked in the surrounding road network at high usage times. Whilst there is currently flexibility to park on the lower oval this will cease once the investment into improving the ground quality and reticulation is made.

Appendix C: Demographic Analysis

Population Growth

The 2016 population of Shire of Serpentine Jarrahdale was 27,654[1] (Estimated Resident Population). Figure 9 illustrates the change in the number of people in Shire of Serpentine Jarrahdale over the past 11 years.

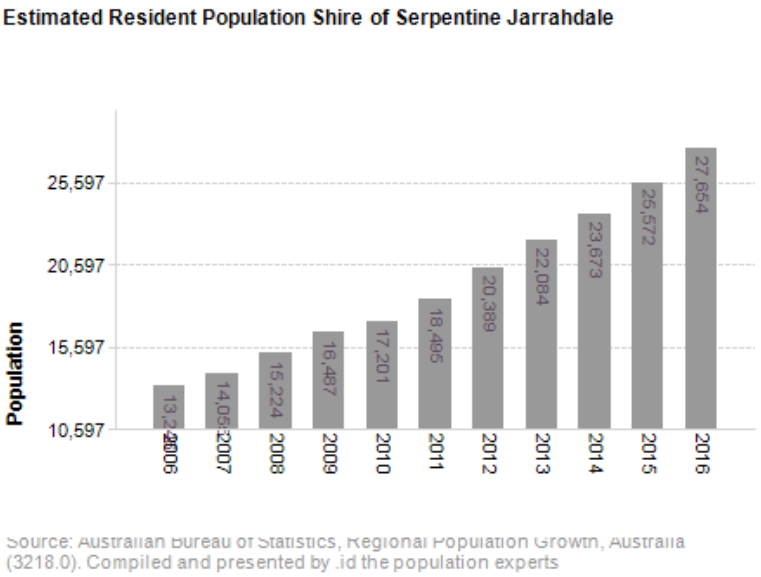


Figure 9 Population Growth for Shire of Serpentine Jarrahdale 2006 to 2016 (Source: Profile ID https://profile.id.com.au/serpentine-jarrahdale/highlights-2016)

The population trends indicate that since 2006 the population of Shire of Serpentine Jarrahdale has increased each year from 13,246 in 2006 to 27,654 in 2016. This equates to an increase of 14,408 (+108.8%).

Population projections for 2011 to 2036 are illustrated in Figure 10.

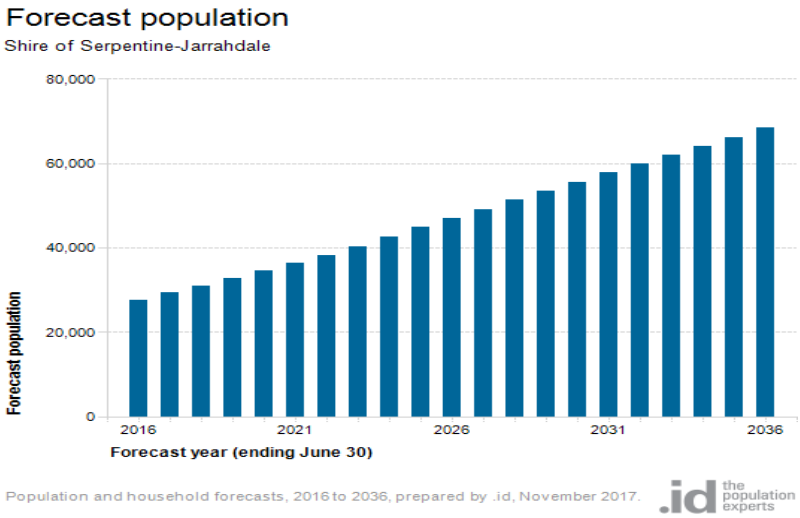
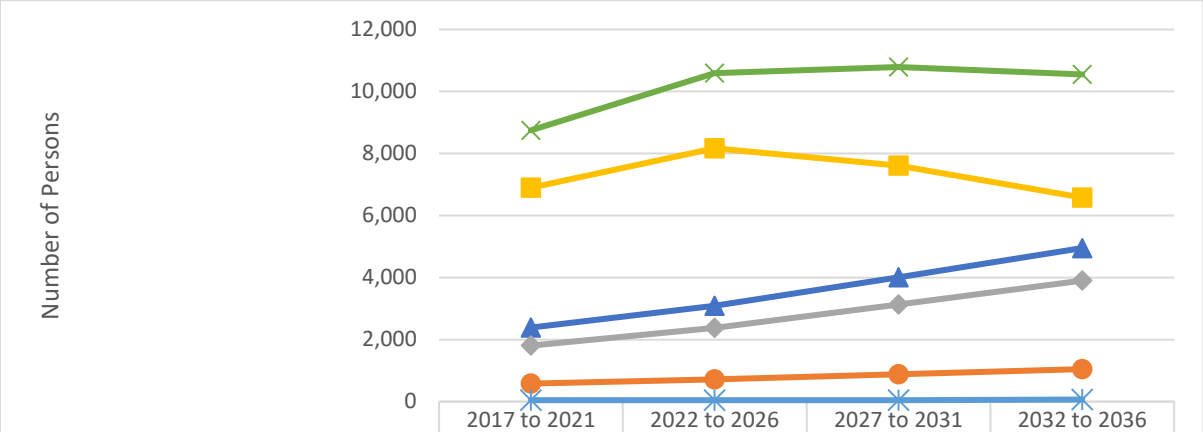


Figure 10 Population Projections for Shire of Serpentine Jarrahdale 2016 to 2036 (Source: Forecast ID https://forecast.id.com.au/serpentine-jarrahdale)

[1] Shire of Serpentine Jarrahdale Community Profile, 2016 Profile ID (https://profile.id.com.au/serpentine-jarrahdale/highlights-2016)

The projections indicate that 69.9% population growth is expected between 2016 and 2026 with the population expected to grow from 27,654 in 2016 to an estimated 46,995 in 2026. The population is expected to continue to grow reaching an estimated 68,335 by 2036 as illustrated in Figure 2.[2] This is an overall increase of 40,682 persons and equates to an increase of 147.1% between 2016 to 2036 with an average growth rate of 4.63%.

The components of the population change for 2017 to 2036 (4-year increments) are illustrated in the Figure 11.



	2017 to 2021	2022 to 2026	2027 to 2031	2032 to 2036
Births	2,389	3,094	4,011	4,952
Deaths	582	718	878	1,049
Natural increase/decrease	1,806	2,376	3,133	3,903
Net migration	6,895	8,170	7,606	6,580
Change in persons in non-private dwellings	47	47	50	68
Total population change	8,749	10,592	10,790	10,551

Figure 11: Components of Forecast Population Change for Shire of Serpentine Jarrahdale 2017 to 2036 (Source: Forecast ID https://forecast.id.com.au/serpentine-jarrahdale/components-of-population-change).

The greatest population change for the Shire of Serpentine Jarrahdale is forecast for the period from 2027 to 2032, which is expected to have a net increase of 10,790 people. The largest component of the change is net migration with 7,606 people followed by births with 4,011. Population change will be similar from 2022 to 2036 and 2032 to 2036 with net increases of 10,592 (net migration 8,170, births 3,094) and 10,551 (net migration 6,580, births 4,952) respectively.

Age

Based on 2016 ABS data, the median age for Shire of Serpentine Jarrahdale is 32, which is lower than both Greater Perth Region (36) and Western Australia as a whole (36).

The age profile for Shire of Serpentine Jarrahdale compared to that of Greater Perth region and Western Australia as a whole is detailed in Table 6 and Figure 12 below.

Table 6: Age Breakdown for Shire of Serpentine Jarrahdale 2016 Population Compared to Greater Perth Region & WA

Age Cohort	Number	Shire of Serpentine Jarrahdale %	Greater Perth %	Western Australia %
0 to 4	2,325	8.7	6.5	6.5

[2] Shire of Serpentine Jarrahdale 2016 to 2036 (Source: Forecast ID https://forecast.id.com.au/serpentine-jarrahdale

5 to 9	2,191	8.2	6.5	6.6
10 to 14	1,880	7.0	6.0	6.1
15 to 19	1,701	6.3	6.2	6.1
20 to 24	1,790	6.7	6.9	6.5
25 to 29	2,187	8.2	7.7	7.5
30 to 34	2,270	8.5	8.0	7.9
35 to 39	1,908	7.1	7.1	7.0
40 to 44	1,819	6.8	6.9	7.0
45 to 49	1,917	7.1	6.9	7.0
50 to 54	1,780	6.6	6.4	6.6
55 to 59	1,470	5.5	5.8	6.1
60 to 64	1,147	4.3	5.1	5.3
65 to 69	988	3.7	4.6	4.7
70 to 74	623	2.3	3.3	3.4
75 to 79	429	1.6	2.5	2.5
80 to 84	216	0.8	1.7	1.7
85 and over	189	0.7	1.8	1.7
Total population	**26,830**	**100.0**	**100.0**	**100.0**

Source: Shire of Serpentine Jarrahdale Community Profile, Profile ID https://profile.id.com.au/serpentine-jarrahdale/five-year-age-groups

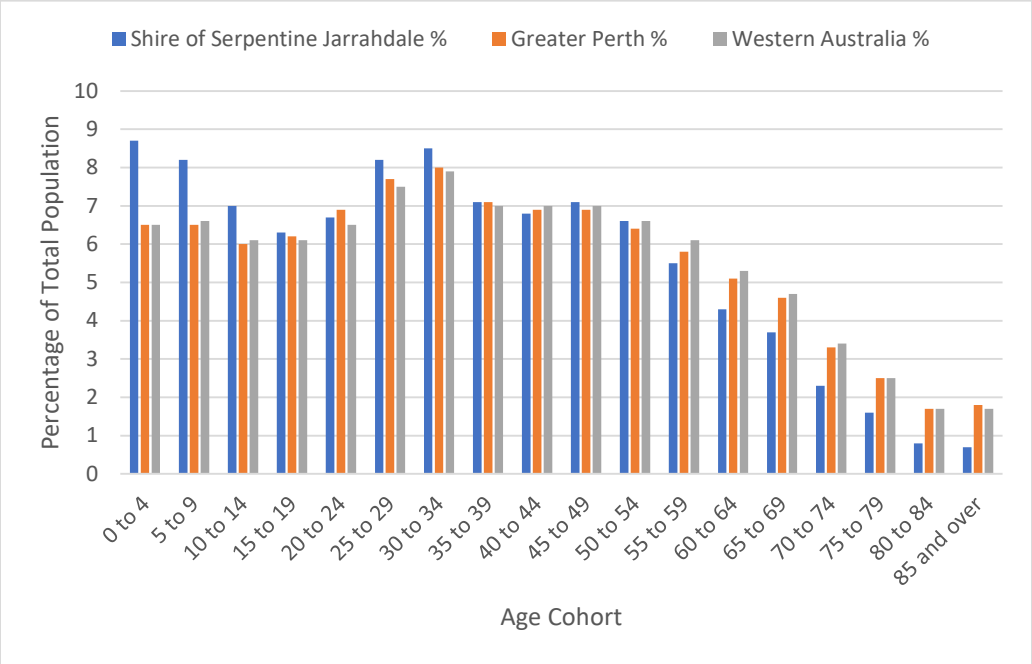


Figure 12: Age Profile Comparisons Shire of Serpentine Jarrahdale 2016 Population Compared to Greater Perth Region & WA Source: Shire of Serpentine Jarrahdale Community Profile, Profile ID https://profile.id.com.au/serpentine-jarrahdale/five-year-age-groups

Significant age profile characteristics are:

- The Shire of Serpentine Jarrahdale has a higher proportion of people in the younger age groups (under 15) than both Greater Perth Region and WA as whole.

- The proportion of people aged 0 – 15 years in Shire of Serpentine Jarrahdale was 23.8% compared with Greater Perth region, 19.1% and WA as a whole with 19.2%.
- The Shire of Serpentine Jarrahdale has a lower proportion of people in the older age groups (65+) than both Greater Perth region and WA as a whole.
- The proportion of people aged 65 years and over in the Shire of Serpentine Jarrahdale was 9.1%)compared to Greater Perth region 13.8% and WA as a whole 14%.
- The age groups with the largest percentage of people in the Shire of Serpentine Jarrahdale are 0 to 4 years (8.7%), and 30 to 34 years (8.5%) followed by the 5 to 9 years and 25 to 20 years both with 8.2%. In comparison the age groups with the highest population in Greater Perth region is 30 to 34 years (8.0%) and 25 to 29 years (7.7%) and WA as a whole with 30 to 34 years (7.9%) and 25 to 29 years (7.5%).
- The age groups with the lowest percentage of people in the Shire of Serpentine Jarrahdale are 85 and over (0.7%) and 80 to 84 years with (0.8%), whilst for the Greater Perth region 80 to 84 years is the lowest at 1.8% and then 85 and over (1.7%). Whilst for WA as a whole, both 80 to 84 years and 85 years and over are equal lowest percentage at 1.7% each.
- The changes to the age structure are essential in planning age-based facilities and services, with the forecast age structure for Shire of Serpentine Jarrahdale illustrated in Figure 13.

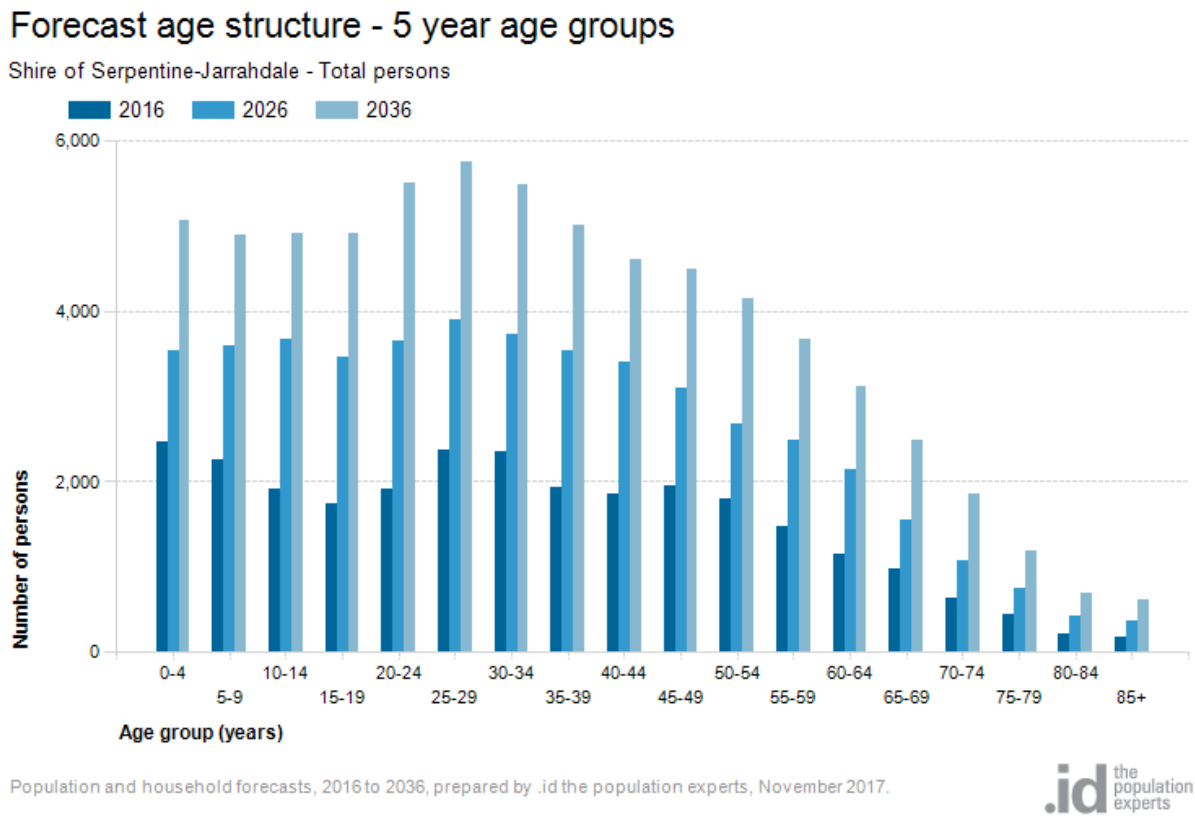


Figure 13: Forecast Age Structure for Shire of Serpentine Jarrahdale – 2016, 2026 and 2036

Source: Shire of Serpentine Jarrahdale Forecast ID, *https://forecast.id.com.au/serpentine-jarrahdale/population-age-structure*

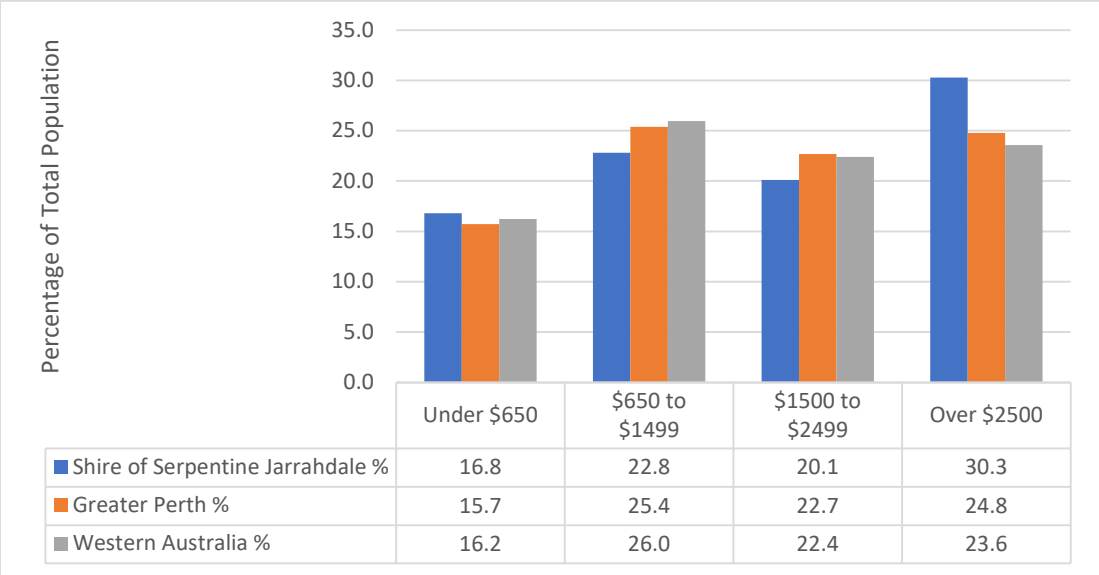
In 2016, the dominant age structure for persons in the Shire of Serpentine-Jarrahdale was ages 0 to 4 years, which accounted for 8.9% of the total persons. By 2026 the dominant age group is forecast to be 25 to 29 years with a total of 3,890 persons (8.3% of the total population). The largest increase in persons between

2016 and 2026 is forecast to be in ages 10 to 14, which is expected to increase by 1,757 and account for 7.8% of the total persons.

In the Shire of Serpentine Jarrahdale between 2016 and 2026, it is projected that there will be a 62.6% increase in population under working age, a 71.0% increase in population of retirement age, and a 72.4% increase in population of working age.

Income

Figure 14 provides the weekly household incomes for Shire of Serpentine Jarrahdale compared to Greater Perth region and WA as a whole.



	Under $650	$650 to $1499	$1500 to $2499	Over $2500
Shire of Serpentine Jarrahdale %	16.8	22.8	20.1	30.3
Greater Perth %	15.7	25.4	22.7	24.8
Western Australia %	16.2	26.0	22.4	23.6

Figure 14: Comparison between Shire of Serpentine Jarrahdale, Greater Perth Region and WA Weekly Household Income Profile (Source: Profile ID https://profile.id.com.au/serpentine-jarrahdale/household-income

The results for weekly household incomes for Shire of Serpentine Jarrahdale indicates that:

- Median weekly household income was $1,855, which is higher than the Greater Perth region ($1,636) and Western Australia as a whole ($1,582).
- There was a similar proportion of high income households in Shire of Serpentine Jarrahdale (those earning $2,500 per week or more) and a lower proportion of low income households (those earning less than $650 per week) compared to Greater Perth region.
- Overall, 25.0% of the households in Shire of Serpentine Jarrahdale earned a high income and 9.2% were low income households, compared with 24.8% and 15.7% respectively for Greater Perth region and 23.6% and 16.2% for WA as a whole.
- The major differences between Shire of Serpentine Jarrahdale and Greater Perth region were a larger percentage of households who earned between $2,000 to $2,499 (14.4% compared to 11.3%), $1,750 to $1,999 (7.3% compared to 5.6%) and $2,500 - $2,999 (8.7% compared to 7.0%). Shire of Serpentine Jarrahdale had a smaller proportion of households who earned $400 - $499 than Greater Perth region (2.7% compared to 5.4%).

Household Composition

In the Shire of Serpentine Jarrahdale there is a higher proportion of couple families with child(ren) as well as a similar proportion of one-parent families compared to Greater Perth region and WA as a whole.

Overall, 42.0% of total families were couple families with child(ren), compared with 32.3% in Greater Perth region and 30.9% in WA as a whole. In Shire of Serpentine Jarrahdale 12.4% were lone person households

compared with 21.7% and 21.8% for Greater Perth region and WA respectively. The proportion of couples without children was 28.3% in Shire of Serpentine Jarrahdale compared to Greater Perth region with 25.4% and WA as a whole with 25.6%.

Ethnicity

In 2016, there was a smaller proportion of people born overseas compared with Greater Perth region and a higher proportion to WA as a whole. One-quarter (25.2%) of the population in Shire of Serpentine Jarrahdale were born overseas compared with Greater Perth region with 36.1% and 32.2% for WA as a whole.

Figure 15 illustrates the top 10 countries of birth for Shire of Serpentine Jarrahdale compared to Greater Perth Region.

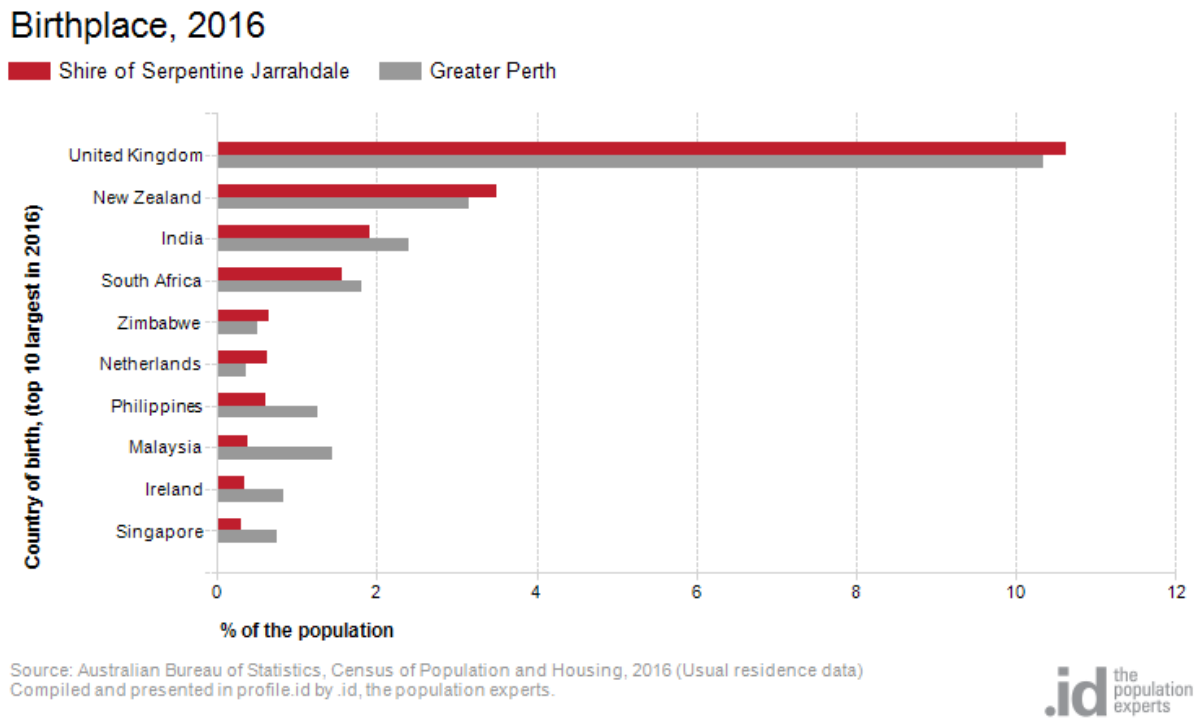


Figure 15: Comparison between Shire of Serpentine Jarrahdale Compared to Greater Perth Region Birthplace Profile (Source: Profile ID https://profile.id.com.au/serpentine-jarrahdale/birthplace)

In 2016, 9% of people in the Shire of Serpentine Jarrahdale were from non-English speaking background compared with 19.3% for Greater Perth region and WA as a whole with 16.6%. The largest non-English speaking country of birth in the Shire of Serpentine Jarrahdale was India, where 1.9% of the population, or 512 people, were born.

SEIFA Index of Disadvantage

The table below provides the SEIFA Index of Disadvantage for Shire of Serpentine Jarrahdale including comparison to selected benchmark areas.

Table 7: SEIFA Index of Disadvantage Shire of Serpentine Jarrahdale and Selected Benchmarks

Serpentine Jarrahdale Benchmark Areas Ranked from least to greatest disadvantage	2011 SEIFA Index of Disadvantage
Shire of Serpentine Jarrahdale	1044.5
Shire of Wandering	1041.1
City of Cockburn	1034.6

Greater Perth region	1033.4
Shire of Boddington	1025.4
WA as a whole	1021.5
City of Rockingham	1012.0
City of Armadale	996.1
Shire of Murray	982.1
City of Mandurah	977.6
Town of Kwinana	968.1

The Shire of Serpentine Jarrahdale is considered less disadvantaged than the Greater Perth Region and WA as a whole and all the benchmark comparison areas.

Byford

Population Growth

The 2016 population of Byford was 15,383[3] (Estimated Resident Population). Figure 16 illustrates the change in the number of people in Byford over the past 5 years.

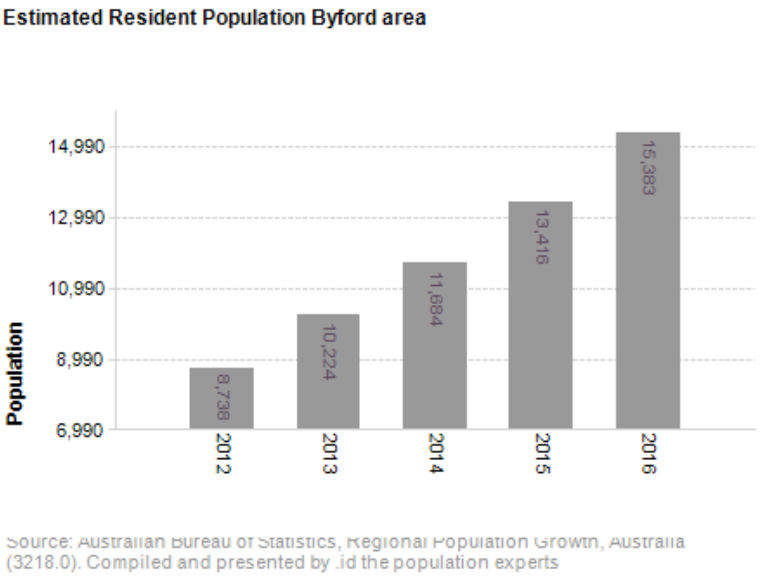


Figure 16 Population Growth for Byford 2012 to 2016 (Source: Profile ID https://profile.id.com.au/serpentine-jarrahdale/highlights-2016)

The population trends indicate that since 2012 the population of Byford has increased each year from 8,738 in 2012 to 15,383 in 2016. This equates to an increase of 6,645 (+76.0%).

Population projections for 2011 to 2036 are illustrated in Figure 17.

[3] Shire of Serpentine Jarrahdale Community Profile, 2016 Profile ID (https://profile.id.com.au/serpentine-jarrahdale/highlights-2016)

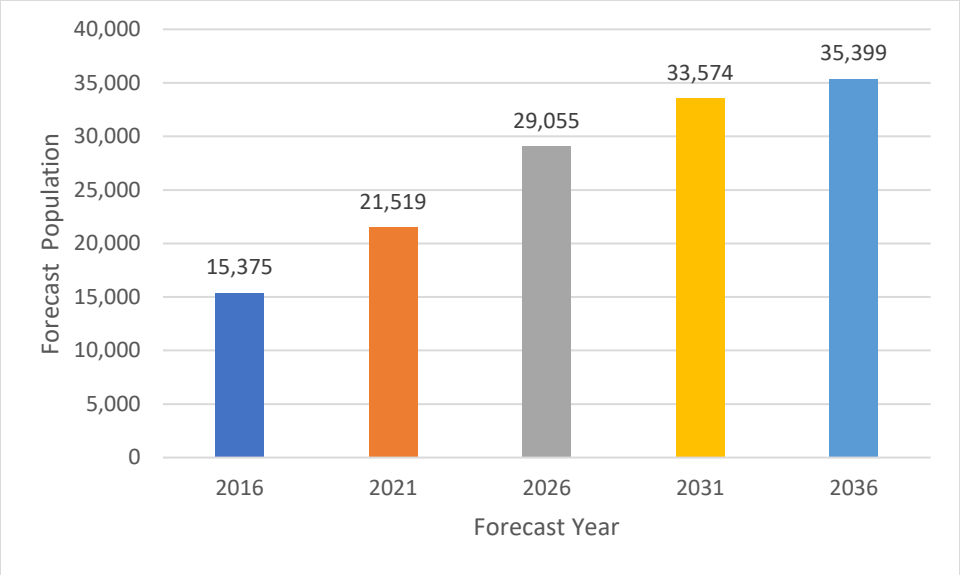
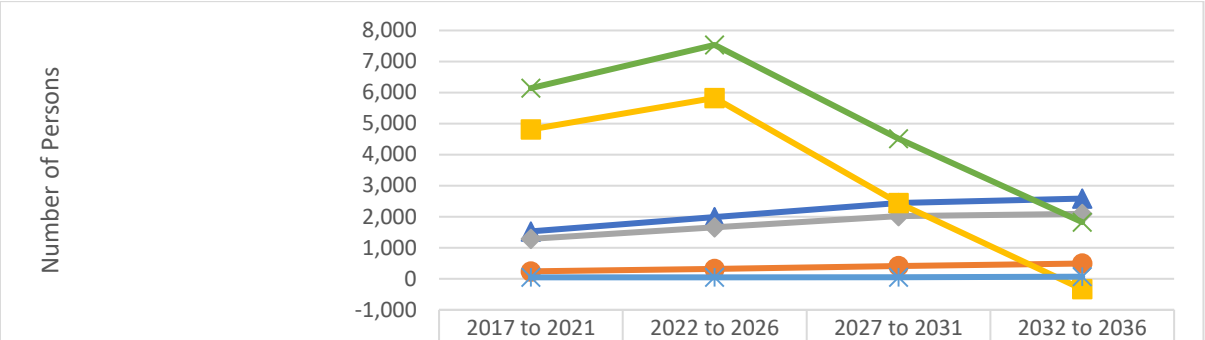


Figure 17 Population Projections for Byford 2016 to 2036 (Source: Forecast ID https://forecast.id.com.au/serpentine-jarrahdale/population-summary)

The projections indicate that 89% population growth is projected between 2016 and 2026 with the population expected to grow from 15,375 in 2016 to an estimated 29,055 in 2026. The population is expected to continue to grow reaching an estimated 35,399 by 2036 as illustrated in Figure 9.[4] This is an increase of 20,025 persons and equates to an increase of 130.2% between 2016 to 2036 with an average growth rate of 4.3%.

The components of the population change for 2017 to 2036 (4-year increments) are illustrated in the Figure 18.



	2017 to 2021	2022 to 2026	2027 to 2031	2032 to 2036
Births	1,528	1,985	2,440	2,584
Deaths	241	323	415	492
Natural increase/decrease	1,287	1,662	2,025	2,092
Net migration	4,810	5,827	2,444	-334
Change in persons in non-private dwellings	47	47	50	68
Total population change	6,144	7,535	4,519	1,826

Figure 18 Components of Population Change for Byford Area, Shire of Serpentine Jarrahdale (Profile ID https://forecast.id.com.au/serpentine-jarrahdale/components-of-population-change)

[4] Shire of Serpentine Jarrahdale Forecast, 2017. Forecast ID (https://forecast.id.com.au/serpentine-jarrahdale/population-summary).

The greatest population change for Byford area is forecast for the period from 2022 to 2026, which is expected to have a net increase of 7,535 people. The largest component of the change is net migration with 5,827 people followed by births with 1,985. A significant increase is also forecast between 2017 and 2021 with an expected net increase of 6,144 people with the largest component being net migration with 4,810 people.

Age

Based on 2016 ABS data, the median age for Byford area is 29 which is lower than Shire of Serpentine Jarrahdale as a whole with 32 and Greater Perth Region (36) and Western Australia (36).

The age profile for Byford area compared to that of the Shire of Serpentine Jarrahdale and to that of Greater Perth region and Western Australia as a whole is detailed in Table 8 and Figure 19 below.

Table 8: Age Breakdown for Byford Area 2016 Population

Age Cohort	Number	Byford Area %	Shire of Serpentine Jarrahdale %	Greater Perth %	Western Australia %
0 to 4	1,695	11.4	8.7	6.5	6.5
5 to 9	1,360	9.2	8.2	6.5	6.6
10 to 14	1,042	7.0	7.0	6.0	6.1
15 to 19	842	5.7	6.3	6.2	6.1
20 to 24	1,072	7.2	6.7	6.9	6.5
25 to 29	1,642	11.0	8.2	7.7	7.5
30 to 34	1,710	11.5	8.5	8.0	7.9
35 to 39	1,171	7.9	7.1	7.1	7.0
40 to 44	936	6.3	6.8	6.9	7.0
45 to 49	797	5.4	7.1	6.9	7.0
50 to 54	691	4.7	6.6	6.4	6.6
55 to 59	601	4.0	5.5	5.8	6.1
60 to 64	433	2.9	4.3	5.1	5.3
65 to 69	376	2.5	3.7	4.6	4.7
70 to 74	195	1.3	2.3	3.3	3.4
75 to 79	156	1.1	1.6	2.5	2.5
80 to 84	67	0.5	0.8	1.7	1.7
85 and over	77	0.5	0.7	1.8	1.7
Total population	**14,872**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Shire of Serpentine Jarrahdale Community Profile, Profile ID https://profile.id.com.au/serpentine-jarrahdale/five-year-age-groups)

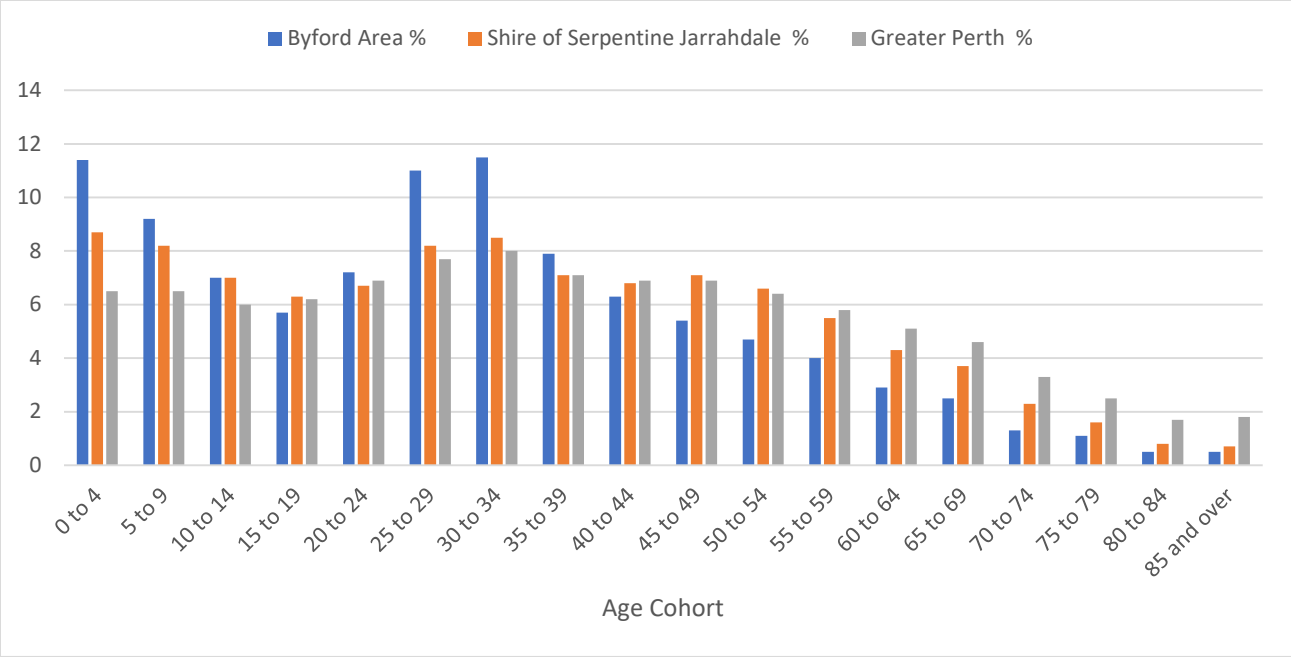


Figure 19 Age Profile Comparisons between the Byford area, Shire of Serpentine Jarrahdale and Greater Perth Region (Source: Profile ID https://profile.id.com.au/serpentine-jarrahdale/five-year-age-groups)

Significant age profile characteristics are:

- The Byford area has a higher proportion of people in the younger age group (under 15) than Shire of Serpentine Jarrahdale, Greater Perth region and WA as a whole.
- The proportion of people aged of 0 – 14 years in the Byford area was 27.6% compared to Shire of Serpentine Jarrahdale with 23.9%, Greater Perth region, 19.1% and WA as a whole with 19.2%.
- The Byford area has a lower proportion of people in the older age groups (65+) than the Shire of Serpentine Jarrahdale, Greater Perth region and WA as a whole.
- In the 65 years and over age group the Byford area (5.9%) has a smaller proportion compared to Shire of Serpentine Jarrahdale (9.1%), Greater Perth region (13.8%) and WA as a whole (14%).
- The age groups with the largest percentage of people in Byford area are 30 to 34 years (11.5%), 0 to 4 years (11.4%) and 25 to 29 years (11.0%). In comparison the age groups with the highest percentage in Shire of Serpentine Jarrahdale are 0 to 4 years (8.7%), and 30 to 34 years (8.5%) followed by the 5 to 9 years and 25 to 20 years both with 8.2%.
- The age groups with the lowest percentage of people in the Byford area are 80 to 84 years and 85 plus both with 0.5% compared to the Shire of Serpentine Jarrahdale with 85 and over (0.7%) and 80 to 84 years with (0.8%). In comparison the lowest percentage of people for Greater Perth region is 80 to 84 years at 1.8% and then 85 and over (1.7%).

The changes to the age structure are essential in planning age-based facilities and services, with the forecast age structure for the Byford area illustrated in Figure 20.

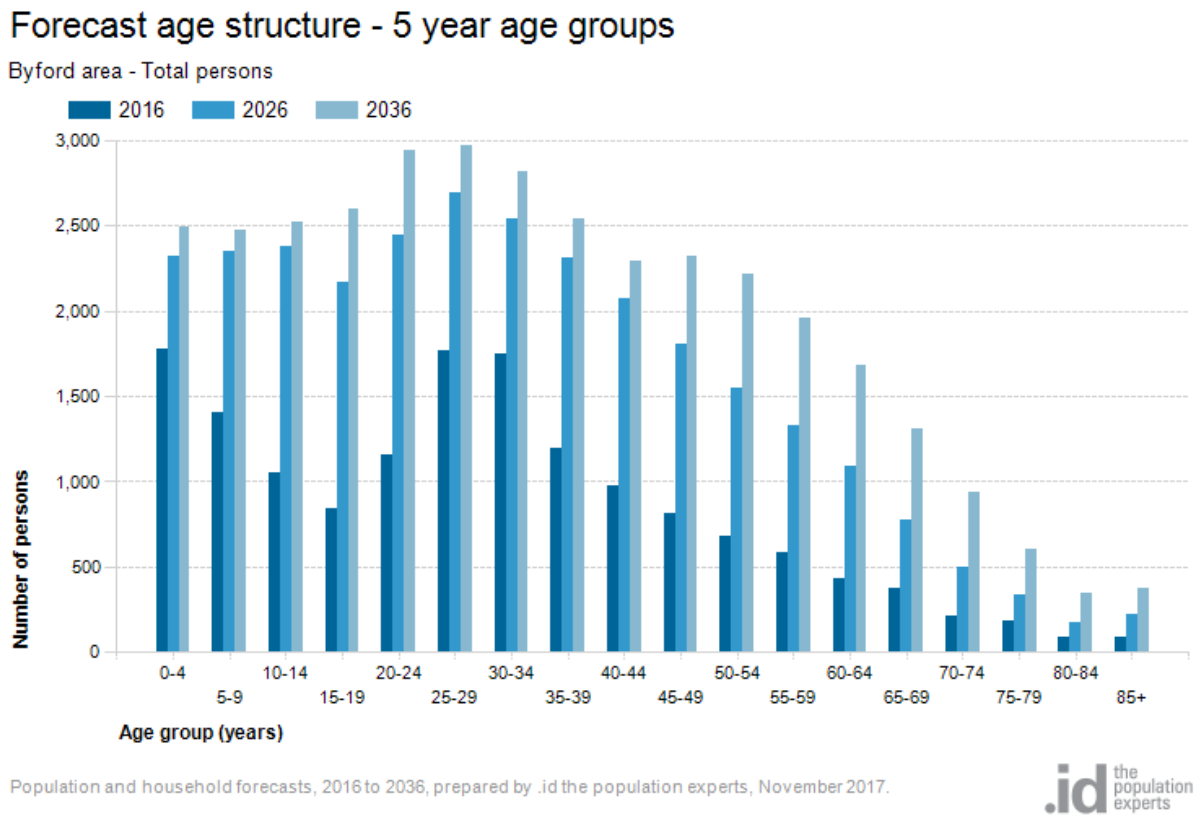


Figure 20: Forecast Age Structure for Byford Area – 2016, 2026 and 2036 (Source Forecast ID https://forecast.id.com.au/serpentine-jarrahdale/population-age-structure)

In 2016, the dominant age structure for persons in Byford area was ages 0 to 4, which accounted for 11.6% of the total persons. By 2026 the dominant ages are forecast to be 25 to 29 years with a total of 2,691 people. The largest increase in persons between 2016 and 2026 is forecast to be in ages 15 to 19, which is expected to increase by 1,331 and account for 7.5% of the total persons.

In the Byford area between 2016 and 2026, it is projected that there will be a 66.4% increase in population under working age, an 113.7% increase in population of retirement age, and a 96.0% increase in population of working age.

Mundijong

Population Growth

The 2016 population of Mundijong was 15,383[5] (Estimated Resident Population). Figure 21 illustrates the change in the number of people in Byford over the past five years.

[5] Shire of Serpentine Jarrahdale Community Profile, 2016 Profile ID (https://profile.id.com.au/serpentine-jarrahdale/highlights-2016)

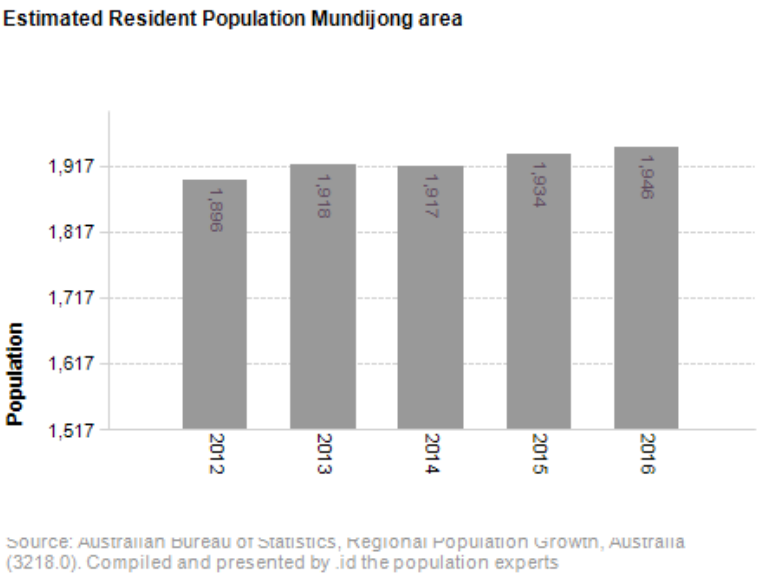


Figure 21: Population Growth for Mundijong Area 2012 to 2016 (Source: Profile ID https://profile.id.com.au/serpentine-jarrahdale/highlights-2016)

The population trends indicate that since 2012 the population of Mundijong has increased by a small amount each year except for 2014. Overall the population increased from 1,896 in 2012 to 1,946 in 2016. This equates to an increase of 3.0% (+50)

Population projections for 2011 to 2036 are illustrated in Figure 22.

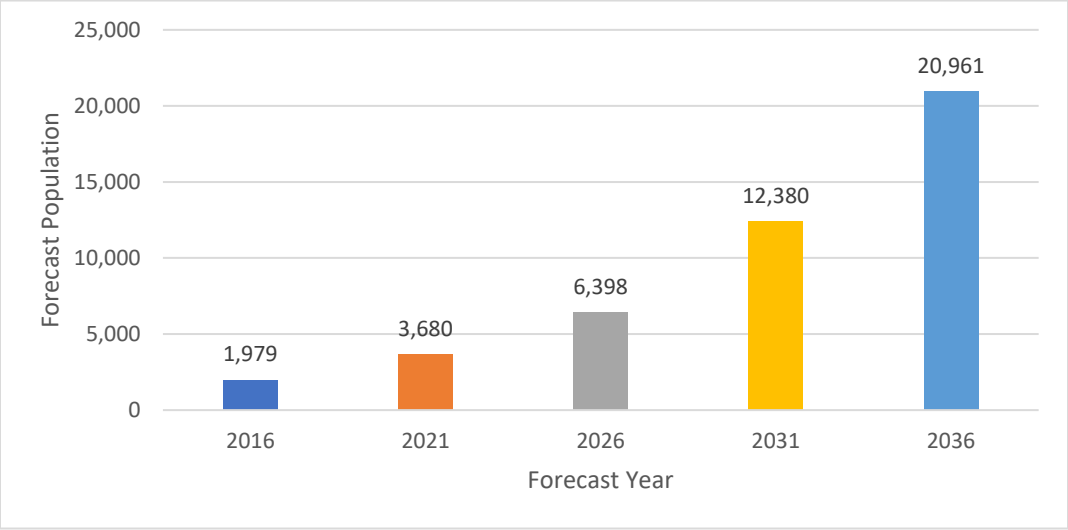


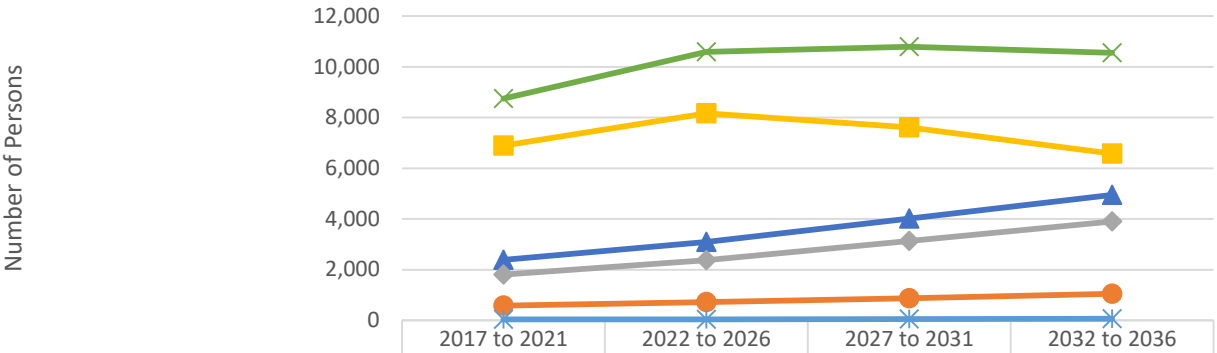
Figure 22 Population Projections for Mundijong Area for 2016 to 2036 (Source: Profile ID https://forecast.id.com.au/serpentine-jarrahdale/population-summary)

The projections indicate that 223.4% population growth is projected between 2016 and 2026 with the population expected to grow from 1,979 in 2016 to an estimated 6,398 in 2026. The population is expected to continue to grow reaching an estimated 20,961 by 2036 as illustrated in Figure 14.[6] This is an increase of

[6] Shire of Serpentine Jarrahdale Forecast, 2017. Forecast ID (https://forecast.id.com.au/serpentine-jarrahdale/population-summary).

18,982 persons and equates to an increase of 959.3% between 2016 to 2036 with an average growth rate of 12.5%.

The components of the population change for 2017 to 2036 (4-year increments) are illustrated in the Figure 23.



	2017 to 2021	2022 to 2026	2027 to 2031	2032 to 2036
Births	2,389	3,094	4,011	4,952
Deaths	582	718	878	1,049
Natural increase/decrease	1,806	2,376	3,133	3,903
Net migration	6,895	8,170	7,606	6,580
Change in persons in non-private dwellings	47	47	50	68
Total population change	8,749	10,592	10,790	10,551

Figure 23 Components of Population Change for Mundijong Area, Shire of Serpentine Jarrahdale (Profile ID https://forecast.id.com.au/serpentine-jarrahdale/components-of-population-change)

The greatest population change for Mundijong area is forecast for the period from 2027 to 2031, which is expected to have a net increase of 10,790 people. The largest component of the change is net migration with 7,606 people followed by births with 4,011. A significant increase is also forecast between 2022 and 2026 with an expected net increase of 10,592 people with the largest component being net migration with 8,170 people. This is closely followed by 2032 to 2036 with 10,551 persons.

Age

Based on 2016 ABS data, the median age for Mundijong area is 38 which is higher than Shire of Serpentine Jarrahdale as a whole with 32 and Greater Perth Region (36) and Western Australia (36).

The age profile for Mundijong area compared to that of the Shire of Serpentine Jarrahdale and to that of Greater Perth region and Western Australia as a whole is detailed in Table 9 and Figure 24 below.

Table 9: Age Breakdown for Mundijong Area 2016 Population

Age Cohort	Number	Mundijong Area %	Shire of Serpentine Jarrahdale %	Greater Perth %	Western Australia %
0 to 4	122	6.4	8.7	6.5	6.5
5 to 9	131	6.8	8.2	6.5	6.6
10 to 14	126	6.6	7.0	6.0	6.1
15 to 19	151	7.9	6.3	6.2	6.1
20 to 24	133	6.9	6.7	6.9	6.5
25 to 29	103	5.4	8.2	7.7	7.5

30 to 34	91	4.8	8.5	8.0	7.9
35 to 39	120	6.3	7.1	7.1	7.0
40 to 44	125	6.5	6.8	6.9	7.0
45 to 49	169	8.8	7.1	6.9	7.0
50 to 54	138	7.2	6.6	6.4	6.6
55 to 59	132	6.9	5.5	5.8	6.1
60 to 64	122	6.4	4.3	5.1	5.3
65 to 69	89	4.7	3.7	4.6	4.7
70 to 74	65	3.4	2.3	3.3	3.4
75 to 79	41	2.2	1.6	2.5	2.5
80 to 84	34	1.8	0.8	1.7	1.7
85 and over	19	1.0	0.7	1.8	1.7
Total population	**1,921**	**100**	**100.0**	**100.0**	**100.0**

Source: Shire of Serpentine Jarrahdale Community Profile, Profile ID https://profile.id.com.au/serpentine-jarrahdale/five-year-age-groups

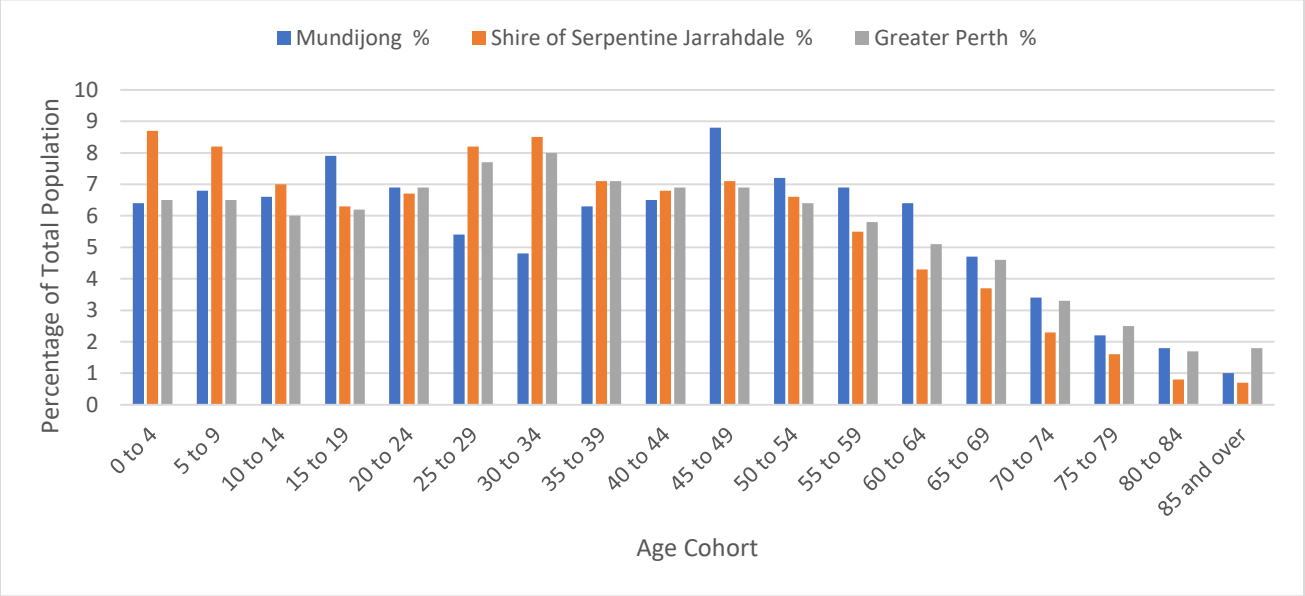


Figure 24 Age Profile Comparisons between the Mundijong area, Shire of Serpentine Jarrahdale and Greater Perth Region (Source: Profile ID https://profile.id.com.au/serpentine-jarrahdale/five-year-age-groups)

Significant age profile characteristics are:

- The Mundijong area has a lower proportion of people in the younger age group (under 15) than Shire of Serpentine Jarrahdale, and a higher proportion than Greater Perth region and WA as a whole.
- The proportion of people aged of 0 – 15 years in the Mundijong area was 19.8% compared to Shire of Serpentine Jarrahdale with 23.9%, Greater Perth region, 19.1% and WA as a whole with 19.2%.
- The Mundijong area has a higher proportion of people in the older age groups (65+) than the Shire of Serpentine Jarrahdale, and a lower proportion than both Greater Perth region and WA as a whole.
- In the 65 years and over age group the Mundijong area (13.1%) compared to Shire of Serpentine Jarrahdale (9.1%), Greater Perth region (13.8%) and WA as a whole (14%).

- The age groups with the largest percentage of people in Mundijong area are 45 to 49 years (8.8%) and 15 to 19 years (7.9%). In comparison the age groups with the highest percentage in Shire of Serpentine Jarrahdale are 0 to 4 years (8.7%), and 30 to 34 years (8.5%) followed by the 5 to 9 years and 25 to 20 years, both with 8.2%.
- The age groups with the lowest percentage of people in the Mundijong area are 85 plus with 1.0% and 80 to 84 years with 1.8% compared to the Shire of Serpentine Jarrahdale with 85 and over (0.7%) and 80 to 84 years with 0.8%. In comparison the lowest percentage of people for Greater Perth region is 80 to 84 years at 1.8% and then 85 and over (1.7%).

The changes to the age structure are essential in planning age-based facilities and services, with the forecast age structure for the Mundijong area illustrated in Figure 25.

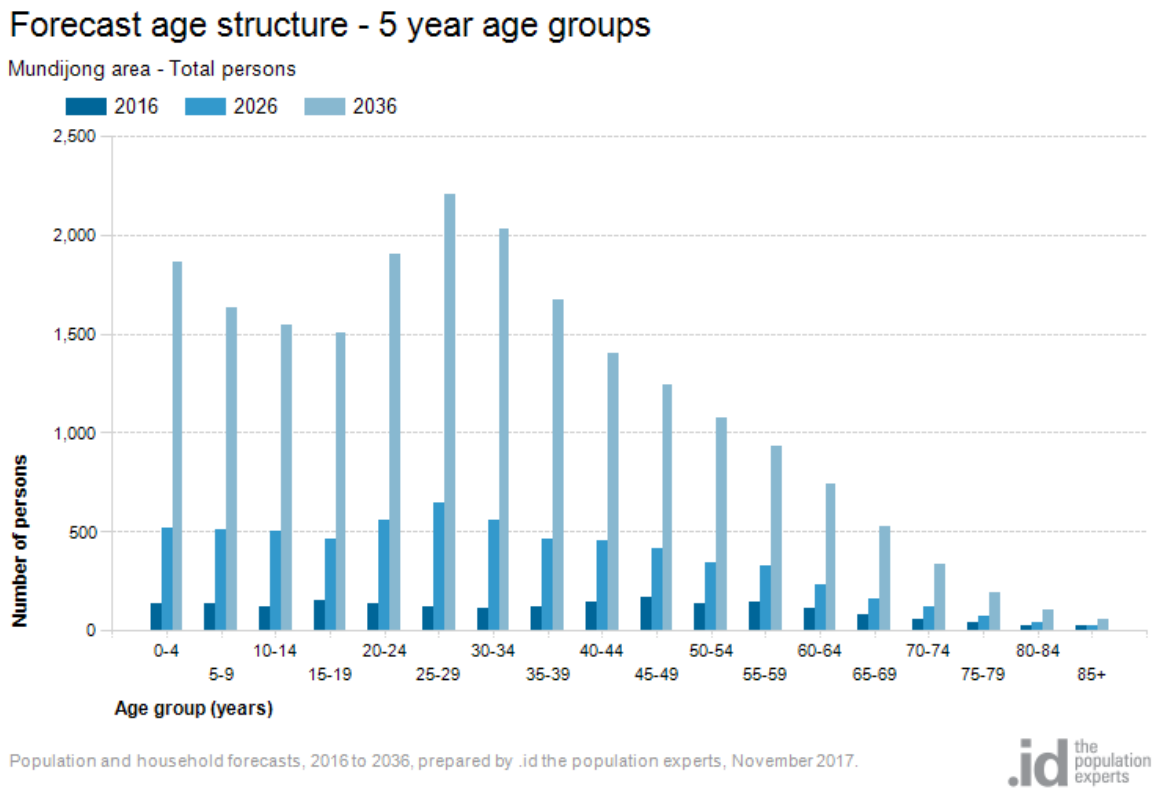


Figure 25: Forecast Age Structure for Mundijong Area – 2016, 2026 and 2036 (Source Forecast ID https://forecast.id.com.au/serpentine-jarrahdale/population-age-structure)

In 2016, the dominant age structure for persons in Mundijong area was ages 45 to 49, which accounted for 8.7% of the total persons. By 2026 the dominant ages are forecast to be 25 to 29 years with a total of 645 people. The largest increase in persons between 2016 and 2026 is forecast to be in ages 25 to 29, which is expected to increase by 527 and account for 10.1% of the total persons.

In the Mundijong area between 2016 and 2026, it is projected that there will be a 281.7% increase in population under working age, an 85.1% increase in population of retirement age, and a 229.3% increase in population of working age.

Appendix D: Participation Data

The Australian Sports Commission published AusPlay: Participation data for the sport sector in December 2016 with a summary of key national findings from October 2015 to September 2016 data. This was initially undertaken on a national basis and subsequently in December 2017 published on a state and territory basis. This section highlights the key conclusions from the national analysis and where applicable references cycling.

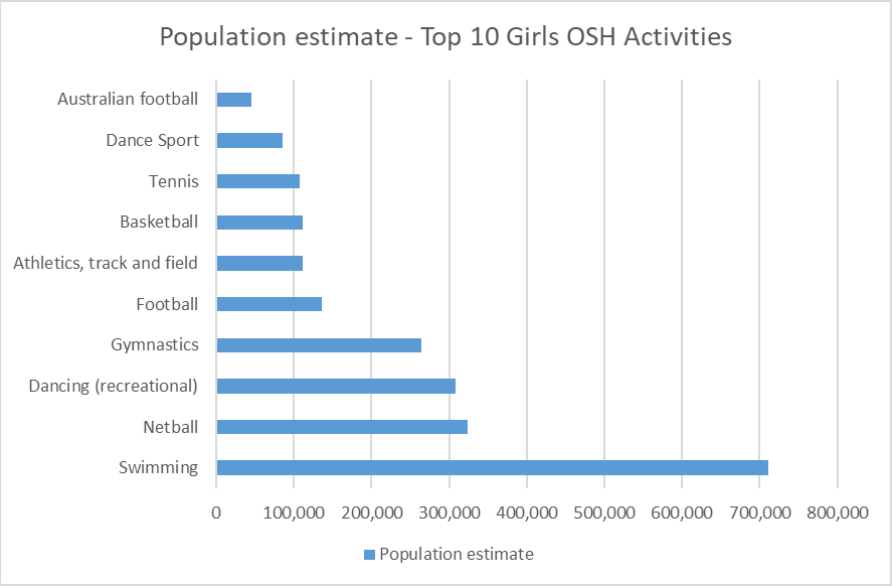
The main assumptions of Ausplay are:

- Adults and Children: For the purposes of AusPlay an adult is a person aged 15 and over and a child is a person aged 0-14.
- Duration of Activity: For each activity done within the last 12 months, all players were asked how long the most recent session had lasted. There were no minimum or maximum limits set. An average duration was calculated for each person from the durations they gave for their different activities, and this was used as an indicative session duration for reporting durations per person.
- Frequency of Activity: For each activity done within the last 12 months, all adult and child players were asked how many times, in total, they had done it (including any practice or training). The frequencies given by each person for each of their activities were summed for reporting the total frequency of participation in any sport-related or non-sport-related activities per person.
- Sample and Margin of Error: The AusPlay results are based on a sample and are therefore subject to sample error. Sample error is measured by the standard error and the margin of error. Knowledge of the standard error, or the margin of error, enables the 95% confidence intervals to be constructed around survey results and also enables statistical significance testing to be carried out.

The national data output identified:

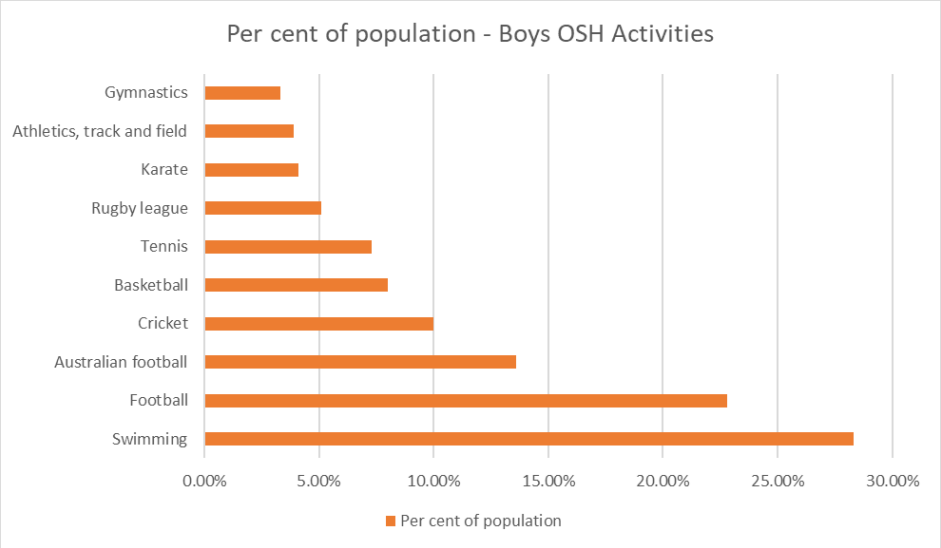
- Over 17 million Australians aged 15 or over (87%) participated in a sport or physical activity in the last 12 months.
- Nearly 3.2 million children (69%) participated in some form of organised sport or physical activity outside of school hours.
- Adult men and women participate at similar levels across the life stages.
- However, girls 9-11 years old are slightly more likely to participate in sport or physical activity (at least once a year) compared to boys of the same age.
- 11.6 million Australians (59%) aged 15 or over are participating in sport or non-sport related physical activity three or more times per week.
- 2.5 million Australian children (54%) aged 0 to 14 are active at least once a week through organised sport/physical activity outside of school hours. Only 19% or 0.9 million children are active at least three times per week.
- Australian adults tend to play sports for longer durations than non-sport related physical activities. However, they participate in non-sport related physical activities more often than sport.
- Sport clubs are the primary avenue for children to be active (except for children aged 0–4, who are more likely to be active through other organisations).
- Top 10 girls out of school hours activities ranks swimming as the most popular followed by Netball, Dancing and Gymnastics

Figure 26: Top 10 girls OSH Activities (source: Ausplay)



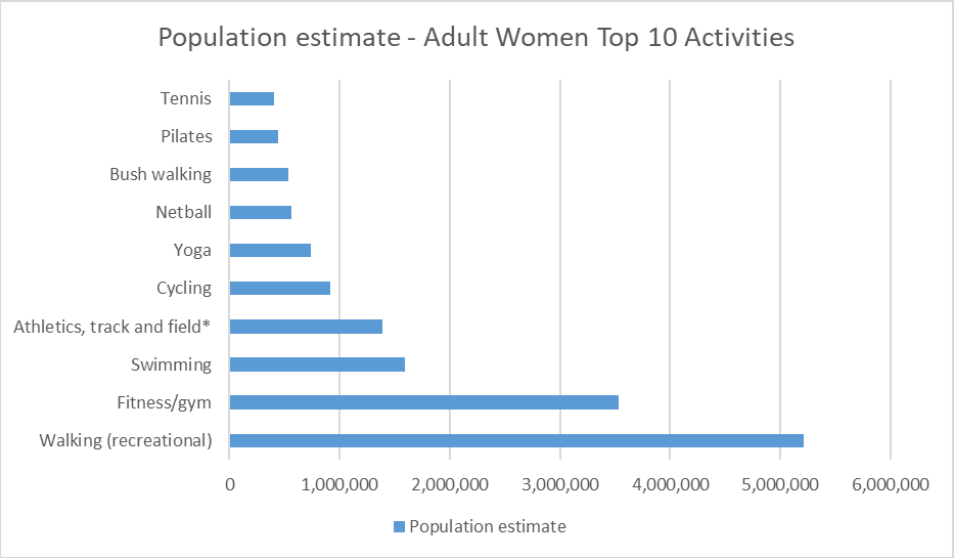
- The top ten out of school hours activities for boys ranks Swimming as the most popular sport followed by football, Australian football and cricket. Cycling is not within the top ten activities pursued by male or female children.

Figure 27 Top 10 Boys OSH Activities (source: Ausplay)



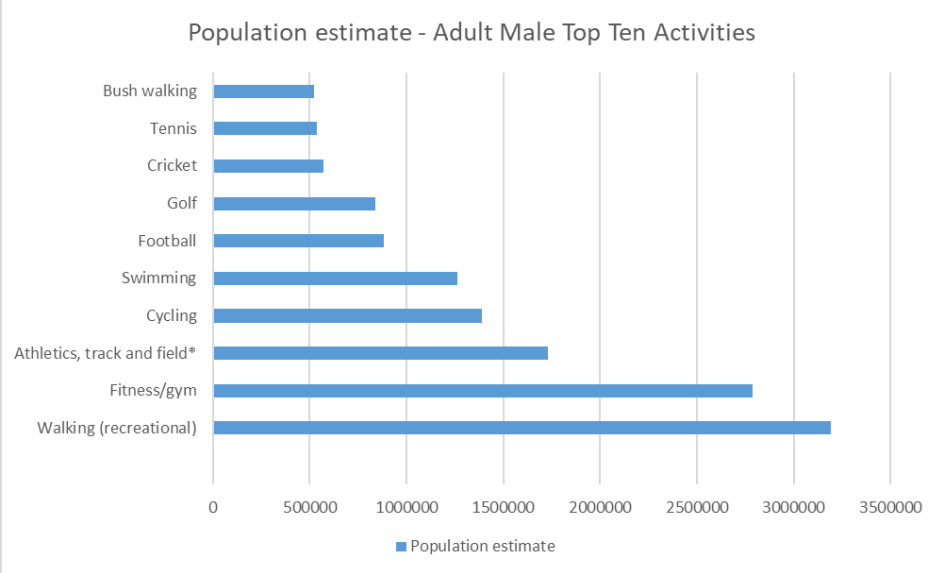
- The main barrier to young children's participation in organised out of school hours sport or physical activity is their parents' perception that they are too young to start playing.
- Women are more likely to participate in sport or physical activity for physical and mental health reasons and to lose or maintain weight than men.

Figure 28: Top 10 Activities for Adult Women (source: Ausplay)



- For adults, up to middle-age, time pressure is by far the main barrier to participating in sport or physical activity. Poor health or injury then also becomes a main factor.
- Men are more motivated by fun/enjoyment and social reasons than women. Cycling ranks as 5th for the activities of choice for women and 4th for males.

Figure 29 Top 10 Activities for Adult Men (source: Ausplay)



- Sport clubs are not the main choice for participation in sport or physical activity in Australia for adults aged 18 years and over.
- While sport clubs are the main avenue for both girls and boys, throughout childhood boys (50%) are more likely to be active through club sport than girls (33%).
- The use of technology for sport or physical activity is popular with 39% of the Australian adult 'playing' population. Its popularity is highest amongst younger adults, particularly younger women.
- Recreational walking is the most popular physical activity for Australians overall followed by fitness/gym activities.

- Cycling consistently ranks in the top 5 of adult activities of choice for participation. (more than double that of team based rectangular and oval sports.

Figure 30: Top 20 Adult Activities (source: Ausplay)

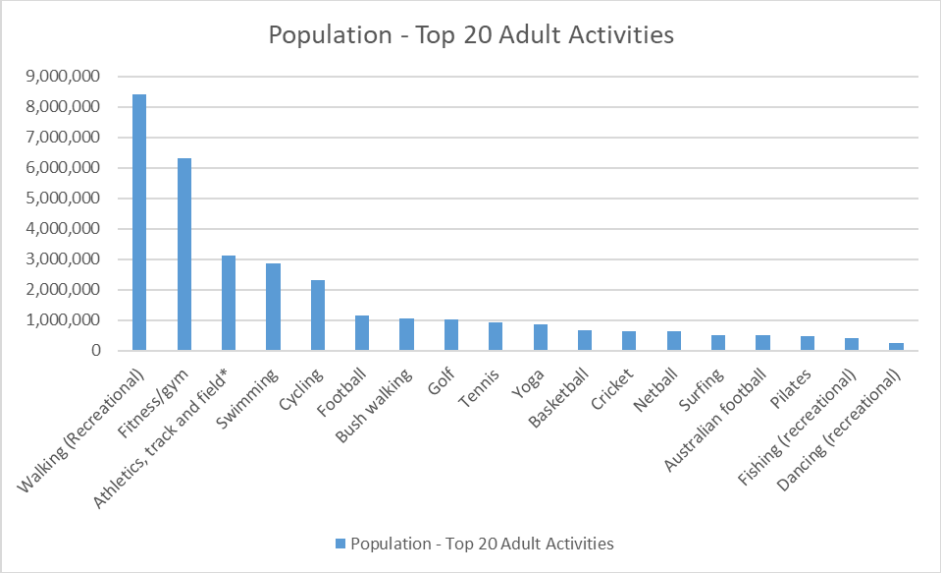
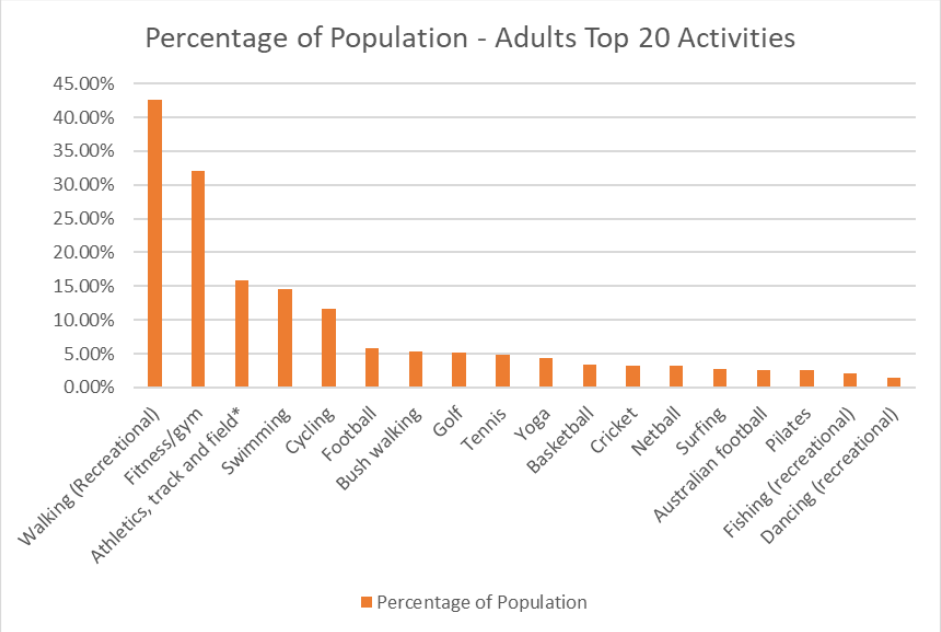
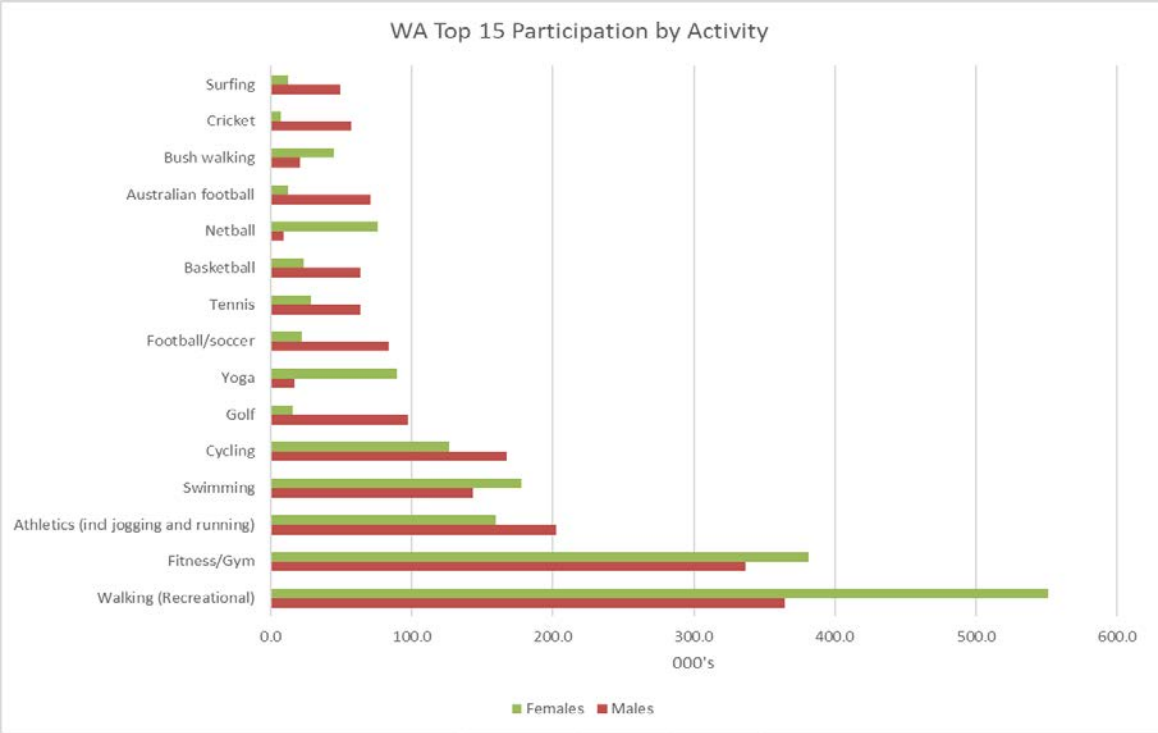


Figure 31: Percentage of Population Taking Part in the Top 10 Adult Activities (source: Ausplay)



- Overall when combining male and female children's participation together, swimming is the activity of choice for a large proportion of Australian children, ahead of football in second.
- In respect of recreational activities, walking is the most popular adult activity followed by fitness/gym, running, swimming, cycling, golf and yoga. It is to be noted that all of these activities can be undertaken in isolation and are non-contact in nature.

Figure 32: Adult Participation by Activity in WA (Source: Ausplay)



Appendix E: Facility Benchmarks

Club	Background
Westside BMX Balcatta, **Corner of Vasto Place & Balcatta Rd, Balcatta, Western Australia** 	- Running since 1979 Westside BMX Balcatta is one of Australia's largest BMX Clubs and is continually growing. $1.4m investment completed in Dec 2016. - The scope of the project comprises alterations to the existing clubroom building to provide improved change rooms, toilets, canteen, storage and general club facilities. External areas are being upgraded to give better facilities for members and spectators.  - WESTSIDE BMX Club in Balcatta hosted the 10th and final round of the BMX WA State Super Series round in 2017 - **Race Day/Time:** Practice: Tuesdays 6-8pm Race: Fridays from 6pm
Sleeman Supercross Track – Brisbane 	Facility composition and capability: - International standard outdoor BMX track - Training venue of BMX Queensland - Significant club and community resource. - Dual 5m and 8m start ramps - Hosts local, state, national and international racing, including 2013, 2015 and 2017 BMX - National Championships - Access to toilets, showers, change rooms, function areas, gym, professional coaching, - sport science/sport medicine, physio, on-site car parking, on-site athlete accommodation. - $4.2 million build cost
Club: Bunbury BMX track, Corner of Washington and Rotary Ave Bunbury, Western Australia	During 2010 the Bunbury BMX Club Inc. completed a major redevelopment of the entire complex. This resulted in a 21-year lease with City of Bunbury until 2030,

Facility Features:

- UCI compliant 5m start ramp and 2 pro straights and perimeter security fence
- new light towers and new elevated grassed spectator area
- Transponder timing and elevated scoring
- Canteen
- Race Day/Time: Wednesday 7pm

Funding:

- Local Businesses
- In-kind voluntary hours.
- Additional grant funding in 2017

Club: Mandurah BMX Club
91A Park Rd, Mandurah WA 6210

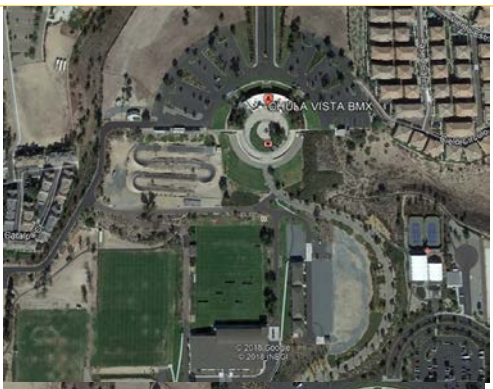
- Mandurah BMX Track has been remodelled to now include a PRO section.
- Mandurah BMX Club held a round of the Super State Series at their venue in 2017
- Located adjacent to an industrial area where additional car parking can be secured for events on the road and within the neighbouring industrial units hardstanding.
- **Race Day/Time:** Saturdays 10am

Club: Rockingham BMX Club, Ennis Ave, Rockingham

- Rockingham BMX Club Incorporated increased its track size from 7,772 square metres to 9,302 square metres in 2015 to improve its ability to cater for more members.
- The club has plans to attract state and national level competitions to Rockingham.
- The club are the sole users; offering coaching two nights a week.
- Facilities include a canteen, toilet and 5m starting hill.

Club: Chula Vista BMX USA - 2008 Olympic Parkway Chula Vista CA 91915

- Open weekly for the public to come out and try



- Multi-sport and multi-functional site with shared car parking and activity space.

Facility composition:

- The Gate (24 feet and 8 lanes wide)
- The Starting Hill
- The Straights
- Berm Turns (180s, quick 90s long sweepers)
- Doubles (Two hills spaced apart to go airborne)
- Step Down (A short hill followed immediately by a taller hill)
- Step Up (A tall hill followed immediately by a smaller hill)
- Roller (small hill coming at various numbers)
- Rhythmic Section (combination of jumps)
- Table Top (flat top jump)

Appendix F: Consultation Outputs

Consultation	Detailed Interview Response
Tania Wehr: CEO BMX WA	- BMX – Strategic Plan being undertaken in 2018 - 8 clubs in the metropolitan area – all at different levels. - Recently completed the strategy for cycle sport but BMX are not completely satisfied with the outputs. - Look at UCI for track facilities required at all levels. - Byford is considered to be a country level facility. It has the potential to hold state championships. - Ideal facility would be one ramp with 2 straights. - Bunbury BMX track is one ramp and holding the 2018 Australia National Championships. It was chosen as the most suitable and benefits from close proximity to the soccer facility - Balcatta is also a good comparator – lesson should be learnt from the potential cost blow out if you go for two ramps and two tracks. - BMX want one state facility with an 8m ramp and are looking to develop the business case in 2018. Cockburn has been considered but not ideal. Rockingham and Westside have also been looked at. There is no high-performance facility in WA and are the only state in Australia without an 8m ramp. They currently train on all tracks in the metropolitan area. - Athlete development and high-performance athletes tend to go to Bunbury. - Of the state tracks: o Lesmurdie could get away with a national event o Balcatta (Westside) provides national level opportunities. - The type of facility is governed by the size of the land. Byford is cramped and the future development of the site would not allow for expansion. - A 2.5m ramp is the minimum but 6m is preferred as competitions are not run on anything less. An 8m ramp is required to be fenced. - Every Club has to be affiliated to BMXWA. Every rider must be licensed. - Unless the track is open access, it must be licensed. Bull Creek is used 24/7 and has problems with motorbikes and remote control cars (35 years old). A half fence is generally required to provide safe and secure access. - Bibra Lake facility has bollards and is not affected by motorbikes. - Any sports can co-locate with BMX, (the only issue is car parking) - shared club room, canteen and toilets – ensuring adequate provision and access. Anyone with a bike could utilise the track and surrounds. o Chula Vista (USA) is the optimum level of provision – normal racing track, Olympic track, dirt jumps and mini wheelers. o Sleeman in Queensland have a number of sports in one location. Ideally Sleeman should be replicated in WA. - All world cups are on the supercross tracks with 8m ramps - Current club participation structure: o Mini Wheelers – 2 and above o Sprockets – 5-7 o Open License – 8 upwards. o Just started a junior development program for 12/13 year olds. - Competition structure: o 2-4 mini wheelers o 5-7 sprockets o Individual age groups up to 17 o 17+

	o 30+ o Elite class These are all dependent on entry numbers. National championships have junior elite and elite. - Membership figures change all of the time. Members will travel to race and it is not a constraint which will hold them back. - Events: o 1 x National o 7 x National series o 1 x state championships o 10 x state series. - Every club race each year throughout the year. - Clubs have a standard template for their constitution which they are required to adopt. Basic committee structure of 5 directors. - Most Clubs maintain their own tracks. Some have peppercorn lease, Wanneroo BMX was invested in 12-18 months ago.
Daryl Dawes – Byford BMX Club	- History and Context o Current Club President – has been involved for 5 years, 2 as president. o Established in the early 80's and has ebbed and flowed with membership and re-opened after an initial difficult period. o Lull in memberships previously have been as a result of committee issues. Club is now very active. Facility is ok but not practical for a larger event. o The club have secured the Super Series (State Round) but must be able to provide a minimum level of parking. This can't be achieved at Briggs Park (and will not be achieved in future due to investment in the oval). o The club cannot see a solution at Briggs Park for the club o At the time of developing the master plan, the president at the time, advised that the space was sufficient (don't touch them) but had not envisaged a long-term plan. The club had almost been bankrupted by decisions that have previously been taken. o They now have a strategic plan in place with 3/5 year goals relating to relocation. o Board want to investigate free-style BMX more than they do currently. - Current club status: o Track lighting is being upgraded over the next two months o Currently no position descriptions for board members – they all have a loose understanding of their responsibilities but there is a need to formalise this. The board has moved to a traditional structure of 5 board members on a two-year rotation. All five current board members have been involved for 2 years or more. - Ideal solution: o Minimum requirements – Track, canteen, appropriate storage for maintenance equipment. Office facility for registrations. Precast concrete for storage under start ramp. o Able to hold national events as they currently cannot hold state titles. Would like to work towards an international/world event. They have targeted a bid for the 2021 national championships but cannot achieve it in the current area. o Westside and Bunbury are currently the only clubs to pick up national events. o The club want one ramp – currently 3m but require 6m.

	o Location – would not be comfortable with going out much further than they are now. 47% are from Armadale area, 47% from Serpentine Jarrahdale and the remainder from other Shires. o Ideally would be on the main road artery – Tonkin Highway, on land in and around the extended road. - A design was undertaken by Dirts for the relocation o Must have pro-straights to attract high level riders o Pump track – more for training. It provides for 13-18 old development opportunities (practicing and perfecting jumps). o Car parking bays - lowest level is 300 with capability to accommodate 1,500 for the national championships. o For spectators – 1,000 for local and state championships and 2-3,000 for national championships. o Areas also need to be blocked off for gazebo's, toilets and tents. o For state titles a presentation area is required with seating o Power is required to service the site (lighting, clubhouse, canteen etc.) o Water points required on track (underground) – currently the Shire have a water tank which allows for decent pressure. o Sewerage is currently connected to mains – new site would need to be similar. - Current use: o Mon, Tues, Thurs, Sat for coaching. o Events operate on Friday nights. - Site Options: o Whitby may not be the right spot as the issues currently experienced will be emphasised. - Car Parking issues: o T-ball are looking to operate Saturday and Sunday and this will exacerbate the car parking issues. o Football struggle for car parking o Cricket is not so bad (only during large events is it an issue.) - Canteen facility was built by the Shire – originally a storage unit and then converted after the fact to a canteen. As a result, there is a constant power issue. The canteen turns over $1k to $1.5k on a Friday night - Co-location opportunities: o Definitely with other wheeled sports. o Should reconsider the skate park o Pump tracks (clay base with coating) o Scooters o Remote control cars o Road cycling – who currently have no facility (potential location with outdoor velodrome) - Centenary Plains in Queensland was identified as an optimum solution (see aerial

	- Management:
	  o The club would seek to manage the facility and maintain it. (Shire to maintain the buildings
	  o Vandalism is a big issue at present as it is not a closed facility. If closed off, club would take on the responsibility. Lesmurdie get paid to maintain their facility.
	- Funding:
	  o The club have $45k in reserve of which $25k is going into the replacement lighting. The club will set money aside this year for future relocation.
	 

Consultation with the Bushrangers	- Relationship with BMX is good although it hasn't always been. - They share the canteen and storage facility - BMX will hinder the operations of the club – they operate Saturday mornings only at present and wish to operate on a Friday night which would conflict with BMX. The relationship would need to be strong. - Current membership is 183 - Want to get to 220 - They have introduced the junior ball and machine to the pitch - There is a need to increase usage. - Options for redevelopment will be difficult in Byford – it is the centre of the club. - Shared use is not working as facility provision has not kept pace with growth. - Bill Hicks is too small - They need a flat surface – currently Briggs Park is too wet and uneven but the ground improvements will address that. - For two expanding clubs there is no opportunity to celebrate. There is nothing in the redevelopment plan to include an enhanced changing room. The clubhouse was designed to build up but it is not in the best location – there is a need to know where a replacement clubhouse could be. - They do not use the old toilet block /canteen – BMX/T-Ball has always used a shared facility but asbestos has been an issue with the old building although it has been left due to power being in place
Cricket Club	The following comments were received from representatives of the Serpentine Jarrahdale Cricket Club: - Currently 4 senior teams with 50 playing members. 145 juniors last year (6/7 sides). They train 5 days per week. All are based at Briggs Park

	- They are lacking space in the Shire and have to travel to Mundijong. - The bottom oval improvements will be a significant benefit to the club – field is uneven and dangerous. Require 1 x cricket pitch and 2 nets. - Relationship with BMX is satisfactory – they do not impact upon each other significantly other than through using the oval as a car park. - Future growth of club: looking to increase girls and senior women's team. The aim is to be a family orientated club (95% male at present). Looking to put in 3 to 4 more teams and therefore need to find additional oval space. Juniors will increase next year and seniors likely to increase to 5. - The ideal solution would be to construct a pavilion in the centre of Briggs Park with 2 sided viewing. The two ovals on one site is essential. - The relationship with Footie is excellent. They are seen as the sister club and players represent both codes. They are based at Mundijong. - Footie has a real issue with the quality of infrastructure. Tee-ball is a potential issue (looking at Orton Road) - Skate park was supported by the club, but not in the location identified. - The general maintenance of the whole area is a problem – fencing is needed for the oval

Appendix G: Concept Plan

LEGEND

- **SITE BOUNDARY** — NOMINAL BOUNDARY SHOWN
- **MULTI-USE AREAS** — IRRIGATED / DRYLAND TURF
- **PUBLIC TOILETS** — TOILETS AND CHANGE ROOMS
- **ROADWAY** — SEALED | BLACK ASPHALT
- **PARKING** — SEALED | RED ASPHALT
- **UNSEALED ROAD** — CONSOLIDATED RED GRAVEL
- **TREE PLANTING** — CLUSTERED, LOCAL TREES & MALLEES
- **BUILDING | CLUB HOUSE** — PROMINENT VISITOR EXPOSURE TO RIDERS
- **FUTURE BUILDING LOCATION** — INDICATIVE ONLY
- **PRIMARY SPECTATOR ZONE** — PAVED | NO VEHICLE ACCESS
- **SECONDARY SPECTATOR ZONE** — TURFED | LIMITED VEHICLE ACCESS
- **TRACK LIGHTING** — FLOOD LIGHTS ON 12.5M POLE

FACILITIES

01. **BMX COMPETITION TRACK** — OPTIONAL 3M OR 6M HIGH RAMP CONFIGURATION
02. **MULTI-USE TRACK | MINI PUMP TRACK** — FLEXIBLE LIGHTWEIGHT FORMAT
03. **CLUB HOUSE & CANTEEN** — INCL. ADMINISTRATION OFFICE & FUNCTION ROOM
04. **OVERFLOW PARKING AREA** — SEASONAL CAMPING POTENTIAL
05. **ALFRESCO CAFE AREA** — SEPARATE EVENTS CAPACITY
06. **ALL-ABILITIES SKATE PARK** — OPTIONAL (SUBJECT TO FUNDING)

0 10 20 30 40 50m

propagule

BYFORD BMX FEASIBILITY | **BMX OPTIONS PLAN**
KERNAN STREET & LAMPITER DRIVE, MUNDIJONG WA

LANDSCAPE MASTER PLAN
OPTION B | WEBB ROAD

AUTHOR	JC
CHECKED	NC
PROJECT NO	PT1014
SCALE	1:1000 @ A0
DATE	15.05.2018

Appendix H: Full Detailed Costings

Option A and B Scenario 1: BMX Development Only:

BYFORD BMX FEASIBILITY
15/05/2018

DONALD CANT WATTS CORKE

SUMMARY

Option	Option A - 6m Ramp BMX Only	Option A - 3m Ramp BMX Only	Option B - 6m Ramp Incl Pump Track	Option B - 3m Ramp Including Pump Track
	Total	Total	Total	Total
Building Works	$706,000	$706,000	$706,000	$706,000
External Works and Services	$2,366,841	$2,335,755	$2,555,887	$2,524,801
Construction Works Sub-Total	**$ 3,072,841**	**$ 3,041,755**	**$ 3,261,887**	**$ 3,230,801**
Design Contingency	5% $ 153,642	5% $ 152,088	5% $ 163,094	5% $ 161,540
Construction Contingency	10% $ 322,648	10% $ 319,384	10% $ 342,498	10% $ 339,234
Professional Fees @ 12%	12% $ 425,896	12% $ 421,587	12% $ 452,098	12% $ 447,789
Construction Works Sub-Total	**$ 3,975,028**	**$ 3,934,815**	**$ 4,219,578**	**$ 4,179,365**

Exclusion :
Excludes GST
Excludes abnormal ground conditions / contamination etc
Excludes major services diversions
Excludes major utility upgrades / contributions & headworks
Excludes FF&E
Excludes client costs, legal costs, site costs, agents fees, finance etc
Excludes land purchase costs
Excludes Client Representative / Project Management Fee / Professional Fees
Excludes escalation - costs are current day
Excludes % for Public Art
Excludes ESD
Costs assume Competitive Tender process with local builders using basic pallette of materials
Excludes roads as assumed part of larger development

Notes :
OPC based on indicative proposal drawings provided
All quantities and rates are provisional therefore subject to adjustment
All external works and service allowances are Provisional

Drawings used :
Option A Kiernan Street Landscape Master Plan (15/05/2018)
Option B Lampiter Drive Landscape Master Plan (15/05/2018)

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option A - 6m
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option A - 6m			
	Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower (no detail or size)	1	Sum	$50,000	$50,000
Indicative Buildings Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	12706	m2	$15	$190,590
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track (6m high start) including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Burm (turns) surfaces	1664	m2	$60	$99,840
Extra over 10m width for pro straight; 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6941	m3	$30	$208,230
Retaining walls to start ramp	1	Sum	$50,000	$50,000
Retaining walls to burms	1	Sum	$20,000	$20,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for sealed footpath connecting skate park to amenities	0	m2	$50	$0
Allowance for gravel path around perimeter of site	935	m2	$30	$28,050
Allowance for turf	6170	m2	$20	$123,400
Allowance for car parking	2137	m2	$120	$256,440
Allowance for pump track	0	m2	$500	$0
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	711	m2	$75	$53,325
Allowance for canopies adjacent pump track	0	No	$20,000	$0
Allowance for all abilities skate park	0	m2	$1,000	$0
Allowance for trees	90	no	$500	$45,000
Allowance for soft landscaping (shrubs)	1	Sum	$20,000	$20,000
Allowance for perimeter fence around the site boundary	505	m	$125	$63,125
Allowance for Preliminaries	10%	Sum		$142,667.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting to building	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting to BMX track	5	no	$70,000	$350,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$72,500.0
Indicative External Works and Services Sub-Total				**$2,366,841**
				$3,072,841

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option A - 3m
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option A - 3m Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower (no detail or size)	1	Sum	$50,000	$50,000
Indicative Buildings Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	12706	m2	$15	$190,590
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track (6m high start) including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Burm (turns) surfaces	1664	m2	$60	$99,840
Extra over 10m width for pro straight; 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6499	m3	$30	$194,970
Retaining walls to start ramp	1	Sum	$40,000	$40,000
Retaining walls to burms	1	Sum	$15,000	$15,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for sealed footpath connecting skate park to amenities	0	m2	$50	$0
Allowance for gravel path around perimeter of site	935	m2	$30	$28,050
Allowance for turf	6170	m2	$20	$123,400
Allowance for car parking	2137	m2	$120	$256,440
Allowance for pump track	0	m2	$500	$0
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	711	m2	$75	$53,325
Allowance for canopies adjacent pump track	0	No	$20,000	$0
Allowance for all abilities skate park	0	m2	$1,000	$0
Allowance for trees	90	no	$500	$45,000
Allowance for soft landscaping (shrubs)	1	Sum	$20,000	$20,000
Allowance for perimeter fence around the site boundary	505	m	$125	$63,125
Allowance for Preliminaries	10%	Sum		$139,841.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting to building	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting to BMX track	5	no	$70,000	$350,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$72,500.0
Indicative External Works and Services Sub-Total				**$2,335,755**
Estimated Total Current Day Construction Budget				**$3,041,755**

BYFORD BMX FEASIBILITY				
FUNCTIONAL AREA BUDGET BREAKDOWN				
Option B - 6m start				
15/05/2018				

FUNCTIONAL AREA	Option B - 6m start			
	Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower	1	Sum	$50,000	$50,000
Indicative Clubhouse Facility Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	18440	m2	$15	$276,600
Allowance for demolishing existing buildings and structures	1	Sum	$50,000	$50,000
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Brum (turns) surfaces	1664	m2	$60	$99,840
Extra over for pro straight 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6941	m3	$30	$208,230
Retaining walls to start ramp	1	Sum	$50,000	$50,000
Retaining walls to burms	1	Sum	$20,000	$20,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for gravel path around perimeter of site	960	m2	$30	$28,800
Allowance for turf	8690	m2	$20	$173,800
Allowance for car parking	1346	m2	$120	$161,520
Allowance for pump track	0	m2	$500	$0
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	1152	m2	$35	$40,320
Allowance for canopies adjacent pump track	0	No	$20,000	$0
Allowance for all abilities skate park	0	m2	$1,000	$0
Allowance for trees	64	no	$500	$32,000
Allowance for soft landscaping (shrubs)	1	Sum	$50,000	$50,000
Allowance for perimeter fence around the site boundary	550	m	$125	$68,750
Allowance for Preliminaries	10%	Sum		$152,853.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting	6	no	$70,000	$420,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$79,500.0
Indicative External Works and Services Sub-Total				**$2,555,887**
Estimated Total Current Day Construction Budget				**$3,261,887**

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option B - 3m start
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option B - 3m start			
	Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower	1	Sum	$50,000	$50,000
Indicative Clubhouse Facility Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	18440	m2	$15	$276,600
Allowance for demolishing existing buildings and structures	1	Sum	$50,000	$50,000
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Brum (turns) surfaces	1664	m2	$60	$99,840
Extra over for pro straight 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6499	m3	$30	$194,970
Retaining walls to start ramp	1	Sum	$40,000	$40,000
Retaining walls to burms	1	Sum	$15,000	$15,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for gravel path around perimeter of site	960	m2	$30	$28,800
Allowance for turf	8690	m2	$20	$173,800
Allowance for car parking	1346	m2	$120	$161,520
Allowance for pump track	0	m2	$500	$0
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	1152	m2	$35	$40,320
Allowance for canopies adjacent pump track	0	No	$20,000	$0
Allowance for all abilities skate park	0	m2	$1,000	$0
Allowance for trees	64	no	$500	$32,000
Allowance for soft landscaping (shrubs)	1	Sum	$50,000	$50,000
Allowance for perimeter fence around the site boundary	550	m	$125	$68,750
Allowance for Preliminaries	10%	Sum		$150,027.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting	6	no	$70,000	$420,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$79,500.0
Indicative External Works and Services Sub-Total				**$2,524,801**
Estimated Total Current Day Construction Budget				**$3,230,801**

Option A and B Scenario 2: BMX and Pump Track

BYFORD BMX FEASIBILITY
15/05/2018

DONALD CANT WATTS CORKE

SUMMARY

Option	Option A - 6m Ramp BMX and Pump Track	Option A - 3m Ramp BMX and Pump Track	Option B - 6m Ramp BMX and Pump Track	Option B - 3m Ramp BMX and Pump Track
	Total	Total	Total	Total
Building Works	$706,000	$706,000	$706,000	$706,000
External Works and Services	$2,631,391	$2,600,305	$2,820,437	$2,789,351
Construction Works Sub-Total	**$ 3,337,391**	**$ 3,306,305**	**$ 3,526,437**	**$ 3,495,351**
Design Contingency	5% $ 166,870	5% $ 165,315	5% $ 176,322	5% $ 174,768
Construction Contingency	10% $ 350,426	10% $ 347,162	10% $ 370,276	10% $ 367,012
Professional Fees @ 12%	12% $ 462,562	12% $ 458,254	12% $ 488,764	12% $ 484,456
Construction Works Sub-Total	**$ 4,317,250**	**$ 4,277,037**	**$ 4,561,799**	**$ 4,521,587**

Exclusion :
Excludes GST
Excludes abnormal ground conditions / contamination etc
Excludes major services diversions
Excludes major utility upgrades / contributions & headworks
Excludes FF&E
Excludes client costs, legal costs, site costs, agents fees, finance etc
Excludes land purchase costs
Excludes Client Representative / Project Management Fee / Professional Fees
Excludes escalation - costs are current day
Excludes % for Public Art
Excludes ESD
Costs assume Competitive Tender process with local builders using basic pallette of materials
Excludes roads as assumed part of larger development

Notes :
OPC based on indicative proposal drawings provided
All quantities and rates are provisional therefore subject to adjustment
All external works and service allowances are Provisional

Drawings used :
Option A Kiernan Street Landscape Master Plan (15/05/2018)
Option B Lampiter Drive Landscape Master Plan (15/05/2018)

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option A - 6m
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option A - 6m Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower (no detail or size)	1	Sum	$50,000	$50,000
Indicative Buildings Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	12706	m2	$15	$190,590
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track (6m high start) including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Burm (turns) surfaces	1664	m2	$60	$99,840
Extra over 10m width for pro straight; 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6941	m3	$30	$208,230
Retaining walls to start ramp	1	Sum	$50,000	$50,000
Retaining walls to burms	1	Sum	$20,000	$20,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for sealed footpath connecting skate park to amenities	0	m2	$50	$0
Allowance for gravel path around perimeter of site	935	m2	$30	$28,050
Allowance for turf	6170	m2	$20	$123,400
Allowance for car parking	2137	m2	$120	$256,440
Allowance for pump track	401	m2	$500	$200,500
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	711	m2	$75	$53,325
Allowance for canopies adjacent pump track	2	No	$20,000	$40,000
Allowance for all abilities skate park	0	m2	$1,000	$0
Allowance for trees	90	no	$500	$45,000
Allowance for soft landscaping (shrubs)	1	Sum	$20,000	$20,000
Allowance for perimeter fence around the site boundary	505	m	$125	$63,125
Allowance for Preliminaries	10%	Sum		$166,717.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting to building	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting to BMX track	5	no	$70,000	$350,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$72,500.0
Indicative External Works and Services Sub-Total				**$2,631,391**
Estimated Total Current Day Construction Budget				**$3,337,391**

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option A - 3m
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option A - 3m Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower (no detail or size)	1	Sum	$50,000	$50,000
Indicative Buildings Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	12706	m2	$15	$190,590
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track (6m high start) including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Burm (turns) surfaces	1664	m2	$60	$99,840
Extra over 10m width for pro straight; 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6499	m3	$30	$194,970
Retaining walls to start ramp	1	Sum	$40,000	$40,000
Retaining walls to burms	1	Sum	$15,000	$15,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for sealed footpath connecting skate park to amenities	0	m2	$50	$0
Allowance for gravel path around perimeter of site	935	m2	$30	$28,050
Allowance for turf	6170	m2	$20	$123,400
Allowance for car parking	2137	m2	$120	$256,440
Allowance for pump track	401	m2	$500	$200,500
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	711	m2	$75	$53,325
Allowance for canopies adjacent pump track	2	No	$20,000	$40,000
Allowance for all abilities skate park	0	m2	$1,000	$0
Allowance for trees	90	no	$500	$45,000
Allowance for soft landscaping (shrubs)	1	Sum	$20,000	$20,000
Allowance for perimeter fence around the site boundary	505	m	$125	$63,125
Allowance for Preliminaries	10%	Sum		$163,891.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting to building	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting to BMX track	5	no	$70,000	$350,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$72,500.0
Indicative External Works and Services Sub-Total				**$2,600,305**
Estimated Total Current Day Construction Budget				**$3,306,305**

BYFORD BMX FEASIBILITY				
FUNCTIONAL AREA BUDGET BREAKDOWN				
Option B - 6m start				
15/05/2018				

FUNCTIONAL AREA	Option B - 6m start			
	Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower	1	Sum	$50,000	$50,000
Indicative Clubhouse Facility Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	18440	m2	$15	$276,600
Allowance for demolishing existing buildings and structures	1	Sum	$50,000	$50,000
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Brum (turns) surfaces	1664	m2	$60	$99,840
Extra over for pro straight 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6941	m3	$30	$208,230
Retaining walls to start ramp	1	Sum	$50,000	$50,000
Retaining walls to burms	1	Sum	$20,000	$20,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for gravel path around perimeter of site	960	m2	$30	$28,800
Allowance for turf	8690	m2	$20	$173,800
Allowance for car parking	1346	m2	$120	$161,520
Allowance for pump track	401	m2	$500	$200,500
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	1152	m2	$35	$40,320
Allowance for canopies adjacent pump track	2	No	$20,000	$40,000
Allowance for all abilities skate park	0	m2	$1,000	$0
Allowance for trees	64	no	$500	$32,000
Allowance for soft landscaping (shrubs)	1	Sum	$50,000	$50,000
Allowance for perimeter fence around the site boundary	550	m	$125	$68,750
Allowance for Preliminaries	10%	Sum		$176,903.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting	6	no	$70,000	$420,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$79,500.0
Indicative External Works and Services Sub-Total				**$2,820,437**
Estimated Total Current Day Construction Budget				**$3,526,437**

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option B - 3m start
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option B - 3m start			
	Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower	1	Sum	$50,000	$50,000
Indicative Clubhouse Facility Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	18440	m2	$15	$276,600
Allowance for demolishing existing buildings and structures	1	Sum	$50,000	$50,000
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Brum (turns) surfaces	1664	m2	$60	$99,840
Extra over for pro straight 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6499	m3	$30	$194,970
Retaining walls to start ramp	1	Sum	$40,000	$40,000
Retaining walls to burms	1	Sum	$15,000	$15,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for gravel path around perimeter of site	960	m2	$30	$28,800
Allowance for turf	8690	m2	$20	$173,800
Allowance for car parking	1346	m2	$120	$161,520
Allowance for pump track	401	m2	$500	$200,500
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	1152	m2	$35	$40,320
Allowance for canopies adjacent pump track	2	No	$20,000	$40,000
Allowance for all abilities skate park	0	m2	$1,000	$0
Allowance for trees	64	no	$500	$32,000
Allowance for soft landscaping (shrubs)	1	Sum	$50,000	$50,000
Allowance for perimeter fence around the site boundary	550	m	$125	$68,750
Allowance for Preliminaries	10%	Sum		$174,077.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting	6	no	$70,000	$420,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$79,500.0
Indicative External Works and Services Sub-Total				**$2,789,351**
Estimated Total Current Day Construction Budget				**$3,495,351**

Option A and B Scenario 3: Full Build Out

BYFORD BMX FEASIBILITY
15/05/2018

DONALD CANT WATTS CORKE

SUMMARY

Option	Option A - 6m Full Development	Option A - 3m Ramp Full Development	Option B - 6m Ramp Full development	Option B - 3m Ramp Full Development
	Total	Total	Total	Total
Building Works	$706,000	$706,000	$706,000	$706,000
External Works and Services	$3,216,096	$3,185,010	$3,391,337	$3,360,251
Construction Works Sub-Total	**$ 3,922,096**	**$ 3,891,010**	**$ 4,097,337**	**$ 4,066,251**
Design Contingency	5% $ 196,105	5% $ 194,551	5% $ 204,867	5% $ 203,313
Construction Contingency	10% $ 411,820	10% $ 408,556	10% $ 430,220	10% $ 426,956
Professional Fees @ 12%	12% $ 543,603	12% $ 539,294	12% $ 567,891	12% $ 563,582
Construction Works Sub-Total	**$ 5,073,624**	**$ 5,033,411**	**$ 5,300,316**	**$ 5,260,103**

Exclusion :
Excludes GST
Excludes abnormal ground conditions / contamination etc
Excludes major services diversions
Excludes major utility upgrades / contributions & headworks
Excludes FF&E
Excludes client costs, legal costs, site costs, agents fees, finance etc
Excludes land purchase costs
Excludes Client Representative / Project Management Fee / Professional Fees
Excludes escalation - costs are current day
Excludes % for Public Art
Excludes ESD
Costs assume Competitive Tender process with local builders using basic pallette of materials
Excludes roads as assumed part of larger development

Notes :
OPC based on indicative proposal drawings provided
All quantities and rates are provisional therefore subject to adjustment
All external works and service allowances are Provisional

Drawings used :
Option A Kiernan Street Landscape Master Plan (15/05/2018)
Option B Lampiter Drive Landscape Master Plan (15/05/2018)

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option A - 6m
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option A - 6m Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower (no detail or size)	1	Sum	$50,000	$50,000
Indicative Buildings Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	12706	m2	$15	$190,590
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track (6m high start) including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Burm (turns) surfaces	1664	m2	$60	$99,840
Extra over 10m width for pro straight; 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6941	m3	$30	$208,230
Retaining walls to start ramp	1	Sum	$50,000	$50,000
Retaining walls to burms	1	Sum	$20,000	$20,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for sealed footpath connecting skate park to amenities	251	m2	$50	$12,550
Allowance for gravel path around perimeter of site	935	m2	$30	$28,050
Allowance for turf	6170	m2	$20	$123,400
Allowance for car parking	2137	m2	$120	$256,440
Allowance for pump track	401	m2	$500	$200,500
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	711	m2	$75	$53,325
Allowance for canopies adjacent pump track	2	No	$20,000	$40,000
Allowance for all abilities skate park	519	m2	$1,000	$519,000
Allowance for trees	90	no	$500	$45,000
Allowance for soft landscaping (shrubs)	1	Sum	$20,000	$20,000
Allowance for perimeter fence around the site boundary	505	m	$125	$63,125
Allowance for Preliminaries	10%	Sum		$219,872.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting to building	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting to BMX track	5	no	$70,000	$350,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$72,500.0
Indicative External Works and Services Sub-Total				**$3,216,096**
Estimated Total Current Day Construction Budget				**$3,922,096**

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option A - 3m
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option A - 3m			
	Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower (no detail or size)	1	Sum	$50,000	$50,000
Indicative Buildings Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	12706	m2	$15	$190,590
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track (6m high start) including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Burm (turns) surfaces	1664	m2	$60	$99,840
Extra over 10m width for pro straight; 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6499	m3	$30	$194,970
Retaining walls to start ramp	1	Sum	$40,000	$40,000
Retaining walls to burms	1	Sum	$15,000	$15,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for sealed footpath connecting skate park to amenities	251	m2	$50	$12,550
Allowance for gravel path around perimeter of site	935	m2	$30	$28,050
Allowance for turf	6170	m2	$20	$123,400
Allowance for car parking	2137	m2	$120	$256,440
Allowance for pump track	401	m2	$500	$200,500
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	711	m2	$75	$53,325
Allowance for canopies adjacent pump track	2	No	$20,000	$40,000
Allowance for all abilities skate park	519	m2	$1,000	$519,000
Allowance for trees	90	no	$500	$45,000
Allowance for soft landscaping (shrubs)	1	Sum	$20,000	$20,000
Allowance for perimeter fence around the site boundary	505	m	$125	$63,125
Allowance for Preliminaries	10%	Sum		$217,046.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting to building	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting to BMX track	5	no	$70,000	$350,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$72,500.0
Indicative External Works and Services Sub-Total				**$3,185,010**
Estimated Total Current Day Construction Budget				**$3,891,010**

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option B - 6m start
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option B - 6m start			
	Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower	1	Sum	$50,000	$50,000
Indicative Clubhouse Facility Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	18440	m2	$15	$276,600
Allowance for demolishing existing buildings and structures	1	Sum	$50,000	$50,000
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Brum (turns) surfaces	1664	m2	$60	$99,840
Extra over for pro straight 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6941	m3	$30	$208,230
Retaining walls to start ramp	1	Sum	$50,000	$50,000
Retaining walls to burms	1	Sum	$20,000	$20,000
Compaction	5496	m2	$5	$27,480
Reinforcement to burms	6234	m2	$1	$6,234
Sloped path access	1	Sum	$25,000	$25,000
BMX start gate	1	Sum	$25,000	$25,000
Line marking	1	Sum	$5,000	$5,000
Allowance for gravel path around perimeter of site	960	m2	$30	$28,800
Allowance for turf	8690	m2	$20	$173,800
Allowance for car parking	1346	m2	$120	$161,520
Allowance for pump track	401	m2	$500	$200,500
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	1152	m2	$35	$40,320
Allowance for canopies adjacent pump track	2	No	$20,000	$40,000
Allowance for all abilities skate park	519	m2	$1,000	$519,000
Allowance for trees	64	no	$500	$32,000
Allowance for soft landscaping (shrubs)	1	Sum	$50,000	$50,000
Allowance for perimeter fence around the site boundary	550	m	$125	$68,750
Allowance for Preliminaries	10%	Sum		$228,803.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting	6	no	$70,000	$420,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$79,500.0
Indicative External Works and Services Sub-Total				**$3,391,337**
Estimated Total Current Day Construction Budget				**$4,097,337**

BYFORD BMX FEASIBILITY
FUNCTIONAL AREA BUDGET BREAKDOWN
Option B - 3m start
15/05/2018

DONALD CANT WATTS CORKE

FUNCTIONAL AREA	Option B - 3m start			
	Qty	Unit	Rate	Total
Buildings				
Allowance for clubhouse and toilets	205	m2	$3,200	$656,000
Allowance for viewing tower	1	Sum	$50,000	$50,000
Indicative Clubhouse Facility Sub-Total	**205**	**m2**	**$3,443.90**	**$706,000**
External Works				
Allowance for site clearance / levelling	18440	m2	$15	$276,600
Allowance for demolishing existing buildings and structures	1	Sum	$50,000	$50,000
Allowance for bins, seats, bike racks, signage etc	1	Sum	$25,000	$25,000
Allowance for BMX track including:				
Start ramp surface	250	m2	$30	$7,500
End ramp surface	210	m2	$30	$6,300
Landing surfaces	556	m2	$30	$16,680
Jump (x30) surfaces	2816	m2	$30	$84,480
Brum (turns) surfaces	1664	m2	$60	$99,840
Extra over for pro straight 2m x 60m long	200	m2	$150	$30,000
Bulk earthworks fill	6499	m3	$30	$194,970
Retaining walls to start ramp	1	Sum	$40,000	$40,000
Retaining walls to burms	1	Sum	$15,000	$15,000
Compaction	5496	m2	$5	$27,480
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BMX start gate	1	Sum	$25,000	$25,000
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Allowance for gravel path around perimeter of site	960	m2	$30	$28,800
Allowance for turf	8690	m2	$20	$173,800
Allowance for car parking	1346	m2	$120	$161,520
Allowance for pump track	401	m2	$500	$200,500
Allowance for bus stop shelter	1	Sum	$10,000	$10,000
Allowance for alfresco area	1152	m2	$35	$40,320
Allowance for canopies adjacent pump track	2	No	$20,000	$40,000
Allowance for all abilities skate park	519	m2	$1,000	$519,000
Allowance for trees	64	no	$500	$32,000
Allowance for soft landscaping (shrubs)	1	Sum	$50,000	$50,000
Allowance for perimeter fence around the site boundary	550	m	$125	$68,750
Allowance for Preliminaries	10%	Sum		$225,977.4
External services				
Allowance for stormwater /water	1	Sum	$75,000	$75,000
Allowance for sewer	1	Sum	$50,000	$50,000
Allowance for gas	1	Sum	$0	Excluded
Allowance for electrical and lighting	1	Sum	$150,000	$150,000
Allowance for feature lighting	1	Sum	$20,000	$20,000
Allowance for 100 lux floodlighting	6	no	$70,000	$420,000
Allowance for pumps/tanks/hydrants	1	Sum	$50,000	$50,000
Allowance for communications	1	Sum	$10,000	$10,000
Allowance for security	1	Sum	$20,000	$20,000
Allowance for Preliminaries	10%	Sum		$79,500.0
Indicative External Works and Services Sub-Total				**$3,360,251**
Estimated Total Current Day Construction Budget				**$4,066,251**

Dave Lanfear Consulting is located in Fremantle:

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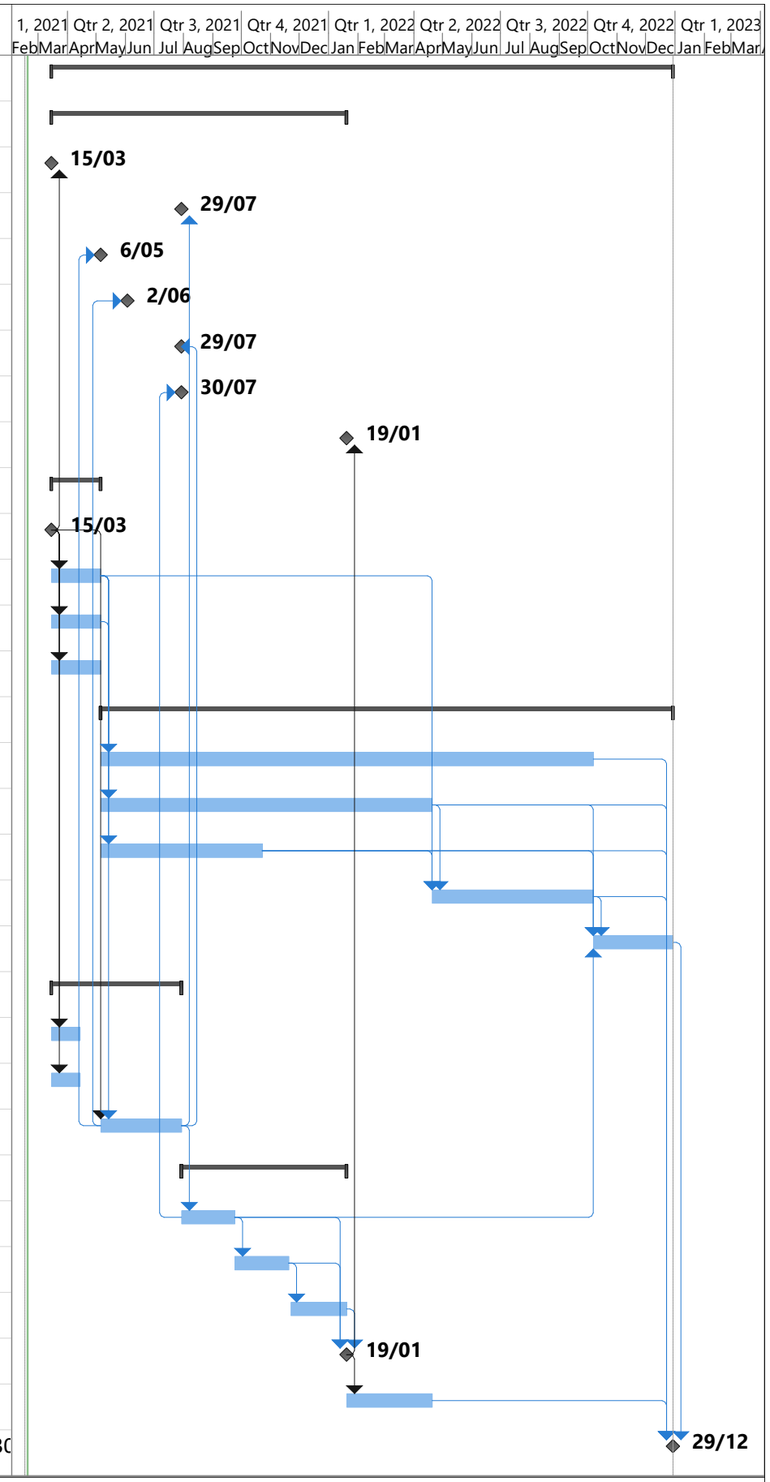
APPENDIX E
PROJECT PROGRAM

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1		**Keirnan Park**	**450 days**	**Mon 15/03/21**	**Thu 29/12/22**	
2		**Milestones**	**210 days**	**Mon 15/03/21**	**Wed 19/01/22**	
3		**Masterplan and Business Case Endorsed by Council**	**0 days**	**Mon 15/03/21**	**Mon 15/03/21**	**11**
4		**Detailed Design procurement commences (tender documentation complete)**	**0 days**	**Thu 29/07/21**	**Thu 29/07/21**	**24**
5		**DD Tender open**	**0 days**	**Thu 6/05/21**	**Thu 6/05/21**	**24SS**
6		**DD Tender closed**	**0 days**	**Wed 2/06/21**	**Wed 2/06/21**	**24SS+1 mon**
7		**DD Tender awarded**	**0 days**	**Thu 29/07/21**	**Thu 29/07/21**	**24FF**
8		**Stage 1 - Detailed Design commences**	**0 days**	**Fri 30/07/21**	**Fri 30/07/21**	**26SS**
9		**Stage 1 - Detailed Design completed**	**0 days**	**Wed 19/01/22**	**Wed 19/01/22**	**29**
10		**Masterplan Phase**	**30 days**	**Mon 15/03/21**	**Wed 5/05/21**	
11		Masterplan and Business Case Endorsed by Council	0 days	Mon 15/03/21	Mon 15/03/21	
12		Concept Finalisation (Electrical, Hydology)	30 days	Mon 15/03/21	Wed 5/05/21	11
13		Aboriginal Heritage Study	30 days	Mon 15/03/21	Wed 5/05/21	11
14		TBD studies	30 days	Mon 15/03/21	Wed 5/05/21	11
15		**Approvals**	**420 days**	**Thu 6/05/21**	**Thu 29/12/22**	
16		Section 18	18 mons	Thu 6/05/21	Thu 6/10/22	13
17		Development Approval	12 mons	Thu 6/05/21	Tue 19/04/22	12
18		DWER Approval	6 mons	Thu 6/05/21	Fri 22/10/21	12
19		Building Approval	6 mons	Wed 20/04/22	Thu 6/10/22	12,17,18
20		Utility Headworks Approval	3 mons	Fri 7/10/22	Thu 29/12/22	17,18,19,26
21		**Detailed Design Procurement**	**90 days**	**Mon 15/03/21**	**Thu 29/07/21**	
22		Stakeholder Engagement Consultant	1 mon	Mon 15/03/21	Tue 13/04/21	11
23		Project Management Consultant	1 mon	Mon 15/03/21	Tue 13/04/21	11
24		Detailed Design Consultant	3 mons	Thu 6/05/21	Thu 29/07/21	11FS+5 days,12
25		**Stage 1 Detailed Design**	**120 days**	**Fri 30/07/21**	**Wed 19/01/22**	
26		Stage 1 Detailed Design - SP1	2 mons	Fri 30/07/21	Thu 23/09/21	24
27		Stage 1 Detailed Design - SP2	2 mons	Fri 24/09/21	Fri 19/11/21	26
28		Stage 1 Detailed Design - SP3	2 mons	Mon 22/11/21	Wed 19/01/22	27
29		Stage 1 Detailed Design complete	0 days	Wed 19/01/22	Wed 19/01/22	26,27,28
30		Tender Stage 1	3 mons	Thu 20/01/22	Tue 19/04/22	29
31		Construction Stage 1 - Commence (TBD)	0 days	Thu 29/12/22	Thu 29/12/22	16,17,18,19,20,30



Project: Keirnan Park - Schedule
Date: Thu 18/02/21

Task	Project Summary	Manual Task	Start-only	Deadline	
Split	Inactive Task	Duration-only	Finish-only	Progress	
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress	
Summary	Inactive Summary	Manual Summary	External Milestone		

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APPENDIX F
RISK MANAGEMENT PLAN

Risk Management Plan

RISK REGISTER

ID	RISK CATEGORY	EVENT	CAUSE	CONSEQUENCE	INHERENT RISK ANALYSIS			CONTROL ASSESSMENT	
					LIKELIHOOD	CONSEQUENCE	RISK RATING	MITIGATION MEASURES	EFFECTIVENESS
Financial									
1	**Funding Requirements**	Failure to secure adequate funding for stage 1B	Perceived insufficient benefits to relevant funder	Delays to commencement of project	Likely	Moderate	Tolerable	Consideration of debt funding. External funding sources to be approached for additional funds.	Strong
2		Failure to secure adequate funding to complete future stages of the project or sections of the project	Perceived insufficient benefits to relevant funder	Delays to commencement of future stages of the project	Likely	Moderate	Tolerable	External funding sources to be approached for additional funds. Re-scope project focusing on time and resources. Regularly review budget and expenditure. Consideration of debt funding.	Strong
Regulatory									
3 4	**Breaches**	Risk of litigation, public liability and professional negligence	Mismanagement by parties involved in construction and management of project	Project completion delayed	Unlikely	Moderate	Low	Ensure all contractors follow Shire procedures and insurance requirements. Follow strong ethics regarding tender process.	Effective
5		Contractor non-compliant with legislation	Mismanagement by builder	Project completion delayed	Unlikely	Moderate	Low	Periodic audit of contractor's project plan. Contractor documentation fully verified prior to commencement and throughout life of contract.	Strong
Procurement									
6	**Tender Process**	Insufficient responses received	Highly competitive market	Delay commencement and completion of project	Unlikely	Moderate	Low	Identify potential tenderers with capability to undertake the works prior to initiating project. Undertake tender procurement process at an early stage to ensure sufficient lead time is provided to receive responses and allow successful tenderer to ensure resources will be available when needed.	Strong
7	**Staff Changes**	Operational Management change/issues	Departure of project management staff	Staff member replaced	Unlikely	Major	Tolerable	Project plan to include contingencies. Regular review and sharing of information / open and transparent management.	Effective
8		Builder abandons project	External event	Builder replaced	Unlikely	Major	Tolerable	Alternative tenders kept on record, and new tender selected to continue works.	Strong
Site/Construction									
9	**Financial Issues**	Inaccurate capital cost estimates	Costs exceeding proposed building costs	Project completion delayed	Possible	Moderate	Tolerable	Sign contract for construction by set project milestone. Ensure accurate budgets are prepared and subsequently managed by	Strong

ID	RISK CATEGORY	EVENT	CAUSE	CONSEQUENCE	INHERENT RISK ANALYSIS			CONTROL ASSESSMENT	
					LIKELIHOOD	CONSEQUENCE	RISK RATING	MITIGATION MEASURES	EFFECTIVENESS
								qualified project manager. Ensure allocated funds are utilised in a timely and cost-effective manner. Capital cost estimate conducted by Quantity Surveyors.	
10		Budget exceeded	Unforeseen building problems incurred	Project completion delayed	Possible	Moderate	Tolerable	Passed and forthcoming expenditure to be reviewed at each project team meeting ensuring it is on budget. Up to date cost estimates obtained. Project to be managed by qualified project manager.	Strong
11	**Workmanship**	Poor quality to finished product	Mismanagement by builder	Project needs to be upgraded	Possible	Moderate	Tolerable	Introduce hold points to ensure works meet specification and expected quality. PM may consider rejection of poor quality of works/materials.	Strong
12		Not meeting project milestones	Miscalculation during planning process	Project completion delayed Obligations under Financial Assistance Agreement breached.	Possible	Minor	Tolerable	Continual review of project and scheduling at project team meetings. Detailed schedule of works to be completed upon appointment of contractor. Regular updates / communication with DLGSC on progress and achieving milestone dates.	Adequate
13		Finished product does not meet required sporting code specifications	Poor design by architect Mismanagement by builder	Project completion delayed Project needs to be upgraded / altered	Unlikely	Major	Tolerable	Ensure design architect is familiar with the required sporting code specifications and consults adequately with relevant sporting organisations throughout the design process. Introduce hold points to ensure works meet the required clinical specifications. PM may consider rejection of works/materials that are non-compliant.	Strong
14	**Business Management**	Contractors go out of business	External events	Project completion delayed	Possible	Moderate	Tolerable	Due diligence completed during tender process to ensure contractors have proven track record, are financially sound and have the capability to complete works.	Adequate
15		Contractor unable to source adequate equipment	External events	Project completion delayed	Unlikely	Moderate	Low	Manage the progress of program and timeline – extend if required to finalise installations.	Adequate
16	**Delays**	Material procurement	External events	Project completion delayed	Unlikely	Major	Tolerable	Negotiate with contractor to obtain alternative suppliers.	Adequate
17		Approvals (e.g. heritage, utilities, development, building, environmental)	Miscalculation during planning process Unexpected findings on site	Delay commencement and completion of project	Possible	Moderate	Tolerable	Appropriate studies undertaken prior to approvals process to ensure the state of the site is known. Project manager to liaise with approval authorities at an early stage. Appropriately qualified officers and contractors undertake studies.	Effective
18		Christmas/ new year shut down	Festive season	Project completion delayed	Almost Certain	Moderate	High	Consider this period in the construction schedule and maximise the advantage of available on site time.	Adequate
19		Pandemic-related shut down	External events	Project completion delayed	Unlikely	Moderate	Low	Include a pandemic-related clause in all contracts to limit the potential consequences, additional costs and liability resulting from a shut down.	Adequate
20	**Environmental Factors**	Noise at adjacent residents / businesses	Construction works	Noise is only for short duration of construction period	Almost Certain	Minor	High	Notify residents / businesses of project early. Issue stop work/improvement notices to the contractor Modify noisy works schedule to suit resident needs. Ensure equipment complies with noise regulations	Adequate
21		Extreme weather conditions	External events	Project completion delayed	Possible	Minor	Tolerable	Include contingencies for inclement weather and/dangerous work conditions.	Strong

ID	RISK CATEGORY	EVENT	CAUSE	CONSEQUENCE	INHERENT RISK ANALYSIS			CONTROL ASSESSMENT	
					LIKELIHOOD	CONSEQUENCE	RISK RATING	MITIGATION MEASURES	EFFECTIVENESS
								Additional time has been allowed for during construction phase in the event of unexpected weather or natural disaster Timing of ground works.	
22		Dust to adjoining residents	Construction works	Noise is only for short duration of construction period	Possible	Moderate	Tolerable	Issue stop work/improvement notice to the Contractor. Ensure contractor has dust management plan. Ensure sufficient non-potable water is available for dust control during construction.	Adequate
23		Traffic impacts	Road design	Current and future residents unduly impacted during construction period and once recreation precinct is operational	Unlikely	Minor	Low	Detailed traffic study to be undertaken. Traffic management plan to be produced for construction and operational periods.	Effective
24		Bushfire-related shut down	External events	Project completion delayed	Unlikely	Moderate	Low	Consider the high-risk bushfire season in the construction schedule and ensure there is sufficient flexibility to allow for minor delays.	Strong
25		Site contamination	Isolated areas of site contamination are uncovered	Human health risk Project completion delayed	Unlikely	Moderate	Low	Manage via an unexpected finds protocol and remediate contaminated area.	Effective
26		Insufficient groundwater available	Groundwater extraction licence for sufficient volume not available Low flow rates	Alternative water sources are expensive to implement	Possible	Moderate	Tolerable	Further studies required to determine flow rates and volumes of groundwater available. Additional non-potable water options can be considered if alternative supply is required.	Strong
27		Undue impacts on environmental features	Site environmental features are not adequately assessed Approvals process not followed	Project completion delayed Meeting approval requirements costly	Possible	Moderate	Tolerable	Further studies required to assess potential impact on environmental features. Development of a water management plan.	Strong
28	**Site Management**	Local area traffic management conflicts	Construction works	Only for duration of construction	Possible	Minor	Tolerable	Deal with any local issues promptly. Liaise with road user to ensure they are adequately cared for. Ensure TMP is provided and adhered to.	Strong
29		Damage to utilities/underground services	Mismanagement by builder	Utilities need to be fixed	Possible	Moderate	Tolerable	Incorporate DBYD provision in contract. Direct liaison with the utility provider to resolve issue promptly.	Strong
30		Principal Contractors not adhering to safety standards	Mismanagement by builder	Project completion delayed Public safety hazard	Possible	Major	High	Ensure OSH guidelines are in place. Identify all risks at all stages of the project. Manage and mitigate the risks identified – risk register to be required. Provide advice, procedures and site risk assessments. Ensure appropriate access control to the building site is provided.	Strong
				Public Perception/Stakeholder					
31	**Miscommunication**	Project objectives differ from community expectations	Changes and omissions from design	Loss of public support	Unlikely	Moderate	Low	Significant community consultation has been undertaken to ensure the community's existing and future needs are met. Ongoing engagement is underway through existing communication mediums.	Strong

ID	RISK CATEGORY	EVENT	CAUSE	CONSEQUENCE	INHERENT RISK ANALYSIS			CONTROL ASSESSMENT	
					LIKELIHOOD	CONSEQUENCE	RISK RATING	MITIGATION MEASURES	EFFECTIVENESS
32		Negative impact on Council via media/public comment	Public discontent with project	Project altered to suit public opinion	Unlikely	Moderate	Low	Develop and implement communication plan. Community information kept up to date. Support confirmed from stakeholders regularly.	Effective
				Operational					
33	**Maintenance/ Repairs**	Assets are not maintained	Funding is not available	Reduced usage and effectiveness of facilities	Unlikely	Moderate	Low	Asset Management Plan to guide maintenance procedures and funding.	Effective
34		Assets are damaged	Vandalism, theft, weather event or natural disaster	Requirements for repairs and closure of facilities	Possible	Moderate	Tolerable	Insurances to be purchased.	Effective
35	**Usage**	Facilities are not utilised to anticipated extent	Lower participation rates in sporting codes than expected Poor understanding of needs of users	Reduced revenue	Possible	Moderate	Tolerable	Potential user groups have been engaged with already. Full range of potential users need to be engaged with at the next stage of the project.	Strong
36		Fewer major competition events are attracted than anticipated	Facilities don't meet competition standards Sporting groups are unable to agree to hold events there Suitable accommodation nearby unavailable	No additional tourism to Shire from project	Possible	Minor	Low	Ensure facilities intended for high level competition meet the required standards. Ongoing engagement with relevant sporting groups throughout design and construction process. Sporting groups are provided with support from the Shire to secure and promote competition events at the facility, and link up sporting groups with nearby accommodation providers.	Strong
37		Public safety compromised	Site design has not adequately taken into account potential public safety issues	A member of the public experiences a preventable adverse event resulting in injury or death	Unlikely	Major	High	Safety in design review to be conducted as part of facility design process. Traffic management plan to be produced and will include consideration of safe site access and emergency access/exit. Safety mitigation measures not to be compromised on. Bushfire management plan and bushfire emergency evacuation plan prepared.	Strong
38		Facilities insufficient for long term needs of users	Demand is higher than expected	Not all residents who want to participate in a chosen sport are able to	Possible	Moderate	Tolerable	Efficiency of use optimised through online booking systems, and best-practice maintenance of playing surfaces. Additional sporting facilities are needed to serve the Shire residents.	Strong
39									

ASSESSMENT CRITERIA – LIKELIHOOD

RATING	POTENTIAL FOR RISK TO OCCUR	PROBABILITY
ALMOST CERTAIN	Likely to occur several times a year	>90%
LIKELY	Likely to occur once a year	50%-90%
POSSIBLE	Possibly occur once every few years	10%-50%
UNLIKELY	Maybe occur once in 5 years	5%-10%
RARE	Might occur once in 10 years	<5%

ASSESSMENT CONSEQUENCE

RATING	FINANCIAL			OPERATIONAL		COMPLIANCE	STRATEGIC		
	BUDGET IMPLICATIONS	LOSS OF VALUE	DISCLOSURE	SCOPE	INTERRUPTION TO SERVICES AND OPERATIONAL EFFICIENCY	LEGAL/REGULATORY	REPUTATIONAL	RECOVERY PERIOD	STRATEGY
CATASTROPHIC	More than 50% of operational budget	>50%	Fiscal Year Restatement	Enterprise wide Inability to continue normal business operations across all business units	More than 1 month Non-achievement of major key objectives	Management Indictments Large Scale Class Actions Regulatory Sanctions	Substantiated, public embarrassment, very high multiple impacts, high widespread multiple news profiles, Third Party actions.	Potentially irrecoverable (i.e. 24-36 months)	Potential merger or loss of government support
MAJOR	26% to 50% of operational budget	<50%	Fiscal Quarter Restatement	3 Business Units Significant interruptions to business operations with 3 or more business units	1 week to 1 month Non-achievement of major deliverables	Management challenges Large legal liability Regulatory fines	Substantiated, public embarrassment, high impact, high news profile, Third Party actions	Long term recovery (i.e. 12-24 months)	2 or more changes in senior leadership Financial restructuring Significant changes to strategic plan
MODERATE	16% to 25% of operational budget	<25%	Significant deficiency	2 Business Units Significant interruptions to business operations with 2 or more business units	1 day to 1 week Delays in major deliverables	Regulatory fines Legal reserve established Regulatory investigation	Substantiated, public embarrassment, moderate impact, moderate news profile	Midterm recovery (i.e. 6-12 months)	1 or more changes in senior leadership Financial restructuring Significant changes to strategic plan
MINOR	2% to15% of operational budget	<15%	Control weakness	1 Business Units Significant interruptions to business operations with 1 or more business units	1 hour to 1 day Inconvenient delay	Management unaffected Minimal liabilities Regulatory attention	Substantiated, low impact, low news profile	Short term recovery (i.e. <6 months)	Refinements or adjustments to operating plans and execution
INSIGNIFICANT	Less than 1% of operational budget	<1%	Additional risk disclosure	Limited interruptions within 1 business unit	Less than 1 hour Little impact	Limited liabilities or regulatory impact	Unsubstantiated, low impact, low profile or no news items	Limited recovery (i.e. <3 months)	Limited adjustment necessary

RATING MATRIX

CONSEQUENCE						
	Catastrophic	TOLERABLE	HIGH	VERY HIGH	VERY HIGH	VERY HIGH
	Major	LOW	TOLERABLE	HIGH	VERY HIGH	VERY HIGH
	Moderate	LOW	LOW	TOLERABLE	HIGH	HIGH
	Minor	VERY LOW	LOW	TOLERABLE	TOLERABLE	HIGH
	Insignificant	VERY LOW	VERY LOW	LOW	TOLERABLE	TOLERABLE
		Rare	**Unlikely**	**Possible**	**Likely**	**Almost Certain**
		LIKELIHOOD				

ASSESSMENT CONTROLS

RATING	ACTION	DESCRIPTION
NONE	Critical improvement opportunity	Controls and/or management activities are non-existent or have major deficiencies and don't operate as intended.
NEEDS IMPROVEMENT	Significant improvement opportunity	Limited controls and/or management activities are in place, high level of risk remains.
ADEQUATE	Moderate improvement opportunity	Controls and/or management activities are in place, with opportunities for improvement identified.
STRONG	Limited improvement opportunity	Controls and/or management activities are properly designed and operating, with limited opportunities for improvement identified.
EFFECTIVE	Effective	Controls and/or management activities are properly designed and operating as intended.

TREATMENT

OPTION	TREATMENT
AVOID	Deciding not to proceed with the activity that introduced the unacceptable risk, choosing an alternative more acceptable activity that meets business objectives, or choosing an alternative less risky approach or process.
REDUCE	Implementing a strategy that is designed to reduce the likelihood or consequence of the risk to an acceptable level, where elimination is considered to be excessive in terms of time or expense.
RISK TRANSFER	Implementing a strategy that transfers the risk to another party or parties, such as outsourcing the management of physical assets, developing contracts with service providers or insuring against the risk. The third-party accepting the risk should be aware of and agree to accept this obligation.
ACCEPT	Making an informed decision that the risk rating is at an acceptable level or that the cost of the treatment outweighs the benefit. This option may also be relevant in situations where a residual risk remains after other treatment options have been put in place. No further action is taken to treat the risk, however, ongoing monitoring is recommended.

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APPENDIX G
STAKEHOLDER ENGAGEMENT SUMMARY

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
1	IN21/3237	20/01/2021	Centrals Football and Sportsmans Club Inc.	Currently play at Mundijong Oval. Have indicated support for the plan and interest in moving to Keirnan Park dependent on facilities provided. Club has 80 senior AFL players (3 male teams) and 45 senior netball players (4 female teams). Club would like to introduce more AFL teams but capacity of the oval prevents this (Juniors play at the reserve in Winter also). Netball – almost all the teams in the Peel Football Netball competition play netball indoors. Netball – club is unable to utilise SJ netball association storage / kiosk facilities 2 ovals are minimum requirement to allow training flexibility and allow for growth of clubs particularly juniors. 2 sets of changerooms are required. Current facility limits different sex games being played one after the other. Women's football is being hampered by a lack of suitable facilities at the current ground but remains an objective of the club Shared use pavilions can be beneficial and problematic. Management of such will be vital to its success.	Noted. The masterplan makes provision for 2 full sized AFL and 1 under 12's oval. The masterplan makes provision for 15 x netball courts with canopy structure. The proposed recreation centre makes provision for netball storage and club room. The masterplan makes provision for 2 x full sized AFL and 1 x under 12's oval. The proposed pavilion makes provision for 6 change rooms including wet areas (showers/toilet) – 50m2 each, 300m2 total. Noted. The management of the pavilion and other buildings will be considered in Detailed Design phase.
2	IN21/3237	20/01/2021	Mundijong Junior Football Club (Centrals)	Currently play at Mundijong Oval, Briggs Oval (upper), Klidmar Park. Have indicated support for the plan and interest in moving to Keirnan Park dependent on facilities provided. The club makes available ovals work in terms of fixturing and training. Club has 170 Auskick members, 480 juniors (24 teams) including 100 girls and 4 dedicated girls teams. In 5 years' time they expect to outgrow capacity on current facilities. Will be a great thing if parents with children playing football and netball and other sports can all play at the same facility. The club needs playing fields, changerooms and a canteen.	Noted. The proposed staging plan aims to accommodate such growth. The masterplan aims to achieve this. The masterplan makes provision for 2 x full sized AFL and 1 x under 12's oval. The proposed pavilion makes provision for 6 sets of changerooms, kitchen kiosk, storage and more amenities.
3	IN21/3237	20/01/2021	Serpentine Jarrahdale Cricket Club (SJ Blues)	Currently play at Briggs Park, Mundijong Oval and Kalimna Oval. Have indicated support for the plan and interest in moving to Keirnan Park. The club has 92 juniors (10 teams including 1 x girls team), 50 seniors (4 male teams), 37 WWCB. Growing in numbers each season, expecting to increase by 1-2 senior teams and up to 7 junior teams within the next 5 years. Current facilities have adequate training nets and the club uses them 5 nights a week and weekends for games. Believe that Lark Hill in Rockingham is a very good model to follow for ovals with central pavilions.	Noted. The proposed staging plan aims to accommodate such growth. Noted. The masterplan shares similarities with Lark Hill. Proximity of pavilions to sporting fields is a key design element of the masterplan – users of a shared pavilion facility must have good viewing and access to their sporting field from the pavilions. Access to the fields should not be obstructed by parking or driveways to ensure safety of children.
4	IN21/3237	20/01/2021	Mundijong Serpentine Little Athletics	Currently train at Serpentine Primary School and competes at the Baldivis Centre. The club is extremely interested in Kiernan park development and vision that it can become a competition centre in time as the population grows considerably in the area. Currently has 13 juniors (membership is affected by Olympic Cycle and more recently, Covid). Key facilities for such a centre should include; • 400m track with adequate lanes to accommodate 400m and sprint straight • Clubhouse – with access to wifi for resulting	Noted. The masterplan makes provision for 1 x athletics field (designed according to sport code specifications) with parking, change room, toilets, shelter from elements, storage, and a shared pavilion with AFL, Cricket and Athletics.

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
				• Public toilets and changerooms • Shelter from elements • Adequate parking • Canteen	
5	IN21/3237		Byford Little Athletics	Unable to contact during consultation period.	Shire of Serpentine Jarrahdale will continue engaging with stakeholders during the project.
6	IN21/3237	20/01/2021	Serpentine Jarrahdale Netball Association	Currently play at Mundijong Oval Netball Courts. Have indicated support for the plan and interest in moving to Keirnan Park dependent on facilities provided. Club has 70 juniors and 87 Net Set Go players. Aiming to increase numbers including senior teams Current court surfaces are in poor condition with cracks and drainage is poor as courts are often flooded after rain. Court markings – netball can be played on mulit-lined courts but it is beneficial to have some only marked for netball for the younger children learning the game	Noted. The proposed staging plan aims to accommodate such growth. The masterplan makes provision for 15 x netball courts that will be designed according to required sporting code specifications as well as relevant Australian Standards. Provision has been made for some courts to be multi-marked.
7	IN21/3237	21/01/2021	Byford Tennis Club	Currently play at Byford Tennis Courts. Unlikely to have any interest in utilising facilities at Kiernan Park. Club has 13 members. Membership has fallen over a long period of time. Current facilities (2 hard courts with lights) are adequate.	Noted.
8	IN21/3237		Karnup Kings & Queens Football Club	Unable to contact during consultation period.	Shire of Serpentine Jarrahdale will continue engaging with stakeholders during the project.
9	IN21/3237	25/01/2021	Byford Bushrangers T-Ball Baseball & Softball Club	Currently playing at Briggs Park (lower), Clem Kentish Reserve (when fixtures clash with cricket) and using Byford Country Club for meetings and functions. Have indicated support for the plan and interest in moving to Keirnan Park. Current facility is adequate (200 lux lighting, storage areas, small canteen). The club also thought that if cricket and other sports moved from Briggs it may present opportunity to grow and expand at Briggs as an alternative to Keirnan Park. If setting up at KP they would need 1 senior diamond (90 foot bases 350 foot outfield as 1 main ground and a junior diamond with 60 foot bases and a 300 foot outfield (both with permanent back nets). Agreed with principle of diamonds off oval or rectangle fields but utilise them as outfields for diamond sports Would like opportunity to host finals and feature games of baseball which they can not do with current facilities. Club is growing and aiming to move juniors through to seniors to expand senior teams as well as deal with population increasing. The growth of the club would need: • The ability to hold 2 senior size baseball diamonds, • Up to 8 junior size Tee-ball diamonds. • Suitable club rooms with change rooms / facilities, • Suitable food & Beverage facilities, or suitable space to invite external food and beverage business down (food vans).	Noted. Noted in consideration of the proposed staging plan. The masterplan makes provision for 2 diamond pitches located at one of the ovals. The masterplan makes provision for 2 diamond pitches located at the Eastern oval, and opportunity to accommodate more pitches on the Western oval (to be introduced over time). The pavilion is a multi-use building that will be designed to accommodate competing demands. The proposed staging plan aims to accommodate such growth. The masterplan makes provision for 2 senior size diamond pitches . The pavilion is a multi-use building with ample change rooms, storage, kitchen kiosk and facilities for the club.
10	IN21/3237		Serpentine Jarrahdale Harriots Softball Club	Unable to reach during consultation period.	Shire of Serpentine Jarrahdale will continue engaging with stakeholders during the project.
11	IN21/3237		Serpentine Jarrahdale	Unable to reach during consultation period.	Shire of Serpentine Jarrahdale will continue engaging with stakeholders during the project.

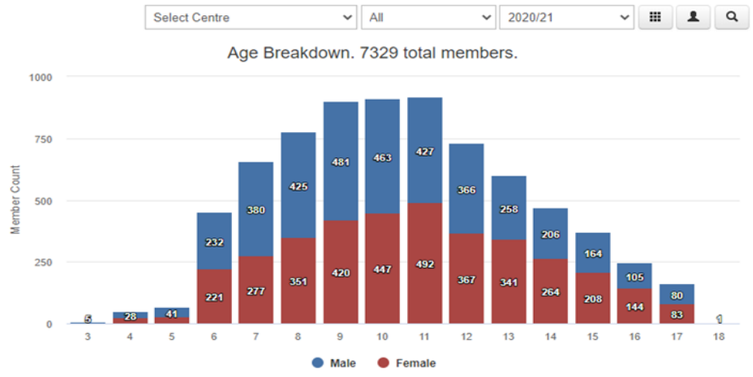
#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
			Serpents Junior Rugby League Club		
12	IN21/4604	5/2/2021	Department of Planning, Lands and Heritage	## Relevant Heritage Legislation **Heritage Act 2018** The *Heritage Act 2018* (the Act) outlines the functions and responsibilities of the Heritage Council of Western Australia (HCWA). It also provides for a range of regulatory orders that the Heritage Minister may issue to provide special protection for a place. The Act also requires the Shire of Serpentine Jarrahdale to compile and maintain an inventory of places (referred to as a Local Heritage Survey; previously Municipal Heritage Inventory) within its municipality which are considered of local heritage significance. **Aboriginal Heritage Act 1972** The *Aboriginal Heritage Act 1972* (AHA) makes provision for the preservation of places and objects customarily used by, or traditional to, the original inhabitants of Australia or their descendants. Of particular relevance is the application of the AHA to places which includes both registered and unregistered sites of Aboriginal importance and significance. ## Heritage Listings ### Statutory Heritage listings Nil ### Local Heritage Survey There are no places of local heritage significance within the study area. One nearby place is Jarrahdale Inn (fmr), Cnr South Western Hwy and Kiernan St, Mundijong, located on the opposite side of Keirnan Street to the site. *Originally built as the Jarrahdale Inn in 1873 by Edward Cockram, which combined the prominent Whitby Estate across the Road, made Whitby the social centre of the district. The inn catered primarily for the Jarrahdale timber workers (hence the name) as well as those passing through on their way to Pinjarra.* *With the opening of the Perth-Bunbury railway in 1893, and the selling of the Whitby Estate to the Government in 1897, trade at the inn began to diminish, and virtually came to a standstill during the 1930's Depression.* *It was not until 1980 that new life was breathed into the establishment, when it was restored and extended by the new owner, Geoff Edwards of Mundijong. In December 1980, the Whitby Falls Coach House was officially opened by Mr. Cyril Rushton, the then Member for Dale and Minister for Transport.* ### Aboriginal Heritage There is one site identified that is within the study area. (ID 3313 artefacts/scatter, camp). The AHIS note that the GPS coordinates are 'unreliable' and the exact location should be confirmed. The site is not registered, rather it is an 'Other Heritage Place'. However, it will be necessary to contact the Dept of Aboriginal Affairs (DPLH) for further information regarding any possible constraints.	Noted

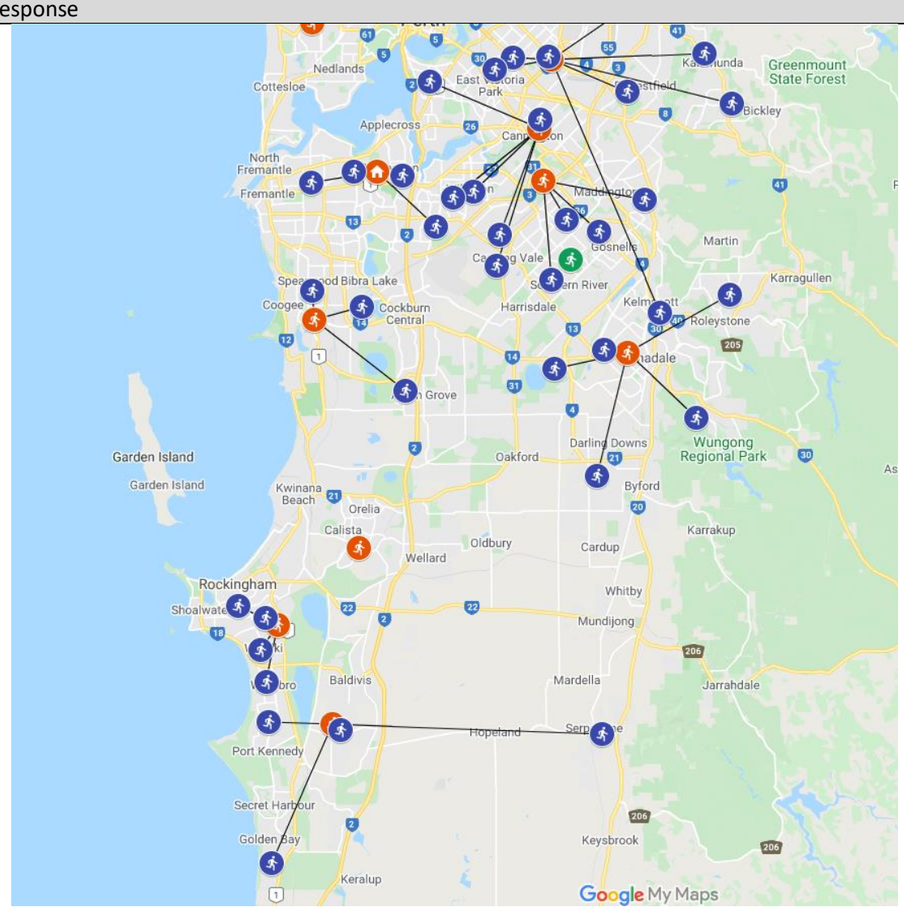
#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
				 https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS Site ID 33113 • No Gender Restrictions • Boundary not reliable • MGA Coordinate 406065mE 6426234mN Zone 50 [Unreliable] • Registered Knowledge Holder names available from DAA	
13	IN21/1987	07/01/2021	Football West	**Shire of Serpentine Jarrahdale Participation** • Currently no soccer teams within SJ. • Up to 200 registered players within the Shire. • Football West approved club model requires five teams minimum to start (a new club) however a new smaller club would be allowed to start with 2 to 3 teams in outer areas like SJ. • Typically the schools are where the club develops from starting with “kick it” programs. • Indoor soccer played in schools (5 a side) is also a starting point for Futsal. • Bill Hicks Reserve was mentioned as potentially suitable facility for 5 a side soccer program with minor upgrades. **Facilities** • A standard club has access to 2 soccer pitches that accommodate approximately up to 3 to 400 players.	The masterplan makes provision for 4 x soccer pitches. In addition, co-location opportunities exist with rugby fields, the grass little athletics facility, football ovals, and the hockey fields. Provision has also been made for a pavilion space to accommodate the hockey/rugby/soccer.

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
				• Recommended that SJ would need 2 fields available to start with and multi line marking is okay for community level playing fields. Football West is happy for soccer to share playing fields with other sports. Basic facilities would be required including; change rooms for players and referees, small kiosk and shelter for players/spectators. Currently in WA 29% of soccer players are female however it is expected to increase to be 50% into the near future, stimulated by the World Cup in Australia and NZ. Therefore suitable female friendly facilities are required. The recommended playing field dimensions are 105m long 68m wide for seniors. Minimum standards are 90m long and 45m wide and maximum of 120m long 90m wide.	

14	IN21/1987	07/01/2021	Tennis West	**SJ Participation / Facilities**
				• There are three facilities in SJ none are affiliated with Tennis West (TW).
				• TW identify a gap exists in the SJ region for tennis facilities and clubs.
				• The state facilities plan 2018 is being renewed however it identifies standards;
				  o A tournament facility with 12 courts minimum, however nine could work.
				  o The second model is a community facility.
				• A coach program requires six courts and up to 9 courts ideally.
				• The TW Strategic Plan identifies the Peel zone as short of facilities with a recommendation to partner with the Shire of SJ to develop court facilities.
				• Projecting future need for facilities has traditionally been estimated on benchmark figures based on members per court. There is an existing benchmark estimate of 60 members per court in Tennis Australia's documentation.
				
				Tennis court facilities standards
				Typically preferred courts are Hardcourts.
					The masterplan makes provision for 9 outdoor tennis courts located nearby the recreation centre for flexibility of use.

15	IN21/1987	07/01/2021	WA Cricket Association	**Participation** • SJ is considered a strong cricket area. • One cricket club in SJ, the SJ Blues located at Briggs Park **Facilities** • 4 net training facility (will accommodate two teams at the same time) • If lights are to be provided, 300 lux level for small ball games is minimum standard community level. • Hard cricket wickets (ie concrete) are required for Under 10 years and older. • Change room facilities need to be female friendly. • Games under lights are increasing with Friday evenings proving popular. This provides greater capacity for grounds as a result (Peelwood T20 cup is an example in Mandurah).	Kiernan Park has potential to maximise cricket playing fields utilisation by providing for two junior cricket fields on the same senior field. One pitch is used for seniors (senior sized boundary) but two junior fields can be played concurrently over the same area but with junior boundaries.
16	IN21/1987	08/01/2021	Athletics West	**Participation - Little Athletics** • There are three competition centres within the region; Baldivis, Rockingham, Kwinana. • Byford and Mundijong have clubs but they have no competition days (ie participate in the other competition centres). **Facilities** • Ideally Kiernan Park would have a 400 metre loop track on grass (smaller distance tracks do exist). • There are only three synthetic running tracks in WA; WAIS, Bunbury and Ern Clark in Cannington (which has approximately five years left before being redeveloped for another purpose).	The masterplan makes provision for 1 x grass little athletics facility, with a synthetic athletics track included in the site. The facility will be designed in accordance with Department of Sport and Recreation guidelines.

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
				• It is possible to play other sports on grass tracks and often synthetic tracks have soccer pitches in the middle. • Field sports such as shot put, discuss, javelin etc often require a separate area as they damage grass surfaces when some other sports require flat surfaces to play on. • Jump pits require a separate area with uninterrupted run ups and sand pits to land in. • Change rooms not critical however allow for regional events. • Lighting for night events is ideal for competition as summer sport. • Storage for equipment ideally is close to the field (Melville Little Athletics at Len Shearer Reserve a good example of suitable size and proximity to fields. • Public toilets • An important feature is to be located close to public transport access particularly with a high migrant population **General Little Athletics Information (as provided by Athletics West)** Current Little Athletics Members 5-17 year old state wide sit at: 7329. Below is snapshot of the age demographics, state wide however it is typical of most Centres. **Athletics West**  Little Athletics works on a club basis where athletes go to train in the week and compete on the weekend primarily at a Competition Centre (where the once a week competitions takes place). Several clubs can affiliate to a Centre, such as: Jandakot, Phoenix park and Spearwood clubs, all train on their own (usually at the local area primary schools) in the week, all affiliate to the Cockburn Centre where they compete on a Saturday morning. Below is a snapshot of Competition Centres (Orange dot) and clubs affiliated (blue dots) in the South East area. This provides some concept of what is currently being delivered from a junior aspect, but also the localities that are expected to see rapid consistent growth.	

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
				 Figures for the following Centres and affiliated clubs within the wider region collectively, juniors, are: • Armadale:222 • Gosnells:183 • Baldivis: 351 • Cockburn:316 • Southern Districts:343 • Rockingham:295 Within the area Canning has a senior club and the WA Masters program also runs out of Cannington. It is anticipated that rapid growth areas will be program development for adults, encouraging the recreational element of athletics and taking focus away from only offering structured Athletics. The Kiernan Park location is seen as being an option for regional level competition and a facility location to connect the south and south west regions of WA.	
17	IN21/1987	08/01/2021	Netball WA	**Participation** • There are four courts currently in poor condition in Mundijong which is the Serpentine Jarradale Netball Association (SJNA). • SJNA is considered to be Peel region by NetballWA. • Membership statistics for Serpentine Jarrahdale NA (including Net Set Go (NSG), Juniors, Seniors breakdown). NB Covid affected numbers for 2020.	The masterplan makes provision for 15 x outdoor netball courts. The arrangement of the courts is spaced out to allow room for future footings for a canopy/share structure id desired. As part of Stage 1, provision has been made for a netball hub which includes: • Six netball courts (two of which include multi-line marking for basketball and other sports)

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response

	Juniors	NSG	Seniors	Non players
2017	108	50	0	0
2018	75	51		1
2019	87	142		2
2020	70	87		31

- The SJNA is predominantly a young demographic association with NSG program providing most of the players. Older players appear to be playing at Southern Districts, Success or Rockingham Netball Associations.
- There are a total of 445 registered netballers living within the following suburbs: Whitby, Mundijong, Cardup, Mardella, Serpentine, Jarrahdale, Byford and Karrakup. (approximately within a 10km radius of Kiernan Park) and another 304 within the following suburbs; Darling Downs, Wungong, Brookdale, Oakford, Oldbury, Wellard, Hopeland, Keysbrook.

- The SJ Netball Association has recently entered representative competition teams which is a promising sign for player pathway development.

Facilities Development

- NWA determine a regional centre provides 20 courts and typically has a show court and can host state and regional events for netball.
- The proposed Armadale Regional Recreation Reserve facility being planned for five years is considered to be the future regional facility that will have 20 outdoor courts and up to 8 shared indoor courts.
- The Southern District Netball Association in City of Gosnells are planning for four indoor courts to complement the existing 20 outdoor courts.
- Success Netball Association in the City of Cockburn are moving towards a regional facility I have 16 courts and moving to 20.

Regional championships are rotated but currently within the Peel region the Mandurah Netball Association is the only facility big enough to accommodate such with its need of 15 courts to qualify.

New Facility developments

- When starting a new facility the spring competitions that Netball WA hold might be suitable feeders for a new facility. These competitions run in fourth term for 10 week period with a focus on active participation less clubs focus and played under lights.

- A potential new facility requires outdoor courts which is very important to Netball WA.
    - Plexi pave style outdoor surface is recommended Laykold surfaces are well regarded by NWA for this purpose. Note that surface should be down for 3 to 6 months for it to settle as they have examples of new surfaces being very slippery for months after opening.
    - The outdoor court surfaces have an approximate 8 year replacement cycle depending on type of weather and usage. The sub base is critical for preparation. Ideally laid in October for April play.
    - Indoor courts prefer and recommend sprung timber, the State Netball Centre has used Aura flooring (which has been down five years without any required re-sanding or resurfacing).

- Proposed new facility first stage should include; storage, public toilets, first aid, kiosk and change rooms can come later stages.

- There is potential for Keirnan Park to be a Peel regional facility (NWA Strategic Plan indicates 20 outdoor courts plus Indoor courts are required).

• Car parking for 222 bays
• Lighting to the courts – 100 Lux
• Fencing and retaining walls
• A small service pavilion of 324m2, which notionally includes:
o Four change rooms including wet areas (showers/toilets) – 45m2 each, 180m2 total
o Two umpire change rooms (inc. shower) – 12m2 each, 24m2 total
o First aid / medical room – 15m2
o Office / administration room – 15m2
o Public toilets (10 male, 10 female, 5 UAT) - 50m2
o Storage – 20m2
o Kitchen/kiosk – 20m2

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
18	IN21/1987	08/01/2021	Hockey WA	**Participation** • There is no Hockey club in the SJ Shire. • The Southern River synthetic facility is the closest synthetic facility to Kiernan Park. • There is no facility south of Armadale and Hockey WA (HWA) has identified this as an issue. • It is recognised a large Indian population resides within the region (Hockey very popular in India so opportunity for potential player recruitment is observed by HWA). • Hockey W.A. is very interested in having a presence at Kiernan Park and realise it is located in a void area for hockey. • Graeme Hall to provide demographic details of registered Hockey Players that r3side within the Shire of SJ) **Club development** • It is likely an existing club would establish as a satellite option of an existing club within the region to instigate and start up at a new facility / location. • The Peel Hockey Association could well create such a satellite arrangement. • There are four regional officers that work in development for HWA with one based in Peel and primarily focuses on the schools. It is envisaged this process is how a new club / satellite would be supported. **Facilities** • The proposed Draft master plan is depicting the ideal hockey club model of 1 synthetic field and 2 grass fields. • Grass is largely played on by masters and juniors and is an acceptable model to start as a facility for Hockey. • Preferably 2 grass fields will be provided one with dedicated shortlife grass and mowed regularly (cylinder mowers ideal for surface management). • Typically clubs grow from juniors so 1 good grass field maintained to Hockey's standards as per above allows a club to evolve gradually. • Recommended facilities specifications include; o 500 Lux level lights o Sustainability model for synthetic surfaces (suggest 12 to 15 years for renewal of turf)	The masterplan makes provision for 1 x synthetic hockey pitch and 2 grass pitches (to be co-located with soccer). Provision has also been made for a pavilion space to accommodate hockey/rugby/soccer. The synthetic hockey pitch is located adjacent to the main pavilion.
19	IN21/1987	19/01/2021	Basketball WA	**Participation** • Byford Basketball Association (Byford Recreation Centre) 230 registered players in 2019. • Access to more courts is desired currently but is not available. • Basketballers within the Shire of SJ play at Byford Recreation Centre or travel relatively large distances to other Basketball Association facilities; Rockingham (Mike Barnett Sports Complex) 40kms from Whitby, Willetton Sports Complex 35kms, Cockburn Basketball Association 45kms and Mandurah 45kms. There are some other recreation centres that offer social basketball competitions such as Armadale Arena but this facility is even 18kms. **Facilities** • Armadale Regional Recreation Reserve is planned to provide 8 indoor courts and 20 outdoor courts. BWA see this shared facility as a regional association base. • Longer term BWA sees Kiernan Park as a desired and suitable location for an large 6-8 court Association facility. Byford Recreation Centre could be a support / satellite facility in its current or expanded court size. **Association Development / Facilities**	The masterplan makes provision for 2 outdoor multi-line marked courts for basketball and other sports, as well as 4 to 6 multiuse indoor basketball facility in the recreation centre. The recreation centre includes ancillary changing room space, ancillary storage, café, offices, reception, gymnasium/fitness component.

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
				• A typical basketball association facility requires 4 courts with exclusive access. • A population catchment of 120,000 like SJ is projecting could support a 6-8 court facility full with basketball. • Outdoor courts are a useful facility to begin offering basketball programs and training basketball options for children. • Basketball shares facilities with other indoor sports regularly and outdoor facilities that are multi marked suitable for basketball in the first stage of development at Kiernan Park would attract basketball participation.	
20	OC21/4292	20/08/2021	Department of Justice and Corrective Services (DoJ)	The Department of Justice and Corrective Service (DoJ) have a farm lease at Whitby Falls. The lease agreement between the Shire and DoJ was of the understanding that Keirnan Park Recreation Precinct (KPRP) would exist (at some point). Subsequently, the lease provisions were then created to allow for an exit clause whereby the Shire would provide sufficient notice, should the Shire decide to commence works of any kind. At present notices have been provided to DoJ for minor site investigations for KPRP. DoJ will be kept in the loop throughout the process. The Shire's aim is to lessen (or not at all) impact on any crop rotations/operations of the site.	The proposed staging plan aims to minimise impact on current users of the site.
21	E21/1972	29/01/2021	Hon Andrew Hastie MP, Member for Canning	Discussions were had with the Hon Andrew Hastie MP, Member for Canning to advise of the Shire's intentions to apply for the Building Better Regions Fund (BBRF). He indicated support for the following: - Relocation of BMX and upgrade to state level facility. - AFL Oval which can accommodate WAFL training/use/practice games etc. - Pump track - Fitness equipment and general upgrade to the mountain bike area for running, bike riding and general fitness activities on the site.	Noted.
22	E21/1973	12/01/2021	SJ Men's Shed	Ongoing discussions have been held with the Serpentine Jarrahdale Men's Shed. A suggested location has been determined for their Shed which is now represented on the Masterplan. **<u>Land required:</u>** They have requested land sufficient for a 1000 metre square shed, external hard stand area, container storage and a community garden. **<u>Timing for Fundraising:</u>** The Men's Shed have indicated the possibility that they could commence building by the end of 2022. Once Council approval of the Masterplan is provided they would commence fundraising efforts.	A potential location was identified on the masterplan.
23	E18/8350	01/07/2018	Byford BMX Club (from BMX Relocation Feasibility Study)	Currently located at Briggs Park Recreation Precinct. Have indicated support for the plan and interest in moving to Keirnan Park dependent on facilities provided. Club has 245 members. The club's growth and requirements exceeds the capacity at Briggs Park. The State Sporting Association (BMXWA) and Peak umbrella sporting bodies (Westcycle and BMX Australia) have identified the importance of the current BMX site within Byford as serving the broader needs of the sport. Based on an analysis of national and international facility requirements to operate a BMX facility with the capability of facilitating state and national events the following are necessary: - The Track to have a 6m ramp and be 10m wide. The first straight at 8 - 10m wide. The remainder of the track at 6m width (the 6m ramp should be considered as a temporary overlay on top of a 3m ramp). 400m length – 4 straights and three turns (maximum allowable height difference is 4m). Internal pro-straight. - Direct Power and water supply - Lighting of 100 lux - Canteen and clubhouse (inbuilt within the ramp potentially)	Provision has been made for a BMX facility on the eastern most portion of the site to the north of the watercourse and south of the existing tree cluster. It is also located near a pump track and walking trail amongst the trees which together will create a unique precinct. The BMX facility comprises the following: • State level track (turns, obstacles etc.) with 6m high starting hill; • Two shade structures for (119m2 each allowed for); • Fencing around track; • A 938m2 (approx. 14 x 67m) grandstand that in the first instance would be limestone, grass and shade sails, but could be upgraded to a grandstand structure in future when funding becomes available; and • Speakers tower.

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
				- Viewing Tower and officials area (including bike check, repairs and storage) - Good road access with capability of accommodating up to 2,000 vehicle movements for an event.	The pavilion to support the BMX facility is 262m2 and notionally includes: • Change rooms - male and female (55m2) • Two umpire rooms (24m2) • Office (15m2) • Public toilets (25m2) • Storage (20m2) • Medical room (15m2) • Kitchen / kiosk (20m2) • Social space (88m2)
24		14 & 18/12/2020 22/01/2021	Rugby NRL	**Details of use of the facilities/ Venue** To Develop a **Grassroots Community & Regional High Performance Rugby League and Touch Football Hub** aimed at providing greater opportunities to further engage local junior & senior participation and long term sustainable growth for Serpentine Jarrahdale Serpents Rugby League & Sporting Club within the Shire of Serpentine Jarrahdale. This facility will also allow NRL WA/ Touch WA to better service its State & National Pathway Programs via the South West Dolphins regional representative structure that supports all on field and off field people development for all involved in our game across the South West Region of Western Australia**.** The above detail would be the foundations the Hub is built on however given the location and infrastructure plans for the Shire it would become very appealing for many other Perth & State based activities for rugby league and Touch Football **Serpentine Jarrahdale Serpents (3 Year Strategic Plan = 300 participants)** • Junior Teams aged from under 6 – under 12 non competitive • Junior Teams aged from under 13 – under 18 both boys & Girls competitions • Senior Teams – Male & Female Premiership, Reserve Grade, Third Grade & Women's League Tag teams • Junior & Senior Summer Touch Football Competitions **NRL WA Regional & State Team Programs** • Under 12 School Boys/Girls • Under 15 School Boys • Under 18 School Boys • Under 19 Girls • Senior Women's • Senior Men's **Cash Converters West Coast Pirates Pathway Programs** • Under 19's Boys, NSW RL SG Ball • Under 15's Girls Development • Under 17's Girls Academy • Under 17's Boys Academy • Under 14's Boys RISE Program **NRL WA & NRL Touch Football WA Requirements** • Min 2 Full Training Field • Floodlighting of Training Field • Gym • Medical/Player Welfare Room • Amenities to accommodate showers (4 x Dressing Rooms)	The masterplan makes provision for 4 x grass soccer pitches, which can be co-located with rugby pitches, and 1 x dedicated rugby pitch. The rectangular playing surfaces are designed to accommodate growing rugby and soccer clubs. In particular, the fields are long enough to cater for rugby. Provision has also been made for a pavilion space to accommodate hockey/rugby/soccer. Ample storage, change rooms, shelter, toilets has been allowed for.

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
				• Office Space/ Education & Game Development • Canteen • Storage Solution *Please note there is opportunity to include specific NRL Touch Football WA requirements as we move forward.* When achieved this type of venue could easily be the best Rugby League & Touch Football facility available for visiting elite NRL, State of Origin and International teams as well as hosting major NRL WA & NRL Touch Football events such as Grand Finals, Junior Representative Games, Junior State League Championships and obviously as the Serpents grow the local team would be playing in our WA Senior Women's & Men's State League Premiership competitions.	
25	E21/2082	18/02/2021	Serpentine Jarrahdale Cricket Club (SJ Blues)	**Draft Masterplan and proposed staging options consultation** • The club was supportive of the draft masterplan and staging options and are keen to move to Keirnan Park as the club needs more playing fields.	Noted. Shire of Serpentine Jarrahdale will continue engaging with stakeholders in the detailed design phase of the project.
26	E21/2083	18/02/2021	Mundijong Junior Football Club (Centrals)	**Draft Masterplan and proposed staging options consultation** • The club was supportive of the draft masterplan and staging options.	Noted. Shire of Serpentine Jarrahdale will continue engaging with stakeholders in the detailed design phase of the project.
27	E21/2084	18/02/2021	Centrals Football and Sportsmans Club Inc. (Centrals Senior)	**Draft Masterplan and proposed staging options consultation** • The club was supportive of the draft masterplan and staging options and are keen to move to Keirnan Park as the club needs more playing fields.	Noted. Shire of Serpentine Jarrahdale will continue engaging with stakeholders in the detailed design phase of the project.
28	E21/2085	18/02/2021	Byford Bushrangers T-Ball Baseball & Softball Club	**Draft Masterplan and proposed staging options consultation** • The club was supportive of the draft masterplan and staging options.	Noted. Shire of Serpentine Jarrahdale will continue engaging with stakeholders in the detailed design phase of the project.
29	E21/2086	18/02/2021	Byford Little Athletics	**Draft Masterplan and proposed staging options consultation** • The club was supportive of the draft masterplan and staging options. The provision of more facilities will alleviate pressure on Mundijong Oval which will provide the club with an alternative venue.	Noted. Shire of Serpentine Jarrahdale will continue engaging with stakeholders in the detailed design phase of the project.
30	OC21/4892	23/02/21	WA Football Commission	**Draft Masterplan and proposed staging options consultation** • WAFC are supportive of the masterplan and its intent to improve access/participation in football within the region. • WAFC expressed interest to provide feedback during detailed design phase on details like change room requirements, lighting….etc	Noted. Shire of Serpentine Jarrahdale will continue engaging with stakeholders in the detailed design phase of the project.
31	OC21/5173	25/02/21	Serpentine Jarrahdale Netball Association	**Draft Masterplan and proposed staging options consultation** The club was supportive of the draft masterplan but was disappointed with the staging options as the club needs better facilities now. The club also noted the time it had invested into pre-masterplan work.	Noted. The Shire of Serpentine Jarrahdale recognises netball's need for better facilities now and acknowledged the difficulty in funding allowance and balancing competing needs. The Shire will continue to explore funding for Stage 1C – Netball Hub.
32	OC21/5302	25/02/21	Serpentine Jarrahdale Serpents Rugby League	**Draft Masterplan and proposed staging options consultation** • The club provided statistics on membership (50 – 60 juniors, 3 x teams), history, catchment area, Covid impact, training times (2xnights a week, utilising half an oval at Lower Briggs), use of facilities (noted storage is an issue)…etc • The club was supportive and appreciative of being included in the draft masterplan and the staging options	Noted. Shire of Serpentine Jarrahdale will continue engaging with stakeholders in the detailed design phase of the project.

#	CM Ref	Date	Stakeholder	Summary Response	Shire of Serpentine Jarrahdale Response
			and Sporting Club		

COVID-19 AND THE POTENTIAL IMPACT ON DATA INFORMATION

The data and information that informs and supports our opinions, estimates, surveys, forecasts, projections, conclusion, judgments, assumptions and recommendations contained in this report (Report Content) are predominantly generated over long periods, and is reflective of the circumstances applying in the past. Significant economic, health and other local and world events can, however, take a period of time for the market to absorb and to be reflected in such data and information. In many instances a change in market thinking and actual market conditions as at the date of this report may not be reflected in the data and information used to support the Report Content.

The recent international outbreak of the Novel Coronavirus (COIVID-19), which the World Health Organisation declared a global health emergency in January 2020 and pandemic on 11 March 2020, is causing a material impact on the Australian and world economies and increased uncertainty in both local and global market conditions.

The effects (both directly and indirectly) of the COVID-19 Outbreak on the Australian real estate market and business operations is currently unknown and it is difficult to predict the quantum of the impact it will have more broadly on the Australian economy and how long that impact will last. As at March 2020, the COVID-19 Outbreak is materially impacting global travel, trade and near-term economic growth expectations. Some business sectors, such as the retail, hotel and tourism sectors, are already reporting material impacts on trading performance now and potentially into the future. For example, Shopping Centre operators are reporting material reductions in foot traffic numbers, particularly in centres that ordinarily experience a high proportion of international visitors.

The Report Content and the data and information that informs and supports it is current as at the date of this report and (unless otherwise specifically stated in the Report) necessarily assumes that, as at the date of this report, the COVID-19 Outbreak has not materially impacted the Australian economy, the asset(s) and any associated business operations to which the report relates and the Report Content. However, it is not possible to ascertain with certainty at this time how the market and the Australian economy more broadly will respond to this unprecedented event. It is possible that the market conditions applying to the asset(s) and any associated business operations to which the report relates and the business sector to which they belong could be (or has been) materially impacted by the COVID-19 Outbreak within a short space of time and that it will have a lasting impact. Clearly, the COVID-19 Outbreak is an important risk factor you must carefully consider when relying on the report and the Report Content.

Any Report Content addressing the impact of the COVID-19 Outbreak on the asset(s) and any associated business operations to which the report relates or the Australian economy more broadly is (unless otherwise specifically stated in the Report) unsupported by specific and reliable data and information and must not be relied on.

To the maximum extent permitted by law, Urbis (its officers, employees and agents) expressly disclaim all liability and responsibility, whether direct or indirect, to any person (including the Instructing Party) in respect of any loss suffered or incurred as a result of the COVID-19 Outbreak materially impacting the Report Content, but only to the extent that such impact is not reflected in the data and information used to support the Report Content.

This report is dated **March 2021** and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (Urbis) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of **Shire of Serpentine Jarrahdale** (Instructing Party) for the purpose of a **Keirnan Park Business Case** (Purpose) and not for any other purpose or use. Urbis expressly disclaims any liability to the Instructing Party who relies or purports to rely on this report for any purpose other than the Purpose and to any party other than the Instructing Party who relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events including wars, civil unrest, economic disruption, financial market disruption, business cycles, industrial disputes, labour difficulties, political action and changes of government or law, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or made in relation to or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

Urbis has made all reasonable inquiries that it believes is necessary in preparing this report but it cannot be certain that all information material to the preparation of this report has been provided to it as there may be information that is not publicly available at the time of its inquiry.

In preparing this report, Urbis may rely on or refer to documents in a language other than English which Urbis will procure the translation of into English. Urbis is not responsible for the accuracy or completeness of such translations and to the extent that the inaccurate or incomplete translation of any document results in any statement or opinion made in this report being inaccurate or incomplete, Urbis expressly disclaims any liability for that inaccuracy or incompleteness.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the belief on reasonable grounds that such statements and opinions are correct and not misleading bearing in mind the necessary limitations noted in the previous paragraphs. Further, no responsibility is accepted by Urbis or any of its officers or employees for any errors, including errors in data which is either supplied by the Instructing Party, supplied by a third party to Urbis, or which Urbis is required to estimate, or omissions howsoever arising in the preparation of this report, provided that this will not absolve Urbis from liability arising from an opinion expressed recklessly or in bad faith.

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Shire of Serpentine Jarrahdale