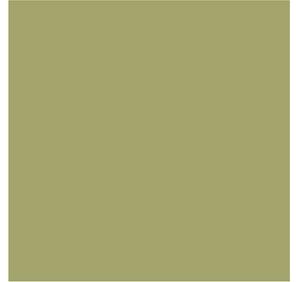


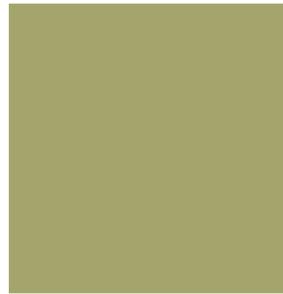


Inverell Shire Council



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# Table of contents

1	Background	1
	Athletics in Inverell	1
	Opportunities at the Sporting Complex	2
2	Existing and proposed athletics uses	3
	School athletics	3
	Little athletics	4
	Informal training and coaching	4
3	Design and rationale	5
	Track and field facilities	5
	Ancillary facilities	6
	Staging	7
	Rationale	7
	Concept layout	8
	Field event specifications	9



# Background

## 1.1 Athletics in Inverell

As the only community athletics facility in Inverell, Varley Oval, is well used by local schools for athletics carnivals. Further, the facility hosts the annual primary school zone carnival. It is also the home of the Inverell Little Athletics Centre. Importantly, it should be noted that the Oval is a fully fenced (and locked facility) that precludes unstructured athletics training opportunities.

### Varley Oval

In addition to athletics, Varley Oval is also heavily used for rugby league, cricket and AFL.

The site includes a range of athletics facilities:

- 8-lane grass 'circular' track
- 6-lane grass sprint straight inside the circular track
- shot put circle
- discus circle (without cage)
- dual width long jump/triple jump pit with grass approaches
- spectator seating
- pavilion, canteen, storage and amenities
- sealed car parking.

### Issues and considerations

Varley Oval has been designed and developed as Inverell's premier outdoor sports venue. It functions well as a cricket, AFL and rugby league venue. The running track has a high quality grass surface. However, the oval dimensions do not allow for a grass track to be marked to meet the requirements for athletics (IAAF guidelines). The 8-lane grass track is less than 400m long and is almost completely circular (without appropriate front and back straights). Additionally, lane 8 is marked far too close to the perimeter fencing and is a safety concern.

There are limited areas at the facility (outside of the oval footprint) appropriate for field events. The site includes only one shot put and discus circle (and the discus circle does not have a permanent safety cage). For zone-level events, two circles for both shot put and discus is preferred. The discus landing area is too small and is a safety concern. Additionally, safety cages are essential for discus at all levels of carnival. The long jump/triple jump area has appropriate length approaches. However, the pit is not wide enough to safely accommodate two jumpers, the pits are too short and the grass approaches are badly worn and uneven. Finally, this jumps area is in an area that is somewhat hidden from the track events by a line of mature trees.

In summary, Varley Oval provides a high quality playing surface and modern and well-maintained ancillary facilities (amenities, pavilion, storage, car parking etc). However, the facilities for track and field events are inadequate and potentially stifling growth in the sport. Opportunities for athletics facility development at an alternate venue should be investigated.





## 1.2 Opportunities at the Sporting Complex

### Existing arrangements

The Sporting Complex (the Complex) is Inverell's largest multi-field facility. In addition to formal sports, the facility is open to the public for recreation pursuits. The Complex forms a large community precinct with the adjoining Showgrounds.

The Complex is arranged as three smaller 'precincts'.

- ❑ The lower fields area along the river is the equivalent to three full-size lit rectangular fields. An amenities block and small servery are located in this area. Installation of irrigation and field works were recently completed on these fields
- ❑ A synthetic hockey field with clubhouse is located to the east of the lower fields in a fully fenced facility. A two-storey storage facility is located between the lower fields and hockey facility
- ❑ The upper fields have a quality turf surface the equivalent of approximately five full-size rectangular fields. Two turf cricket wicket blocks are located in this area. Recent upgrades to this area include clubhouse and amenities development, field and court lighting installation and provision of spectator seating. Eight bitumen netball courts (and grass courts area) and a clubhouse are located on the eastern side of the upper playing field area, while an amenities block is centrally located.

### Current usage

The Complex is used for a range of training and fixtures, including:

- ❑ football (junior) - training one afternoon/evening each week, Saturday morning fixtures
- ❑ football (senior) - training three afternoons/evenings each week, weekend fixtures on a home-and-away basis
- ❑ netball - training up to four times each week and fixtures on Saturdays
- ❑ touch - senior touch fixtures two afternoon/evenings each week during the summer sporting season
- ❑ cricket - matches are played on Saturdays during the summer sporting season and infrequently mid-week for school matches
- ❑ the Complex also hosts coaching and development squads, events and carnivals (such as the Joeys Mini World Cup and small schools football carnival).

### Potential for athletics development

Opportunity exists to increase the use of the upper fields area across both the summer and winter sporting seasons. Athletics is a year-round sport - with school events commencing in winter and the little athletics season conducted across the summer season.

With the athletics facilities at Varley Oval limiting growth in the sport, this study outlines the potential for athletics development at the Sporting Complex.

# 2

## Existing and proposed athletics uses

As previously noted, Varley Oval currently hosts a range of school and little athletics carnivals.

### 2.1 School athletics

#### Local schools

A number of local schools currently use Varley Oval for their annual school athletics carnivals. Representatives from each of these schools note:

##### *Inverell High School*

- approximately 400 students compete in the carnival
- given it is a fully fenced facility, the security at Varley Oval makes supervision easy
- the pavilion, canteen and amenities are all important facilities for the carnival
- having only one shot put and one discus circle is suitable for this carnival (although javelin is conducted on an adjoining field)
- long jump approaches and pits are poor
- appreciate the need to have a community athletics venue open for training and coaching purposes.

##### *Holy Trinity School*

- up to 400 students compete in the carnival
- field events are conducted at the school prior to the carnival. As a result, Varley Oval is only used for track events
- provision of suitable amenities is essential
- access to a canteen assists in running a successful event
- shaded areas for spectators is preferred.

##### *Ross Hill Public School*

- 350 students compete in this carnival
- Varley Oval works well for the school (particularly given that competitor numbers in the field events are kept small by trials at the school in advance)
- the pavilion, canteen and amenities are all used for the carnival
- the security provided at Varley Oval is advantageous.

##### *McIntyre High School*

- more than 400 students compete in the carnival at Varley Oval
- difficulties at the Oval include lack of area for javelin, only one circle for both shot put and discus, short landing area and no cage at discus, long jump run-ups and boards are poor and the pit is too short for older athletes
- the pavilion, canteen and scoreboard are all used during the carnival
- athletics in Inverell is stifled as there is very limited access to Varley Oval for training and coaching activities.

#### Inverell Zone Primary School Sport

The one-day zone primary schools athletics carnival attracts approximately 250 athletes from across eleven local primary schools. The event provides the pathway for talented athletes to move through to the North West regional championships.

While this carnival is currently conducted at Varley Oval, preference is for a site that includes two shot put circles, two discus circles (with cages), at least two long jump pits with quality approaches and access to a canteen, amenities and spectator areas.

#### New England Zone Secondary School Sport

In recent years, the Zone secondary school athletics carnivals (for the North West region) have been replaced by school-based nominations direct to the regional championships.

#### North West Region School Sport

The construction of a full synthetic facility at Tamworth in 2017 will see all regional-level school events conducted there.



## 2.2 Little athletics

### Inverell Little Athletics Centre

The little athletics centre competes across the summer sporting season with centre-based training conducted every Thursday afternoon. Additionally, athletes have the opportunity to compete in Gala Days (five are conducted across the zone - including one hosted by the Inverell centre).

The centre has enjoyed membership increases in recent years, with 66 athletes registered in the 2016/17 season. This has been achieved despite a decrease in membership across the State. Facility requirements for weekly centre activities include appropriate grass running track (with front and back straight), at least one shot put circle and discus circle with cage, two long/triple jump pits with level approaches and suitable length pits. Additionally, the centre requires sufficient storage for the wide range of athletics equipment, a basic canteen and amenities.

In addition, the facility requires a straight capable of conducting 110m hurdle events - something that is simply not practical at Varley Oval.

The Inverell Centre Gala Day was conducted in November and attracted 60 athletes from Inverell, Gunnedah, Tamworth, Glen Innes and Armidale. Hosting the Gala Day necessitates similar facilities to that required for centre activities.

### New England Zone

Centres with suitable facilities can expect to host the Zone championships every 4-5 years. This two-day event attracts approximately 200 participants and is the qualifying event for the Region 1 Championships.

With 200 participants, preferred facilities include an 8-lane track, two shot put and two discus circles (with cages), synthetic approaches for long jump and triple jump and suitable spectator viewing areas.

The ability to compete under lights would be advantageous as it would allow some escape from the heat of daylight hours. The 2016 event conducted in Gunnedah in December was difficult for athletes, officials and spectators given the 40 degree temperatures.

### Region 1

Preference is for regional-level events to be conducted at facilities with a synthetic track and synthetic field event approaches. With construction of a new facility of this nature in Tamworth commencing in 2017 - this venue is expected to host the majority of the Region 1 little athletics championships. However, there may also be a need to conduct this championship in 'country' areas on an infrequent basis. If a quality facility was developed in Inverell, it may be successful in attracting this event.

The Region 1 championships are conducted across two days and attract in excess of 700 athletes.

In order to host this event, a quality eight lane grass (or synthetic) track is required, along with two areas for each of the field event disciplines. Additionally, given the large number of athletes, spectators and officials, suitable amenities are important as are large areas for parking.

### New England Coaching Clinic

A two-day coaching clinic has been conducted in Tamworth for a number of years. The clinic attracts approximately 150 participants. If a suitable facility was available in Inverell, the clinic could be hosted there, or preferably the clinic could be repeated in Inverell (potentially aligning with a Level 1 coaching course being conducted).

## 2.3 Informal training and coaching

With Varley Oval currently a locked facility, there is limited scope for informal athletics training and coaching. This stifles opportunities for athletes to advance and is a particular issue for field event athletes seeking avenues to train (e.g. long jump pits and throwing circles).



# Design and rationale

If Council and the community are to invest in developing a new athletics facility for Inverell, it would be appropriate to develop a high-level facility capable of hosting both local-level events (e.g. little athletics centre events and local school carnivals), zone-level events (e.g. New England zone little athletics and Inverell zone primary schools) and occasional regional-level events (Region 1 little athletics championship). Most importantly, the facility should remain available for public training and coaching opportunities - just as fields are available for cricket, rugby league and soccer (etc) when not being used for formal competition.

Given the recent facility upgrades, the availability of suitable under-utilised field space and the existing central amenities block, the upper fields at the Sporting Complex are well-suited to athletics facility development.

## 3.1 Track and field facilities

### Track events

Clearly, the key difference between the current facilities at Varley Oval and those proposed for the Sporting Complex will be the development of a quality grass track that meets IAAF<sup>1</sup> specifications. In addition to appropriate length straights and tighter curves, the facility will provide eight lanes with safe run-off areas. Additionally, the track will be developed to ensure that the infield remains free for field events (rather than the need for an internal sprint straight as is the case at Varley Oval).

The main straight is proposed to run slightly north-west to south-east and runners will enjoy the prevailing tail winds in winter, spring and early summer. Opportunity will also exist to switch races to the back straight to achieve tail winds if required.

The 400m track would include:

- 8 lane front straight (to allow for 110m hurdle events),
- 8 lane back straight (to allow for 100m events)
- 8 lane 400m track.

<sup>1</sup> International Association of Athletics Federations



## Field events

The field event facilities required for the site to be attractive to a wide range of users and events include:

- 2 shot put circles
- 2 discus circles with cages
- 2 double width long/triple jump pits with dual synthetic approaches.

## Field lighting

Pre-season athletics training and competition often runs throughout the winter months (when available daylight hours are limited). Additionally, peak athletics competition time (in most of Australia) is during the hotter months when competing in the evening is more pleasant. While there are currently no athletics events conducted under lights at Varley Oval, the provision of field lights is considered advantageous to further expand the attractiveness of the facility.

Additionally, well-designed field lighting will also prove beneficial to the other field sports using the facility (e.g. football).

The design and installation of sports field floodlighting is highly technical and should be led by a professionally accredited sports lighting engineer. While no Australian Standard exists for outdoor athletics lighting, the IAAF details indicative guidelines for field lighting. The table below highlights that there are marked differences between the recommended lux levels for various uses. Given that most of the proposed events to be held at the facility are of a local or (potentially) zone nature, the lighting recommendations for club competition are most appropriate. However, it would also be appropriate for lighting to a lower level if that can be achieved in the short- to medium-term.

Level of use	IAAF - Maintenance illuminance (minimum lux)
Recreation and training	75
Club competitions	200
National and international competitions	500

Ideally, the lighting should be designed to include different illuminance levels that are appropriate to the type of use. The ability to switch between training and competition modes and to switch on lighting to individual event areas is important to limit unnecessary electricity usage.

## 3.2 Ancillary facilities

Appropriate ancillary facilities required to service a higher-level athletics facility include:

- large three bay storage shed with extra high roller doors to allow ease of access for bulky equipment such as high jump mats and hurdles. (Ideally, the shed should be incorporated with the existing amenities building to establish a central hub)
- shaded viewing areas with outlooks across the track and finish line
- 900mm chain mesh fence separating spectators and the long jump/triple jump area (adjacent to the front straight)
- 900mm chain mesh fence designating the throwing areas.

## Parking

Given the frequency of events this facility may attract, it is imperative that the design includes both formal and overflow car parking areas. The sealed car park on the southern side of the netball clubhouse should be expanded to accommodate additional parking for athletics. Additionally, further car parking may be developed along the internal road leading to the central hub and along Eucalypt Drive. Finally, it will be important that suitable drop-off areas are designated for buses along the entry road at the northern end of the upper fields area.



## 3.3 Staging

Given the need for all of the proposed track and field facilities to be available to conduct an athletics event, it is somewhat difficult to stage development. However, if a staged approach is preferred by Council, the following aspects could be considered for later development:

- construction of second long/triple jump pit
- construction of synthetic approaches for long/triple jump
- construction of permanent cages for the two discus circles (although temporary netting would be required in the first instance)
- construction of a fence between the spectator area and the long/triple jump area (and front straight)
- provision of facility lighting
- provision of additional car parking (unsealed overflow car parking may suffice in the short-term).

## 3.4 Rationale

### Track layout

It is preferable to have athletics tracks oriented north-south to avoid potential difficulties associated with athletes (and officials) looking into the sun. However, given the existing layout (and orientation) of the football fields and the location of the two turf wicket blocks, the athletics track is proposed for the southern side of the Sporting Complex upper field area in a north-west to south-east orientation. This layout will cause minimal impact on the football fields and will ensure that the turf wicket block is not disturbed (as it will fit wholly within the running track in-field).

A spectator area proposed along the southern boundary under the shade of the existing trees will provide quality viewing areas along the front straight and finish line area. Additionally, the proposed covered area will also offer views across the track area.

### Field events

The proposed location of the track will allow the long/triple jump area to sit outside the front straight and off the football fields, yet in close proximity to the spectator areas.

It is proposed to conduct javelin events inside the running track. (Preferably with throws taken from the eastern end to limit impacts of javelins landing on the cricket wicket block). High jump will also be conducted inside the track at the eastern end to reduce the distance that the mats are moved from the storage shed.

A discus and shot put area is proposed for the south east corner of the site. Two levelled areas are anticipated - a large raised area on the eastern side for male discus and shot put and a lower area for female discus and shot put. Positioning the two discus circles and cages in the far corners of this location allows for a large landing area. It will also be important that the shot put circles are located such that a chain mesh fence can be constructed along the northern side of the throwing area and along the edge of the internal road. A boom gate should be located across the road near the central building hub to ensure that vehicles do not encroach on the athletics event areas.

### Summary

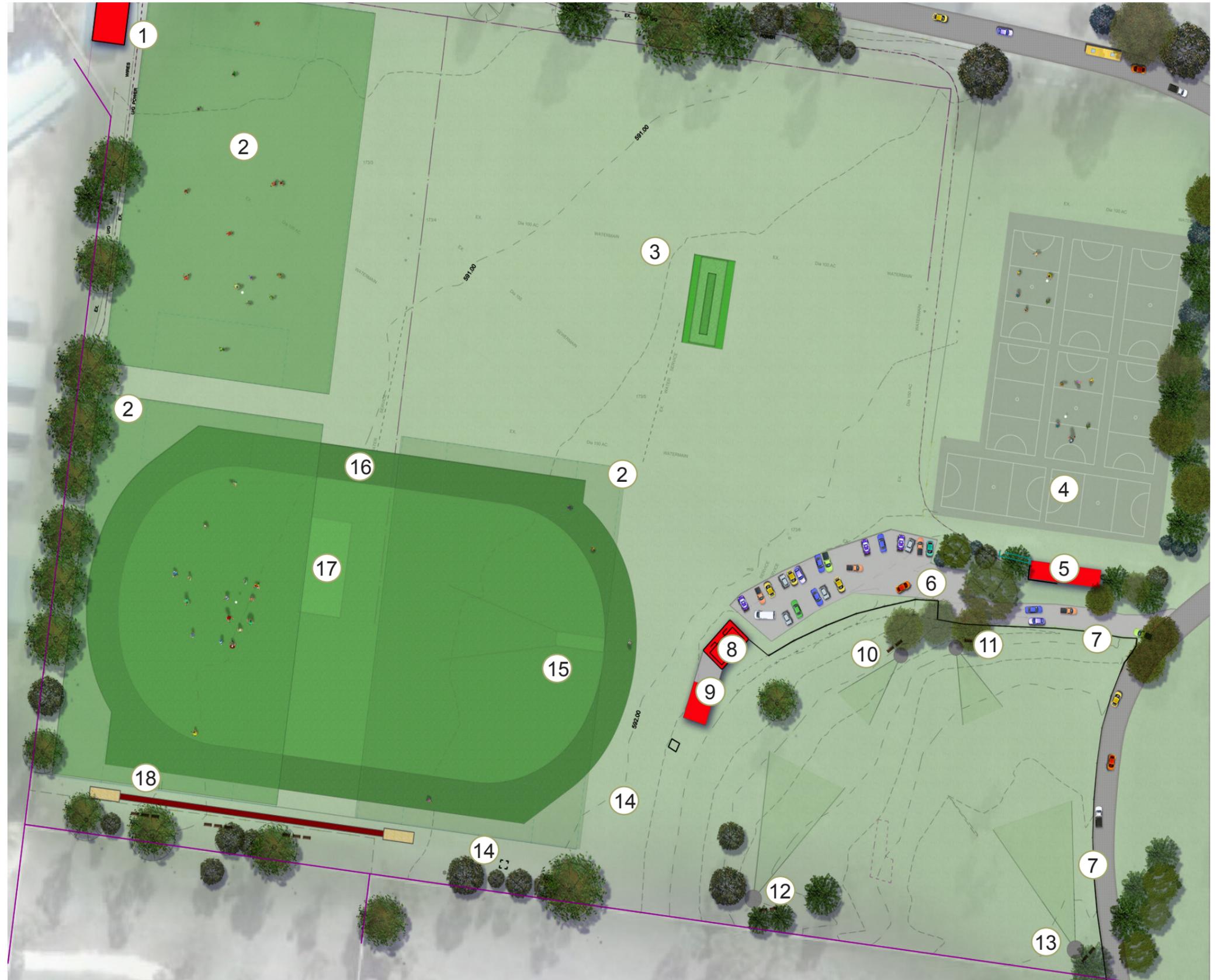
The provision of a quality 8-lane 400m track designed to meet IAAF guidelines and the range of field event areas proposed in this paper will meet the needs of the existing athletics users - Inverell Little Athletics Centre, New England Zone Little Athletics, local primary and secondary schools and the Inverell Zone Primary Schools.

Importantly, this development would also position Inverell to seek more regular high-level multi-day events such as the Region 1 Little Athletics Championship and New England Little Athletics Coaching Clinics. With families travelling to attend these multi-day events, Inverell will enjoy economic benefits through accommodation, meal and fuel expenses.

Finally, providing a quality athletics facility with open community access (unlike the current restricted access arrangements at Varley Oval) is expected to result in increases in informal coaching and training (and ultimately assist to reignite the sport). There is scope that this proposed development may be the catalyst for a senior athletics club to be established in Inverell and provide a pathway for school athletes and little athletes through to the senior ranks.

## 3.5 Complex - Athletics facility design

1. Existing undercover gathering area
2. Existing football fields
3. Existing field (with turf wicket block, football field and netball court overlays)
4. Existing netball hard courts
5. Existing netball canteen and covered area
6. Proposed athletics and cricket car park (unsealed)
7. Install chain mesh fencing to restrict vehicle and pedestrian access to the athletics throwing area
8. Existing amenities building
9. Construct new storage facility with covered outdoor area extension to the amenities building
10. Shot put (1)
11. Shot put (2)
12. Discus (1)
13. Discus (2)
14. Spectator gathering areas
15. Grass javelin area
16. 8-lane 400m grass track with front and back straights
17. Existing turf wicket block (not impacted)
18. Dual width and dual length long/triple jump facility with synthetic approach (capable of up to four jumpers simultaneously)



### 3.6 Field event specifications

The following specifications have been adapted from the IAAF Track and Field Facilities Manual. This manual should be referred to again before construction.

#### Discus

- 2.5m diameter concrete circle lowered 70mm to 80mm below ground level with a rim at least 6mm thick. Set in a concrete square (at ground level)
- 2 or 3 drainage pipes flush with the throwing circle but located toward the left and right edges
- finished with a small wood float to ensure traction
- chain mesh cage located at least 3m from the centre of the throwing circle and extending up to 7m along the foul lines. The cage should be approximately 4m high

#### Shot put

- 2.135m diameter concrete circle lowered 70mm to 80mm below ground level with a rim at least 6mm thick. Set in a concrete square (at ground level)
- 2 or 3 drainage pipes flush with the throwing circle but located toward the left and right edges
- finished with a small wood float to ensure traction
- wooden stop board in the shape of an arc (1.21m long on the inner edge and 0.1m high)

#### Javelin

- requires no construction - linemarking only inside the track

#### Long/triple jump

To accommodate four junior pits:

- dual approach (and dual length) 2.6m wide and 58m long
- landing pit (for two jumpers) of 9m x 4m (one double pit at each end)
- concrete border to maintain sand for each pit.



Proposed track, jumps and spectator area



Proposed male shot put and discus area



Proposed female shot put and discus area



Amenities block



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