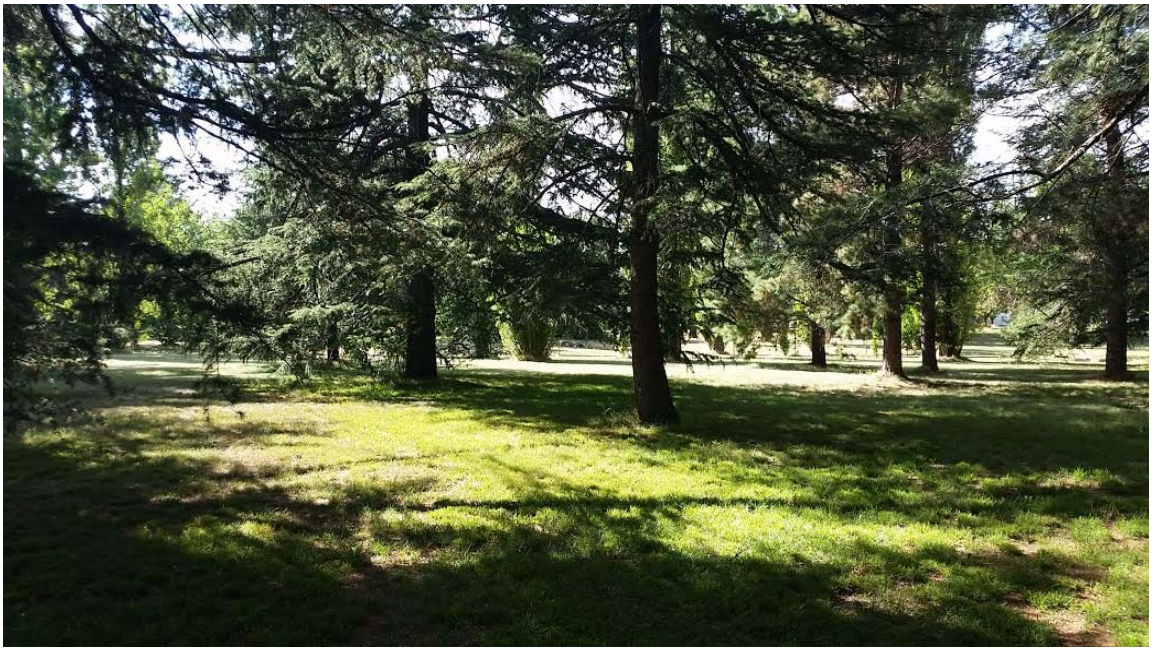
COMMISSIONER FOR SUSTAINABILITY AND THE ENVIRONMENT

City Activation Team
Your Say – ACT Government

Transforming Haig Park - from a windbreak to a 21st century urban park



Cedrus deodar, an evergreen conifer, casts dense shade in Haig Park, Turner. Image: Edwina Robinson

A new vision

Almost one hundred years on, the new vision for Haig Park needs to consider its future role as a contemporary park in close proximity to the urban renewal areas of Braddon and Turner.

Haig Park was originally designed as a windbreak to protect the newly formed Canberra from wind and dust. Walter Burley Griffin designed the city for a population of 75,000. At the 2011 census, the population had reached over 350,000 and continues to grow steadily.

Since the 1920's Haig Park has remained relatively intact whilst the city and its inhabitants have evolved.

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Our submission, endorsed by the Heart Foundation, supports keeping part of the historic windbreak intact while allowing a rationalisation of the park in key areas to allow for increased public use and improved safety and solar access in winter. The opportunity exists to create a series of precincts of different character and activity level that reflect the needs of local inhabitants and the heritage values of the site.

The Master Plan needs to respond to climate change, the need for urban habitat, changing demographics, an increase in medium density housing and urban forest management issues. It also must provide a range of recreational and play opportunities for children and adults to help reduce the incidence of obesity in our community.

Two of the current key issues with Haig Park are that it is perceived as unsafe by the community and is used as a thoroughfare rather than a destination.

Community consultation

We commend the ACT Government's community engagement process that has gathered views on the future use of the park from a wide range of participants. And we recognize that the community's views are diverse from those who think that Haig Park shouldn't be touched to those who imagine a vibrant place with pop-ups bustling. Two of our staff members attended the public community consultation workshop on 15 March 2017. The event was very professional and inclusive. Successful aspects of the event included:

- starting with a walk in Haig Park to visit key parts and remind everyone of the area,
- providing the opportunity for people to be creative by choosing an image that resonated with them,
- allowing everyone to have their say but in small groups so that potential conflict due to diverse views was kept in check, and
- sending through a summary of the community feedback following the consultation to allow people to check their views have been incorporated and will contribute towards the design of the draft Master Plan.

The office undertook consultation on Haig Park with our Young Professionals Reference Group on location on 1 March 2017. Key issues discussed during this consultation have been included in this submission and we thank them for their valuable contribution.

Young professionals discuss Haig Park. Image: Serena Farrelly

Key challenges

Key challenges to be addressed in the future Master Plan include:

1. adapting to and mitigating climate change impacts – the ACT will need to generate and support its parks and urban forest in a hotter, drier, climate
2. incorporating both structured and unstructured play opportunities for children
3. incorporating recreational opportunities for young people and adults
4. linking the park to commercial, residential and ecological areas.

Adequate funding and economic and environmental co-benefits

Given the proximity of the park to urban renewal projects this represents the opportunity to show leadership to create a great 21st century park.

Not only should the design and construction of the park be generously funded, it is vital to ensure adequate ongoing funding is available to maintain the park to a high quality into the future. Ageing trees and climate change present as emerging, ongoing, and urgent challenges.

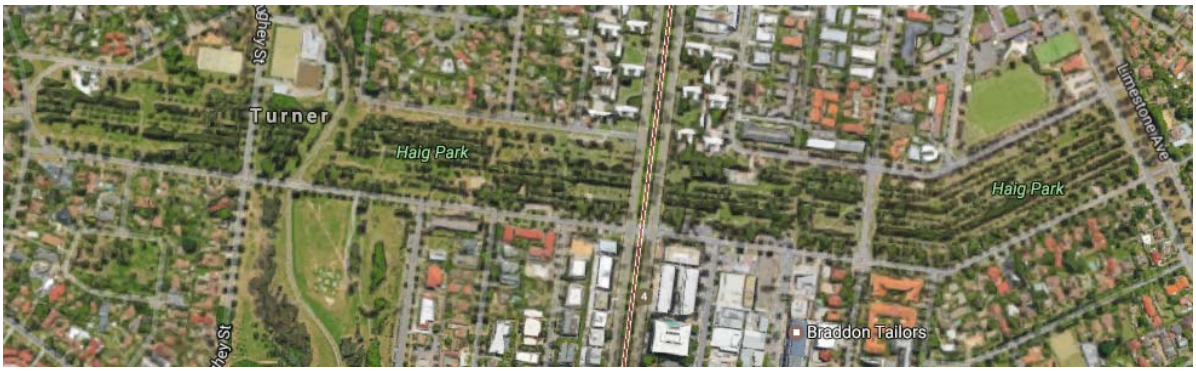
One of the co-benefits of quality open space is that it improves health outcomes and reduces health costs.

In the USA, a study of 11 cities and counties found green infrastructure produces health care savings ranging from US$4,300,000 to US$90,200,000 per year.[1] Work in the Netherlands suggests that if green spaces were increased by 10%, national health care savings would be in the order of €65Million.[2] The United Kingdom has also assessed the value of green space in reducing sedentary behaviour – a mere 1% decrease in sedentary behaviour would provide a total economic value of £2billion per annum.[3]

Haig Park in the 1920s – a windbreak for the new city of Canberra

Haig Park was designed by Thomas Weston as a windbreak and dust suppressant for Canberra in the early 1920's.

The 19 hectare park stretches for 1.7 kilometres from Limestone Avenue, Braddon to the east and terminates at Frogatt Street, Turner in the west. Although considered cartographically as one space, it consists of five separate areas (although of a similar character) divided by roads.



Haig Park stretches from Limestone Ave, Braddon to Frogatt St, Turner. Image: Google maps

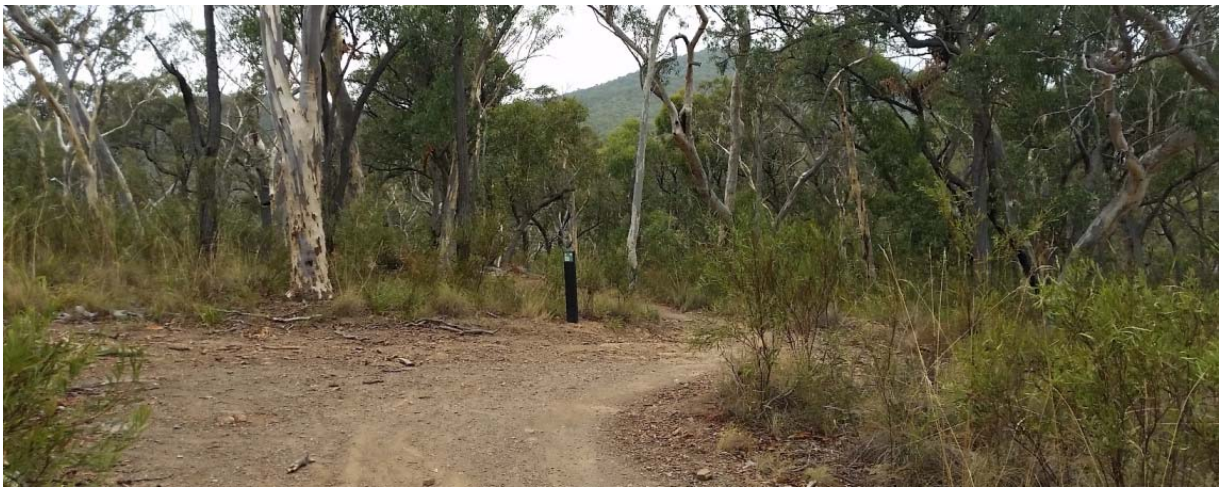
In its current form, Haig Park is predominantly a tree plantation, with 14 rows of evenly spaced deciduous and evergreen trees. It includes the following species most of which are relatively hardy in the current Canberra climate. It is not clear how they will fare in a hotter drier climate which is given to extremes.

Native species (evergreen)	
Eucalyptus cinerea	Argylle Apple
Eucalyptus pauciflora	Snow Gum
Exotic species – Conifers (evergreen)	
Pinus radiata	Radiata or Monterey Pine
Cupressus sempervirens	Roman Cypress
Cedrus deodara	Deodar
Exotic species – Deciduous	
Quercus palustris	Pin Oak
Fraxinus velutina	Arizona Ash
Fraxinus oxycarpa	Desert Ash

Tree composition, Haig Park. Extract from the ACT Heritage Register.

KEY CHALLENGES AND RECOMMENDATIONS

1. Design for climate change adaptation and mitigation



Dry woodland on Bruce Ridge. Image: Edwina Robinson

The ACT's climate is changing rapidly. In 2016, the ACT experienced:

- **above average temperatures extending into February, March and April with 6 days above 35 degrees.**[4]
- **the wettest January, with almost twice the average rainfall.**

And in 2017, the ACT was exposed to the hottest summer on record.

In 2014, Norman et al. found the 'majority of Canberrans support[ed] action on climate change, including adaptation'.[5] It is clear that there is support for appropriately modifying existing spaces to increase their resilience to climate change.

Urban forests, like Haig Park are recognized as:

> *"the 'engine room' for urban ecosystems. The urban forest takes in water, nutrients and carbon dioxide and processes them through photosynthesis and transpiration, transforming them into the valuable environmental outputs of clean air, oxygen, shade and habitat."*[6]

Their continued effective presence in the urban landscape is essential.

Hotter, drier summers will have a significant impact on active living. Hot weather will be a significant barrier to people exercising and will also impact on people's health.

Shade trees can reduce the local micro-climate in summer by *at least* 2 degrees Celsius (some estimates in some settings raise this figure considerably). Research undertaken by Melbourne City Council has found that the average temperature in Melbourne's CBD is up to 4 degrees

higher than the surrounding suburbs and during the evenings, this difference can be as high as 12 degrees.[7] Director of CSIRO Land and Water, Paul Hardisty, has said climate change is already affecting our daily lives and we need to increase green coverage such as tree canopies, gardens, parklands and green roofs to mitigate summer heat stress and mortality rate.[8]

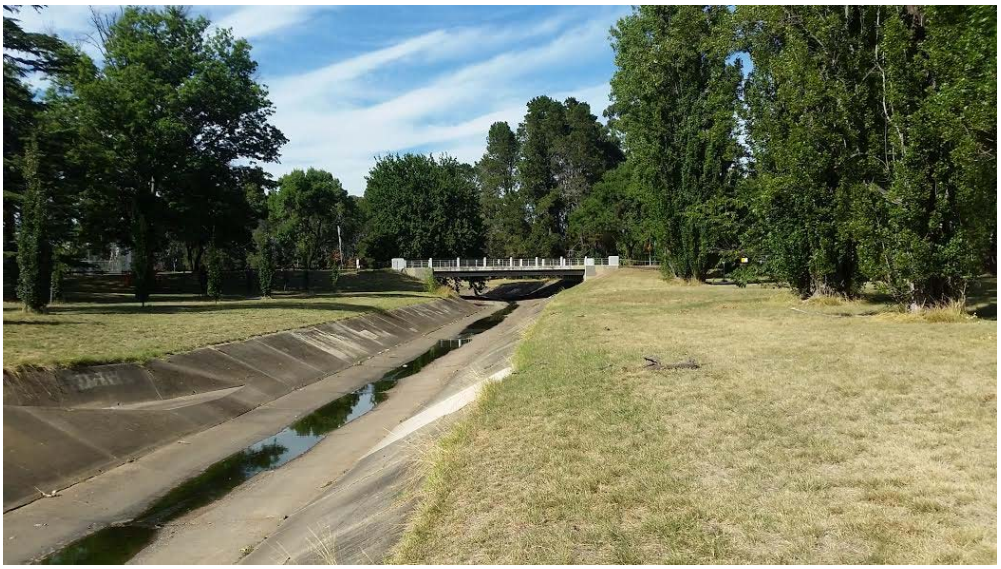
The park's vegetation (including its ageing forest) need to be able to cope with increased extreme weather events, including heat waves and severe storms. Consideration should be given to whether parts of the park should be irrigated in the future and from what source.

The current form of the park plays an important role in mitigating the Urban Heat Island Effect (UHI). **This role should be enhanced.**

In order **to address the challenges of climate change**, the following should be considered in preparing a Master Plan for Haig Park.

• Prepare a tree strategy to manage the urban forest (including senescing trees). The Strategy should operate from 2017-2037.
• Incorporate a greater variety of tree species to allow for unpredictability in trees coping with climate changes and to increase biodiversity – Refer to the City of Melbourne 2020 Vision.
• Include trees like *Casuarina* to provide a food source for the threatened Glossy Black Cockatoo and provide artificial hollows for roosting and nesting.
• Incorporate a range of structural vegetation categories (shrubs, grasses, groundcovers, climbers) to provide increased terrestrial urban habitat and link to the extent that this is possible Box-Gum Woodland communities on O'Connor Ridge and Mount Ainslie.
• Incorporate Water Sensitive Urban Design (WSUD) measures to allow Haig Park to act as a sponge, slowing and absorbing urban stormwater and nutrients (see section below). Due to the extent of the canopy and existing root systems, space is limited in many parts of the park, however, existing drains and swales could be converted to rain gardens. Plant with appropriate locally occurring aquatic plant material.
• Retrofit Sullivans Creek (currently a concrete stormwater drain) in Turner to include a 'naturalised creek' and retain the existing concrete channel as a bypass structure for large storm events. Plant with appropriate locally occurring aquatic plant material.
• Design for future irrigation requirements (given increased hot weather) and include storage capacity as part of the WSUD system.

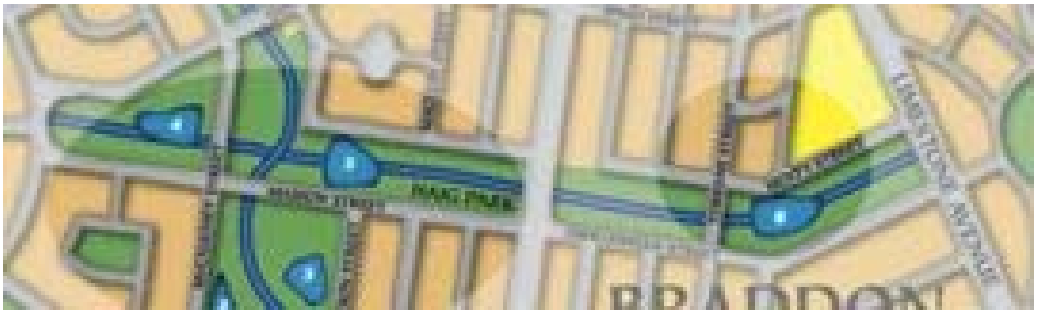
Water sensitive urban design opportunities for Haig Park



Sullivans Creek cuts through Haig Park in Turner. There is space in this section of the park to create an offline creek channel that improves downstream water quality and provides 'nature' based recreation opportunities in areas close to the city. Image: Edwina Robinson

The 2000 Sullivans Creek Catchment Management Plan identified the need to include retrofitted wetlands into the catchment to help improve the downstream water quality of Lake Burley Griffin and the Murrumbidgee River. Three wetlands were identified within Haig Park.

Wetlands and other WSUD measures like rain gardens and creek restoration can play a role in improving the quality of urban stormwater by filtering nutrients and sediment from stormwater. They also slow down the water runoff which will increase safety in urban environments, especially with future predictions of storm intensity increasing.



Extract from 2000 Sullivans Creek Catchment Management Plan which identified a series of wetlands within Haig Park to deal with improving urban stormwater quality. Source: ACT Government

Wetlands tend to take up significant land area, however smaller infrastructure interventions, like rain gardens would require less space and would provide a number of other benefits such as provision of aquatic habitat, and opportunities for play and cooling local temperatures.

Adjacent to the Sullivans Creek channel between Greenway and Masson Streets, Turner there is the opportunity to create an offline creek channel to filter stormwater and provide a 'nature experience' for nearby residents.

Studies have shown that the inclusion of WSUD measures along with vegetation play a key role in reducing urban temperatures and can improve property values.

This drain at Bankstown Showground Sydney was converted to a 'naturalised' creek.
Image: Edwina Robinson

The introduction of water features within the park will likely increase visitation to the park and create focused destinations that will serve to improve safety.

2. Design play opportunities for children, both structured and unstructured

Governments have a role to play in ensuring that urban spaces provide interesting and challenging play spaces, both structured and informal.

Associate Professor Paul Tranter, UNSW indicates children need to take risks during play in order to develop.

Given the length of Haig Park, at 1.7km the opportunity exists to provide a range of play spaces of different character.

FACT: 1 in 4 Australian children are overweight or obese

FACT: 2 out of 3 Australian children are in the lowest fitness categories

Children enjoying water play at the Ian Potter Foundation garden, Royal Botanic Gardens, Melbourne. Image: Flickr (Steel Wool)

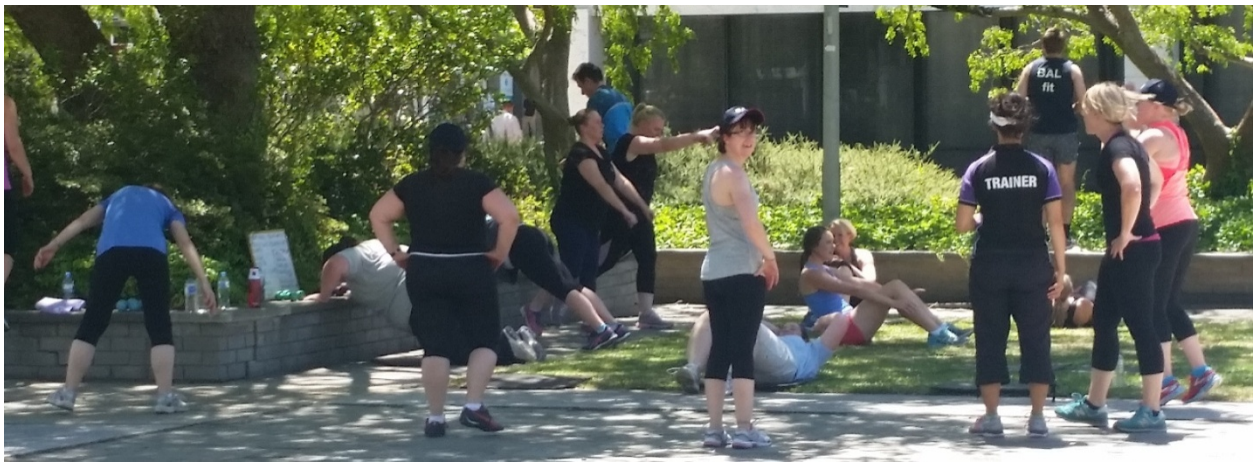
To **ensure accessibility is considered and ensured, and play opportunities** are provided for children and also for others dealing with physical challenges, the following should be considered in preparing a Master Plan for Haig Park.

• Involve children in the co-design of play spaces in Haig Park.
• Improve overall park safety.
• Provide safe pedestrian connections for kids so they can safely navigate into the park from the surrounding urban areas.
• Provide suitable solar access during winter (the use of existing evergreen conifers in the original planting means many spaces are heavily shaded in winter when sun is desirable).
• Provide a variety of play spaces that allow for structured and unstructured play (like the Ian Potter Foundation Children's Garden, Royal Botanic Gardens, Melbourne).
• Incorporate play opportunities in WSUD features.

Jodie Griffiths-Cook, Public Advocate and Children and Young People Commissioner, has provided the following additional comments and authorised inclusion in this submission –

> *The 'reimagining' of Haig Park brings with it a unique opportunity to take a historic park and re-shape it for contemporary living. It is also an opportunity to use the knowledge we have about societal challenges to inform design and transform the current utilisation of this area.*
>
> *Accessibility and safety are key features that will support improved useability. So too will having a breadth of activity options that engage community members of all ages, abilities and interests.*
>
> *I strongly support the maintenance, further development and incorporation of the natural environment as a means by which to promote environmental responsibility, amenability (eg. shade cover to mitigate heat), and activity/play spaces that both engage and educate.*
>
> *The significant landmass that constitutes Haig Park ensures an abundance of space within which to incorporate a broad range of independent activity spaces that encourage creativity, fitness, exploration, tactile/sensory engagement, and no end of fun. Further, alongside the physical 'reimagining' of Haig Park exists the opportunity to devise means of engagement that align the use of technology with the use of the natural environment (eg. 'geo-caching' or 'way-finding' apps that take people through the park by using coordinates and/or challenge scenarios that people need to solve to obtain their next clue).*
>
> *Finally, I wholeheartedly agree that children and young people need to be engaged early in the design process for Haig Park... their thoughts and perspectives will ensure that children, young people and families alike obtain maximum benefit from all that a re-designed Haig Park has to offer.*

3. Design for active and passive recreation for young people and adults



Workers exercise in summer under shade trees. Image: Edwina Robinson

FACT: 64% of ACT adults are overweight or obese

In order to provide a **range of recreational opportunities for young people and adults**, the following should be considered in preparing a Master Plan for Haig Park which should include the matters raised above and also address the following.

• Provide a range of recreational options for adults, both active and passive.
• Active recreational/fitness experiences including exercise stations for all users and specifically older users.
• Provide a positive active travel experience through the park.
• Provide areas for relaxation and contemplation.
• Provide areas for events, including areas for picnics & BBQ's.

Co-Benefits of walkability

At present pedestrian connections to Haig Park are limited – there is a lack of pedestrian crossings and the park is considered 'unsafe'. Creating walkable parks and neighbourhoods has a range of health co-benefits including

- reduced obesity
- improved birth outcomes[9]
- safety,[10]
- intergenerational links,
- improved mental health outcomes.[11]

There is even support for the proposition that green space will positively impact children struggling with Attention Deficit Hyperactivity Disorder.[12]

Providing links within and around the park will facilitate recreation, and safety through passive surveillance (per Jane Jacobs).

4. Linking the park to commercial, residential and ecological areas

Much of Haig Park is surrounded by multi-unit developments.

Development will continue. Many new units lack outdoor spaces suitable for activity. Redevelopment of the park provides the opportunity to provide these residents with outdoor activities in close proximity to their homes.

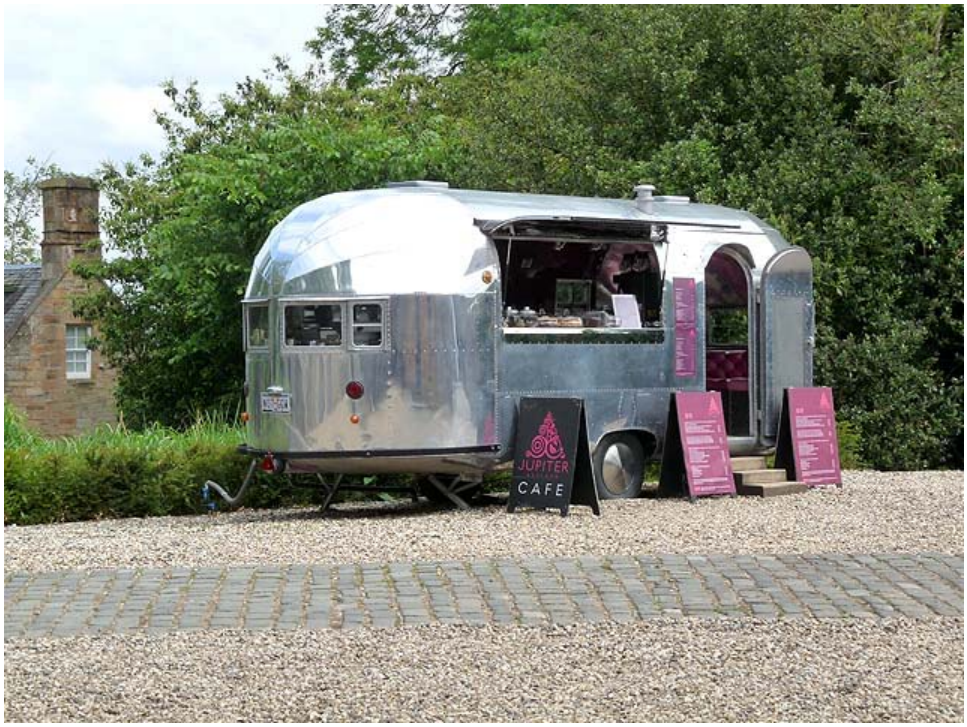
The opportunity exists to extend the vibrant commercial activity of Lonsdale Street into the park.

One of the key qualities of 'green cities' is the creation of connectivity between green spaces.

There is potential to connect Haig Park to Canberra Nature Park and enhance our cities urban habitat.

The following should be considered in preparing a Master Plan for Haig Park:

• Strengthening connections both physically and visually from surrounding areas, in particular, the commercial and residential hub of Londsdale St, Braddon.
• Consider extending the axis of Londsdale St Braddon into the park and giving pedestrians right of way. Include gathering spaces and provide amenities like coffee vans and pop-up cafes/takeaways. This will help activate the space and provide passive surveillance.
• Examine opportunities to link the park to medium density residential areas that lack their own green spaces and playgrounds.
• Examine how landscape connectivity into Haig Park can be extended from nearby Box-Gum Woodlands to provide migration and habitat for plants and animals.
• Blend the park with local commercial areas with separate bike paths, raised crossings across major arterials and shared zones in local hubs like Braddon.



Mobile caravans can provide facilities in Haig Park. Image: Oliver Brown.

We look forward to seeing a Master Plan that addresses the challenges of a hotter, drier, climate, embraces water sensitive urban design and creates a 'safe' Haig Park that provides the community with diverse options for activity and relaxation.

Thank you for the opportunity to comment on the Haig Park Master Plan.

Yours sincerely

Dr Kate Auty
Commissioner for Sustainability
and the Environment

21 March 2017

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