



PROPOSED WEST BELCONNEN CONSERVATION AREA

Options for establishment and management

Prepared for Riverview Projects (ACT) Pty Ltd

by



10 June 2014

TRC Tourism Pty Ltd
PO Box 837
Jindabyne
NSW 2627

P (61) 02 6456 2722
F (61) 02 6456 2422
E enquiries@trctourism.com

www.trctourism.com

Executive Summary

This report considers the secure, legally-recognised establishment and best-practice management of a Conservation Area intended to be part of the proposed West Belconnen community development project that extends across the ACT/NSW border. The proposed Conservation Area would augment the existing public reserve network in the ACT and NSW.

The Conservation Area is intended to be part of the sustainability vision of the West Belconnen development. It is proposed to extend the existing corridor that exists along the Murrumbidgee River and include the lower part of Ginninderra Creek, Ginninderra Falls and associated gorge areas. The area would protect nationally significant habitat, contribute to biodiversity across the landscape, provide ecosystem services through vegetation restoration and catchment protection, and protect areas significant to local Indigenous people and the wider community. It is intended to provide opportunities for sustainable recreation and tourism.

Suitability as a protected area

The proposed West Belconnen Conservation Area has been assessed for its suitability as a protected area in accordance with the International Union for Conservation of Nature (IUCN) Guidelines and Australia's National Reserve System standards for building comprehensive, adequate and representative protection of Australia's biodiversity. It was concluded that the Conservation Area has the potential to:

- contribute to biodiversity conservation, the protection of other natural and cultural values, public appreciation those of values and sustainable public recreation
- be classified as an IUCN Category IV protected area (Habitat/species management area). This category covers small, semi-natural or modified ecosystems close to urban areas that require active conservation intervention for restoration and management
- be accepted as part of the National Reserve System

provided that

- the Conservation Area is set aside by a secure method enabling long-term protection
- protection of natural and cultural values, biodiversity and ecosystems is central to management aims and practice
- public use is compatible with protection of natural and cultural values.

Secure, legally-recognised establishment

The cross-border location of the West Belconnen Conservation Area poses challenges for its establishment as a secure, legally-recognised private sector conservation reserve. A possible establishment model utilising existing mechanisms for private sector conservation management in NSW and the ACT is recommended for consideration:

- a plan of management under section 318 of the *Planning and Development Act 2007* for the ACT portion which would be held as leasehold over designated 'public land' by way of an overlay provision in the Territory Plan
- a Conservation Agreement under sections 69A to 69KA of the *National Parks and Wildlife Act 1974* for the NSW portion. This might be done through a conservation land title covenant / voluntary agreement with the Nature Conservation Trust of NSW (which performs this role

in accordance with the *Nature Conservation Trust Act 2001*) and the West Belconnen Environmental Trust

Development of both arrangements would need to be an integrated process negotiated with the relevant governments covering management of the area and also incorporating any conditions related to development approvals. Common conditions for both arrangements are desirable to achieve seamless cross-border management. An 'umbrella' plan of management could then be prepared based on the details of both arrangements. The West Belconnen Environmental Trust would be responsible for its implementation.

The proposed West Belconnen Conservation Area is in the unique situation of being a privately-managed conservation area that will receive a high level of public use due to its proximity to a major population centre and part of an existing public reserve. There will need to be negotiation with governments on arrangements for regulating public use and enforcement of conservation and other regulations.

Management needs

Management of the proposed Conservation Area will encompass biodiversity protection, habitat and vegetation restoration, weed and pest control and bushfire fuel management (especially significant as the reserve will adjoin urban areas) and cultural heritage management. Best-practice conservation management will also require planning, research, monitoring and review of management effectiveness, sustainable visitor use practices, public education and awareness-raising, and opportunities for community engagement and involvement in management.

A range of funding sources for the Environmental Trust are proposed, including ACT Government contributions (in lieu of government management of the area as part of the public estate), a percentage of lot sales in NSW and sources such as donations, grants, access fees, enterprises within and outside of the Conservation Area.

The Environmental Trust will also require personnel resources to conduct conservation and visitor management, carry out operational and maintenance works, provide technical and management advice, liaise with governments and the community, administer Trust operations and budgets, and provide policy and decision-making advice. There are a range of ways in which personnel resources might be delivered – including through in-house staff, contractors, expert consultants, partnerships with institutions and NGOs and volunteer assistance.

Management planning is now required to assess the management needs of the Conservation Area and how these might best be delivered and resourced. It is recommended that this be done in two stages:

1. a **Concept Plan** that would provide a strategic guiding framework for conservation, visitor management, infrastructure development and bushfire fuel management. It would be released in draft form to obtain feedback from government and the community. It would also serve as a tool for negotiating on the Conservation Area model, funding, support and partnerships, management requirements and development conditions
2. a **Plan of Management** that would provide more detailed prescriptions and responsibilities for management. It would be guided by the Concept Plan and developed once the Conservation Area establishment model, management directions, development approval conditions and Environmental Trust staffing and support structures are determined.

Contents

1	BACKGROUND	4
1.1	Purpose of the report	4
1.2	The study area.....	4
1.3	Values.....	6
2	SUITABILITY AS A PROTECTED AREA	9
2.1	IUCN Protected Area Guidelines.....	9
2.1.1	Definition of a protected area	9
2.1.2	Protected Area Categories	10
2.1.3	Previous advice on IUCN classification of ACT reserves	11
2.2	National Reserve System	11
2.3	Conclusions on protected area suitability	13
3	A NEW MODEL FOR CONSERVATION.....	15
3.1	ACT models and initiatives.....	15
3.1.1	Background	15
3.1.2	Grant of leases for conservation.....	16
3.1.3	Plan of Management.....	17
3.1.4	Inter-government cooperation	17
3.2	NSW models and initiatives	19
3.2.1	Conservation Agreements in NSW.....	19
3.2.2	The Great Eastern Ranges Initiative.....	20
3.3	Implications for West Belconnen Conservation Area	22
3.3.1	A possible model.....	22
3.3.2	Public use – regulation and enforcement.....	22
4	MANAGEMENT REQUIREMENTS	24
4.1	The dimensions of best-practice management	24
4.2	Management capacity of the proposed Environmental Trust.....	28
5	NEXT STEPS – PLANNING FOR MANAGEMENT AND RESOURCE NEEDS.....	31
6	REFERENCES.....	33
	APPENDIX A – West Belconnen Illustrative Master Plan	35
	APPENDIX B – IUCN Protected Area Categories	36

1 BACKGROUND

1.1 Purpose of the report

This report considers the establishment and best-practice management of a Conservation Area intended to be part of the proposed West Belconnen community development project for which Riverview Projects (ACT) Pty Ltd is the project manager. The proposed development area and the Conservation Area extend across the ACT/NSW border. Some of the land within the proposed Conservation Area within the ACT is currently designated as part of the Murrumbidgee River Corridor (which includes Woodstock Nature Reserve) and as a Special Purpose Reserve in the Territory Plan. The Conservation Area proposal would augment the existing reserved land in the ACT and extend it into NSW.

The Conservation Area would be created in the context of the sustainability vision of the West Belconnen development. The project aims to create a highly sustainable community which includes community ownership and respect for ecosystem functions, the intrinsic value for the Murrumbidgee River corridor and Ginninderra Creek environments, and Aboriginal and non-Aboriginal cultural values.

The new West Belconnen Conservation Area is proposed to be a reserve held and managed by an Environmental Trust that would provide unified cross-border management and have other functions for promoting sustainability objectives, community education, fundraising and budget management. The Environmental Trust is proposed to be established as a not-for-profit public company limited by guarantee and with a Board of Directors that includes ACT and NSW Government representatives, an Indigenous representative and other members representing a range of skills and interests (such as land management). The Trust's management of the Conservation Area is proposed to be funded by a combination of developer and government contributions, grants and income earned by a range of commercial initiatives. Details of the proposed Environmental Trust structure, operations and administration are set out in a report by Elton Consulting¹.

In this report we address:

- the potential suitability of the proposed West Belconnen Conservation Area as a protected area in accordance with best-practice national criteria for conservation reserve establishment (section 2)
- ways that a secure, legally-recognised conservation reserve might be established in the ACT and NSW (section 3)
- the management needs of the proposed West Belconnen Conservation Area and implications for the Environmental Trust and required personnel and financial resources (section 4)
- next steps for moving towards a best-practice Conservation Area through a management planning process, starting with a Concept Plan (section 5).

1.2 The study area

The proposed West Belconnen Conservation Area comprises approximately 577 hectares extending on the southern side of Ginninderra Creek in NSW and south along the eastern bank of the Murrumbidgee River in NSW and the ACT to Stockdill Drive near the suburb of Holt in the ACT. The Conservation Area is part of a larger proposed development for residential and related purposes

¹ Elton Consulting (May 2014)

which is anticipated to yield approximately 6,500 dwellings in the ACT and 5,000 dwellings in NSW, eventually providing housing for about 30,000 people. In addition to potential West Belconnen residents, the Conservation Area would also open up access to the Murrumbidgee River Corridor (currently recognised as a Special Purpose Reserve in the Territory Plan) and Ginninderra Creek to the wider ACT population (projected to reach 400,000 people in by 2017 and 500,000 people by 2033). Public access to these areas is currently inhibited by the presence of private land. Indicative boundaries for the Conservation Area are shown in the Illustrative Master Plan for the West Belconnen development (see Appendix A).

The proposed Conservation Area consists of undulating cleared land, open woodland and native grasslands between 500 and 600 metres above sea level. In the west the land falls steeply to the Murrumbidgee River at about 430 metres above sea level. The steep banks form a gorge-like river landscape which has deep pools interspersed with rapids and sandy banks. Extensive stands of River Oak (*Casuarina cunninghamiana*) occur along the river. From the higher parts of the area there are



extensive attractive vistas of the river gorge and mountains to the south.

Part of the proposed Conservation Area (foreground) looking south across the Murrumbidgee River valley.

The lower part of Ginninderra Creek flows through a narrow, rocky gorge with a series of waterfalls, one of which has a drop of 41 metres. There are spectacular views of the waterfalls and the Murrumbidgee River. The sides of the gorge are covered by native forest and understorey vegetation, in contrast to the adjacent cleared landscape. This area is the site of the former Ginninderra Falls Park, a privately-owned recreation area open to the public which included walking trails and lookouts along Ginninderra Creek and the Murrumbidgee River and other visitor facilities. That park operated from the late 1990s until it was closed in 2004 following serious accidents.



Ginninderra Falls



View from above Ginninderra Creek of Murrumbidgee River downstream of the proposed Conservation Area

1.3 Values

The proposed Conservation Area contains a range of natural, cultural and social values that could be considered significant within the context of the local environment and local communities. It also contains areas of nationally significant habitat.

With the exception of the gorges on Ginninderra Creek and the Murrumbidgee River, much of the landscape within the proposed Conservation Area has been modified by stock grazing and tree removal leading to impacts on native species diversity and habitat and introduction of exotic animals and weeds. Nevertheless, that area contains nationally significant threatened species habitat (of the

Pink-tailed Worm Lizard, *Aprasia parapulchella*) and patches of a nationally listed critically endangered ecological community, White Box-Yellow-Box-Blakely's Red Gum Woodland (referred to as 'Box-Gum Woodland' in this study) that are protected under Commonwealth, ACT and NSW legislation.

While it is understood that no overall mapping or detailed assessment has been conducted of the vegetation and fauna in the Ginninderra Falls and surrounding gorge area, it is thought that the relatively intact vegetation in that area may have biodiversity and habitat value and assist in providing wildlife linkages through the region². The vegetation also provides ecosystem services in stabilising the steep slopes of Ginninderra Creek.

The lands in the proposed Conservation Area are significant for local Indigenous groups due to their evidence of past occupation and the importance of the Murrumbidgee River to the pre-settlement way of life. The area is important to the wider local community for its scenic, education, recreation and tourism potential. Ginninderra Falls in particular has been the focus of recent community activity. The Ginninderra Falls Associations has been established to lobby for the creation of a national park incorporating the Falls and surrounding land.

The values of the proposed Conservation Area are summarised in Table 1, based on the information available.

Table 1 – Values of the proposed West Belconnen Conservation Area, NSW and ACT

Value		Description
Biodiversity	Nationally significant habitat and ecological communities.	Pink-tailed Worm Lizard (PTWL) (<i>Aprasia parapulchella</i>) habitat. Listed under the ACT <i>Nature Conservation Act 1980 (NCA)</i> , NSW <i>Threatened Species Conservation Act 1995</i> and the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)</i> . The habitat consists of low rocky outcrops in grasslands. The area is an important dispersal corridor and stepping stones (isolated patches in the north) linking the significant populations along the Molonglo River in the south and populations north of Ginninderra Falls ³ . The presence of PTWL is an indicator of other reptile fauna.
		Box-Gum Woodland (White Box-Yellow-Box-Blakely's Red Gum grassy woodlands). Nationally listed as a critically endangered ecological community under the EPBC Act and under the ACT's NCA (Yellow Box-Red Gum, a subset of the national listing). The area contains remnant patches of varying quality, with a patch of high conservation value in the ACT in the south ⁴ . Under the Molonglo Valley NES Plan, the ACTG Government is committed to protection of this area ⁵ .
		Golden Sun Moth (<i>Synemon plana</i>). Listed as critically endangered under the EPBC Act and ACT NCA. There is some low quality habitat for this species and medium quality habitat in the east of the West Belconnen site ⁶ .

² NSW Office of Environment & Heritage (November 2013). This is the response to the Ginninderra Falls Association on a preliminary assessment of the Murrumbidgee-Ginninderra Gorges National Park proposal. Flora and fauna surveys conducted in 2009 covered the upstream cleared areas along Ginninderra Creek but did not include the gorge areas (Kevin Mills and Associates, January and July 2009).

³ Osborne and Wong (May 2013).

⁴ Nash and Hogg (May 2013); Kevin Mills and Associates (Jan 2009) and (July 2009).

⁵ ACT Land Planning & Development Authority (September 2011).

Value		Description
	Potential habitat for threatened fauna	Though not confirmed, the general Ginninderra Falls area may provide habitat for a range of threatened fauna including Glossy Black Cockatoo, Gang-Gang Cockatoo, Spotted-tail Quoll, Sooty Owl, Masked Owl, Booroolong Frog, Eastern Pygmy Possum, Rosenberg's Goanna ⁷ .
	Wildlife Corridor	The proposed Conservation Area would contribute to the habitat connectivity through the wider landscape. It would provide a link to the ACT's Murrumbidgee River Corridor, Molonglo River Corridor and Woodstock Nature Reserve to the south, along the Murrumbidgee River in the north and along Ginninderra Creek up to Mulligans Flat Nature Reserve.
Ecosystem Services	Catchment Protection	Conservation and appropriate management of the areas along the Murrumbidgee River and Ginninderra Creek would assist in managing impacts on water courses and water quality and associated riverine environments.
Cultural Heritage	Indigenous	<p>The general area close to the Murrumbidgee River and Ginninderra Creek would have been a preferred location for Aboriginal people due to the accessibility of water, food and material resources⁸. It is also close to a seasonal Bogong Moth site. The proposed Conservation Area in NSW and the ACT contains numerous archaeological sites, scarred trees and a rock shelter. The location of these sites is confidential.</p> <p>The general area is significant to the local Aboriginal community. Local Indigenous groups (consulted for both the NSW and ACT areas) consider that the Conservation Area and sites (particularly the larger artefact scatters, scarred trees and rock shelter) are significant because they provide a connection between past and present generations and demonstrate past use of the Murrumbidgee River.</p> <p>An archaeological assessment considered one site to be of high significance and several to be of medium scientific significance.</p>
	Historic Heritage	<p>The general West Belconnen area (and the wider Belconnen/Ginninderra area) has a history of European exploration, early pastoral settlement and encounters with Aboriginal people dating from the 1820s.</p> <p>The 1850s Belconnen Farm within the West Belconnen project area is listed on the ACT Heritage Register.</p>
Landscape	Scenic values	The area contains numerous attractive scenic vistas of the Murrumbidgee River and the scenic gorge at Ginninderra Falls which are particularly valuable close to an urban area. High voltage power lines cross the area but do not have a significant impact on the scenic outlooks.
Education		The area potentially offers resources for school and tertiary environmental, science and heritage education, and for learning by visitors.
Recreation		<p>The proposed Conservation Area has the potential to provide relaxing, healthy outdoor recreation close to an increasing ACT population.</p> <p>Ginninderra Falls has been used for recreation for many decades. The former Ginninderra Falls Park was a popular destination for ACT residents for activities such as picnicking, walking, swimming, canoeing and rock climbing.</p>
Tourism		Ginninderra Falls, the Murrumbidgee River and the Conservation Area in general have the potential to be attractions for visitors to the ACT and region.

⁶ Rowell (May 2013).

⁷ NSW Office of Environment & Heritage (November 2013).

⁸ Information on sites and significance obtained from confidential draft reports to The Riverview Group - Biosis (6 January 2013) and Biosis (10 January 2014).

2 SUITABILITY AS A PROTECTED AREA

Section 2 considers the potential suitability of the proposed West Belconnen Conservation Area as a protected area against best practice national criteria for establishment of conservation reserves. It addresses:

- **how the values and potential management of the proposed Conservation Area compares with criteria for reserve establishment**
- **the suitability of the area for establishment as a national park or other type of reserve.**

There are two broad best practice factors applied in Australia to assessment of the suitability of an area for establishment as a 'protected area':

1. the International Union for Conservation of Nature (IUCN) definition of protected area definition and categories, which represent global best practice in classification and management of reserves
2. the approach agreed by the Australian, State and Territory Governments for establishment of a National Reserve System representative of regional ecosystems throughout the country.

The proposed West Belconnen Conservation Area is considered under these two factors on the basis of existing information about the natural and cultural values of the area.

2.1 IUCN Protected Area Guidelines

2.1.1 Definition of a protected area

The first step in applying the IUCN categories system is to determine whether an area can meet the definition of a 'protected area', which is:

A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values⁹.

To meet this definition the Conservation Area would need to have the following features and management regime:

- **a clearly demarcated border** between the urban zone and the Conservation Area. This appears to be the intention in the Draft West Belconnen Master Plan. The difference in use across the boundary would need to be maintained in practice – it is understood that this will be achieved by a statutory land use zoning process
- **recognised status as a protected area set aside for conservation.** The IUCN considers this might be achieved in a variety of ways - such as declaration by government or government acknowledgement of a private reserve (such as through a conservation agreement or under the National Reserve System). Recognition might also be sought through listing on the World Database on Protected Areas (WDPA)

⁹ Dudley (2008).

- binding commitment to conservation that is **recognised legally and intended for the long term** – such as through a government law or the purposes of a private trust
- implementation of **management measures to achieve conservation**. The IUCN is placing an increasing emphasis on management effectiveness
- **conservation** (as relevant) of **biodiversity, natural features and other natural values** and associated **ecosystem services** (such as soils, nutrients, water) and **cultural values** that contribute to conservation outcomes.

2.1.2 Protected Area Categories

There are seven IUCN Protected Area Categories, summarised in Appendix B. As the West Belconnen Conservation Area is likely to be intended for a combination of conservation and public recreational and educational use, only two of the IUCN categories are relevant – Category II National park and Category IV Habitat/species management area.

2.1.2.1 Category II protected areas (national parks)

Category II areas (National parks) are large natural areas or near natural areas that protect large scale ecological processes and the associated complement of species and ecosystems. They are intended to be:

- of sufficient size and ecological quality to maintain ecological functions and processes that allow native species and communities to persist in the long term with minimal management intervention
- to have largely natural biodiversity or have the potential for biodiversity to be restored with relatively low risk of invasion by non-native species.¹⁰

In Australia, national parks tend to be large natural areas with outstanding natural or cultural values and landscapes. In NSW, the *National Parks and Wildlife Act 1974* describes the purpose of reserving land as a national park as

to identify, protect and conserve areas containing outstanding or representative ecosystems, natural or cultural features or landscapes or phenomena that provide opportunities for public appreciation and inspiration and sustainable visitor or tourist use and enjoyment (s.30E).

The proposed Conservation Area is not suitable for a national park due to its small size (about 577 hectares) and the extent to which natural ecosystems and biodiversity have been modified through clearing and stock grazing. Significant management intervention will be required to protect remnant biodiversity, rehabilitate the area and manage invasion by non-native species from the adjoining urban areas.

2.1.2.2 Category IV protected areas (habitat/species management areas)

Category IV areas are intended to protect and restore small or semi-natural areas, habitat fragments (such as threatened species habitat) or modified ecosystems. Active conservation intervention may be needed to manage or restore species and ecosystems. Public education and appreciation and access to nature by urban residents can be part of the aims of category IV protected areas. Category IV areas may include management of culturally-defined ecosystems.¹¹

¹⁰ Guidelines for Category II protected areas in Dudley (2008).

¹¹ Guidelines for Category IV protected areas in Dudley (2008).

The proposed **West Belconnen Conservation Area best fits within Category IV**. While much of the area is highly modified, it contains habitat for a nationally significant threatened species and a nationally significant endangered ecological community and a less modified area of natural forest at Ginninderra Falls. Intervention will be required for habitat and overall ecosystem management, restoration and control of invasive species. Protection of Indigenous cultural values associated of the Murrumbidgee River and sites in the area would align with general conservation of natural values.

Public recreational use and appreciation of nature is compatible with this category. However, due to the closeness of the urban area, public use would need to be managed to ensure it does not impact negatively on conservation of natural and cultural values.

2.1.3 Previous advice on IUCN classification of ACT reserves

Advice was provided to the ACT Commissioner for Sustainability and the Environment in 2011 on the classification of some of the ACT's reserves (Canberra Nature Park, Molonglo River Corridor and Foreshores) according to IUCN categories¹². While that assessment did not specifically cover the West Belconnen area, its conclusions on the application of **Category IV** in the context of small ACT reserves broadly align with our conclusions on West Belconnen Conservation Area as follows:

[Category IV] is highly suited for protecting small remnant patches of habitat as part of a landscape scale approach and aligns well with the Canberra Nature Park reserves which are largely remnant patches of Southern Tableland Ecosystems. In particular this category allows for public recreation and scientific research, but in key areas active management action is targeted to maintain a specific ecosystem or species. An intervention such as the action to reintroduce threatened species at Mulligans Flat woodland sanctuary is just one example. And they can play a key role for facilitating species movement such as providing stepping-stones in a connectivity conservation corridor or broader landscape ecosystem function.

2.2 National Reserve System

The current approach to protected area establishment in Australia is contained within *Australia's Strategy for the National Reserve System 2009-2030* developed collaboratively by all Australian States and Territories¹³. It is linked to Australia's international obligations under the UN Convention on Biological Diversity.

The approach centres around establishment of a National Reserve System, a national network of well-managed public, Indigenous and private protected areas that protect Australia's biodiversity in a comprehensive, adequate and representative manner. The aim is to reserve samples of viable ecosystems within each bioregion of Australia as defined in the Interim Biogeographic Regionalisation for Australia (IBRA) – the latest categories being 89 bioregions and 419 subregions based on climate, geology, landform, native vegetation and species. Overall targets include:

- protection of examples of at least 80% of all regional ecosystems in each bioregion by 2015 and in each subregion by 2025
- protection of core areas for long-term survival of threatened ecosystems and threatened species habitat in each bioregion by 2030.

¹² Pulsford (May 2011).

¹³ Natural Resource Management Ministerial Council (May 2009)

The targets are supported by a range of other measures which include conservation of ecosystems across the landscape (such as corridors enabling movement of species across the landscape).

Each State and Territory has set targets, priorities and strategies for building the National Reserve System within its boundaries, giving priority to under-represented bioregions and ecosystems where there is a high risk of loss. Under nationally agreed guidelines all jurisdictions seek to establish a reserve system that is comprehensive, adequate and representative¹⁴). The ACT has an extensive conservation reserve system which makes an important contribution towards meeting these criteria. The ACT 's reserves include the Murrumbidgee River Corridor, numerous urban and peri-urban parks that protect many of the area's remnant natural ecosystems and the large Tidbinbilla Nature Reserve and Namadgi National Park that, with the adjoining Kosciuszko and Brindabella National Parks in NSW) form an extensive area protecting montane, subalpine and alpine landscapes.

Australia's Strategy for the National Reserve System sets out standards for inclusion of protected areas in the National Reserve System. Table 2 compares the proposed West Belconnen Conservation Area with the National Reserve System standards.

Table 2 – Assessment of proposed West Belconnen Conservation Area against National Reserve System standards

National Reserve System Standard	Comments relevant to proposed West Belconnen Conservation Area
<p>Must enhance the comprehensiveness, adequacy and representativeness of the National Reserve system</p>	<p>The proposed Conservation Area would contribute to aims of the National Reserve System at a small scale:</p> <ul style="list-style-type: none"> • by protecting threatened species habitat for the PTWL and remnant areas of BGW endangered ecological community • by contributing to landscape scale conservation by adding to the wildlife corridor along the Murrumbidgee River, some of which is already protected. <p>The area is part of the South Eastern Highlands Bioregion. Its potential contribution to the percentage of representative ecosystems reserved in that bioregion is unknown. While similar ecosystems, PTWL habitat and Box-Gum Woodland are reserved in the ACT in the Murrumbidgee Corridor and Molonglo River Corridor, the proposed West Belconnen Conservation Area is considered to provide a vital connection between PTWL population to the south and north.</p> <p>Part of the proposed Conservation Area located in NSW was included in a proposal for a national park submitted to the NSW National Parks and Wildlife Service (NPWS) by the Ginninderra Falls Association. While a preliminary assessment by NPWS indicated the area would be a 'useful addition to the NSW reserve system', it was not considered a priority for purchase and management as a conservation reserve in NSW (partly due to the costs involved)¹⁵. The NSW National Parks Establishment Plan indicates that the priority for the South Eastern Highlands Bioregion is to build up existing reserves to improve their long-term viability and management¹⁶.</p>

¹⁴ Commonwealth of Australia (1999)

¹⁵ NSW Office of Environment & Heritage (November 2013). Sourced on Ginninderra Falls Association website.

¹⁶ NSW NPWS (2008).

National Reserve System Standard	Comments relevant to proposed West Belconnen Conservation Area
Must be established and managed for the primary purpose of protection and maintenance of biological diversity with associated ecosystem services and cultural values	<p>To meet this standard the Conservation Area will need to put management of natural and cultural values at centre stage. Public access and use will need to be compatible with protection of natural and cultural values. This might be achieved through:</p> <ul style="list-style-type: none"> • the types of use permitted (e.g. limitations on motor vehicle access, domestic animals) • zoning into conservation, public use and (possibly) commercial activity areas with different intensity of activities, facility types and management measures • provision of infrastructure and facilities to manage use and potential impacts (such as walking tracks, toilets, information and interpretation).
Must be secured through legal or other effective means	<p>For publically managed reserves this would be reservation under conservation legislation.</p> <p>Effective means for securing private reserves include contracts, covenants and agreements that provide for long-term management (at least 99 years) and have a process for revoking the protected area or excising portions.</p> <p>Indigenous Protected Areas (which are not relevant to West Belconnen) must have customary law protection with Traditional Owners holding a non-transferable interest in the land.</p>
Must be classified and managed in accordance with one or more IUCN categories	<p>The most applicable IUCN protect area category is Category IV Habitat/species management areas. This requires active management of conservation values and compatible public access and use.</p>
Must be adaptively managed to minimise loss of biodiversity values	<p>Management of the proposed West Belconnen Conservation Area will need to focus on minimising loss of values and responding to impacts or threats. Adaptive management includes appropriate research, regular monitoring of ecosystem condition and public use, management planning, public information and enforcement</p>
Effectiveness of management must be monitored and evaluated in a manner open to public scrutiny	<p>Publically available annual reports or other periodic reports are accepted methods of management effectiveness reporting. Performance indicators (which are linked to monitoring) will need to be set against which to measure management effectiveness over time.</p>
The area must be able to be accurately identified on maps and on the ground	<p>This appears to be the intention in the Draft West Belconnen Master Plan. Particular attention needs to be given to definition of the boundaries on the ground and the distinction between activities allowed in the urban area and the Conservation Area.</p>

2.3 Conclusions on protected area suitability

The proposed West Belconnen Conservation Area has the potential to:

- contribute to biodiversity conservation, the protection of other natural and cultural values, public appreciation those of values and sustainable public recreation
- be classified as an IUCN Category IV protected area (Habitat/species management area)
- augment the existing reserve network in the ACT (recognising proximity to Woodstock Nature Reserve and part of the Murrumbidgee River Corridor) and NSW and to be accepted as part of the National Reserve System

provided that

- the Conservation Area is set aside by a secure method enabling long-term protection
- protection of natural and cultural values, biodiversity and ecosystems is central to management aims and practice
- public use is compatible with protection of natural and cultural values.

The National Reserve System standards encapsulate best management approaches for protection of biodiversity (such as adaptive management and management effectiveness monitoring) which are desirable for contemporary protected area management, even if National Reserve System status is not achieved.

3 A NEW MODEL FOR CONSERVATION

Section 3 considers potential models and issues connected to secure, legally-recognised establishment of the proposed West Belconnen Conservation Area as a best-practice, cross-border protected area.

The Australian Government's National Reserve System funding has been a major catalyst in building a strong private land trust sector that conducts conservation management on private reserves. As a result of limited state and federal government funding for the establishment of new reserves, there is now a growing network of private nature reserves across Australia established in partnership with not-for-profit organisations and community trusts.

3.1 ACT models and initiatives

3.1.1 Background

The ACT's land tenure system and the roles and relationships of the ACT, Commonwealth and NSW Governments provide a legislative and policy framework and potential precedents for how a West Belconnen Conservation area might be established and managed by an Environmental Trust.

In summary, all land within the borders of the ACT is government land stemming from the establishment of the Territory by the Commonwealth Government for the purposes of establishing a national capital. Since self-government, land in the ACT is (in most cases) managed by the ACT Government under legislative arrangements developed at self-government. There is no freehold land in the ACT, where land is ultimately held by the government and leased to private individuals and corporations.

Since ACT self-government, land planning and development occurs under a dual administrative system involving the Commonwealth Government (through the National Capital Authority) and the ACT Government (through the ACT Planning and Land Authority). Planning and land development is subject to the Commonwealth's National Capital Plan (which sets out principles and policies for the development of the ACT in accordance with its status as the national capital) and the ACT Government's Territory Plan (a statutory document which sets out details for the development and management of land which must not be inconsistent with the National Capital Plan). The Murrumbidgee River Corridor and the Molonglo River Corridors are designated under both Plans for the environmental protection and sustainable use, as part of the ACT Open Space System.

Major implications for the West Belconnen Conservation Area are:

- the form of tenure of a West Belconnen Conservation Area managed by an Environmental Trust within the ACT is proposed to be leasehold
- the planning and management of the Conservation Area within the ACT will need to take account of the planning prescriptions in the Territory Plan related to the Murrumbidgee River Corridor within the Conservation Area. The National Capital Authority will also have an overview interest in planning for the area due to the designation of the river corridor under the National Capital Plan
- it is proposed that the National Capital Plan be amended to expand the Murrumbidgee River Corridor boundaries to align with the proposed boundaries of the Conservation Area along the river.

Due to the ACT's location surrounded by NSW land, various cross-border arrangements between the ACT and NSW Governments have been established for resource management (such as water resources) and regional settlement. Such cross-border arrangements may provide precedents and principles for the development of a cross-border West Belconnen Conservation Area.

3.1.2 Grant of leases for conservation

There is provision for leases in the ACT to be granted in part for conservation purposes and for conservation management planning and other conservation requirements to be specified under the lease conditions. The objective of a lease under the ACT's *Planning and Development Act 2007* can include 'to contribute to the environment, or social or cultural features in the ACT' or 'to facilitate the achievement of a major policy objective' (s.240(4)).

For example, the National Centre for Christianity and Culture in Barton was issued with a lease which included a clause that required the development of a Conservation Management Plan approved by the Conservator of Flora and Fauna in relation to protection of the native grasslands on the site.

While not an optimal model for the proposed West Belconnen Conservation Area, another example is a rural lease at Williamsdale held by ACTEW and managed as an environmental offset to compensate for the vegetation and habitat losses related to the construction of the M2G water pipeline from the Murrumbidgee River (at Angle Crossing) to Burra Creek in NSW (from where the transferred water would flow downstream into Googong Dam). Environmental management of the Williamsdale area (about 200 hectares in area) is conducted under a Land Management Agreement with the ACT Government under section 238 of the ACT *Planning and Development Act 2007*.

While the Williamsdale rural lease example is not as a suitable model for the West Belconnen Conservation area, it is of interest because it involved an integrated, cross-jurisdictional set of approvals related to threatened species/communities protected under ACT, NSW and Commonwealth legislation (similar to the situation at West Belconnen). The cross-jurisdictional approval process included:

- a joint ACT/NSW Environmental Impact Statement / Preferred Project Report
- a Commonwealth Public Environment Report (Commonwealth)
- Statutory Conditions of Approval from the Commonwealth, ACT and NSW governments
- a Biodiversity Management and Offset Plan in accordance with the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (approved by the Commonwealth)
- a Compensatory Habitat Offset Management Plan (approved by the ACT)

The Land Management Agreement¹⁷ for the lease provides a framework for land, environmental, conservation and bushfire fuel management that is compatible with the above statutory approvals.

The Williamsdale conservation operation is at a much smaller scale than would be needed at West Belconnen and does not involve extensive public use. An ACTEW project manager oversees management and arranges contracts for on-ground works and monitoring and liaising with the relevant government authorities.

ACTEW sees the Land Management Agreement as an interim arrangement. It has a long term goal for the offset areas to be transferred to the ACT Government for management as public land that is part of the adjacent Murrumbidgee River Corridor. This will require the agreement of the ACT Government and an amendment to the Territory Plan.

3.1.3 Plan of Management

To establish a best-practice West Belconnen Conservation Area a plan of management will be required as a framework for consistent and effective management of conservation values and public use. Publically owned and managed protected areas typically include a statutory requirement for plans of management. Management plans are also a typical requirement in voluntary arrangements for private conservation between private interests (such as landholders, trusts) and governments.

In the ACT, there are requirements for plans of management to be developed by ‘custodians’ of public land or unleased land under section 320 of the *Planning and Development Act 2007*. In order for this provision to apply to the West Belconnen Conservation Area and Environmental Trust, it is proposed that the area be classified as ‘public land’ by way of an overlay provision in the Territory Plan in accordance with section 314 of the Act. This in turn would trigger a requirement for the preparation of a plan of management by the ‘custodians’ of the ‘public land’.

3.1.4 Inter-government cooperation

There are lessons for developing the West Belconnen Conservation Area to be learned from cooperative processes and arrangements adopted in the past between the ACT and other jurisdictions from conservation management.

3.1.4.1 Molonglo Valley planning

The ACT and Commonwealth Governments undertook cooperative planning for the Molonglo River area where the new Molonglo community of a projected 55,000 people is being developed. This involved both the National Capital Authority (as the Molonglo River Corridor is designated under the National Capital Plan) and the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (due to the presence of nationally threatened species and ecological communities listed under the Commonwealth’s EPBC Act and under ACT legislation).

The process included assessment and high level planning between 2008 and 2011 for the protection of Matters of National Environmental Significance (MNES) in the lower Molonglo Valley at East Molonglo (the site of the Molonglo community) and the West Molonglo area, part of which is now within the West Belconnen development area. The process is of interest due to the integrated consideration of the requirements of the ACT and Commonwealth Governments.

¹⁷ Land Management Agreement between ACTEW Corporation Limited (the lessee) and the Territory as represented by the Conservator of Flora and Fauna, Block 1975, District of Tuggeranong, 12 March 2010.

The MNES involved are White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland, Pink-tailed Worm Lizard (both of which occur in the West Belconnen Conservation Area), Natural Temperate Grassland of the Southern Tablelands of NSW and the ACT, the Superb Parrot) and the Swift Parrot.

The Commonwealth and ACT Governments conducted the process as a 'strategic assessment' under Part 10 of the EPBC Act which involved a public exhibition process for the draft Strategic Assessment Report of development impacts and management proposals. It resulted in the NES Plan¹⁸ which identifies that ACT Government's commitments and undertakings for management of the MNES, which include:

- development boundary variations and location of infrastructure at East Molonglo to minimise the impact on MNES values
- establishment of Molonglo River Park as an 'offset site' along the Molonglo river corridor to provide for conservation and recreation
- a commitment to avoid impacts on the Box-Gum Woodland at West Molonglo, to maintain and enhance those values, and to set those areas aside as a nature reserve should residential development occur in the area in the future. This commitment is directly relevant to the proposed West Belconnen Conservation Area
- bushfire risk management that both meets the fuel load standards in the ACT's Strategic Bushfire Management Plan to protect built assets and the protection of MNES values through sympathetic management.

The NES Plan also requires that the detailed planning for Molonglo River Park be undertaken in two stages:

- the first stage will be a Concept Plan that will establish management zones and identify areas for conservation, recreation and public access. This Concept Plan has now been completed. It included an extensive consultation process and public exhibition of the draft
- the second stage is development of a statutory management plan that must include provision for long-term management of White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Pink-tailed Worm Lizard. This management plan is currently being developed.

¹⁸ ACT Planning & Land Authority (September 2011)

3.1.4.2 Googong Foreshores

Googong Foreshores is a 5,089 hectare reserve surrounding and including Googong Dam, a water supply dam for Canberra located within NSW state boundaries. The land was acquired by the Commonwealth Government in 1973 for the purposes of constructing the dam. The dam and its foreshores remain part of NSW.

Management of the foreshores and water supply is conducted by the ACT Government and ACTEW respectively in accordance with the Commonwealth's *Canberra Water Supply (Googong Dam) Act 1974* and the Memorandum of understanding between the Commonwealth, ACT and NSW Governments on cross border water supply. Googong Foreshores reserve has similar values to the proposed West Belconnen including biodiversity importance (such as the presence of several threatened species), historic heritage and a range of recreational activities which include walking, cycling, boating and fishing¹⁹. The reserve is managed by the ACT Parks and Conservation Service under the cross-border arrangements. This includes an ACT ranger presence.

NSW legislation applies in the Googong Foreshores reserve to the extent it is consistent with the *Canberra Water Supply (Googong Dam) Act 1974*. This includes the application of NSW fishing regulations.

3.2 NSW models and initiatives

3.2.1 Conservation Agreements in NSW

Recognising that it is no longer enough to rely on national parks and public reserves to safeguard populations of threatened animals and plants, the Nature Conservation Trust (NCT) of NSW and other not-for-profit organisations around Australia endeavour to establish private reserves through buying, selling and protecting properties of high conservation value, and supporting the owners to maintain and enhance their land's ecological values through conservation covenants. In some cases these private reserves are recognised as part of Australia's National Reserve System.

For example, the NCT's main mechanism to conserve the biodiversity found on privately-owned rural land in NSW is a legally binding conservation agreement (also known as a conservation land title covenant). This conservation agreement is developed in consultation with an individual land owner and tailored to suit their particular rural acreage.

A conservation land title covenant is a voluntary agreement with the NCT that helps the land owner to protect and enhance the natural values of their property. The land covenant can apply to all or part of the property and can only be terminated with the consent of the NCT Board. Most properties covered by a Trust Agreement can be used for any sustainable/minimal environmental impact business activities, such as ecotourism.

In NSW, Conservation Agreements are recognised in sections 69A to 69KA of the *National Parks and Wildlife Act 1974* (the NPW Act). A Conservation Agreement may be entered into for areas that contain:

- scenery, natural environments or natural phenomena
- areas worthy of preservation
- places of special scientific interest
- sites of buildings, objects, monuments or events of national significance

¹⁹ ACT Parks and Conservation Service (no date).

- Aboriginal objects or places of special significance.

An Agreement may also be entered into for the purposes of:

- study, preservation, protection, care or propagation of native animals or plants
- study, preservation, protection or care of karst (limestone) environments
- conservation of critical habitats or threatened species, populations or communities.

The land covenant has legislative weight under the *Nature Conservation Trust Act 2001* and can be enforced by the Land and Environment Court. Because the covenant is registered on the property title, any future owners are legally bound to uphold it. This ensures that the environmental integrity and biodiversity of a property is protected in perpetuity.

Under this model, the NCT is responsible for ensuring the property owner's compliance with the conservation land title covenant. An important component of the conservation land covenant is the detailed plan of management, which sets out a 100-year vision for the conservation of the land under the agreement. It includes the conditions the land owner must observe in accordance with the conservation covenant and strategies to assist them to manage the land sustainably, possibly even further improve its biodiversity. The plan of management is designed to complement existing environmental legislation, which continues to apply to the covenanted land.

Grant funding is available from NSW local land services and government agencies from time to time. Funding may also be available from the 'Conservation Partners' small grants program run each year by the Nature Conservation Trust, National Parks Foundation, Paddy Pallin Foundation, Humane Society International and NSW Office of Environment and Heritage.

The typical process for obtaining a conservation land covenant involves the following steps:

1. The property owner lodges an application for a land covenant with the NCT.
2. The NCT assesses the property's suitability against its conservation criteria.
3. If the application is successful, the owner meets with NCT staff to discuss land management options for the conservation area.
4. NCT scientific staff then conduct biodiversity surveys of the property and establish ecological and wildlife monitoring points.
5. The NCT prepares a draft land title covenant (conservation agreement) and draft plan of management for the property. The land owner discusses the terms and can propose changes to the documents. At this stage, it is recommended that the land owner also seek independent legal advice.
6. A surveyor surveys the conservation area and prepares a survey diagram.
7. The conservation land covenant agreement and plan of management are signed by both parties.
8. The conservation agreement is lodged with the Department of Lands and registered on the certificate of land title for the property.
9. The land owner is included in the NCT environmental stewardship program.
10. The NCT makes periodic site visits to monitor the property's ecology and conservation management.
11. The plan of management for the conservation property is reviewed within five years.

3.2.2 The Great Eastern Ranges Initiative

The West Belconnen Conservation Area falls within the boundaries of the Great Eastern Ranges Initiative (GER). This program brings people and organisations together to protect, link and restore

healthy habitats over 3,600 kilometres from Western Victoria through NSW and the ACT to far North Queensland. It is one of the largest conservation partnership projects in the world.

It aims to support biodiversity by creating opportunities for species in the corridor to move, adapt and survive the environmental challenges that threaten them. The region comprises the most biologically diverse landscapes on the continent and includes the most extensive network of protected areas and natural habitats in Eastern Australia.

The program involves:

- working with partners to expand the protected area system, through both public and private land conservation which forms the backbone of conservation efforts in the landscape
- facilitating projects that create physical linkages and buffer zones across the landscape. This includes protecting existing linkages and the restoration and re-vegetation of degraded areas
- collaborating with partners and landholders to improve land management practices throughout the corridor so that different land uses become compatible with conservation whilst remaining economically sound
- running a range of programs through GER partners that aim to increase community knowledge of conservation and the biodiversity of the GER corridor.

The GER area is spatially divided into priority regions. The West Belconnen Conservation Area falls within the Kosciuszko to Coast Region (K2C). K2C has recently expanded its boundary to the north to include more of the Murrumbidgee River catchment and south to include the Monaro grasslands. The area includes the ACT and extends north to Yass.

The K2C partnership focusses its effort on private and public lands where landholders are interested in a cooperative and voluntary arrangement. It works with the following partners to achieve its objectives:

- Bush Heritage Australia
- NSW Office of Environment and Heritage
- Greening Australia, Capital Region
- Molonglo Catchment Group
- Murrumbidgee Catchment Management Authority
- Nature Conservation Trust (NCT) NSW
- Upper Murrumbidgee Landcare Committee
- Friends of Grasslands
- Upper Murrumbidgee Catchment Coordinating Committee
- Southern Rivers Catchment Management Authority
- ACT Government - Environment and Sustainable Development, Territory and Municipal Services Directorate.

The NCT has partnered with GER to advocate nature conservation as a legitimate and vital use of private land through covenant programs within the GER corridor. The West Belconnen Conservation Area is likely to be considered as a candidate area for a Conservation Agreement under this initiative.

3.3 Implications for West Belconnen Conservation Area

3.3.1 A possible model

A possible model for establishing the cross-border West Belconnen Conservation Area managed by an Environmental Trust may include one or more of the following options:

For the ACT portion

- a lease for conservation purposes incorporating conditions for conservation management issued by the Conservator of Flora and Fauna
- a plan of management developed under section 318 of the *Planning and Development Act 2007* (which would be enabled by an overlay provision in the Territory Plan designating the area as 'public land') and which could incorporate the requirements of the conservation lease

For the NSW portion

- a Conservation Agreement under sections 69A to 69KA of the *National Parks and Wildlife Act 1974* for the NSW portion. This might be done through a conservation land title covenant / voluntary agreement with the Nature Conservation Trust and the West Belconnen Environmental Trust. The land covenant would then be recognised as forming part of the Great Eastern Ranges initiative. A plan of management would be developed in accordance with the conservation agreement requirements.

Development of these cross-border arrangements would need to be an integrated process negotiated with NSW and the ACT covering management planning for the whole area and also incorporating any conditions related to development approvals. The Commonwealth Government may need to be consulted due to the presence of nationally listed threatened species and also the Murrumbidgee River Corridor designated under the National Capital Plan. Common conditions for both arrangements are desirable to achieve seamless cross-border management.

An 'umbrella' plan of management could then be prepared based on the details of both arrangements. The West Belconnen Environmental Trust would be responsible for its implementation.

Under this model the West Belconnen Conservation Area would be established as a result of a unique partnership between NSW and ACT governments, the private and not-for-profit sectors and would make a significant contribution to the protection of biodiversity in the Great Eastern Ranges and to Australia's national reserve network.

3.3.2 Public use – regulation and enforcement

As far as we can ascertain, NSW Conservation Agreements have not been applied to properties with a high level of public access and use. The proposed West Belconnen Conservation Area is in the unique situation of being a community conservation area that will receive a high level of public use due to its proximity to a major population centre.

This raises the issue of effective regulation of public use in a private conservation reserve. While facility design, public education and public participation in management can be significant ways of gaining public compliance with conservation objectives, the ability to enforce regulations is an important tool to protect values and counteract anti-social behaviour. In publically gazetted

protected areas enforcement is carried out by rangers who have enforcement powers designated under legislation.

We suggest that innovative arrangements for regulating public use and enforcement of regulations where necessary should be explored with NSW and the ACT. Preliminary ideas that might be explored are:

- enabling West Belconnen Environmental Trust ranger staff to enforce the relevant NSW and ACT conservation and protected area legislation such as undertaken for Googong Reserve in NSW. This would require amendment of legislation;
- funding by the West Belconnen Environmental Trust of ACT/NSW ranger staff to act as rangers for the West Belconnen Conservation Area. This may also require legislative amendment to enable ACT/NSW rangers to operate in a non-government protected area. Cross-border cooperative arrangements are also desirable so that management can occur seamlessly across the border.

4 MANAGEMENT REQUIREMENTS

Section 4:

- explores the potential management actions that may be required in the West Belconnen Area if it is to operate as a best-practice, sustainable protected area
- broadly considers the personnel and resources needed by the proposed Environmental Trust to manage the Conservation Area.

4.1 The dimensions of best-practice management

Management of best-practice protected areas by private or community organisations (such as trusts) is envisaged under the IUCN protected area guidelines and the National Reserve System standards. However, the proposed Environmental Trust's management of the proposed West Belconnen Conservation Area will pose particular challenges associated with its proximity to an urban area and management of public access and use.

A best-practice management approach should include:

- planning, including identification of natural and cultural values and development of strategies for their protection
- strategies and actions (agreed with the relevant governments) for threatened species and ecological community management and restoration
- improving the overall environmental condition of the area and its provision for sustainable visitor use. This will include weed, pest and bushfire management, vegetation and habitat restoration and revegetation
- zoning for different uses and activities, particularly in relation to conservation and recreation purposes
- a landscape approach that promotes connectivity between vegetation and habitat corridors and other protected areas across the landscape, such as the adjoining Murrumbidgee River Corridor, Woodstock Nature Reserve and Ginninderra Creek
- effective public communication, information about public use and other requirements and interpretation of values
- effective resourcing and enforcement of management approaches and regulations
- involvement of the community in management through partnerships
- adaptive management – which involves monitoring and review of reserve condition followed by any necessary management changes to deal with identified issues.

The ACT Commissioner for Sustainability and the Environment has recommended management actions to improve the condition of Canberra Nature Park, the Molonglo River Corridor and Googong Foreshores - areas which have experienced similar environmental impacts to West Belconnen²⁰. These recommendations are worth considering when developing management strategies for the West Belconnen Conservation Area. The recommendations include monitoring techniques for landscape function (soil health and biophysical soil processes), assessment of bushland health and

²⁰ Cooper (July 2011).

landscape condition values (such as weediness, amount of bare ground, soil disturbance)²¹ that might be considered as a way to provide a snapshot of condition as a baseline for monitoring.

Table 3 summarises challenges and requirements likely to be encountered in management of the proposed Conservation Area. Ideas on potential management approaches are provided. These are meant to be indicative of approaches taken in other conservation reserves to provide an idea of the dimensions of management requirements.

Table 3 – Potential management requirements for the proposed West Belconnen Conservation Area

Challenge / Requirement	Implications for proposed West Belconnen Conservation Area	Potential Approaches
General management and operations		
Planning	Best practice conservation reserve management requires development of periodic plans of management that set out a scheme and priorities for management of values and visitors and for monitoring and performance assessment.	A plan of management (reviewed every 5 to 10 years) should be developed. There is a need for access to management expertise to evaluate management, assist the Environmental Trust make management decisions and liaise with governments, agencies, NGOs and the public.
Personnel	Depending on the scope of activities in the Conservation Area, personnel will be needed for administration, planning, management, ranger-type activities, scientific research and monitoring and visitor services and activities and financial management.	Personnel resources can be sourced in a range of ways: <ul style="list-style-type: none"> • in-house staff • contracts • partnerships with parks agencies, NGOs, institutions • volunteer activities • leases and licences.
Financial resources	Funds will be required for reserve management, operations and visitor activities.	Potential funding sources include: <ul style="list-style-type: none"> • ACT and NSW contributions • parking charges • charges for particular activities, services, merchandise • leases and licences for provision of services, tours • grants (e.g. for infrastructure, conservation activities) • donations (e.g. from individuals, through a Foundation) • sponsorship • partnerships with government agencies, catchment management authorities, NGOs (which might assist through in-kind resources) • biodiversity/carbon offsets.
Information and communication	Best practice and visitor expectations require information about conservation reserves and visitor access to be readily available.	A website and social media links are desirable. Access to personnel with communications expertise is desirable.

²¹ Sharp (March 2011).

Challenge / Requirement	Implications for proposed West Belconnen Conservation Area	Potential Approaches
	Public communications will be required about changed conditions, emergencies, consultation.	
Split jurisdiction between NSW and the ACT	The NSW/ACT border splits the proposed Conservation Area and the West Belconnen development area. Different suite of conservation, heritage and other legislation, regulations and policies in each jurisdiction. Added complexity for management.	Arrangements for cross-border consistency and collaboration need to permeate all levels of activity.

Biodiversity, nature conservation and land management

Bushfire management	A critical requirement due to the proximity to the Brindabella Ranges and forested areas which have been ignition sites for major fires that have spread to Canberra. Specific requirements for Asset Protection Zones and their fuel load management under the ACT's <i>Strategic Bushfire Management Plan</i> . Potential conflicts between bushfire fuel management and biodiversity objectives will need to be considered and management solutions developed.	Bushfire and Asset Protection Zone management actions agreed with the ACT and NSW governments and incorporated in the management plan for the Conservation Area. Funding for bushfire fuel management will need to be allocated.
Pest species management	Specific requirements for control of noxious and environmental weeds and feral animals under NSW and ACT legislation. Controls also desirable to improve environmental condition and biodiversity.	Control actions agreed with ACT and NSW and incorporated into the plan of management for the Conservation Area. Detailed sub-plans for control may be needed. Monitoring of control results. Actions may need to be adjusted over time. Allocated funding for control actions.

Challenge / Requirement	Implications for proposed West Belconnen Conservation Area	Potential Approaches
Threatened species management	Specific management requirements may be part of the development approvals from the Commonwealth, NSW and ACT in relation to PTWL, Box-Gum Woodland and Golden Sun Moth habitat. Management will need to comply with National Recovery Plans for these species/communities.	Management actions incorporated into the management plan for the Conservation Area. There may need to be specific sub-plans. Allocated funding for implementation. Monitoring of results.
Rehabilitation and restoration	Restoration of native vegetation will contribute to biodiversity, connectivity corridors, erosion control and the appearance and amenity of the area. The implications for bushfire fuel	Development of a strategic approach in the plan of management for the Conservation Area. A detailed restoration sub-plan may be needed. Community volunteers, NGOs and

Challenge / Requirement	Implications for proposed West Belconnen Conservation Area	Potential Approaches
	management and fuel loads in Asset Protection Zones will need to be considered. This will be a major issue for the Box-Gum Woodland	catchment management authorities may assist with restoration and provide advice. Monitoring of results.
Research	Desirable to gain more information on the area, provide technical advice and information on the outcomes of management actions.	Partnerships with education and research institutions.
Monitoring and review of conservation management	Important feature of best-practice management.	Indicators in plan of management. Use of education and research institutions and community volunteers for monitoring.
Cultural heritage management		
Protection of Indigenous heritage	The general area and some sites are significant to local Indigenous people.	Consultative arrangements for involvement of the relevant Indigenous groups in protection and management of their heritage. Indigenous staff/rangers. Encourage understanding and appreciation in the general public through interpretation and education. Incorporation of management actions in the plan of management.
Protection of Indigenous archaeological sites/artefacts	Numerous sites scattered through the landscape, with management recommendations provided by Biosis. ACT and NSW legislation applies. Approval may be required for some activities. Some sites may be sensitive to public disturbance.	Manage sites and material in accordance with any legislative requirements, archaeological significance and the wishes of Indigenous groups. Partnerships with archaeological and Indigenous experts and groups. Develop conservation management plans and incorporate actions in the plan of management for the Conservation Area. Zone areas or locate infrastructure and activities away from sensitive sites. Encourage understanding and appreciation in the general public through interpretation and education.
Protection of historic heritage	Heritage assets include some significant places related to the early European occupation and use of the land, including by the explorer Charles Sturt.	Protect any heritage listed structures/places in accordance with the relevant ACT and NSW legislation. Develop conservation management plans and incorporate actions into the plan of management for the Conservation Area. Partnerships with heritage agencies and NGOs. Encourage understanding and appreciation in the general public through

Challenge / Requirement	Implications for proposed West Belconnen Conservation Area	Potential Approaches
		interpretation and education.
Monitoring and review of heritage management	Important feature of best-practice management.	Indicators in plan of management. Use of education and research institutions and community volunteers for monitoring.
Public use		
Provision of infrastructure and facilities	Car parks, roads, tracks, lookouts, picnic areas, shelters, water, events areas and other facilities will be required to provide for visitors and management of environmental impacts. Due to the closeness of urban areas and the likely number of visitors, roads and tracks will be important to control erosion and vegetation damage, route visitor activities in the desired locations and provide access for management and fire control purposes.	Plan infrastructure according to a plan of management that zones the reserve for different levels of activity and impact.
Management of visitor behaviour	Large numbers of visitors will require some regulation to protect the area's values – such as where they go, what they do, minimisation of impacts. Commercial operations will need to comply with conditions for minimising impacts.	Visitor use zones and routing of roads, tracks and activities away from sensitive areas. Minimal impact codes. Information and signage. Local resident and recreation group involvement and consultation. Commercial operator licences with environmental conditions.
Enforcement	Potential for some unlawful behaviour, non-compliance with conservation and heritage laws and non-compliance with reserve behaviour requirements.	Agreements with the relevant authorities on general, conservation and heritage law enforcement within their jurisdictions.
Safety and risk management	Risk of visitor injury and public liability considerations in general and particularly for gorge areas. History of previous visitor injury at Ginninderra Falls.	Implementation of appropriate risk management strategies and insurance.
Monitoring and review	Important feature of best-practice management.	Indicators in plan of management. Use of education and research institutions and community volunteers for monitoring.

4.2 Management capacity of the proposed Environmental Trust

The report by Elton Consulting²² on the Environmental Trust proposes:

- a skills-based, seven-member **Board of Directors** responsible for administering the Trust, policy-setting, strategic and program priorities, delivering sound business management and

²² Elton Consulting (May 2014)

ensuring legislative obligations are met. Board members would include government and Indigenous representatives and persons with skills in conservation land management, business, accounting and law

- three **Committees** to oversee the main Trust objectives
 - **Land Management Committee** – the major entity for Conservation Management would be responsible for conservation, bushfire and other land management; implementation of the plan of management; technical advice and research
 - **Social Sustainability Committee** – responsible for community education, awareness and involvement in the Conservation Area (and more widely in sustainable living initiatives)
 - **Public Fund Committee** – responsible for budgets, financial management, reporting and fund raising.

The report does not address in detail the personnel and financial resources required for the operation of the Trust and the management of Conservation Area. These will be addressed in future work on development of a Concept Plan and Plan of Management for the Conservation Area, proposed to be completed by December 2014 (see section 5).

Resources for Trust operations (including management of the Conservation Area) are proposed to be sourced from:

- an annual contribution from the ACT Government based on the expected cost to the ACT if the Conservation Area had been managed as part of the ACT public estate
- a percentage of the sale of each lot in NSW
- a range of other funding sources – such as donations, grants, access fees, enterprises within and outside of the Conservation Area.

It is difficult to assess the personnel and funding needs at this early stage in development of the Conservation Area concept. Ultimately, the personnel and operating costs for the Conservation Area will depend on the scope of conservation and public use activities conducted. From our experience in reserve management, the two field staff proposed in the report on the Environmental Trust would be the minimum required to conduct basic conservation and visitor management in the early stages of establishing the Conservation Area when visitor use is low. This takes account of the need for staff rostering over 7 days, annual leave and the use of contractors or volunteers for works and programs such as weed control, restoration plantings, facility cleaning and maintenance.

As the West Belconnen community grows, facilities in the Conservation Area are developed and visitation increases, management operations will become more complex and technical (see Table 3 for the potential range of management tasks). The Environmental Trust will need to consider how it will structure and fund its management operations and sourcing of expert advice to deliver best-practice management. This might be achieved through a combination of:

- in-house or contracted staff for ranger and field activities and community liaison (and possibly for some administrative tasks and managerial roles)
- contractors (e.g. for tasks such as weed control, facility maintenance and cleaning)
- expert consultants
- partnerships with government agencies, institutions and NGOs
- volunteers (such as assistance with restoration planting, track maintenance, visitor management, interpretation)

- commercial operators (who might deliver conservation outcomes such as interpretation and monitoring as part of their licence conditions, a practice that is increasing in many protected areas).

It will also be critical for the part-time Trust and Committee members to have access to informed and consistent advice in making its policy, management, budget and administrative decisions. There will need to be reliable personnel (in-house or contracted) on whom the Trust and the Committees can rely to:

- provide high level conservation and visitor management and policy expertise and advice
- coordinate and interpret technical advice (to avoid the Trust getting unconnected advice from a range of sources with no easy way to integrate it)
- prepare documents for Board and Committee decisions
- assist Board and Committee members in day-to-day liaison with governments, organisations and the community
- coordinate implementation of the plan of management for the Conservation Area
- manage work by contractors, partners and volunteers
- carry out the range of administrative activities – such as record keeping, financial management, personnel management.

It is suggested that there may need to be additional personnel to assist the proposed Trust Administrator in carrying out these activities. Such personnel might be employed in-house, contracted or sourced through arrangements with an organisation such as the NCT (particularly if the NCT is involved in establishing the Conservation Area through a Conservation Agreement – see section 3.1.1).

5 NEXT STEPS – PLANNING FOR MANAGEMENT AND RESOURCE NEEDS

Section 5 recommends that a management planning process (starting with preparation of a Concept Plan) needs to commence to assist in determining future management and funding needs.

We consider that a management planning process for the proposed Conservation Area should be commenced as soon as practicable as a way to obtain a better idea of future management needs, both at the time the Conservation Area is established and as operations and visitation increases over time.

It is recommended that this be done in two stages:

3. a **Concept Plan** that would provide a strategic guiding framework for conservation, visitor management, infrastructure development and bushfire management. It would be released in draft form to obtain feedback from government and the public. It would also serve as a tool for negotiating on the Conservation Area model, funding, support and partnerships, management requirements and development conditions with governments, agencies and NGOs (as relevant). The approach applied to the Molonglo River Park in the ACT provides an example of how the Concept Plan might be developed and input sought from stakeholders
4. a **Plan of Management** that would provide more detailed prescriptions and responsibilities for management. It would be guided by the final Concept Plan and developed once the Conservation Area establishment model, management directions, development approval conditions and Environmental Trust staffing and support structures are determined. The Plan of Management would ideally be a single document integrating the management, legislative and other requirements applicable within the ACT and NSW portions of the Conservation Area.

We believe it is too early to proceed directly to a detailed Plan of Management at this time as critical requirements (such as threatened species management and bushfire management), the Conservation Area model and the Trust structure and resources are not known. A Concept Plan will assist in development of realistic management and operational arrangements to support the Environmental Trust and provide an indication of likely personnel and funding needs. It will also assist in obtaining public support for the Conservation Area by enabling public input at an early stage.

The Concept Plan approach has a precedent in the ACT, having been undertaken as the first stage of planning for the new Molonglo River Park that adjoins the new development areas at Molonglo.

We recommend that the Concept Plan include:

- a description of the Conservation Area, its relationship to the West Belconnen Development and the regional environment, and proposals for management by an Environmental Trust
- vision and guiding principles for sustainable management of a community Conservation Area
- descriptions of the area's natural and cultural values, legislative requirements and proposals for sustainable management
- restoration of significant habitat (such as Box-Gum Woodland)

- descriptions of environmental management obligations and needs, including bushfire management, weed and feral animal control
- proposed opportunities for public access and visitor experiences - including activities, facilities, commercial developments/operations and proposals for sustainable management
- relationships and linkages between the Conservation Area and other reserves and recreation areas
- maps and drawings showing high level zoning proposals – areas of conservation priority, cultural heritage protection areas, bushfire fuel management zones, visitor activity areas, broad location of roads and trails
- concept options if relevant - e.g. different visitor facility options or configurations, different management measures
- high level operations costings for management (based on proposal that construction costs will be covered by the West Belconnen).

A best-practice process for developing the Concept Plan should include:

- a planning team with conservation area and visitor planning expertise. It should also include or have access to landscape concept design expertise to assist with locating infrastructure and facilities and to provide concept maps and drawings
- a reference or advisory group or groups made up of persons with expertise/knowledge relevant to planning and managing the Conservation Area - such as conservation, land management, recreation, heritage, Indigenous community. This role of this group or groups would be to provide advice and feedback on management concepts as they are developed
- mechanisms for consultation with government agencies, relevant institutions, NGOs and other experts to obtain information and ideas and for workshopping preliminary management concepts
- comprehensive stakeholder and community consultation through interviews/ discussions with stakeholder groups and individuals, community information and feedback sessions (e.g. open days or open houses)
- public release of the draft Concept Plan for comment from government, organisations, stakeholders and the wider public
- development of a final Concept Plan incorporating relevant feedback and release of the final Concept Plan in an accessible format (including on the Riverview website).

6 REFERENCES

- ACT Land Planning & Development Authority (September 2011), *Molonglo Valley Plan for the Protection of Matters of National Environmental Significance – NES Plan*.
- ACT Parks and Conservation Service (no date), *Googong Foreshores Map and Guide*.
- Biosis (6 January 2013), *West Belconnen Development Project: ACT Land Cultural Heritage Assessment*. Report Prepared for the Riverview Group.
- Biosis (10 January 2014), *Draft Aboriginal Cultural Heritage Assessment Report – West Belconnen Development Project, Yass, NSW*. Prepared for Riverview Group Pty Ltd.
- Commonwealth of Australia (1999), *Australian Guidelines for Establishing the National Reserve System*. Environment Australia, Canberra.
- Cooper M (Commissioner for Sustainability and the Environment) (July 2011), *Report on Canberra Nature Park (nature reserves); Molonglo River Corridor (Nature reserves) and Googong Foreshores Investigation*.
- Dudley N (ed) (2008), *Guidelines for Applying Protected Area Management Categories*. Gland, Switzerland. With Stolten et al (2013), *IUCN WCPA Best Practice Guidance on Recognising Protected Areas and Assigning Management Categories and Governance Types*. Best Practice Protected Area Guidelines Series No 21, Gland, Switzerland.
- Elton Consulting (7 May 2014), *An Environmental Trust for West Belconnen*.
- Figgis P, Fitzsimons J & Irving J, eds.(2012), *Innovation for 21st Century Conservation*, Australian Committee for IUCN, Sydney.
- Kevin Mills and Associates (January 2009), *West Belconnen Project, ACT and NSW Land Flora and Fauna Studies*. Study prepared for The Riverview Group.
- Kevin Mills and Associates (July 2009), *Further Flora and Fauna Studies, Land at West Molonglo and Ginninderra Creek, New South Wales and Australian Capital Territory*. Study prepared for the Riverview Group.
- Nash K and Hogg D (May 2013), *West Belconnen Woodland Areas – Confirmatory Ecological Assessment*. Report to The Riverview Group. David Hogg Pty Ltd.
- Natural Resource Management Ministerial Council (May 2009), *Australia’s Strategy for the National Reserve System 2009 – 2030*. Australian Government.
- NSW National Parks and Wildlife Service (NPWS) (2008), *New South Wales National Parks Establishment Plan 2008*.
- NSW Office of Environment & Heritage (November 2013), *Summary of property assessment conducted by National Parks and Wildlife Service at Ginninderra Falls*. Sourced on the Ginninderra Falls Association website, www.ginninderra.org.au/node/368.
- Osborne W and Wong D (May 2013), *The extent of habitat for the vulnerable Pink-tailed Worm Lizard (Aprasia parapulchella) in the West Belconnen-Ginninderra Creek investigation area – confirmatory distribution surveys and mapping*. Report commission by The Riverview Group Pty Ltd. Will Osborne and David Wong, Institute for Applied Ecology, University of Canberra.

Pulsford I (May 2011), *Should Canberra Nature Park (nature reserves), Molonglo River Corridor (nature reserves) and Googong Foreshores be re-classified based on IUCN categories?* Advice for the Office of the ACT Commissioner for sustainability and the Environment.

Rowell A (May 2013), *West Belconnen Golden Sun Moth surveys, October to December 2012.*

Sharp S B (March 2011), *Landscape function in Canberra Nature Park and impacts of threatening processes on landscape function.* Report to the Commissioner for Sustainability and the environment.

APPENDIX A – West Belconnen Illustrative Master Plan



APPENDIX B – IUCN Protected Area Categories

Category	Description
la. Strict nature reserve	Strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.
lb. Wilderness area	Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.
II. National park	Large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.
III. Natural monument or feature	Areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.
IV. Habitat/species management area	Areas that aim to protect particular species or habitats and where management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category. (These protected areas are aimed at conservation of remnant areas and can include public appreciation and contact with nature.)
V. Protected landscape/seascape	A protected area where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value; and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values. (Sometimes known as Cultural Landscapes.)
VI. Protected area with sustainable use of natural resources	Conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.