

Submission – <u>Territory Plan Draft Variation 351</u> West Belconnen Urban Development and National Capital Plan Draft Amendment 85

6 July 2015

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The Conservation Council ACT region is the peak non-government environment organisation for the Canberra Region, and has been the community's voice for the environment in the Canberra region since 1979.

We represent the interests of community conservation organisations in the region as well as the broader environmental interests of all the citizens of the ACT.

Our mission is to achieve an ecologically sustainable and zero net carbon society through advocacy, education, research and engagement with community, the private sector and government.

The Conservation Council is active in a number of campaign areas. Our current focus includes:

- **Biodiversity Conservation** protecting our unique ecological communities and the Bush Capital
- **Climate Change** a regional, national and global challenge
- **Planning** the right things in the right places
- **Transport** connecting people and places
- **Waste** being efficient through closed-loop systems
- Water smart use of a scarce resource
- **Governance** for a Smarter, Sustainable Canberra

1. Overview

The Conservation Council has particular interest in the proposed development mainly relating to the Council's focus on planning and biodiversity conservation. The Conservation Council's overarching principle on developing at the urban edge is outlined in *Managing the Urban Edge – Discussion Paper 2013*: "Retention and enhancement of ecological values should be incorporated into the design and ongoing management of existing and new urban developments."

We welcome the opportunity to comment on this Draft Variation and the associated Structure and Concept Plans. Over the last three years we have been appreciative of the consultative and open approach of Riverview Group. Our staff, Biodiversity Working Group, Board and member groups have been involved in various ways in gaining an understanding of what is a very complex urban development proposal.

The proposal can only be successful if long term and effective controls – and costings – are placed on the biodiversity, transport, recreational and fire management challenges which the proposal presents. The area has significant biodiversity values and the proposed urban development abuts a major river corridor. We welcome the Sustainability Vision proposed by the proponents and the initiative to obtain a six 'Green Star' rating for the urban development. This 'Green Star' rating is designed to evaluate the sustainability of the planning, design, and construction of development projects.

The Conservation Council notes the change to the Territory Plan but feels there is a need for further discussion within the ACT community on future greenfield sites and on developing a strategy on urban consolidation that reduces the need for greenfield developments and utilises existing infrastructure.

The Conservation Council notes the challenges of the proposal and the need for adequate future resources and commitment to meet those challenges and to maintain long-term compliance and monitoring. While the consideration of future resources seems to be beyond the usual scope of planners, DV351 provides for a development whose benefits will only be realised through committed management and ongoing funding. Without some safeguards that this will occur, there is a concern that future greenfield development will pay lip service to high-cost protections which disappear as soon as building starts.

The Conservation Council notes the challenge that the location is at the outskirts of the ACT and significant attention and innovation will be required to ensure it does not lead to additional 'car dependence' at a time when the ACT is seeking to reduce reliance on private car transport.

The Conservation Council welcomes the proposed creation of a large new nature reserve (360 hectares) and the proposed management structure of the reserve is innovative. At the same time the proximity of residences to the reserve points to the importance of engaging the community to live next to nature. Community awareness should be built into the proposed Environmental Trust's responsibilities so that all residents – not just first time buyers and builders – are cognisant of needs for living next to nature; and this becomes part of the long-term ethos of the area.

The Conservation Council welcomes the range of measures put in place to minimise 'urban edge' impacts including but not limited to cat containment, litter and rubbish control, water sensitive urban design, vehicle access, bushfire asset zone to be located within the urban footprint and proactive management of known or potentially invasive plants so that they are not planted.

The Conservation Council notes that considerable commitment and effort will be required to ensure the built form is innovative and meets best practice sustainability criteria, as well as providing housing affordability in both the short-term and long-term.

The Conservation Council notes that management of urban water will be essential due to the proximity of the river corridor and that pollution traps, among other things, will need to be incorporated into water infrastructure.

The Conservation Council notes the need – and expressed willingness by the developer – to address recreational areas, recreational impacts and urban open space, including provision for dog exercise areas and planning and development of appropriate of 'hardened' areas (e.g. paved areas or formed tracks) and restriction in other areas to reduce human impact and degradation of the conservation zone – in order to reduce recreational impacts in the proposed new reserve.

Although it is outside the scope of this Draft Variation the Conservation Council notes the importance and significance of Ginninderra Falls (NSW) within the broader project area and the need for agreement on the future of the falls and associated waterways, in terms of land tenure, ecological values, recreation and tourism.

The Conservation Council notes the need for proactive community engagement of new residents in regard to building and fostering social networks as well creating understanding of the ecological values at the urban edge and the measures needed to protect and enhance them — "Being a Good Neighbour to the Bush".

If the identified issues are addressed and commitments kept, including long term funding and monitoring, then the project might have the potential to have been successful in balancing developmental and conservation priorities.

2. Context – Planning and environmental approvals

The West Belconnen Urban Development which is the subject of Draft Variation 351 to the Territory Plan (DV351) and Draft Amendment 85 (DA85) to the National Capital Plan is related to proposed adjacent development in NSW which will be subject to rezoning to be considered by Yass Valley Council, including with public consultation, expected later in 2015. There will also be a Strategic "Environment" Assessment under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* to address impacts on Matters of National Environmental Significance.

Although there are reasons for the separate processes, mostly relating to the proposed development straddling the (unfortunately-construed) border between the ACT and NSW, consideration of both parts should be done together. The principles that apply to the ACT side should also apply to the NSW side. It is one development and measures need to be in place to maintain harmonisation of high-level implementation especially with regard to biodiversity conservation and connectivity.

These comments look at the matters relating to <u>DV351</u> and <u>DA85</u> noting that principles outlined should also apply to the NSW side, and that Commonwealth approvals are also required.

The Australian Government entered into an agreement with Riverview on 24 June 2014 to undertake a strategic (environmental) assessment of the proposed development in both ACT and NSW in accordance with section 146 of the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act).

The strategic assessment will assess the impacts of the proposed development on listed threatened species and ecological communities, listed migratory species and any other protected matters that may be triggered. The strategic assessment will look at direct, indirect and cumulative impacts and look at avoidance, mitigation and offset strategies at a broader landscape scale.

3. Context – the proposal

The proposal is to change the Territory Plan to allow for the development of approximately 6,500 dwellings in the ACT – the majority to be built over the next 15 years. It provides for a 360 hectare conservation area along the Murrumbidgee River. If NSW planning approvals are granted an additional 5,000 dwellings will be developed and an additional 220 hectares added to the conservation area. Development in NSW is not proposed to start until 2031. Overall the proposal has a lifespan of 40 years.

The development ranges from $6-12~\mathrm{km}$ to Belconnen town centre, the closest main employment centre.

4. Consultation

Our Board, staff and member groups have had the opportunity to participate in gaining an understanding of the proposal through various mechanisms including:

- Briefing Biodiversity Working Group December 2011
- Site visit 8 August 2013 ten Conservation Council participants
- Site visit 19 November 2014, 5 Conservation Council participants
- Site visit 6 February 2015 9 Conservation Council participants
- Briefing Biodiversity Working Group meeting Riverview offices Kippax 25
 March 2015, 8 Conservation Council participants
- Environment Exchange 23 April 2015, over 40 participants
- Site visit 28 April 2015 ~10 Conservation Council participants
- Water Sensitive Urban Design 24 June 2015, 25 participants
- Biodiversity Offsets (forthcoming) August 2015

The Riverview Group Pty Limited has provided a good model for urban development through its genuinely consultative approach. It has also sought early views from the Conservation Council and others in order to identify issues to be discussed and researched and has obtained and resourced reports from reputable sources to fill knowledge gaps and inform decision-making and design.

As Riverview said in a presentation to the Conservation Council:

Our approach has been to work out which parts of the site may be suitable for urban development, before we start planning the urban development.

A series of scientific investigations have been conducted to establish what environmental values are present on the site.

This approach has been a stark contrast to some other contemporaneous developments which have commenced construction before developing plans of management for environmental matters.

5. 'Greenfield' developments and future urban development

The Conservation Council is concerned that the urban area of Canberra continues to expand yet good planning at this stage would be to increase the density of the city around existing services and infrastructure.

The Conservation Council is concerned that the ACT continues to provide for greenfield developments without adequate regard for their impact on the environment and the residents of the developments.

Although the Riverview proposal has been developed to take account of the range of identified environmental matters that is an unusual circumstance and the delivery of the project against good intentions depends on long-term resourcing. The impact of human development on the environment is often the 'death of a thousand cuts' where cumulative small impacts result in degradation and often-irreparable damage to environmental values.

A compact city form with fewer edges can have a reduced impact on the environment and usually results in more efficient use of urban infrastructure. A compact city form also allows for reduced transport needs for residents and better access to a range of services and amenities.

6. Biodiversity values

We note that, so far, this proposed development has been designed to identify and protect what is valuable. The Conservation Council's interest is particularly in the areas of natural value and the proposal has identified and mapped Matters of National Environmental significance as well as local threatened species and values.

There are significant amounts of two matters of National Environmental Significance:

- Yellow Box Red Gum Woodland critically endangered ecological community
- Pink Tailed Worm Lizard listed as vulnerable under the EPBC Act

Other species of ecological significance include:

- Little Eagle
- Varied Sittella
- White-winged Triller
- Superb Parrot
- Painted Honeyeater

- Murray River Crayfish
- Macquarie Perch
- Silver Perch
- Trout Cod

The identification of these species and habitats points to the biodiversity values of the area and the need to develop long-term protections. Although this has been identified through the production of reports and will be further investigated through the strategic environment assessment there is a need to obtain ongoing community, government and developer support throughout all stages of the development and beyond.

Recommendation 1.

The proposed development should celebrate its biodiversity values so that planning intentions become community outcomes.

7. Boundary alignment of nature reserve

We welcome the approach whereby ecological values were extensively identified by surveys and existing data and then 'ground-truthed' before the lines of future urban development were proposed or agreed. This is a model that should be used for all proposals which impact on areas of potential ecological significance.

While noting that the border of the development with the proposed conservation area has been developed using scientific methods the end result is a sometimes intricate line or "ragged edge".

A convoluted boundary will lead to a smaller area: perimeter ratio or in other words there will be more edge in relation to interior habitat. This leads to more "edge effects".

The Conservation Council has some concerns that conservation management will be more difficult because of these edge effects, that is, the negative influence of a habitat edge on interior conditions of a habitat, or on species that use interior habitat. Negative consequences associated with edges include an increase of weeds and pests that impact on native species. Likewise any fencing costs will be substantially increased. In the context of a residential area consequences might also include vehicle parking, rubbish dumping or overuse of areas for recreation.

The proponents have advised it is not intended these 'ragged' edge pieces although marked as Future Urban Area will be used for dwellings – rather they will most likely be open space, car parking or recreational facilities (BBQs). We note this however as a matter of principle propose that as a matter of course the edge boundary should be as smooth as possible. We also note given the time frame of the development it would be hard to 'future-proof' such assurances.

The Conservation Council proposes that the urban edge next to the proposed reserve be 'smoothed' to reduce edge impacts (refer figure 3, Territory Plan Zone Map changes, p20).

Recommendation 2.

The edge of the Future Urban Area and proposed nature reserve is smoothed to minimise edge effects

8. Management Proposed New Reserve

Management trails

There is a network of trails already present within the area designated as the proposed wildlife corridor. However, many of these are highly overgrown and somewhat difficult to discern. It appears at present only one trail is maintained for access. Given the location of the proposed urban area and other potential for vegetation restoration in the corridor and access for weed management, we propose the present network of trails should be maintained to a standard that permits ready access for management operations. However, this is an important area which requires discussion at an early opportunity. Management trails can have significant impacts on areas of conservation value and need to be limited in number and strategic in providing access.

Recommendation 3.

Develop a plan for the present network of trails to be maintained to a standard that permits ready access for management operations while maintaining ecological values

Model for management in perpetuity

We welcome the management model proposed for managing the proposed wildlife corridor. From our perspective a key feature is a level of secure ongoing funding with the flow on benefits of ability to undertake long-term planning. However again this is an area requiring further consideration. A key requirement will need to be employees who are well versed and experienced in environmental management in a practical sense.

Recommendation 4.

The proposed Environmental Trust is established as soon as possible if and when the development is approved. The Trust should be operational with conservation employees in place before construction commences.

9. Urban Edge Impacts

In December 2013 the Conservation Council released <u>a Discussion Paper Managing</u> the Urban Edge that outlined the common key issues in many greenfield urban developments in the ACT. The Discussion Paper put forward key principles for managing these urban edge issues as well as broader longer term policy responses. The key issues identified were:

- 1) Connectivity
- 2) Mature Trees

- 3) Water
- 4) Bushfire Management
- 5) Invasive Plant Species
- 6) Domestic Animal Management
- 7) Rural Leases
- 8) Roads and Infrastructure
- 9) Access and Recreational Use
- 10) Grazing pressure
- 11) Residential Development
- 12) Community Engagement
- 13) Waste Management

This Discussion Paper was provided to Riverview Group in March 2014. Feedback was sought on how the proposed development intended to address the Urban Edge issues outlined in the discussion paper. The response from Riverview Group provided in July 2014 is at Attachment One. The Conservation Council welcomes the ways in which Urban Edge issues are being addressed by the development. We make specific additional comments on some matters here.

Mature Trees

The Conservation Council believes that protection of mature trees is important given the habitat value of the trees and for their capacity to provide connectivity for a range of flora and fauna.

The Structure Plan at para 28 states:

Exceptional trees, significant trees and tree stands will be retained and integrated into the urban fabric through inclusion in open space, parks, streets and other areas wherever possible.

This could be further expanded to provide for better protection. The ACT Commissioner for Sustainability and the Environment as part of the Urban Forest Investigation 2011 commissioned a report *A Management Framework for Important Trees in the ACT – A report prepared for Office of the Commissioner for Sustainability & the Environment,* 11 October 2010ⁱⁱ which suggested additional design concepts:

- "...there should be a review of the existing controls as presented in the Subdivision Code to look at areas for improvement, particularly in respect of a more holistic approach to subdivision design, such that all issues (such as tree protection rules and criteria) are given due consideration. Such design concepts may include (but not be limited to):
 - i. Bundling of services within a single easement that incorporates all utility service connections. Ideally, these could be located in easy to access places such as under footpaths or along road verges etc. The idea behind this is to minimise the overall area of land under easements and to reduce the width of easements so as to limit the extent of conflict between service easements and the retention of (Important) Trees. Services should not however be vertically stacked as a fault in one line may then require interference with all service lines within that easement. Common trenching for ties might also provide more space along the length of the road.
 - ii. A move away from the current design philosophy of locating services in open space areas, and for open space areas to have greater focus toward landscape amenity and

- ecological values rather than simply a place to put a service utility connection/easement.
- iii. A review of other possible methods for retaining trees in built areas that ensures longer term health/viability, such as use of semi-permeable hardstands.
- iv. More specific design controls to limit impact on/increase protection of tree roots
- v. Tree easements to dedicate a specific space for trees where available/appropriate.

The Conservation Council recommends these design controls be included in the Structure Plan.

Recommendation 5.

The Structure Plan should include a holistic approach to retaining as many mature trees as possible and that proposed design controls be included in the Structure Plan.

Bushfire Management Strategy (BMS)

We welcome the requirement that there will be no outer asset protection zone (APZ) going into the nature reserve. Instead there will be an inner APZ to a width of 40 metres. However this needs to be assessed in light of any other stipulations by the Rural Fire Service or Emergency Services about vegetation management or restoration within the proposed new nature reserve, location of 'Strategic fire Fighting areas' and access tracks. These may have some implications as some vegetation restoration may be useful for improving the corridor as well as assisting with weed management of some species (e.g. St John's Wort).

Recommendation 6.

That all asset protection zones and Strategic fire Fighting areas be within the residential development area and not in the conservation area.

Domestic Animal Management

Current ACT Government regulations and implementation of cat containment are inadequate, woefully so for an area with Pink Tail Worm Lizards. The proposed development must go beyond current ACT Government practice.

Recommendation 7.

The Concept Plan should explicitly state: the area of Future Urban Development will be declared cat containment as soon as possible via the provisions of the Domestic Animals Act 2000.

10. Biodiversity Offsets

The Conservation Council broadly welcomes that the proposed project will not require any biodiversity offsets for the residential areas. Given the existing inadequacies of the ACT Government's management of offsets – lack of transparency, reliance on ACT Government Budget funding for continuance rather than ongoing allocation based on initial offset arrangements, inadequate

demonstrable net increase in biodiversity – at this stage biodiversity offsets do not have any credibility in justifying loss of matters of ecological significance.

There is a concern however regarding the proposed "offset on offsets" for the proposed Ginninderra Drive extension. In this regard the Conservation Council supports the view of the Conservator as outlined in DV351:

The Variation also proposes changes to include a new Transport (TSZ1) zoning for a future extension to Ginninderra Drive. The construction of a road in this location will impact on an area set aside as an environmental offset for impacts on Golden Sun Moth from previous developments. This cannot be supported at this time as the road extension has not been approved; a route alignment has not been agreed upon; and the road would require offsetting of established offsets.

The planning study report states that the Ginninderra drive completion "... is not an essential pre-requisite for the rezoning of the project area". Until the issues regarding impacts of this road on the offset area have been addressed, and a final alignment has been agreed, the land use zoning should remain the current mixture of Hills Ridges and Buffer and Urban Open Space.

Recommendation 8.

Greater consideration needs to be given to the road alignment, implications of proposing an "offset" on an offset and additional assessment under Commonwealth legislation.

11. Urban Sustainability

Transport

The Conservation Council notes that the proposed development has identified the importance of transport for the development and has included design features to assist implementation of public transport including road design and subsidising ACTION buses for the provision of services in the early days of suburban development.

Other matter that could be considered include:

- If the development meets the current Territory Plan requirement of a 1.5 metre wide footpath on every street, that will go a long way towards encouraging local cycling and walking, including walking to bus stops;
- individual suburbs should support sufficiently large populations that, even after the first
 wave of children have graduated from the suburb's primary school, there will always be
 enough local children to support a fully viable local primary school within walking and easy
 cycling distance (which in turn will maintain the viability of the local shopping centre by
 providing two waves of customers every school day);

- The ACT Government should provide efficient public transport commuting links by, as a
 minimum, designating "smart" transit lanes on all congested road sections between the
 development and the major employment centres at Belconnen and Civic. "Smart" transit
 lanes are relatively short transit lanes (or bus lanes) that offer maximum public transport
 efficiency with minimum delays to general traffic.
- The ACT Government should provide a safe direct and convenient cycling route to Belconnen, to encourage cycling to work, and the development should include good internal links to this route. The development is 6-12 km from Belconnen, which is the nearest significant employment centre. In the Netherlands one in four journeys are made by bicycle, but only 8% of cycling journeys are more than 7.5 km. Few Canberra people will commute 8km by bicycle unless a safe route is available.

Recommendation 9.

The ACT Government should provide for adequate, safe and direct walking, cycling and public transport links between the proposed development and the town centre.

Water Sensitive Urban Design

The Conservation Council notes that discussion we had with Riverview on stormwater and Water Sensitive Urban Design was helpful and that they provided copies of reports and a presentation to the Conservation Council 24 June 2015.

Riverview provided the Conservation Council with a specific report dealing with 'East creek', the key drainage on the side where the initial development will occur. The consultant's recommendations are good, and feasible.

However, urban stormwater is full of rubbish, and pollutant traps will need to be installed at the heads of each of the main drainages.

Recommendation 10.

Attention be paid to pollution traps in the WSUD specification and pollutant traps installed at the heads of each of the main drainages

Urban Agriculture

The Conservation Council supports measures that can facilitate increasing the amount of food consumed in the ACT region that is produced and processed locally including through urban agriculture.

Given that parts of the proposed development are currently productive rural areas the ACT Government should take steps to explore rights and responsibilities that could be given to the community to help increase opportunities for local food production including exploring the increased use of urban unleased land for food production, such as setting aside land for more intensive production such as greenhouses, hydroponics and aquaponics.

This could include using the current West Belconnen landfill site for urban agriculture provided that adequate capping and monitoring is undertaken to mitigate leaks and leaching from the buried material.

Recommendation 11.

The ACT Government should take steps to explore rights and responsibilities that could be given to the community to help increase opportunities for local food production

Response by Riverview Group (July 2014 (draft)) to Conservation Council Management Principles for the Urban Edge

Proposed Conservation Council principles	West Belconnen response
Connectivity Since ecological landscape functioning depends upon the maintenance of opportunity for connectivity (permeability), there should be no loss of existing connections, and opportunities for enhancing connectivity should be identified and implemented (see Mature Trees).	The WB conservation Corridor has been configured to maximise connectivity between identified PTWL habitat areas within the corridor as well as to the Molonglo and Murrumbidgee river corridors to the north.
The use of designed vegetation plantings to enhance connectivity should be encouraged and funded.	At the regional scale connectivity from the Murrumbidgee River corridor along Ginninderra creek to mulligans Flat will be enhanced through protection of the riverine habitats and re-vegetation where necessary.
	Within the corridor conservation area connectivity will be enhanced between PTWL habitat sites within the corridor. Each sub-catchment will be subjected to a detailed catchment management plan that will prescribe measures to manage and mitigate any increased runoff from the urban area as well as for the enhancement or creation of PTWL habitat in appropriate areas, especially to enhance connectivity.
	Within the urban area, power line easements and other landscape elements will provide considerable scope for connectivity improvements and habitat diversity within developed areas.
	The corridor management plan will be able to prioritise activities such as planting and manage activities to achieve specific conservation outcomes. The corridor management trust is proposed to be adequately funded.

Mature Trees

In designing new suburbs, every effort should be made to retain remnant large mature trees (and associated vegetation) in the public land estate, and to implement appropriate tree management regimes to maintain their health and vigor, and their ecological contribution to landscape conservation.

West Belconnen response

Recent outputs from research into the role and contribution of mature trees to urban wildlife diversity are being studied with a view to incorporating feasible elements into landscape and development plans.

The yellow box-red gum woodland will be managed to reverse its trajectory of gradual decline by encouraging regeneration of trees and understorey vegetation and woodland structure consistent with fire fuel management requirements.

All trees across the proposed development area have been individually surveyed with respect to:

- · Location and crown spread
- Height
- Species
- Arboricultural characteristics
- Urban Amenity characteristics
- Tree hollows/habitat
- Management recommendations

This data has been taken into account in the master plan and will be a significant factor as detailed design proceeds.

Water

All urban and road runoff should be managed in a manner which enhances ecosystem functioning (flows and quality) and minimises impacts upon aquatic systems and wetlands.

Opportunities should encouraged to utilise residential and road runoff to facilitate management of the Urban Forest.

The project design is progressing on the basis of a sophisticated approach to water sensitive design. Details are subject to further refinement and costing.

It is proposed to design and landscape water quality control ponds to favour a diverse range of aquatic plant and animal wildlife. This will enrich urban landscapes at the same time as modifying water quality.

Fire Management

All asset protection zones must be incorporated within the urban footprint of the development

Where bushfire protection activities must occur within the conservation reserve system, hazard reduction techniques should always consider the long-term health and vigor of the extant ecosystems.

The asset protection zone is proposed to be contained within a 40m zone, within the urban area.

Fire management will be a priority for the conservation corridor management plan, consistent with the habitat conservation requirements and provision of safe recreational use and access.

Proposed Conservation Council principles West Belconnen response Invasive Plant Species All community engagement programmes at the Community engagement and education is urban edge should include resident education on expected to be a high priority for the Conservation Corridor management trust. the problems associated with potentially invasive It is proposed to include a Social species and the selection and care for appropriate species. Sustainability Committee. Additionally, all incoming residents will receive information packages and education regarding the unacceptability of invasive species. Public land landscaping will be monitored and managed to ensure that that invasive species are not accidentally introduced. **Domestic Animal Management** Cat containment regulations are proposed All new suburbs should have cat containment as an automatic suburb-wide regulation. for all of West Belconnen. All existing suburbs across the ACT should have cat containment introduced on a rolling basis. If unregistered/unchipped cats are found they must be moved to the Pound. On and off-leash dog areas will be All suburbs should have area(s) of land outside provided. The land fill site and power line the conservation reserve system set aside for the walking of dogs both on- and off-leash. easements provide particularly good opportunities for this. TAMS should fund the provision of informative Community education will be a significant signage and community education in element of the responsibility of the Corridor environmentally sensitive areas Trust management plan. **Rural Leases** The existing west Belconnen rural leases Where the adjacent naturally vegetated land is will be extinguished when the land is part of a rural lease, the potential for applying a rezoned. The land will continue to be Conservator's Direction should be evaluated and managed for agricultural purposes under implemented. licence arrangements, receding as development proceeds. For areas of higher conservation value, the introduction of a system of Conservation Leases (including both voluntary and mandatory) Ownership and management arrangements for the conservation corridor will be vested should be introduced and funded by the ACT Government. in the corridor trust at an early phase of the development. Detailed arrangements for land tenure are yet to be determined, a Greater monitoring of conservation conditions "conservation lease" has been proposed. on existing leases should occur through a rigorous compliance process.

Roads and Infrastructure

As a principle, infrastructure developments (with the possible exception of water reservoirs) should never be located within the conservation reserve system

Where such infrastructure currently exists, opportunities for relocation should be explored at appropriate times, and management of the easements must incorporate conservation objectives.

West Belconnen response

Recreational use and associated infrastructure including an access road, carpark and picnic facilities are proposed as well as walking trails and the like. These will be located and designed for compatibility with conservation requirements.

The most economical design for sewer at west Belconnen involves a trenched pipeline which traverses pink tailed worm lizard habitat – this option has been rejected because of its impact on the habitat. Alternative solutions involve either pumping sewage around the corridor boundary or tunnelling under the corridor.

The pumping option involves high capital cost and high annual monetary and energy costs in perpetuity.

The tunnelling option involves high capital costs and some construction activity within the corridor but outside PTWL habitat areas, and a trenched line through part of the woodland area in the corridor. The impact of these activities will be low and provide an early opportunity for restoration to higher ecological standard than existing exotic pasture. This option is preferred.

Access and Recreation Use

The conservation reserve system is primarily designed for the conservation of nature, therefore any recreational use should (a) be passive, (b) be oriented towards furthering appreciation of nature, and (c) be designed in a manner which ensures minimal environmental impact. For areas of particular concern or sensitivity, a policy of limited public access should be employed. There should be a transparent process to engage the community in determining appropriate access.

All new developments must have recreational infrastructure built into overall urban design, *viz* opportunities for cycling, walking, dog exercise parks.

West Belconnen response

The principal recreation use of the conservation corridor will be passive, focused on walking trails and the like.

Protecting the integrity of PTWL habitats will be a priority, and opportunities to augment connectivity between patches will be considered as part of any trail, infrastructure or other development in the corridor.

One of the proposed list of objectives of the Corridor management trust is to:

"Provide information or education about the corridor and broader considerations pertaining to the natural environment, which may include the establishment and management of a sustainability education centre in or near the corridor"

Provision of information about sensitive habitats in the corridor will be an important part of community engagement actions, with development of a 'sense of ownership' of significant natural resources a high priority.

The landscape and open space design includes a comprehensive suite of open spaces. Apart from the opportunities provided by the Land Fill site and the powerline easements about 100ha of parks, playgrounds and sports fields are proposed.

Residential and Industrial Development

The design of new residential and industrial estates should, at the *very* earliest opportunity (i.e. at the Spatial Plan level), recognise, and make provision for, the retention and enhancement of existing ecosystems and the maintenance of ecosystem functions. Design principles for suburbs located on the urban edge should ensure that pressures on the adjacent natural lands can be managed within reasonable budgetary constraints - with special reference to access, pet animals, fire and stormwater management.

West Belconnen response

The general west Belconnen area was identified as an "urban investigation" area in the ACT Strategic Plan in 2008. Following from this the definition of the land within the investigation area that could be available for urban development followed extensive ecological surveys by natural resource experts and field inspection by land managers.

The area to be protected includes all the yellow box-red gum woodland and most of the PTWL habitat that was assessed (as above) as being within a practical management and conservation boundary. Adjacent to the edge of the conservation corridor is the asset protection zone, which may include an edge road, management track, habitat enhancement or other corridor compatible works.

Herbivore grazing pressure

The management of urban edge bushland must actively manage grazing pressures from a range of both native and introduced species.

The corridor trust management plan will address this.

Proposed Conservation Council principles West Belconnen response Consultation and access to information Consultations with residents should always All consultation will involve Riverview. involve of the developer - who should be required to fund the provision of materials and Information kits will be provided to all new education kits to residents, covering such residents. matters as planting guidelines, bushfire protection requirements, pet containment, waste dumping etc. Substantial environmental research has Developers should fund the establishment and already been conducted targeting specific species and communities, baseline research operations of an ACT-wide technically-based over the whole corridor is now under way. bush regenerator team to provide support to (ACT wide matters are beyond the control local groups. of the west Belconnen project.) Establishment of Parkcare/Bushcare/Friends It is expected that the corridor management trust will establish a "friends groups should be undertaken by TAMS at the of the corridor" or similar group to ensure very early stages of development the engagement of the local community. Contact with environmental stakeholder Early disclosure of detailed information relating to proposed new urban developments should be groups has been maintained since 2007. made to the Conservation Council, any BoB Groups have participated in the master planning process (e.g. the Planning and Reference groups and to the ACT's Catchment Design Forum in November 2013) and have Groups. These groups should be afforded continued involvement. Regular contact has opportunities to participate in estate development planning. been maintained with Bush on the Boundary. The project team is available for consultation at any time and the Kippax office has been established to facilitate close contact with community groups and the general public. **Waste Management** The project will adopt a green star Text to be added approach that maximises recycling and particularly on-site recycling of waste (construction and ongoing municipal waste).

ⁱ http://conservationcouncil.org.au/wp-content/uploads/2013/05/Managing-the-Urban-Edge-Version-1-_-20-December-2013-FINAL.pdf

ii S. Patmore and K. Tanner (CB Richard Ellis Pty Ltd) A Management Framework for Important Trees in the ACT A report prepared for Office of the Commissioner for Sustainability & the Environment 11 October 2010,

http://www.environmentcommissioner.act.gov.au/files/pdf/OCSE_ACT_Remnant_Tree_Mgt_Strategy.pdf