



## **Comment on draft Environmental Impact Statement (EIS) for proposed Capital Metro Light Rail Stage 1 – Gungahlin to Civic**

**17 July 2015**

If you have any queries regarding this submission please contact: Clare Henderson Executive Director on 6229 3202 or [director@conservationcouncil.org.au](mailto:director@conservationcouncil.org.au).

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

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 with government.

We represent more than 40 member groups who in turn represent over 15,000 supporters. We harness the collective expertise and experience of our member groups and networks. We work collaboratively with Government, business and the community to achieve the highest quality environment for Canberra and its region.

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 draft EIS covers many issues; the Conservation Council looks at three in particular.

The Conservation Council notes that the Capital Metro project will mostly affect existing roadways including Hibberson Street, Flemington Road, the Federal Highway and Northbourne Avenue. None of these areas have significant biodiversity values.

The main potential impact on biodiversity conservation outside existing roadways will be the Light Rail Vehicle stabling depot and maintenance facility at Mitchell. Although small, this area has potential impact on Striped Legless Lizard habitat.

The draft EIS addresses greenhouse gas emissions from the construction phase of the project and the Conservation Council notes that the EIS scoping document sets out that information should be provided on Air quality and greenhouse gases including to discuss the potential air emissions from the proposed development during construction and operation.

## 2. Trees and landscaping

The existing road plantings, particularly along Northbourne Avenue, have attracted some attention given that the existing plantings of *Eucalyptus elata* will have to be removed for the construction of the light rail.

The trees do add to the aesthetic value of the avenue, usually better seen by motorists during the slower speeds and queuing of morning congestion. Cyclists riding down the centre of the median strip will also note the wonderful peppermint fragrance especially in spring if the car fumes are not too thick. Users of the median strip are sometimes swooped by magpies in the middle of the Avenue.

However, the trees of Northbourne Avenue are introduced to the area and have been removed and replaced in the past. As the draft EIS documents describe it:

*The current trees along the avenue represent the third planting since the avenue was established in the 1920s. The planting of Northbourne Avenue was handled by various landscape architects important to the history of the ACT—particularly TCW Weston, Lindsay Pryor and John Gray—and the history of planting reflects evolving landscape trends. Northbourne Avenue was initially planted with American elms and poplars by TCW Weston, but the trees were replaced in the 1940s by Lindsay Pryor who pursued an evergreen indigenous policy with *Eucalyptus blakelyi*. This species did not grow well in this location and were replaced with *Eucalyptus elata* by John Gray in the 1980s—the species still there today<sup>1</sup>*

It is also worth noting that the 1980s plantings were not universally popular and *Eucalyptus elata*, also known as River Peppermint, was regarded as an inappropriate tree for the location for a range of reasons. Former Conservation Council Director Ian Fraser said in 2014 that the *Eucalyptus elata* were more suited to coastal areas with gullies and wet conditions.

*"The only way they could get established was to give them lots of water, which is obviously not desirable in our climate," Mr Fraser said.*

*"By giving them lots of water early, it makes them shallow rooted. If there's lots of water near the surface, the tree has no incentive to put down a deep tap root.*

*"Some of them blew over very quickly, as we predicted they would, because they're not adaptive to this particular climate."<sup>2</sup>*

The Capital Metro Arborist Report noted that:

*The previous tree plantings failed due to a number of factors including pest infestation, and in the case of the Eucalyptus elata trees it was the poor establishment and over dependency on irrigation.<sup>3</sup>*

The trees have continued to occasionally fall<sup>4</sup> and are of a size to now block two or three lanes of Northbourne Avenue depending on the direction of the fall. There has been at least one serious accident resulting in a permanent personal injury. There have also been removals of significant numbers of trees over the years which have not been replaced leaving 'missing teeth'.

The Conservation Council does not see the removal of the street trees along Northbourne Avenue as having a major environmental impact given that they are not remnant trees but are planted, are not the best trees for naturally occurring soils and weather conditions, and that the trees are deteriorating and will mostly need to be removed over future years for public safety or because they fall over by themselves.

At the same time the Conservation Council supports that the current trees should be replaced by Australian trees and grasses, preferably endemic to the region and suited to the soils and expected climatic conditions for Canberra, that can be easily maintained and which for Northbourne Avenue, contribute to a sense of a grand boulevard and entrance to Canberra.

The Conservation Council supports the planting of more trees than are removed along the light rail route, particularly along Northbourne Avenue.

The Conservation Council notes that the ACT Government does not have a formal policy for obtaining best value from timber obtained from the urban forest and that the timber from the *Eucalyptus elata* of Northbourne Avenue would probably be regarded as a problem rather than an opportunity. Given the amount of timber that will become available through the tree removal along Northbourne Avenue this would be a good time to consult and develop a policy which used the timber for best value. This might include provision of material for artisans, playgrounds, public seating, or habitat restoration (a la Mulligans Flat). The provenance of the material would add to its value; it is unlikely there will ever be any more *Eucalyptus elata* harvested from Northbourne Avenue Canberra.

The trees from Northbourne Avenue should not end up as landfill and they should not be used to justify the ACT Government's development of a business case for a waste to energy facility which received \$2.8million over two years in the ACT Budget 2015-16.<sup>5</sup>

Although they are unlikely to be affected by the light rail construction any opportunity available should be taken to replace the staggered planting of Hawthorns (red berry-dropping bicycle and pedestrian hazards) amidst the *Eucalyptus mannifera* on the road verges and replacing them with local trees. *Eucalyptus mannifera* is also currently proposed as a replacement species for the *Eucalyptus elata* and *Eucalyptus mannifera* does not seem to have had the problems presented by *Eucalyptus elata*.

***Recommendation 1.***

***The current trees should be replaced by Australian trees and native grasses, preferably endemic to the region and suited to the soils and expected climatic conditions for Canberra.***

***Recommendation 2.***

***The number of trees planted along the light rail route should be more than the trees that are removed.***

***Recommendation 3.***

***The ACT Government should consult and develop a policy for best use, including best value, for timber from the urban forest including for the trees removed from Northbourne Avenue.***

***Recommendation 4.***

***The trees of Northbourne Avenue should not go to landfill.***

***Recommendation 5.***

***Remove the exotic plantings, including the Hawthorns on the road verge, and replace with appropriate endemic species.***

### **3. Striped Legless Lizard habitat**

Although the Capital Metro draft EIS seems thorough and all processes have been undertaken there is a need to note that the ACT environment is facing a death by a thousand cuts. Each project in the ACT is assessed within its own perimeters with reference to other previous assessments and previous practices to allow for its own 'small' impacts on the environment.

The treatment of Striped Legless Lizard habitat is an example. The Capital Metro project area only touches on small areas of Striped Legless Lizard habitat and this was considered at a larger level by the Gungahlin Strategic (Environmental) Assessment previously undertaken:

*In July 2013, the Commonwealth government approved the Gungahlin Strategic Assessment under Part 10 of the EPBC Act (Umwelt 2013). The Strategic Assessment included a comprehensive assessment of the impacts of the development on matters of national environmental significance.*

*Two sites in the vicinity of Gungahlin Town Centre, potentially affected by the Project, are within the area covered by the strategic assessment:*

- the land identified as Striped Legless Lizard habitat to the south of Flemington Road and west of Manning Clark Crescent*
- the land to the west of Hamer Street and north of Flemington Road.*

*Potential impacts of the development on these locations and appropriate mitigation have therefore already been developed and approved. The Project is unlikely to result in any impacts on these areas beyond those already assessed and approved under the strategic assessment.<sup>6</sup>*

The remaining areas of Striped Legless Lizard habitat are small and do not trigger an EPBC referral, however there are areas of habitat with potential for restoration.

In its discussion of 'Exotic grassland with exotic trees' the Draft EIS notes:

*This habitat type is in poor condition and of limited value to Threatened species of animal. The only threatened species likely [sic, should be 'likely'] to occupy this habitat type is the Striped Legless Lizard. The Striped Legless Lizard is only likely to occupy the areas of this type of habitat that are continuous with adjacent higher quality habitats such as Natural Temperate Grassland and derived native grasslands.<sup>7</sup>*

With regard to the proposed stabling depot and maintenance facility, south of the suburb of Mitchell, the Draft EIS describes it as:

*Highly disturbed grassland vegetation and planted woodland adjacent to Striped Legless Lizard habitat. The grassland in this location consists primarily of exotic species of grasses and forbs growing on highly disturbed soil with surface rock and other debris such as concrete waste. Marginal as habitat for the species but does contain potential shelter in the form of surface rock.<sup>8</sup>*

The draft EIS does recognise the need for mitigation measures:

*Mitigation measures would also be implemented to reduce the potential impact on the Striped Legless Lizard where this species may occur in highly disturbed, marginal habitat within the Project Impact Area.<sup>9</sup>*

At the same time the report notes that even though the threatened species might be present, it will be in small numbers:

*As the Striped Legless Lizard is known to inhabit disturbed, weed-dominated grassland adjacent to native grassland habitat, there is also a risk of mortality of individuals of this species during construction. Measures to minimise potential mortality of Striped Legless Lizards have hence been recommended. Due to the marginal quality of such habitat in the Project Impact Footprint, it is considered unlikely to support a significant proportion of any local population of the species and the potential for a significant impact is low.<sup>10</sup>*

The draft EIS does note the importance of 'edge effects' but given previous impacts claims that its edge effects won't make much difference. It's only another small cut.

*The woodland vegetation occurring within the Project Impact Footprint occurs as relatively small, fragmented patches, which are subject to past and present disturbance regimes (e.g. urban development and existing road corridor), and hence, already consist of edge-affected habitats. It is considered that any marginal increase in these edge effects caused by the Project is unlikely to be significant.<sup>11</sup>*

The draft EIS sets out mitigation measures for habitats and fauna for the project and these should be applied rigorously. However, there needs to be vigilance that soils and plants brought to the project area for landscaping do not introduce weeds by seed or weeds by escapees.

***Recommendation 6.***  
***All Management and mitigation recommendations in the Capital Metro Agency ACT Light Rail Biodiversity Assessment should be carried out rigorously, especially with regard to soil and plants brought to the site.***

The mitigation measures for the Striped Legless Lizard are:

*In addition to the general measures listed above for the protection of habitat values, the following measures are recommended specifically for the minimisation of potential impacts on the Striped Legless Lizard:*

- Installation of fencing to prevent Striped Legless Lizards from moving from the areas listed in Table 3.4 into the adjacent construction areas; sediment fencing may be sufficient for this purpose if properly installed.*
- Installation of tile arrays along fences within the construction area after fencing is installed but before earthworks commence to assist in the capture and relocation of Striped Legless Lizards from within the construction zone.*
- Supervision by an ecologist of earthworks involving the initial removal of surface rock and earth mounds in the stabling depot and maintenance facility site and relocation of any native reptiles found into the adjacent Crace Grasslands nature reserve.<sup>12</sup>*

The last dot point should also include improvement to the adjacent grassland including weed removal, replanting with endemic Natural Temperate Grasslands species and general habitat restoration. This restoration would also make a contribution to sequestration of greenhouse gases taking into account that the vegetation clearance associated with the project is estimated in the draft EIS to release about 1,499.16 tonnes GHG CO<sub>2</sub> equivalent, about 2.5% of the total emissions associated with the project construction.<sup>13</sup>

***Recommendation 7.***

***The project should include improvement to adjacent grassland, especially at the stabling depot, including weed removal, replanting with endemic Natural Temperate Grasslands species and general habitat restoration.***

#### **4. Some greenhouse gas consideration**

The Conservation Council notes that the scoping document for this EIS sets out that:

*8.7.7 Air quality and greenhouse gases*

- *Discuss the potential air emissions from the proposed development during construction and operation.<sup>14</sup>*

The *Greenhouse Gas Emissions Estimation*, Technical Paper 7 states that it only addresses the construction phase:

*This GHG estimation is to respond to part of Item G.1, namely the determination of the GHG emissions arising from the construction phase of the Project.<sup>15</sup>*

However it does briefly mention the operational phase:

*The Climate Change and Greenhouse Gas Reduction Act sets out targets for 2020, 2040 and 2060 compared to the baseline year of 1990. From an operational perspective, the movement of passengers from motor vehicles to the Light Rail will contribute towards meeting these targets by improved GHG efficiency of the LRVs along the Stage 1 route. From a construction perspective (the focus of this GHG estimation) the Act has limited relevance assuming the construction schedule remains as all the construction emissions will be prior to the 2020 target year.<sup>16</sup>*

The Conservation Council notes that the Capital Metro Light Rail Project will assist in meeting greenhouse gas reduction targets from the transport sector if the electricity for the operation of light rail is provided by renewable energy and that there is a significant mode shift from fossil-fuelled vehicles to light rail. Both of these factors require additional government activity beyond the building of light rail.

The Government needs to maintain its commitment to increasing use of renewable energy but it also probably needs to move from 90% renewable energy to 100% renewable energy by 2020. As a preliminary step the light rail should be required to use 100% renewable energy for both construction and operational phases.

**Recommendation 8.**  
***The Capital Metro Light Rail project should use 100% renewable energy for both construction and operational phases.***

The Conservation Council believes that the ACT Government needs to improve its commitment to achieving and exceeding mode shifts as previously identified in the Government's own documents including *The Sustainable Transport Plan for the ACT*, (ACT Government, 2004).

It might not be enough to build light rail and expect the people to come while ongoing and increasing private vehicle usage continues to put pressure on the environment and communities. Among many things, public transport needs to become more flexible and timely and provide convenience to the community relative to cars. This will require an active effort and consideration of potentially unpopular measures such as increased parking charges, "congestion" levies, genuine traffic calming with lower speed limits and road closures and support for car sharing schemes and arrangements.

**Recommendation 9.**  
***The ACT Government undertake an active program to achieve and exceed its own "mode share" targets through improved flexibility, timeliness and convenience for the community of public transport relative to private car travel.***

---

<sup>1</sup> Capital Metro, ACT Light Rail Stage 1—City to Gungahlin—Heritage Impact Assessment, June 2015, p80

<sup>2</sup> Tom McIlroy, "Grass, native trees and light rail: a new Northbourne?", <http://www.smh.com.au/it-pro/grass-native-trees-and-light-rail-a-new-northbourne-20140701-zsrs8.html>

<sup>3</sup> Capital Metro Arborist Report, [http://www.capitalmetro.act.gov.au/\\_data/assets/pdf\\_file/0008/741068/Combine-Arborists-Reports.pdf](http://www.capitalmetro.act.gov.au/_data/assets/pdf_file/0008/741068/Combine-Arborists-Reports.pdf) p1

<sup>4</sup> For example see photo, Capital Metro Arborist Report, [http://www.capitalmetro.act.gov.au/\\_data/assets/pdf\\_file/0008/741068/Combine-Arborists-Reports.pdf](http://www.capitalmetro.act.gov.au/_data/assets/pdf_file/0008/741068/Combine-Arborists-Reports.pdf), p9

<sup>5</sup> ACT Government, Budget Outlook 2015-16 [http://apps.treasury.act.gov.au/\\_data/assets/pdf\\_file/0005/733766/BP3-Chapter-3-New-Initiatives.pdf](http://apps.treasury.act.gov.au/_data/assets/pdf_file/0005/733766/BP3-Chapter-3-New-Initiatives.pdf) p129

<sup>6</sup> Parsons Brinckerhoff, *Capital Metro Agency ACT Light Rail Biodiversity Assessment*, p5



<sup>7</sup> Parsons Brinckerhoff, *Capital Metro Agency ACT Light Rail Biodiversity Assessment*, p25

<sup>8</sup> Parsons Brinckerhoff, *Capital Metro Agency ACT Light Rail Biodiversity Assessment*, p29

<sup>9</sup> Parsons Brinckerhoff, *Capital Metro Light Rail Stage 1 – Gungahlin to Civic Draft Environmental Impact Statement, Volume 2 – Technical Papers 1 to 3* June 2015, (v)

<sup>10</sup> Parsons Brinckerhoff, *Capital Metro Agency ACT Light Rail Biodiversity Assessment*, p41

<sup>11</sup> Parsons Brinckerhoff, *Capital Metro Agency ACT Light Rail Biodiversity Assessment*, p41

<sup>12</sup> Parsons Brinckerhoff, *Capital Metro Agency ACT Light Rail Biodiversity Assessment*, p48

<sup>13</sup> Parsons Brinckerhoff, *Greenhouse Gas Emissions Estimation*, Technical Paper 7 Capital Metro Project (Stage 1 – Gungahlin to Civic), June 2015, p17

<sup>14</sup> Capital Metro Light Rail Stage 1 – Gungahlin to Civic Final Scoping Document, Application Number: 201400239, <http://www.legislation.act.gov.au/ni/2014-502/default.asp> p10

<sup>15</sup> Parsons Brinckerhoff, *Greenhouse Gas Emissions Estimation*, Technical Paper 7 Capital Metro Project (Stage 1 – Gungahlin to Civic), June 2015, p7

<sup>16</sup> Parsons Brinckerhoff, *Greenhouse Gas Emissions Estimation*, Technical Paper 7 Capital Metro Project (Stage 1 – Gungahlin to Civic), June 2015, p11