

## Aloisi, Angelina

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**From:** Lane, Sharon  
**Sent:** Monday, 2 May 2011 2:10 PM  
**To:** McFarlane, Trina  
**Subject:** FW: 20110216 - Molonglo Technical Working Group Minutes - Western Boundary - DRAFT  
**Attachments:** 20110216 - DRAFT Minutes - Western Boundary Options for Molonlgo Stage 2 - Technical Working Group.doc

Trina

One amendment please. I would like it clearly on the record that I did not agree with Option 1.

Thanks

### Sharon Lane

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**From:** McFarlane, Trina  
**Sent:** Monday, 2 May 2011 1:45 PM  
**To:** Savery, Neil; Mackenzie, Stuart; Matesic, Ivo; Carmody, Adam; Lhuede, Nick; Corrigan, Jim; Lane, Sharon; Mulvaney, Michael; Ahmed, Khalid  
**Cc:** McCabe, April; Murray, Chris; Steward, Fay; Tomlins, George; Lewis, Paul; Papps, David; Crowweller, Mark  
**Subject:** 20110216 - Molonglo Technical Working Group Minutes - Western Boundary - DRAFT

Draft minutes from the technical working meeting held on 16 February on western boundary options for Molonglo stage 2 are attached.

It was just brought to our attention that these weren't circulated - apologies for getting these to you so late.

Could people please make comments and/or corrections in track changes and forwardback to me.

regards  
Trina

## WESTERN BOUNDARY OPTIONS – MOLONGLO STAGE 2

Technical Working Group Meeting  
12:00am-1:30pm, 16 February 2011  
ACTPLA Boardroom, Level 3 South Building

### ATTENDEES

Neil Savery, ACTPLA (*left 12:45pm*)

Chris Murray, ACTPLA

Trina McFarlane, ACTPLA

April McCabe, ACTPLA

Stuart Mackenzie, ACTPLA (*arrived 12.30pm*)

Ivo Matesic, LDA

Adam Carmody, LDA

Nick Lhuede, ESA

Fay Steward, TAMS

Jim Corrigan, TAMS

Sharon Lane, TAMS

Helen McKeown, TAMS

Michael Mulvaney, TAMS

Khalid Ahmed, Treasury (*arrived 12.30pm*)

[REDACTED], SGS (consultant)

[REDACTED], Eco Logical (consultant)

### APOLGOGIES

George Tomlins, LAPS

Paul Lewis, LAPS

David Papps, DECCEW

Mark Croweller, ESA

### 1. PURPOSE

- To provide a clear recommendation on the options for the management of the western boundary of Molonglo Stage 2, for consideration by the River Park Concept Plan Steering Committee at its next meeting.
- The technical working group needs to concentrate on the major issues relating to the western boundary and if there are any 'showstoppers'.

### 2. CONTEXT

- The draft planning and design framework (draft PDF) for Molonglo Stage 2 being prepared by ACTPLA will guide the release of the first 3,000 dwellings and is due for completion by June 2011 to meet the accelerated land release program.
- Site conditions in terms of slope/topography and areas of woodland, and an overview of the planning and development considerations contained in the "Options for Western Boundary" discussion paper (Jan 2011), were provided.
- The latest version of the NES Plan Offset Map (Feb 2011) was not considered in the discussion paper. The map has not been endorsed by the Commonwealth and the current investigations of the western boundary would be reconciled with any endorsed offset areas.

### 3. OVERVIEW OF THE OPTIONS

- Note - All options have the inner Asset Protection Zone (APZ) located 30m on the inside of the Future Urban Area (FUA) boundary as shown on the Territory Plan Map.

#### **Option 1**

- Maximises yield.
- The outer APZ ranges from 100-300m along the FUA boundary and considers the adjacent fuel loads and potential risk.

#### **Option 2**

- Prioritises an ecological outcome, with both outer and inner APZ contained within the FUA boundary.

### **Option 3**

- Avoids many environmental impacts.
- APZ's are easier to manage
- A better fit with the topography and east-west drainage line
- Provides open space opportunities
- Consistent with ACT policy relating to the visual amenity of hills, ridges and buffers.
- The NES Plan Offset Map may affect the northern side of the peninsula.

### **Option 4**

- Requires clearing of vegetation on the south-west slope, and there is a risk that this would trigger the requirement for an EIS.

## **4. KEY ISSUES DISCUSSED**

### **Managing APZs**

- It would be difficult to manage the outer APZ on steep land as it would be done manually and/or by grazing.

### **Pink-tailed Worm Lizard**

- The implication of frequent burning on the Pink-tailed Worm Lizard habitat is being considered in the context of the River Park Concept Plan, and at this stage the Steering Committee is comfortable that this can be managed.

### **Hybrid option**

- A 'hybrid' option was suggested which combined the APZ recommendation for the southern section outlined in Option 1 and Option 4. If Option 4 triggered the EIS requirement, then it may be worthwhile investigating the possibility of the APZ's being outside the FUA in the southern section of the western boundary.

### **South-west slope area**

- The biggest imperative for government is achieving population/yield targets and optimising yield to meet important city-wide planning goals such as accommodating and containing urban growth, ensuring fiscal responsibility and delivering affordable housing. The counterbalance for this is the environmental concerns in relation to its value and the potential clearing of vegetation to accommodate development.
- The south-west slope area had been identified by SGS as being difficult to develop due to the extent of the slope, amount of vegetation, ACT policy position to protect hills, ridges and buffers, and potential cost to develop and service the land.
- The *E. rossi* woodland on this slope is not a threatened species, but is remnant vegetation and the amount that would need to be cleared trigger the need for an EIS.
- Current estimates are that this area could accommodate approximately 400-500 people and is therefore there is an opportunity that needs to be analysed. The value of maintaining the vegetation to provide visual amenity benefits to surrounding lots should also be considered
- The FUA is an established public policy position, and if this area is excluded from development, there must be a robust justification for that decision and its associated opportunity costs.
- In terms of market demand for the product that would be developed on this area, LDA advised that due to the current proposition of smaller housing types and lots, it would be good to have some detached dwellings on larger lots with excellent views which might attract a premium.
- The draft PDF design could build in flexibility to allow access into this area at a later stage.

- A brief explanation of assumptions/sensitivities used to provide the broad costs in relation to this area in the options paper were discussed. Treasury commented that they would look at the SGS economic analysis differently, and review basic costing and revenue assumptions; Treasury's focus is on the revenue stream. There is a need to undertake some economic testing (cost/benefit) to decide whether it is worth pursuing Option 1.
- This area is a possible breeding site for threatened birds based on ANU research. More information on environmental value of the south-west slope would be needed.

## 5. SUMMARY OF DISCUSSION

- The competing objectives were discussed. It is critical that there be multiple objectives to assess the issues and that advice must be based on understanding the opportunity costs of developing this portion of land as well as considering the associated economic, environmental and development costs.
- While there is a need to respect the community views, at times government needs to make hard decisions to ensure the broader objectives are being achieved.
- The technical working group's overall preference is for Option 1 although Sharon Lane, Manager of Conservation Planning and Research did not agree with that view preferring Option 3 as recommended in the consultants' report.
- There are competing objectives in relation to the development of the south-west slope area, but the Steering Committee and technical working group need to assess the options with broad multiple objectives in mind.
- The south-west slope area and its significance need to be considered within the context of the ACT and not just in the context of Stage 2. Decisions need to be informed by options that are backed by science, rigour and strong principles.
- Further investigations need to be done in relation to development opportunities for the south-west slope. The investigations are about achieving an affordable, social outcome and that the development of the south-west slope must be a strategic consideration within the context of Canberra and not just the localised context. The investigations include:
  - Further economic costing for development of the south-west slope area.
  - The established, rigorous processes under legislation, which are clear gateways to inform the government along the way, including EPBC clearances, EIS and variation to the Territory Plan.
- There are high risks associated with the required EIS and EPBC clearances.
- Need confirmation that the time required to work through the decision regarding development potential of the south-west slope will not affect the release of the first 3,000 dwellings in Molonglo Stage 2.

## 6. RECOMMENDATIONS

The following recommendations will be submitted to the next River Park Concept Plan Steering Committee meeting for confirmation:


1. Option 1 is preferred by most representatives, noting that this is subject to further future investigation of the south-west slope area regarding feasibility of developing the area, and the EPBC and EIS clearances and Territory Plan variation processes required.
2. ACTPLA to confirm that the time required to work through the decision regarding development potential of the south-west slope will not affect the release of the first 3,000 dwellings of Molonglo Stage 2.
3. ACTPLA to advise SGS to proceed with the draft PDF based on incorporating Option 1 and including development of the south-west slope area.

4. SGS team/ACTPLA to confirm the capability of the south-west slope area for development, and the cost implications of not developing the south-west slope area.

DRAFT

**Aloisi, Angelina**

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**From:** Walsh, Harvey  
**Sent:** Thursday, 2 June 2011 12:32 PM  
**To:**   
**Cc:** McFarlane, Trina; McCabe, April  
**Subject:** FW: Molonglo Community and Industry Reference Group Meeting 25 May 2011 - Presentation and draft minutes  
**Attachments:** Draft Minutes - Molonglo Community and Industry Reference Group Meeting #3 - 26 May 2011.doc; Final CIRG presentation - 25 May 2011.pdf

Dear CIRG Members

Herewith the Draft Minutes from the meeting on 25 May together with a copy of the PowerPoint presentation from that meeting.

Thank you for your work on this Reference Group, which has been helpful in the planning work, and hopefully has also been of benefit to your organisations and members.

Yours sincerely

Harvey Walsh  
Senior Planner  
Land Policy Section



MOLONGLO VALLEY STAGE 2

# Planning and Design Framework

MARCH 2012



**ACT**  
Government

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Environment and  
Sustainable Development

<b>Version</b>	<b>Date</b>	<b>Details</b>	<b>Authorised</b>
1.0	XX XX 2012	Approval of PDF	<b>Mr David Papps</b> (Director-General, Environment and Sustainable Development Directorate)

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### **3.0 KEY PLANNING AND DESIGN CONSIDERATIONS for MOLONGLO VALLEY STAGE 2**

This section of the PDF provides an overview of the key planning, design and land use considerations for the future development of Molonglo Valley stage 2.

Together with the vision and guiding principles, the following key considerations outlined, provide the context and planning rationale to inform the planning and design provision which are contained in the IPRs, the Concept Plan and subsequent Estate Development Plans (EDP).

The detailed analysis which underpins this PDF is contained within the 'Draft PDF – Molonglo Valley stage 2 - Technical Report (SGS 2011). Any specific proposals shown within this section are indicative only and may be subject to refinement through the IPRs, the Concept Plans and any subsequent EDPs.

#### **3.1 Environmental and Landscape Attributes**

Molonglo Valley stage 2 possesses significant environmental values and landscape attributes. The guiding principles reflect these attributes, which forms a basis for the creation of a distinct local identity. The developable area boundary is set by a range of natural and physical environmental constraints, including flora and fauna, effective management of bushfire risk, identified heritage sites and the landscape attributes of the site.

Community and stakeholder feedback highlighted the importance of maintaining high standards of environmental management and biodiversity conservation within Molonglo Valley stage 2 and the wider area. The ACT Government recognised that the nature and scale of development proposed in the Molonglo Valley would be complex and involve multiple stakeholders and therefore the environmental protection in the Molonglo Valley would be best served by a more strategic approach.

Therefore, within this context, a strategic assessment, under Part 10 of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) was undertaken and an assessment of impacts relating to the proposed urban development and associated infrastructure proposed, as set out by the Molonglo and North Weston Structure Plan, provided under the Molonglo Valley Plan for the Protection of Matters of National Environmental Significance (NES Plan).

The PDF identifies an area (Figure 1) as 'potential development area (subject to investigation)'. This area on the western boundary will be investigated to consider the environmental impacts associated with bushfire protection, in particular the location of the Outer Asset Protection Zone (OAPZ). This needs to be formally assessed through an Environmental Impact Statement (EIS), which will identify whether this specific area of stage 2 is suitable for future development.

##### **3.1.1 Natural Environmental and Matters of National Environmental Significance**

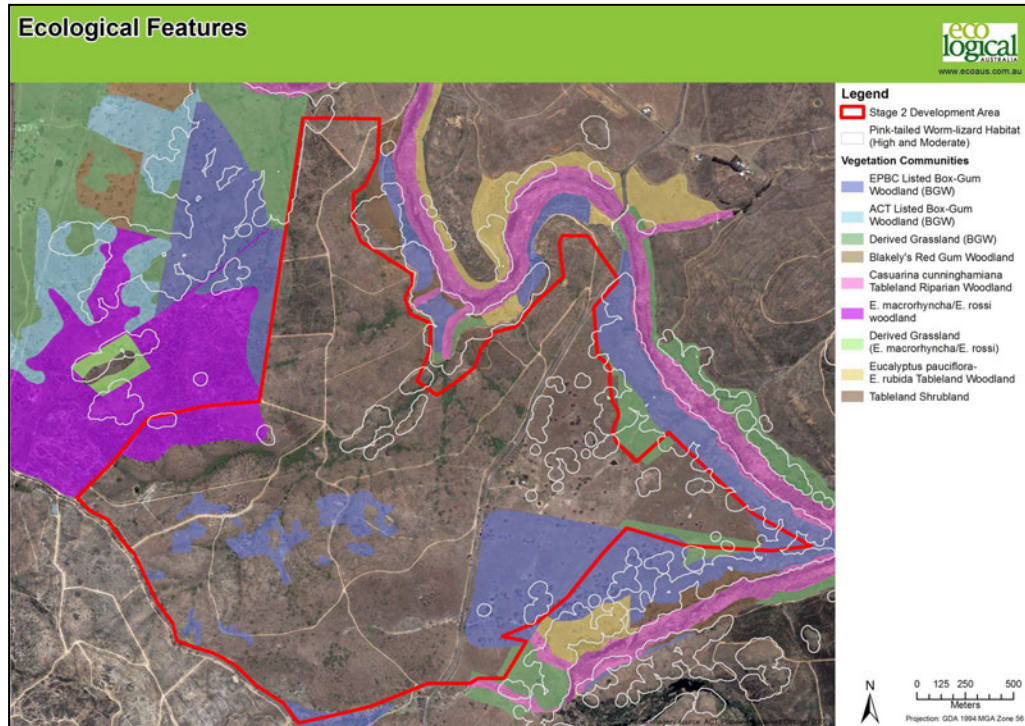
The Molonglo Valley contains important habitat and ecological values and from a landscape perspective it is an important part of the ecological connectivity for wildlife movement both along the river corridor and from south to north. In particular the significant patches of woodland within the Karma Nature Reserve (adjoining stage 3, north of river) and riparian vegetation along the river corridor are considered to be important for sustaining populations of woodland birds. The river corridor also contains a significant population of PTWL.

The NES Plan identifies the ACT Government’s commitments and actions for the protection and management of matters of national environmental significance under the EPBC Act. It defines the proposed development activities and sets out the protection strategies to avoid unacceptable impacts on important habitat and ecological values identified under *EPBC Act*.

The NES Plan does not address the requirements of ACT environmental legislation, which are resolved through separate environmental clearance processes under the *Planning and Development Act 2007* (P&D Act). The important habitat and ecological values identified under the *ACT Nature Conservation Act 1980* and matters identified under the EPBC Act are listed in Table 1 and Figure 5 illustrates their location.

<i>EPBC Act 1999</i>	<i>ACT Nature Conservation Act 1980</i>
Box-Gum Woodland ( <i>White Box, Yellow Box, Blakely’s Red Gum Grassy Woodland and Derived Native Grassland</i> );	Yellow Box-Red Gum Grassy Woodland;
Natural Temperate Grassland ( <i>Natural Temperate Grassland of Southern Tablelands of NSW and ACT</i> );	Brown Treecreeper;
Pink-tailed Worm Lizard ( <i>Aprasia parapulchella</i> );	White-Winged Triller;
Superb Parrot ( <i>Polytelis swainsonii</i> );	The Varied Sittella;
Swift Parrot ( <i>Lathamus discolor</i> );	The Little Eagle
Rainbow Bee-eater ( <i>Merops ornatus</i> )	

**Table 1: Habitat and ecological values identified under the Commonwealth EPBC Act 1999 and the ACT Nature Conservation Act 1980.**



**Figure 5: EPBC and ACT listed habitat and vegetation communities<sup>1</sup>. (source: EcoLogical in SGS 2011: 37)**

<sup>1</sup> Note that the stage 2 development boundary on this map is the Territory Plan FUA boundary. The refined stage 2 development, which reflects the NES Plan and River Park Concept Plan work, is as indicated in figure 1 of this PDF.

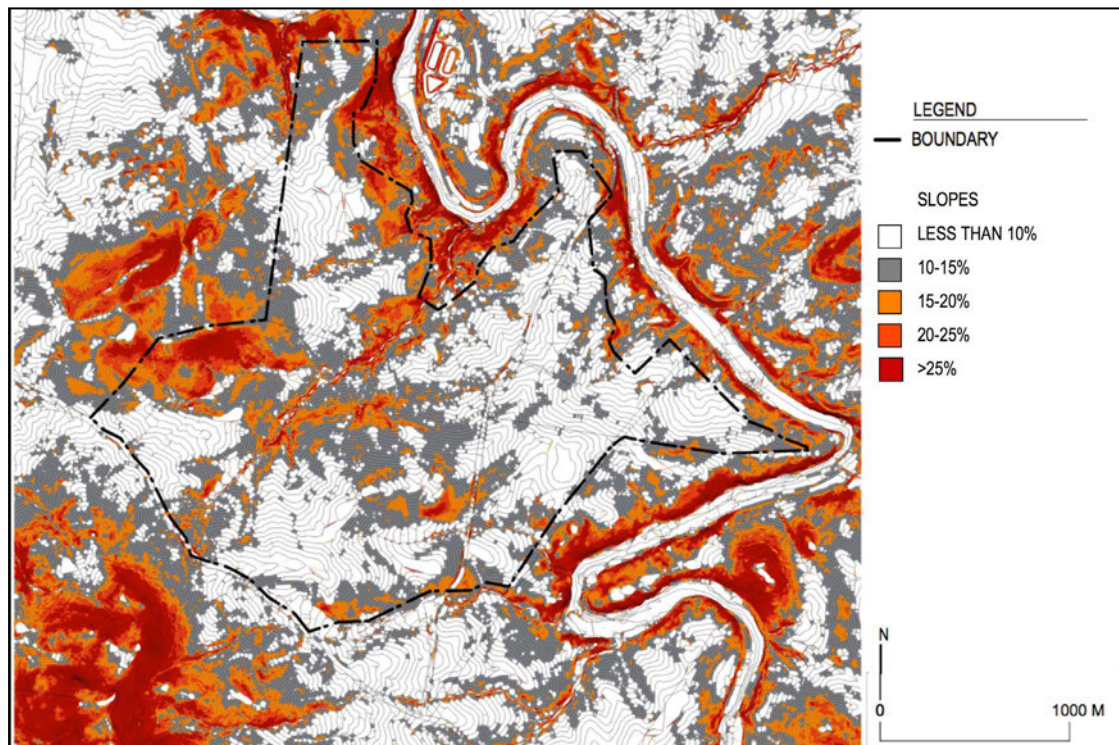
Respecting these existing characteristics of Molonglo Valley stage 2 will ensure that it grows as a place that values the significant environmental and landscape attributes. The natural setting that the future residential areas and group centre will be located in provides an opportunity to live in a highly attractive place, particularly with the river corridor within close proximity, while still being able to access a range of local and regional facilities and services.

The environmental significance and landscape attributes of stage 2 are important to the ACT Government and the Canberra community. Therefore, the IPRs, the Concept Plan and EDPs must ensure that the planning and design provisions reinforce the need for a sensitive approach to balance the requirements for environmental protection and to accommodate the demands of a growing ACT population.

As required, the relevant actions and commitments stated in the NES Plan are incorporated in this PDF and all must be monitored and implemented with the future development of Molonglo Valley stage 2. Appendix 1 provides the NES Plan actions and commitments which are relevant to this PDF.

### 3.1.2 Topography

The landscape of stage 2 is dynamic with over half of stage 2 having slopes above 10%. Only a small amount (approximately 23ha) of the site has a slope less than 5% (see Figure 6). These topographical conditions are in contrast to the flatter valleys that urban development in Canberra has typically occurred in.



**Figure 6: Topographical conditions<sup>2</sup>** (source: SGS 2011: 37)

This presents challenges for the future land development and building construction. It also will likely mean that the costs to service the development area and the site preparation works

<sup>2</sup> Note that the stage 2 development boundary is this map is the Territory Plan FUA boundary. The refined stage 2 development, which reflects the NES Plan and River Park Concept Plan work, is as indicated in figure 1 of this PDF.

## Aloisi, Angelina

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**From:** McFarlane, Trina  
**Sent:** Tuesday, 27 March 2012 9:16 AM  
**To:** McCabe, April  
**Cc:** Mackenzie, Stuart  
**Subject:** FW: EDD Comments on Draft PDF part 1

April

Further comments to add to the previous EDD comments.

thanks

**Trina McFarlane** | Team Leader/Principal Planner - Molonglo  
Phone 02 6207 1920 | [trina.mcfarlane@act.gov.au](mailto:trina.mcfarlane@act.gov.au)  
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**From:** Matesic, Ivo  
**Sent:** Monday, 26 March 2012 5:24 PM  
**To:** Corrigan, Jim; Ponton, Ben; Gianakis, Steven; McFarlane, Trina  
**Cc:** Lewis, Paul; Timmiss, Alan; McGrath, Michael; Carmody, Adam  
**Subject:** RE: EDD Comments on Draft PDF part 1

Dear All,

Our additional comments note the fact that the proposals in Section 3 of the PDF are 'indicative only and may be subject to refinement through the IPRs, the Concept Plans and any subsequent EDPs'. The main comments from Adam and I are:

- Many of the principles are 'broad' and appear generically applicable to most modern developments. Our preference would be for the PDF to delve into these principles, identify how they can be applied in Molonglo 2, what barriers to delivery are present and how the ACT planning system is going to facilitate these outcomes. In particular, the Territory Plan is likely to be a major barrier to the delivery of some of the higher density and innovative built form outcomes. How does ESDD proposed to assist in delivering the ambitious principles in the PDF accordingly? i.e. page 36, section 3.4.1 'Housing Types and Density' discusses the challenges but not the solutions. Similarly minimum car parking requirements in the Territory Plan may undermine the attempts to minimise car use in the area, versus what is discussed in page 42 'Car Parking'. Similarly page 19 Section 3.1.1 talks about the topography and movement networks, but the Territory Plan may limit what is approved/developed in these challenging areas.
- The deferred area to the west is shown as different sizes in the PDF (e.g. figure 1 versus figure 7). Which is it, and how does it relate to the area shown in the IPRs (which has a distinction between the deferred area and another area to the north? What is the process to confirm its suitability for development. What are the issues that caused it to be deferred? Page 21 Section 3.1.3 'Bushfire Management' indicates that bushfire is the only issue to be resolved for this area. Are there other issues to be resolved to confirm the suitability for development?
- The flow chart in Figure 2 references the North Wright study. Could we please have a copy of this, if it is complete
- Development timing of Molonglo 3 in 5-10 years is to be confirmed (page 8, section 1.6 'Development Context') needs to be confirmed, particularly relative to the development timeline for the Molonglo Group Centre and areas east of John Gorton Drive. If Molonglo 3 is 5-10 years away, they need to start the planning and infrastructure work now!

- Bold statements on Bushfire in general need to be confirmed with supporting evidence (e.g. page 21, section 3.1.3 Bushfire management about the location of OAPZs relative to the urban boundary needs clear ESA and Environmental endorsement)
- Leaving resolution of public transport, cyclist and traffic calmed options in the EDP transfers a lot of the risk of delivering these elements to the developer (Page 23, section 3.2. Movement Networks and Accessibility), which is challenging due to the topography etc. Will the Territory Plan be amended to help deliver the PDF aspirations?
- Section 3.3.2 on Community Gardens aligns with what LDA has been trying to implement in Coombs, however, there has been an element of resistance from TAMSD. Has TAMSD been fully consulted on this section?
- Page 33 refers to 4 areas of open space, grassland and woodland totalling 24.2ha, however, these did not appear to be identified on any figures
- The sentence before the list of dot points in Section 3.4.1 consists of one word, so it is difficult to understand exactly what the dot points refer to. Section 3.4.1 also refers to 'Table X'
- Section 3.6.2 – third dot point, would you provide extra ponds for redundancy when residential capable land is at a premium, unless the ponds are located in land not suitable for residential use?
- Section 3.6.2 – fifth dot point regarding combining dam walls with roads, perhaps add to this sentence 'provided that neither project severely constrains the other'
- Section 3.6.2 – seventh dot point – is anybody working on the policy that will allow a trial of a third pipe water system?
- Section 3.6.4 – The need for pump stations A & F may need to be reviewed once the development boundary is finalised with respect to bushfire and ecological requirements
- Section 3.6.5, second paragraph – what does 'This predates NBNC0' mean? My understanding is that Molonglo Stage 2 will need to deal with NBNC0 and therefore the planning and infrastructure design should be catering for this now.

Regards,

Ivo

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**From:** Corrigan, Jim  
**Sent:** Friday, 23 March 2012 3:48 PM  
**To:** Ponton, Ben; Gianakis, Steven; McFarlane, Trina  
**Cc:** Lewis, Paul; Timmiss, Alan; McGrath, Michael; Matesic, Ivo  
**Subject:** EDD Comments on Draft PDF part 1

Ben, Steve, Trina

Thanks for the opportunity to provide comments on the "draft final" PDF for Molonglo Stage 2. Below are first lot of EDD comments. LDA comments to follow on Monday.

### **Molonglo Stage 2 Boundaries**

The matter of ensuring that the PDF has satisfactorily addressed both the NES Plan requirements for biodiversity protection and bushfire management (OAPZ and IAPZ) is critical. The PDF does not contain definitive advice that the proposed urban boundaries satisfy requirements for biodiversity conservation, the NES plan and bushfire management. Whilst separate confirmation on the north western tip of the urban area is being provided, the PDF needs to include conclusive statements in relation to the boundaries. If required, EDD is happy to assist with any subsequent resolution of boundaries.

Section 3.1.3 of the PDF would benefit with the inclusion of a bushfire management plan showing the asset protection zones to explain and justify the proposed development boundaries.

### **NES Plan Implementation**

Section 1.2 page 1 advises "As required by the NES Plan, all relevant approved actions and commitments are incorporated in this PDF". This is repeated in Section 3.1.1 page 18. Section 1.5 page 8 states "the development boundary is consistent with the NES Plan." Appendix 1 provides a summary of NES Plan commitments and actions as

they relate to the PDF for Stage 2 Molonglo.

However there are no specific references in the PDF how they have been addressed. For example Action 44 of the NES Plan requires an adjustment to the western boundary to incorporate inner and outer asset protection zones between the PTWL habitat and the development boundary. The adjustment appears to be only about 130m which is inconsistent with the 300m Critical Protection Zone referred to in previous studies. This boundary adjustment should be described in the PDF, including support by ESA. An appropriate section to describe the justification for the boundary adjustment could be section 3.1 Environmental and Landscape Attributes on page 16.

A further example is Action 43 (also Section 4.8 of NES Plan), PTWL Research Project. Under the NES Plan, the findings of this research project are to be incorporated into the PDF for Stages 2 and 3. There appears to be no reference to the stage 1 of the research project that has been undertaken by ESDD. It is suggested that the status of this research project be included in section 3.1.1 pages 16-17.

These are some examples but it would be beneficial if the PDF addresses all the NES matters lists in Appendix 1 pages 56-57.

### **Light Spill**

The effect of road orientation and light spill impacts on Mt Stromlo needs to be better addressed in the PDF. In particular, clarification that the implementation of the indicative road network structure shown in figure 15 satisfies the minimising of light spill impact to this facility would be beneficial. Another figure similar to figure 15 saying that the indicative road layout satisfies light spill requirements could be included.

### **Special Area Master Plans**

The numerous references to “special area master plans” should be deleted (e.g. Page 40 first para and page 43 last para). It is not clear what these plans would be and in any event are not required given the EDP process will resolve the particular issues.

### **References to other Documents**

We suggest that references to other documents in the body of the text (such as the draft SGS PDF report) be removed and the relevant information from the report included in the PDF (e.g. reference to the draft PDF, page 37 first para below the table and page 41, section 3.5.1, first para). Otherwise the PDF risks not being the main document to guide planning and the reference to other reports becomes complex for people involved with implementation and the community and can have unintended consequences.

### **Water Supply (section 3.6.3 page 48-49)**

Some of this information is out of date. We suggest the following amendments:

- Replace the first para on page 49 with “ACTEWagl will not allow blocks to be handed over for sale until two sources of water supply are in place. For this reason a water main will need to be provided in the John Gorton Drive services corridor.”
- Under Site Servicing – Extra Low zone, replace paras 2 and 3 with “A pressure reduction valve farm will provide the second source of supply from the intermediate zone reservoir.”
- The reference to the “Extra Low Zone Reservoir” in Figures 22 and 23 will then need to be deleted from the plans.

### **Other Comments**

- Suggest “for the group centre” be added at the end of the first sentence under section 1.2.
- Figure 1 – what is to occur with the uncoloured portions adjacent to the boundary of the development area and the river corridor? Are they to be river corridor or under investigation?
- The reference to the “place making guide” on page 10 Para. 3, should be deleted. This draft guide was not supported by the Land Supply Working committees for public release.
- Figure 13 appears unfinished.

I’m not available Monday 26 March. Should you wish to discuss Monday please contact Paul Lewis.

Jim

Jim Corrigan

Director | Office of the Coordinator General |

Economic Development Directorate |

Ph: 620 73520 |

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## Aloisi, Angelina

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**From:** McFarlane, Trina  
**Sent:** Tuesday, 27 March 2012 9:53 AM  
**To:** McFarlane, Trina; McCabe, April  
**Subject:** RE: EDD Comments on Draft PDF part 1

A quick go at a response to the comments....

- 
- Many of the principles are 'broad' and appear generically applicable to most modern developments. Our preference would be for the PDF to delve into these principles, identify how they can be applied in Molonglo 2, what barriers to delivery are present and how the ACT planning system is going to facilitate these outcomes. In particular, the Territory Plan is likely to be a major barrier to the delivery of some of the higher density and innovative built form outcomes. How does ESDD proposed to assist in delivering the ambitious principles in the PDF accordingly? i.e. page 36, section 3.4.1 'Housing Types and Density' discusses the challenges but not the solutions. Similarly minimum car parking requirements in the Territory Plan may undermine the attempts to minimise car use in the area, versus what is discussed in page 42 'Car Parking'. Similarly page 19 Section 3.1.1 talks about the topography and movement networks, but the Territory Plan may limit what is approved/designed in these challenging areas.

**Noted.** The area of stage 2 covered by the IPRs must comply with current Territory Plan provisions. For the residual area of stage 2 – the group centre and environs – a concept plan will be prepared. This can identify any barriers to the Territory Plan and override existing provisions if necessary.

- The deferred area to the west is shown as different sizes in the PDF (e.g. figure 1 versus figure 7). Which is it, and how does it relate to the area shown in the IPRs (which has a distinction between the deferred area and another area to the north? What is the process to confirm it's suitability for development. What are the issues that caused it to be deferred? Page 21 Section 3.1.3 'Bushfire Management' indicates that bushfire is the only issue to be resolved for this area. Are there other issues to be resolved to confirm the suitability for development?

**Noted.** The plans will be modified to show the same area.

An EIS would be required for this area to determine its suitability for development. The area has slopes in the range of 15% to 50% and there is approximately 13.4 hectares of Stringybark Woodland in this area, which meets the definition of native vegetation under the *Nature Conservation Act 1980*. EDD will be undertaking this work.

- The flow chart in Figure 2 references the North Wright study. Could we please have a copy of this, if it is complete

**ESDD will forward a copy of the North Wright review to LDA when completed.**

- Development timing of Molonglo 3 in 5-10 years is to be confirmed (page 8, section 1.6 'Development Context') needs to be confirmed, particularly relative to the development timeline for the Molonglo Group Centre and areas east of John Gorton Drive. If Molonglo 3 is 5-10 years away, they need to start the planning and infrastructure work now!

**Timing of development of stage 3 in 5-10 years is indicative based on current knowledge. ESDD has commenced background investigations such as contamination and heritage, along with a feasibility study for major roads in stage 3.**

- Bold statements on Bushfire in general need to be confirmed with supporting evidence (e.g. page 21, section 3.1.3 Bushfire management about the location of OAPZs relative to the urban boundary needs clear ESA and Environmental endorsement)

- Leaving resolution of public transport, cyclist and traffic calmed options in the EDP transfers a lot of the risk of delivering these elements to the developer (Page 23, section 3.2. Movement Networks and Accessibility), which is challenging due to the topography etc. Will the Territory Plan be amended to help deliver the PDF aspirations?

The provisions of the TP cannot be amended for the area covered by the IPRs.

- Section 3.3.2 on Community Gardens aligns with what LDA has been trying to implement in Coombs, however, there has been an element of resistance from TAMSD. Has TAMSD been fully consulted on this section?

Discuss with TAMS during preparation of Draft PDF. Indicative locations are shown only.

- Page 33 refers to 4 areas of open space, grassland and woodland totalling 24.2ha, however, these did not appear to be identified on any figures
- The sentence before the list of dot points in Section 3.4.1 consists of one word, so it is difficult to understand exactly what the dot points refer to. Section 3.4.1 also refers to 'Table X'
- Section 3.6.2 – third dot point, would you provide extra ponds for redundancy when residential capable land is at a premium, unless the ponds are located in land not suitable for residential use?
- Section 3.6.2 – fifth dot point regarding combining dam walls with roads, perhaps add to this sentence 'provided that neither project severely constrains the other'
- Section 3.6.2 – seventh dot point – is anybody working on the policy that will allow a trial of a third pipe water system?

Work has been undertaken on a policy to trial a third pipe water system although this is now on hold.

- Section 3.6.4 – The need for pump stations A & F may need to be reviewed once the development boundary is finalised with respect to bushfire and ecological requirements

Agreed.

- Section 3.6.5, second paragraph – what does 'This predates NBNC0' mean? My understanding is that Molonglo Stage 2 will need to deal with NBNC0 and therefore the planning and infrastructure design should be catering for this now.

?

---

**From:** Corrigan, Jim  
**Sent:** Friday, 23 March 2012 3:48 PM  
**To:** Ponton, Ben; Gianakis, Steven; McFarlane, Trina  
**Cc:** Lewis, Paul; Timmiss, Alan; McGrath, Michael; Matesic, Ivo  
**Subject:** EDD Comments on Draft PDF part 1

Ben, Steve, Trina

Thanks for the opportunity to provide comments on the "draft final" PDF for Molonglo Stage 2. Below are first lot of EDD comments. LDA comments to follow on Monday.

## **Molonglo Stage 2 Boundaries**

The matter of ensuring that the PDF has satisfactorily addressed both the NES Plan requirements for biodiversity protection and bushfire management (OAPZ and IAPZ) is critical. The PDF does not contain definitive advice that the proposed urban boundaries satisfy requirements for biodiversity conservation, the NES plan and bushfire management. Whilst separate confirmation on the north western tip of the urban area is being provided, the PDF needs to include conclusive statements in relation to the boundaries. If required, EDD is happy to assist with any subsequent resolution of boundaries.

Section 3.1.3 of the PDF would benefit with the inclusion of a bushfire management plan showing the asset protection zones to explain and justify the proposed development boundaries.

## **NES Plan Implementation**

Section 1.2 page 1 advises “As required by the NES Plan, all relevant approved actions and commitments are incorporated in this PDF”. This is repeated in Section 3.1.1 page 18. Section 1.5 page 8 states “the development boundary is consistent with the NES Plan.” Appendix 1 provides a summary of NES Plan commitments and actions as they relate to the PDF for Stage 2 Molonglo.

However there are no specific references in the PDF how they have been addressed. For example Action 44 of the NES Plan requires an adjustment to the western boundary to incorporate inner and outer asset protection zones between the PTWL habitat and the development boundary. The adjustment appears to be only about 130m which is inconsistent with the 300m Critical Protection Zone referred to in previous studies. This boundary adjustment should be described in the PDF, including support by ESA. An appropriate section to describe the justification for the boundary adjustment could be section 3.1 Environmental and Landscape Attributes on page 16.

A further example is Action 43 (also Section 4.8 of NES Plan), PTWL Research Project. Under the NES Plan, the findings of this research project are to be incorporated into the PDF for Stages 2 and 3. There appears to be no reference to the stage 1 of the research project that has been undertaken by ESDD. It is suggested that the status of this research project be included in section 3.1.1 pages 16-17.

These are some examples but it would be beneficial if the PDF addresses all the NES matters lists in Appendix 1 pages 56-57.

## **Light Spill**

The effect of road orientation and light spill impacts on Mt Stromlo needs to be better addressed in the PDF. In particular, clarification that the implementation of the indicative road network structure shown in figure 15 satisfies the minimising of light spill impact to this facility would be beneficial. Another figure similar to figure 15 saying that the indicative road layout satisfies light spill requirements could be included.

## **Special Area Master Plans**

The numerous references to “special area master plans” should be deleted (e.g. Page 40 first para and page 43 last para). It is not clear what these plans would be and in any event are not required given the EDP process will resolve the particular issues.

## **References to other Documents**

We suggest that references to other documents in the body of the text (such as the draft SGS PDF report) be removed and the relevant information from the report included in the PDF (e.g. reference to the draft PDF, page 37 first para below the table and page 41, section 3.5.1, first para). Otherwise the PDF risks not being the main document to guide planning and the reference to other reports becomes complex for people involved with implementation and the community and can have unintended consequences.

## **Water Supply (section 3.6.3 page 48-49)**

Some of this information is out of date. We suggest the following amendments:

- Replace the first para on page 49 with “ACTEWagl will not allow blocks to be handed over for sale until two sources of water supply are in place. For this reason a water main will need to be provided in the John Gorton Drive services corridor.”

- Under Site Servicing – Extra Low zone, replace paras 2 and 3 with “A pressure reduction valve farm will provide the second source of supply from the intermediate zone reservoir.”
- The reference to the “Extra Low Zone Reservoir” in Figures 22 and 23 will then need to be deleted from the plans.

#### **Other Comments**

- Suggest “for the group centre” be added at the end of the first sentence under section 1.2.
- Figure 1 – what is to occur with the uncoloured portions adjacent to the boundary of the development area and the river corridor? Are they to be river corridor or under investigation?
- The reference to the “place making guide” on page 10 Para. 3, should be deleted. This draft guide was not supported by the Land Supply Working committees for public release.
- Figure 13 appears unfinished.

I’m not available Monday 26 March. Should you wish to discuss Monday please contact Paul Lewis.

Jim

Jim Corrigan

Director | Office of the Coordinator General |

Economic Development Directorate |

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EDD/LDA Comments on PDF (23 & 26 March 2012)	PDF Response
<p><b>Molonglo Stage 2 Boundaries:</b></p> <p>The matter of ensuring that the PDF has satisfactorily addressed both the NES Plan requirements for biodiversity protection and bushfire management (OAPZ and IAPZ) is critical. The PDF does not contain definitive advice that the proposed urban boundaries satisfy requirements for biodiversity conservation, the NES plan and bushfire management.</p> <p>Whilst separate confirmation on the north western tip of the urban area is being provided, the PDF needs to include conclusive statements in relation to the boundaries. If required, EDD is happy to assist with any subsequent resolution of boundaries.</p>	<p>A new section under 1.5 – Physical Site Constraints – will be included to outline the issue of development boundaries and reference the NES Plan requirements specifically.</p>
<p>Section 3.1.3 of the PDF would benefit with the inclusion of a bushfire management plan showing the asset protection zones to explain and justify the proposed development boundaries.</p>	<p>A figure from the draft PDF technical report (2011) included to demonstrate the relationship between the OAPZ/IAPZ and the boundary. Additional text also included to support the graphic.</p>
<p><b>NES Plan Implementation:</b></p> <p>Section 1.2 page 1 advises “As required by the NES Plan, all relevant approved actions and commitments are incorporated in this PDF”. This is repeated in Section 3.1.1 page 18. Section 1.5 page 8 states “the development boundary is consistent with the NES Plan.” Appendix 1 provides a summary of NES Plan commitments and actions as they relate to the PDF for Stage 2 Molonglo. However there are no specific references in the PDF how they have been addressed.</p> <p>(for example Action 44 of the NES Plan requires an adjustment to the western boundary to incorporate inner and outer asset protection zones between the PTWL habitat and the development boundary. The adjustment appears to be only about 130m which is inconsistent with the 300m Critical Protection Zone referred to in previous studies. This boundary adjustment should be described in the PDF, including support by ESA. An appropriate section to describe the justification for the boundary adjustment could be section 3.1 Environmental and Landscape Attributes on page 16.</p>	<p>More specific commentary is included in 3.1.1, in regards to how the PDF addresses the NES Plan requirements. Appendix 1 has also been amendment with an additional column as a reference back to the PDF document.</p>

<ul style="list-style-type: none"> <li>• Figure 13 appears unfinished.</li> </ul>	<ul style="list-style-type: none"> <li>• Figure 13 is an interim diagram for the purpose of the draft document – Map has been amended.</li> </ul>
<p>Many of the principles are ‘broad’ and appear generically applicable to most modern developments. Our preference would be for the PDF to delve into these principles, identify how they can be applied in Molonglo 2, what barriers to delivery are present and how the ACT planning system is going to facilitate these outcomes.</p> <p>In particular, the Territory Plan is likely to be a major barrier to the delivery of some of the higher density and innovative built form outcomes.</p> <ul style="list-style-type: none"> <li>• How does ESDD proposed to assist in delivering the ambitious principles in the PDF accordingly? (i.e. page 36, section 3.4.1 ‘Housing Types and Density’ discusses the challenges but not the solutions).</li> <li>• Similarly minimum car parking requirements in the Territory Plan may undermine the attempts to minimise car use in the area, versus what is discussed in page 42 ‘Car Parking’.</li> <li>• Similarly page 19 Section 3.1.1 talks about the topography and movement networks, but the Territory Plan may limit what is approved/designed in these challenging areas.</li> </ul>	<p>The work required to ‘delve into the principles, identify how they can be applied, the barriers and how the planning system can facilitate these outcomes’, would require substantial additional writing. However, some additional writing to address this could be included in the next iteration of the PDF.</p> <p>As the PDF is a strategic document, the principles and how they specifically apply to Molonglo Valley stage 2 could be included. The barriers for delivery and how the planning system will facilitate the outcomes, would be considered in the more detailed planning in the IPRs, Concept Plan and EDPs. The role of these documents is to achieve the principles of the PDF through more detailed planning and design solutions.</p> <p>The principles of the PDF are derived from various ACT Government policy documents, including the Structure Plan. Future development should aim to achieve all of these principles without amendments to the TP being required. The PDF guiding principles are essence a summary of these policy priorities as they relate to Molonglo Valley stage 2.</p> <p>The area of stage 2 covered by the IPRs must comply with current Territory Plan provisions. For the residual area of stage 2 – the group centre and environs – a concept plan will be prepared, which will allowing for barriers/solutions to be identified and override any existing provisions of the TP, if necessary.</p>
<ul style="list-style-type: none"> <li>• The deferred area to the west is shown as different sizes in the PDF (e.g. figure 1 versus figure 7). Which is it, and how does it relate to the area shown in the IPRs (which has a distinction between the deferred area and another area to the north)?</li> <li>• What is the process to confirm it’s suitability for development?</li> <li>• What are the issues that caused it to be deferred? Page 21 Section 3.1.3 ‘Bushfire</li> </ul>	<p>The plans have been amended to show the correct area. Additional text has been included in the PDF to provide more detail regarding the ‘potential future development area’ and responds to the questions posed.</p>

<p>Management' indicates that bushfire is the only issue to be resolved for this area.</p> <ul style="list-style-type: none"> <li>• Are there other issues to be resolved to confirm the suitability for development?</li> </ul>	<p>An EIS would be required for this area to determine its suitability for development. The area has slopes in the range of 15% to 50% and there is approximately 13.4 hectares of Stringybark Woodland in this area, which meets the definition of native vegetation under the <i>Nature Conservation Act 1980</i>. Additional text will be added to provide more clarity, however the PDF could be amended once the EIS work is completed and approved. . A budget bid has been made for EDD to undertake this EIS.</p> <p>The PDF will provide a general overview of issues to be resolved through the EIS, but it is part of the scoping exercise to be undertaken for the EIS that all the issues for consideration will be resolved.</p>
<p>Development timing of Molonglo 3 in 5-10 years is to be confirmed (page 8, section 1.6 'Development Context') needs to be confirmed, particularly relative to the development timeline for the Molonglo Group Centre and areas east of John Gorton Drive. If Molonglo 3 is 5-10 years away, they need to start the planning and infrastructure work now!</p>	<p>If this is the case, LDA need to advise an amended timeframe. This indicative timeframe is based on longstanding advice provided to ESDD.</p> <p>ESDD has commenced background contamination and heritage investigations and a feasibility study for major roads in stage 3.</p>
<p>Bold statements on Bushfire in general need to be confirmed with supporting evidence (e.g. page 21, section 3.1.3 Bushfire management about the location of OAPZs relative to the urban boundary needs clear ESA and Environmental endorsement)</p>	<p>The EIS for the western boundary will confirm the APZ for bushfire management. ESA has endorsed the APZ along the Molonglo River corridor through the preparation of the River Park Concept Plan. Some additional text can be added to further clarify this issue.</p>
<p>Leaving resolution of public transport, cyclist and traffic calmed options in the EDP transfers a lot of the risk of delivering these elements to the developer (Page 23, section 3.2. Movement Networks and Accessibility), which is challenging due to the topography etc. Will the Territory Plan be amended to help deliver the PDF aspirations?</p>	<p>The intention for the IPRs was that a technical amendment to the TP be made to uplift the Future Urban Area when each EDP is approved. Therefore, the IPRs are in accordance with the current TP provisions and the TP will not be amended specifically for the first release area in Molonglo Valley stage 2.</p> <p>The final design of these options needs to be done in the context of a final subdivision plan. The EDP is the place in which the final</p>

## Aloisi, Angelina

---

**From:** McFarlane, Trina  
**Sent:** Thursday, 29 March 2012 2:48 PM  
**To:** McCabe, April  
**Subject:** FW: Molonglo Valley PDF - responding to EDD/LDA comments

April  
Thanks, comments in red for consideration.  
Trina

---

**From:** McCabe, April  
**Sent:** Thursday, 29 March 2012 2:27 PM  
**To:** McFarlane, Trina; Gianakis, Steven; Mackenzie, Stuart  
**Subject:** Molonglo Valley PDF - responding to EDD/LDA comments

In response to our colleagues comments on the development boundary, i have revised the following section of the PDF to try and clearly articulate this issue, without hamstringing us in the process. The key here is to appear to be providing definitive guidance but also hoping that they don't pick up the conditions (Issues to be considered through the EIS include, but not limited to). Can you please review and provide comments/edits.....thanks

---

### 1.5 Physical site context

Molonglo Valley stage 2 is predominantly north facing and contains many smaller valleys, creeks and drainage lines resulting in a more undulating landform compared to the rest of Canberra's urban areas. The site has been highly modified by the past land uses such as small rural land holdings and pine forest plantation, which existed up until the Canberra bushfires in 2003, when much of the area and its surrounds were devastated.

A critical and defining feature of the site is its relationship to threatened species including the Box-Gum Woodland (BGW) and in particular the habitat areas for Pink-tailed Worm Lizard (PTWL). Despite the land modifications, significant habitat values remain for a large range of nationally and locally listed threatened and rare species. The challenges that arise in consideration of the physical site context include:

- Achieving the interrelated and sometime conflicting bushfire, ecological and recreation objectives; and
- Integrating natural environmental features and values of the site to add to identity for the development while having to undertake major land-forming to accommodate roads and establish development sites.

The Molonglo Valley stage 2 development boundaries were originally set by the Variation to the Territory Plan (no.281). The boundary consists of three distinct parts: the River Corridor (to the east and north), the western boundary and the Stromlo Forest Park/Uriarra Road boundary (to the south). The development boundary has been established and further refined by the analysis of key physical site features, sensitive vegetation and habitat mapping, and bushfire management requirements.

#### *Development boundaries*

The **Molonglo Valley stage 2 development** boundary, as shown at Figure 1, is consistent with the requirements of the **River Park Concept Plan (RPCP)** approved NES Plan.

A principle of the Molonglo **RPCP** is to *'reinforce and re-establish the ecological connectivity between the Murrumbidgee corridor and National Capital Open Space System (NCOSS) and urban areas along the river park corridor'* (2011:28). **Along with this PDF, the RPCP provides the strategic framework for Molonglo Valley stage 2 – delete, said previously in document.**

The river corridor boundary was refined as a result of investigations for the RPCP, and aims to reduce the impacts to high and moderate PTWL habitat and BGW (NES Plan action 2 and 29). As reinforced by the

RPCP principle, the refined boundary ensures that connectivity is maintained along the river park corridor. The PDF area boundary, as shown in Figure 1, reflects the revised river corridor boundary – delete, not needed.

### *Molonglo Valley stage 2: Western Boundary - delete*

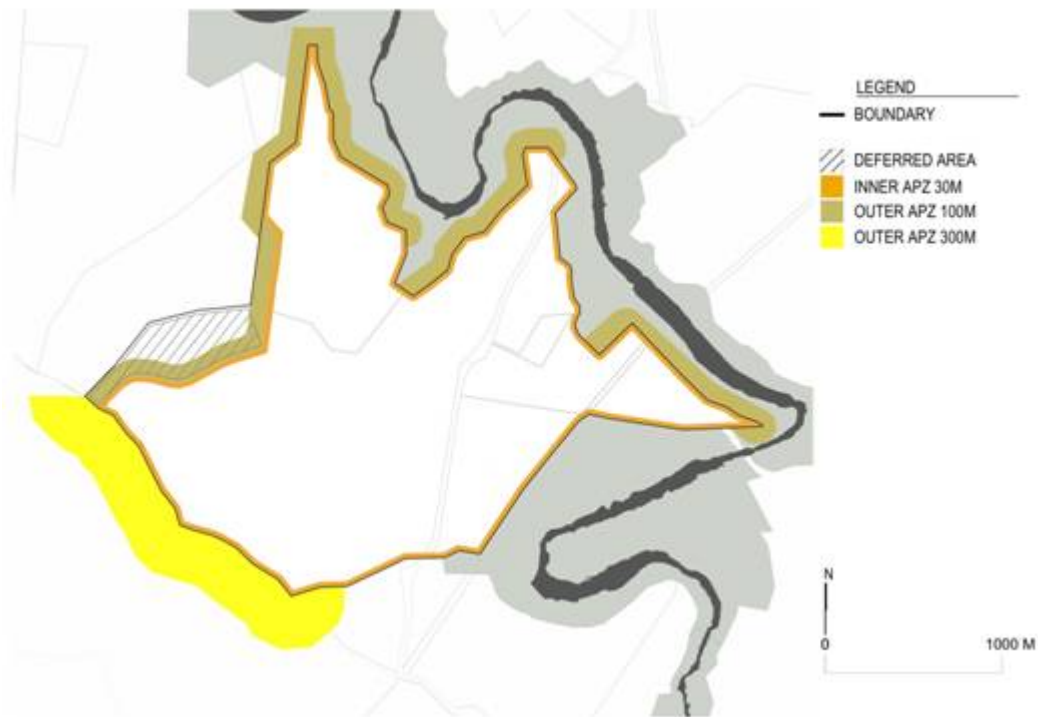
The western boundary has been adjusted to avoid impact on the high and moderate quality PTWL habitat. As required by Action 44, Figure 5 illustrates the location of the Outer Asset Protection Zone (OAPZ) between the development boundary and the PTWL habitat, thereby reducing the direct impact from bushfire management and indirect impacts from the urban development. The Inner Asset Protection Zone (IAPZ) has been located inside the development boundary.

Figure 1 identifies a 'potential development area (subject to investigation)' on the western boundary. This area will be investigated and formally assessed through an Environmental Impact Statement (EIS), which will identify whether this area is suitable for future development. (The EIS will identify whether this area is suitable for development –delete, already said. ) This process will finalise the entire western development boundary with the establishment of bushfire APZs. Options for the treatment of the western boundary was the subject of inter-agency discussion and a decision was reached by the RPCP Steering Committee. The need to prepare an EIS was also confirmed through the Preliminary Risk Assessment conducted for Molonglo Valley stage 2.

A key aspect of the EIS is to establish the bushfire management and APZ requirements, which, in turn, will confirm the development boundary for the western edge. A range of additional issues need to be investigated to establish whether the potential development area is suitable for development. Issues to be considered through the EIS include, but not limited to:

- Slopes within the potential development area range from a gradient of 15-50%;
- The clearing and removal of a significant amount of Stringybark woodland;
- Consider the environmental impacts associated with bushfire protection, particularly in relation to the location of the OAPZ;
- The location of an identified heritage site, a tree that bears a surveyors mark (MSH1) within the defined area and the future management requirements; and
- Visual impact of developing this area, particularly in regards to Molonglo and North Weston Structure principle which states that *“the landscape setting and values of Molonglo and North Weston will be recognised and incorporated into the urban design of the area. Boundary hills and significant internal ridges within the urban fabric will be excluded from inappropriate development”* (2008:4)

**Figure 5: Overall development boundary set by OAPZ and IAPZ** (Source: SGS 2011: 59)



Notwithstanding the refinement of the [development](#) boundary that has been undertaken and reflected in this PDF, further adjustments may need to be made in the future. This would be in response to the preparation of more detailed work, such as the Plans of Management (PoM) for the river corridor and the EDPs.

Amendments to the development boundary must clearly demonstrate an improved outcome for the development, be in accordance with the approved NES Plan and be agreed by the Directors-General of Environment and Sustainable Development Directorate and Economic Development Directorate. The process to then make any subsequent amendment to this PDF is outlined in section 1.2 of this document.

# Draft Planning and Design Framework – Molonglo Valley Stage 2

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Environment and Sustainable Development Directorate  
ACT Government

August 2011



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### GLOSSARY OF ABBREVIATIONS

ACTPLA	ACT Planning and Land Authority (now Environment and Sustainable Development)
AMCORD	Australian Model Code for Residential Development
ANU	Australian National University
APZ	Asset Protection Zone
BSU	Basic Sports Unit (as defined by TAMS)
CIRG	Community and Industry Reference Group
CIT	Canberra Institute of Technology
CRIP	Community Recreation Irrigated Park (as defined by TAMSD)
DET	ACT Department of Education and Training
EPBC	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
ESA	ACT Emergency Services Agency
EDD	ACT Economic Development Directorate
EDP	Estate Development Plan
ESDD	ACT Environment and Sustainable Development Directorate
EIS	Environmental Impact Study
EWA	East West Arterial
FRSDC	Future Urban Areas Residential Subdivision Codes
FSR	Floor Space Ratio
GFA	Gross Floor Area
IPRs	Important Planning Requirements
IPT	Intertown Public Transport
LDA	ACT Land Development Agency
MNWSP	Molonglo and North Weston Structure Plan
PTWL	Pink tailed Worm Lizard
MOU	Memorandum of Understanding
MVIS	Molonglo Valley Interceptor Sewer
NCA	National Capital Authority
NES Plan	National Environmental Significance Plan
NSA	North South Arterial
PDF	Planning and Design Framework

SEWPaC	Sustainability, Environment, Water, Population and Communities
STP	ACT Sustainable Transport Plan
TAMSD	ACT Territory and Municipal Services Directorate
WSUD	Water Sensitive Urban Design

## GLOSSARY OF TERMS

Asset Protection Zone:	An area in and/or beside urban development that is designed and managed to reduce the risk of adverse impacts from bushfires on assets (public or privately owned). (Source: ACTPLA Planning for Bushfire Risk Mitigation)
Deed of Agreement	A legal document to guide development of an Estate Development Plan.
DV306	A draft variation to the Territory Plan affecting residential estate development, solar access and consolidation of dwelling sites in established suburbs. Refer to ESDD web site for further information.
En Globo	Refers to a parcel of land for development.
Estate Development Plan	Details the subdivision design and lodged as a Development Application. (Source: ACTPLA Planning for Bushfire Risk Mitigation)
Important Planning Requirements	Principles and mandatory requirements provided by ESDD to the EDD to guide preparation of Deeds of Agreements.
Inner Asset Protection Zone	Usually road reserve, parkland or nature reserve, and extends away from property boundaries. Fire fuels are to be maintained at low levels to reduce fire intensity so as to contribute to the defensible space for home-owners and emergency service efforts to minimise the ignition and ongoing combustion of homes and other structures during a bushfire. (Source: ACTPLA Planning for Bushfire Risk Mitigation)
Integrated housing development parcel	A parcel of land that is intended to be: a) subdivided into 2 or more single dwelling sites and b) used or intended to be used for integrated housing development. For more information refer to ESDD web site
Outer Asset Protection Zone	Usually non-urban land such as nature reserve or grazing land, it is farthest away from homes and built assets. Fire fuel reduction measures are to be taken to reduce fire intensity and the availability of embers that may transported into urban areas during a fire event. (Source: ACTPLA Planning for Bushfire Risk Mitigation)
Pedestrian and Cycle Priority Streets	Refers to streets that give priority to pedestrians and cyclists but can also be used for vehicles at a slower speed.
Woonerfs	A Dutch word for streets that mix cars and people, but with pedestrians as the dominant mode. For more information refer to: <a href="http://streetswiki.wikispaces.com/Woonerf">http://streetswiki.wikispaces.com/Woonerf</a>

**Table 4 Overview of implementation mechanisms**

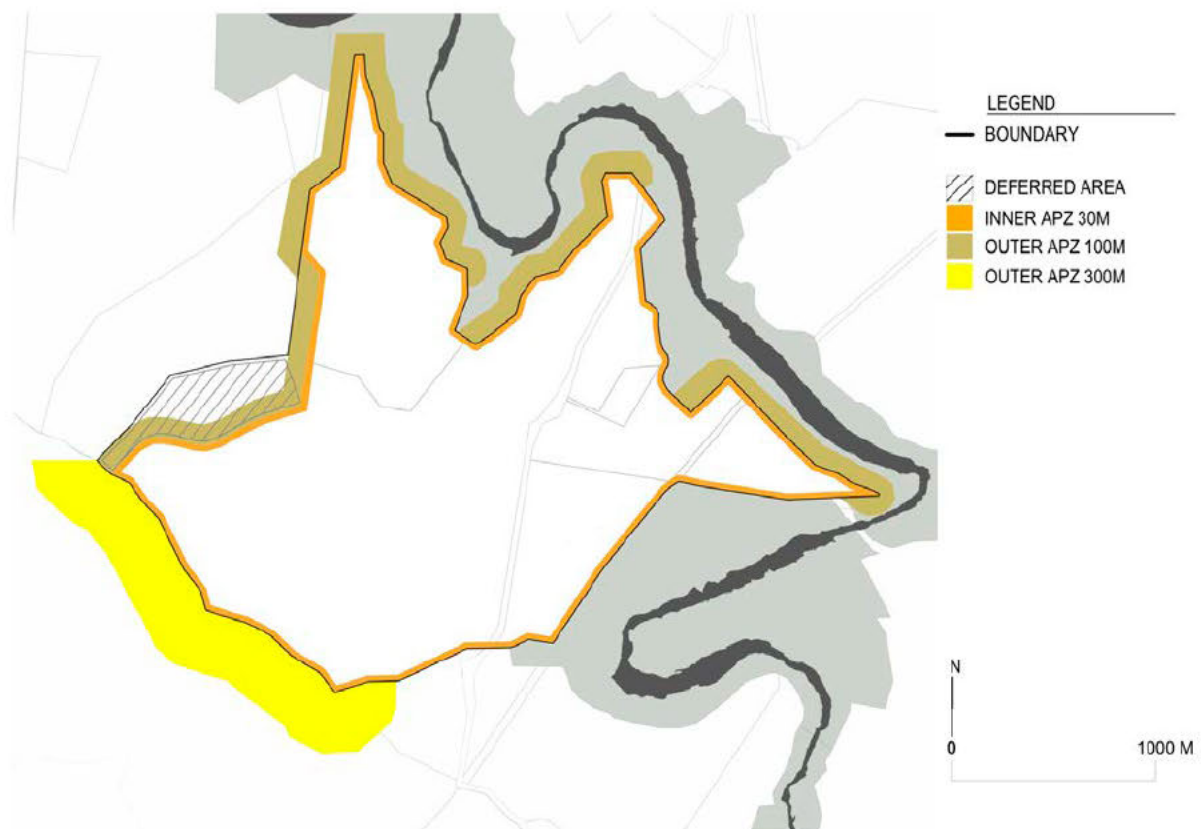
Major elements	First stage for 3,000 dwellings			Further studies and investigations	
	Major Capital Works	IPRs for individual elements	IPRs for Special Areas		Support strategies
Development Area		<p><b>Establish boundary between development area and river corridor:</b> principles and preferred edge condition cross sections shown in IPRs ('deferred area' of south facing steep slopes also identified).</p> <p><b>Protect heritage items:</b> maps of items shown in IPRs</p>		<p><b>Ensure development area is protected from bushfire hazard:</b> agree on bushfire management strategies for first release (TAMSD/ESA).</p>	<p><b>Confirm ultimate western boundary:</b> undertake environmental study to establish suitability of south facing steep slopes for urban development and establish outer APZ (ESDD/EDD).</p> <p><b>Further review extent of stage 2 boundary:</b> negotiate with NCA via amendment in Territory Plan (ESDD).</p> <p><b>Resolve any environmental clearances</b> for infrastructure and development as required (ESDD).</p> <p><b>Prepare a spoil management strategy</b> Recognising that there will be a significant amount of cut and/or fill required for site development. (EDD)</p>

## 5.2 Key Elements

### 5.2.1 Overall development boundary

- The developable area boundary is set by appropriately managing bushfire and environmental constraints, and is shown in Figure 13.
- PTWL sites and other significant areas are protected by buffers or constrained from development.
- The outer APZ (for bushfire management) is outside the site boundary except on part of the western boundary where it encroaches into the site to protect vegetation adjacent to but outside the site boundary. Elsewhere, the inner APZ is within the site including a fire trail or road around the perimeter of the development (see edge conditions below).

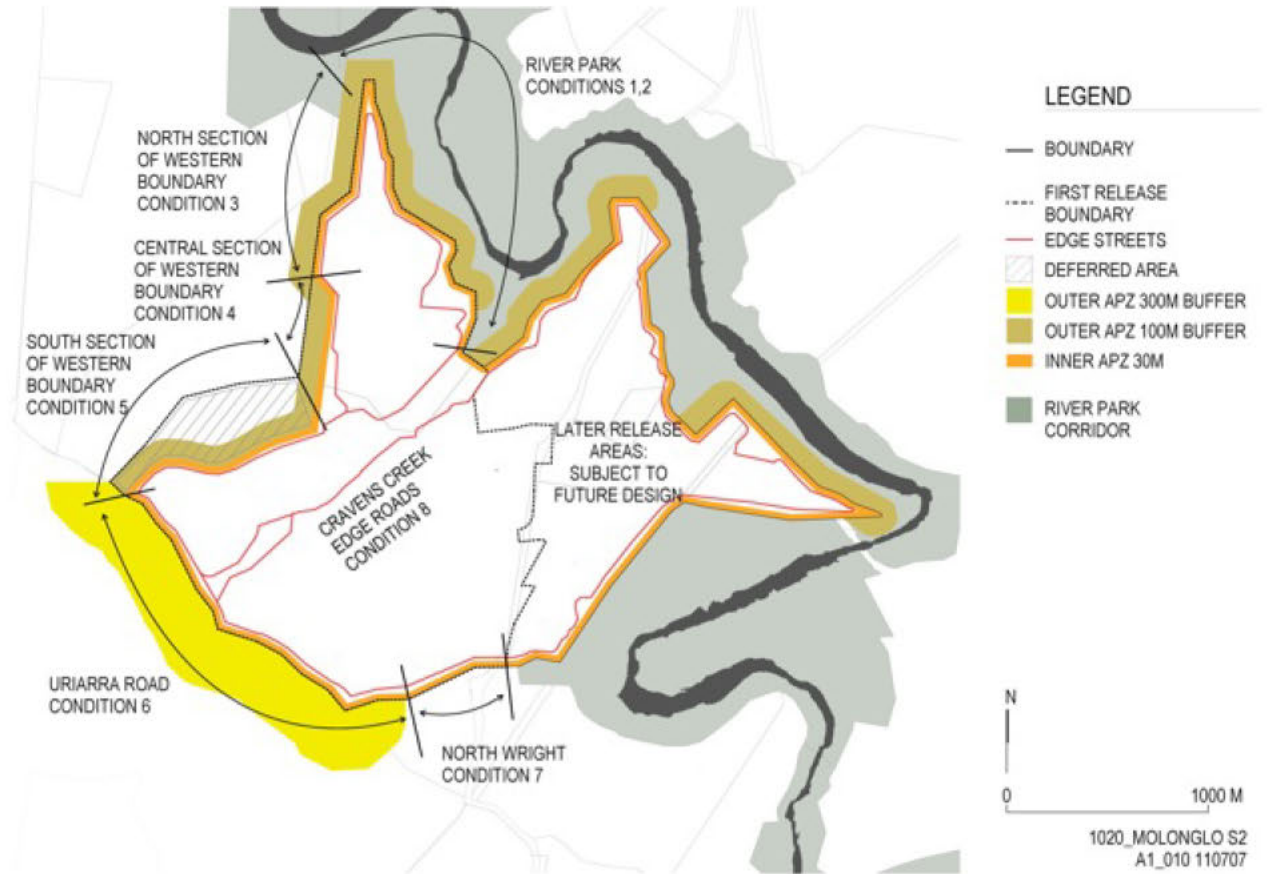
**Figure 13 Overall development boundary set by location of Inner and Outer APZs**



## 5.2.2 Edge Road Conditions

The boundaries, and development edges as defined by edge roads, are shown on Figure 14.

**Figure 14 Different edge or boundary conditions (key map)**

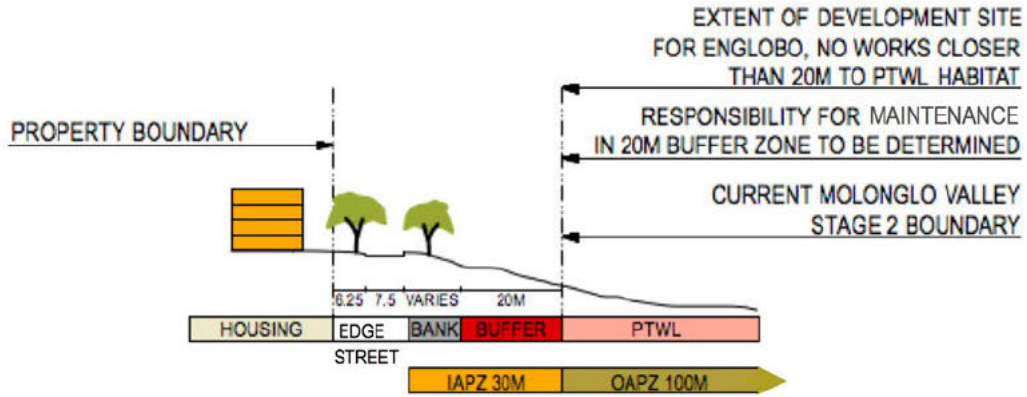


The following approaches have been established for the development edge conditions shown in more detail in Figure 15 to Figure 22. Similar edge conditions will apply in the later release areas.

- The boundary of the development area is the outer edge (toe of the batter) of the fire trail/edge road required to be built around the perimeter of the development and as accepted by TAMSD/ESA. An indicative layout of the edge conditions is shown in Figure 14.
- All works beyond this road, including works associated with management of the River Corridor are beyond the scope of works for the development area.
- The edge road has to be located outside the 20m buffer required from the PTWL habitat as set down in the NES Plan with the Commonwealth.

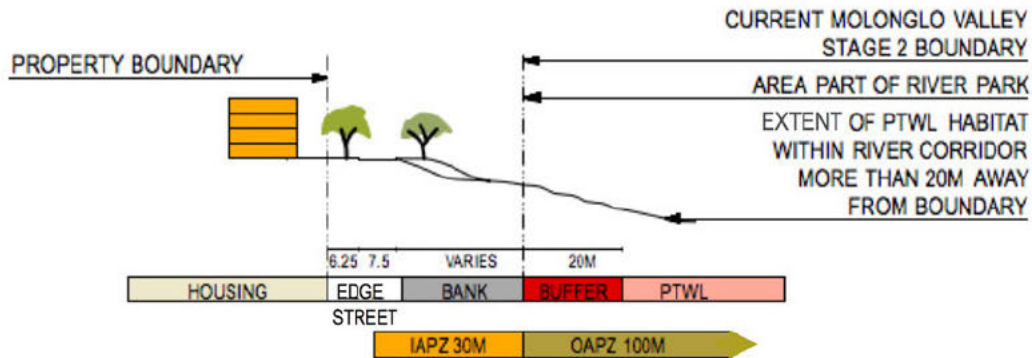
- An exception to this is the western boundary area where the inner and outer APZ is located within the Stage 2 area boundary until refined with further studies. An indicative layout of this edge boundary is indicated in Figure 18 and Figure 19.

**Figure 15 River Park edge indicative condition 1**



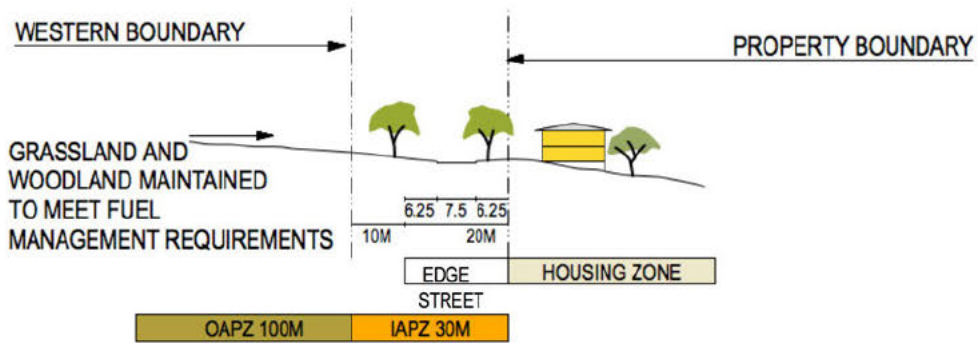
CONDITION 1

**Figure 16 River Park edge indicative condition 2**



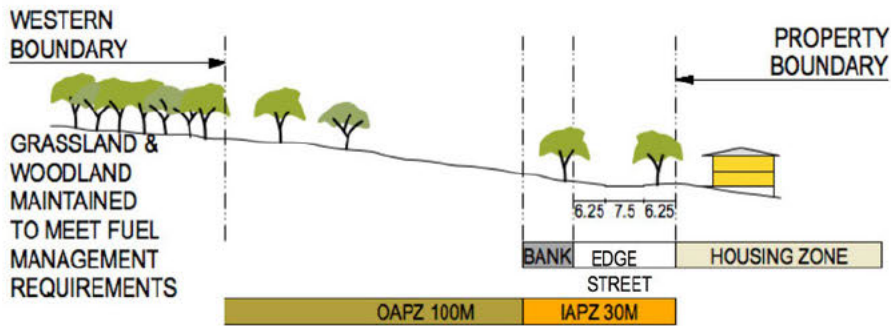
CONDITION 2

**Figure 17 North section of western edge condition 3**



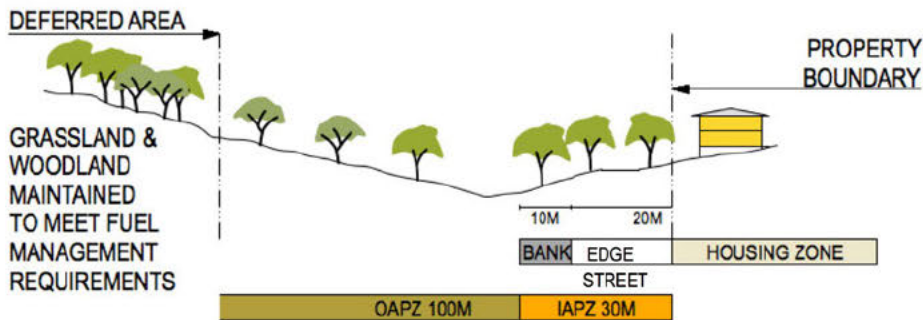
**CONDITION 3**

**Figure 18 Central section of western edge condition 4**



**CONDITION 4**

**Figure 19 South section of western edge condition 5**



**CONDITION 5**



**Table 22 Overview of actions for implementation**

Major elements	First stage for 3,000 dwellings				Further studies and investigations
	Major Capital Works	IPRs for individual elements	IPRs for Special Areas	Support strategies	
<b>Development Area</b>		<p><b>Establish boundary between development area and river corridor:</b> principles and preferred edge condition cross sections shown in IPRs ('deferred area' of south facing steep slopes also identified).</p> <p><b>Protect heritage items:</b> maps of items shown in IPRs</p>		<p><b>Ensure development area is protected from bushfire hazard:</b> agree on bushfire management strategies for first release (TAMSD/ESA).</p>	<p><b>Confirm ultimate western boundary:</b> undertake environmental study to establish suitability of south facing steep slopes for urban development and establish outer APZ (ESDD/EDD).</p> <p><b>Further review extent of stage 2 boundary:</b> negotiate with NCA via amendment in Territory Plan (ESDD).</p> <p><b>Resolve any environmental clearances</b> for infrastructure and development as required (ESDD).</p> <p><b>Prepare a spoil management strategy</b> Recognising that there will be a significant amount of cut and/or fill required for site development. (EDD)</p>

- the southern school/open space/community cluster
- three major areas of open space devoted primarily to stormwater management but also requiring appropriate boundary treatments and providing access corridors, amenity and passive recreation.

The Molonglo geological site may be considered as a sixth area deserving special design to ensure integration with the stage 2 area for access and landscape design, but it is outside the current development boundary (and will be subject to an alternative design process).

These special areas will provide fundamentally important public amenity, open space, stormwater management, retail and service assets for future residents. Due to the public importance and risks involved, especially those related to site complexities and the need for more detailed planning (including in some cases considerable agency involvement), there is a reasonable requirement for further government sign-off prior to EDP approval in respect of these special areas. It is also considered that the innovative CRIP concept and the importance of this facility in this setting warrants a detailed review role for Sport and Recreation specialists as the detailed scheme for the CRIP is resolved.

There are already examples of such provisioning in Deeds, where infrastructure or other works need to be complete and 'signed off' before applications can be lodged.

For these special areas the IPRs are still mandating required outcomes but are documenting contingent or inter-related items that will need further resolution before being finally approved. Essentially, a clause would be included in a Deed along the lines that an EDP Development Application cannot be submitted to ESDD until certification is received from the Deed Manager that the IPRs have been satisfied. Negotiation with relevant authorities will need to be undertaken to ensure the IPRs are addressed.

## 16.6 Support Strategies

### **Bushfire management**

**Action: Ensure the development area is protected from bushfire hazard by establishing bushfire management strategies for first release (and beyond) (TAMSD/ESA)**

Key challenges for bushfire and habitat management at the Molonglo Valley are:

- to ensure ACT and Commonwealth legislative requirements are met
- to maintain or enhance ecological values in the area while protecting the future population and assets of Molonglo Valley stage 2 from bushfire

- to provide a strategy that is practical and cost-effective, and that contributes to the amenity of the development and wider area

It is imperative that bushfire management strategies be in place for stage 2. These strategies were outlined in the Base Analysis papers of January 2011 (see Appendix 1). The relevant strategies for future implementation for future action are outlined below:

Strategy	Description
Further defining the urban edge	On finalization of the NES Plan and the River Corridor work minor refinements to the urban boundary will be needed. For example, consideration should be given to topographic features, and interactions and linkages with other infrastructure and habitat. This would follow detailed on-ground survey and assessment as part of the future development process. This generally involves a team of 2-3 people (engineer, ecologist and surveyor and possibly ESA) to establish the methodology and then survey on foot the boundary area (for the stage 2 boundary areas this would be around 3-5 days). A surveyor would then draw up the plans.
Adaptive management of the outer APZ in areas of ecological sensitivity	Consistent with best practice ecological and bushfire management, it is recommended that site-specific conditions in the outer APZ area be assessed in detail regarding floristics, fauna habitat value, fuel hazards, bushfire history and requirements for ecologically appropriate fire regimes. An adaptive management approach is recommended that will require monitoring, ongoing bush regeneration (or similar) and a mosaic pattern to fire management. This will allow site managers to be specific and responsive to changing site conditions, and differs from a more prescriptive approach (e.g. burn every three years).
Stromlo Forest Park outer APZ	<p>There are two options for management of the outer APZ on the Stromlo Forest Park boundary:</p> <ul style="list-style-type: none"> <li>• 100 m outer APZ to be established and maintained within Stromlo Forest Park. Planting types, densities etc within and adjacent the outer APZ to be consistent with grassland/woodland vegetation type</li> </ul> <p>Alternatively, maintain a 300 m outer APZ where the vegetation is consistent with a forest/shrubland vegetation type</p> <p>These should be discussed with representatives from Stromlo Forest Park and the ESA to determine the preferred approach. They could be considered as part of the EIS for the western boundary.</p>
Increase proportion of high quality habitat in the riparian corridor	Management of the riparian corridor should be consistent with the principles stated in the draft <i>Riparian Strategy for Coombs and North Weston</i> (ELA 2010) (see Section 8).

Strategy	Description
	<p>This would primarily be established through the River Park Concept Plan currently being prepared by the ACT Government for the Molonglo River corridor, This should inform preparation of plans of management for the river corridor.</p> <p>Areas of high quality habitat in the riparian corridor are characterised by having low fuel conditions maintained over long periods. Management of the outer APZ in these areas can therefore be consistent with ecologically sensitive fire regimes.</p> <p>It is recommended that the riparian corridor be managed so that the proportion of high quality areas increases. Management is expected to include weed control, creation of more rocky areas<sup>39</sup> to improve connectivity between existing patches, and removal of most shrubs and trees regrowing in areas of Pink-tailed Worm Lizard habitat.</p>
<p>Establish a strategic fire fighting zone to the west</p>	<p>Implementation of a strategic firefighting zone to the west of the offset area (e.g. land currently leased by the Australian National University) will provide additional protection against wildfires from the west.</p>
<p>Incorporate fire risk mitigation measures in the lot layout and building design<sup>40</sup></p>	<p>The Molonglo Valley including stage 2 is recognised as bushfire prone, and development in this area is required to meet the provisions of the <i>Building Code of Australia</i> and <i>Australian Standard 3959 (construction of buildings in bushfire-prone areas)</i>. The development will feature the following in accordance with relevant codes/standards and the <i>Strategic Bushfire Management Plan for the ACT (SBMP) (ESA 2009)</i></p> <ul style="list-style-type: none"> <li>• Higher residential design and construction standards</li> <li>• Access, egress and evacuation capability via roads identified in the preferred layout</li> <li>• Water supply infrastructure to agreed capacity levels in the form of a ring main with greater provision of fire hydrants within the inner APZ and adjacent urban area, and provision of emergency tanker hardstand at hydrants</li> <li>• Emergency access provided as an outer ring road or fire trail, and access points</li> <li>• Verge width to residential blocks a minimum of approx. 7 m with grassland</li> <li>• Use of flora species in landscaping to be consistent with the adjacent vegetation community, while minimising fire risk through consideration of</li> </ul>

<sup>39</sup> Rocks need to be sourced from outside protected areas then placed in areas of suitable geology/ topography/ aspect etc.

<sup>40</sup> *Planning for Bushfire Risk Mitigation General Code*, page 7.

Strategy	Description
	<p>planting density, location, species mix, extent and maintenance requirements. Stringybarks are not recommended because of their propensity to burn</p> <ul style="list-style-type: none"> <li>• Multi-use of tracks, paths and roads e.g. for recreational activities, utilities and maintenance of the urban edge</li> <li>• Water sensitive urban design features to prevent impacts to adjacent ecological values and river water quality</li> </ul>
Optional additional measures	<p>Additional measures that could be used to reduce fuel loads and improve management in certain areas include:</p> <ul style="list-style-type: none"> <li>• Crash grazing to reduce fuel loads – although problems can include adverse impacts to ecology, water &amp; soils; odour; stock movement; and public safety</li> <li>• Slashing - only possible in non-rocky areas; high cost if done over large areas; may not be compatible with ecological requirements</li> <li>• Construct low rock walls - to define management zones, guide public access and improve PTWL habitat; high construction cost</li> </ul> <p>These options would require further site-specific consideration and discussion with relevant agencies.</p>
Western boundary	Further resolution of the western boundary (IAPZ and OAPZ) will be determined through an EIS required for the western boundary.

The preferred plan for the site and the bushfire strategy aims to conserve the patch of Box-Gum Woodland on the eastern boundary and areas of moderate to high PTWL habitat. There are no known heritage values likely to be impacted by the bushfire strategy, although further assessment may be required as part of the impact assessment process.

A number of recommendations were made during the Coronial Inquiry into the 2003 Victorian Bushfires that are likely to have relevance for contingency planning at the Molonglo Valley. Examples of contingency measures that may be suitable include neighbourhood safe places (e.g. sports ovals) and warning systems. These measures need further consideration during detailed design.

Monitoring and management of areas adjacent to the development will be the responsibility of TAMSD and ESA.

ESA will be responsible for developing and maintaining community awareness regarding bushfire preparedness. For example, the 2010 awareness campaign used radio, television, print and online

advertising as well as direct community engagement activities. Information is also made available to the community by the ESA website and fact sheets.

Other agencies responsible for ongoing management, monitoring and community engagement will need to be identified.

In-principle support for the approach outlined here will be needed from relevant agencies, e.g. ESA, TAMSD and the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (SEWPaC), prior to proceeding to the next stage.

### **Major community facilities**

**Action: Ensure efficient provision of major community facilities by reviewing alternative provision approaches including operating from privately owned buildings (Treasury).**

The draft PDF has highlighted the need to pursue cost and land effective means of providing community facilities and land given the constraints in stage 2. This is consistent with recommendations in the Elton report:<sup>41</sup>

*That agency concerns about limited operational resources be addressed early in the planning process with Treasury so that recommendations for the level of provision of community facilities land are not impacted negatively by current concerns about operational and maintenance budgets*

*Particularly for the community facilities uses identified for the central area of the group centre, mechanisms that incorporate community facilities within commercial and/or residential uses should be considered for Molonglo Valley.*

The ACT Government, recommend being led through Treasury and including ETD, Health Directorate (HD) and Community Services Directorate (CSD), should investigate alternative approaches to provision and accommodation of government community services for example, determining whether there may be financial and operational advantages from having facilities or services renting privately rather than necessarily occupying Territory land; consistent with recommendation in the Elton report.

The recommendations of this review require further resolution within government.

### **Local community facilities**

**Action: Ensure effective use and management of local community land by designing and adopting appropriate allocation and management approaches for local facilities (ESDD)**

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<sup>41</sup> Elton Consulting for ACTPLA, *Social Infrastructure for Molonglo Suburbs 3, 4 and Group Centre: Advice for Concept Plans*, September 2010.