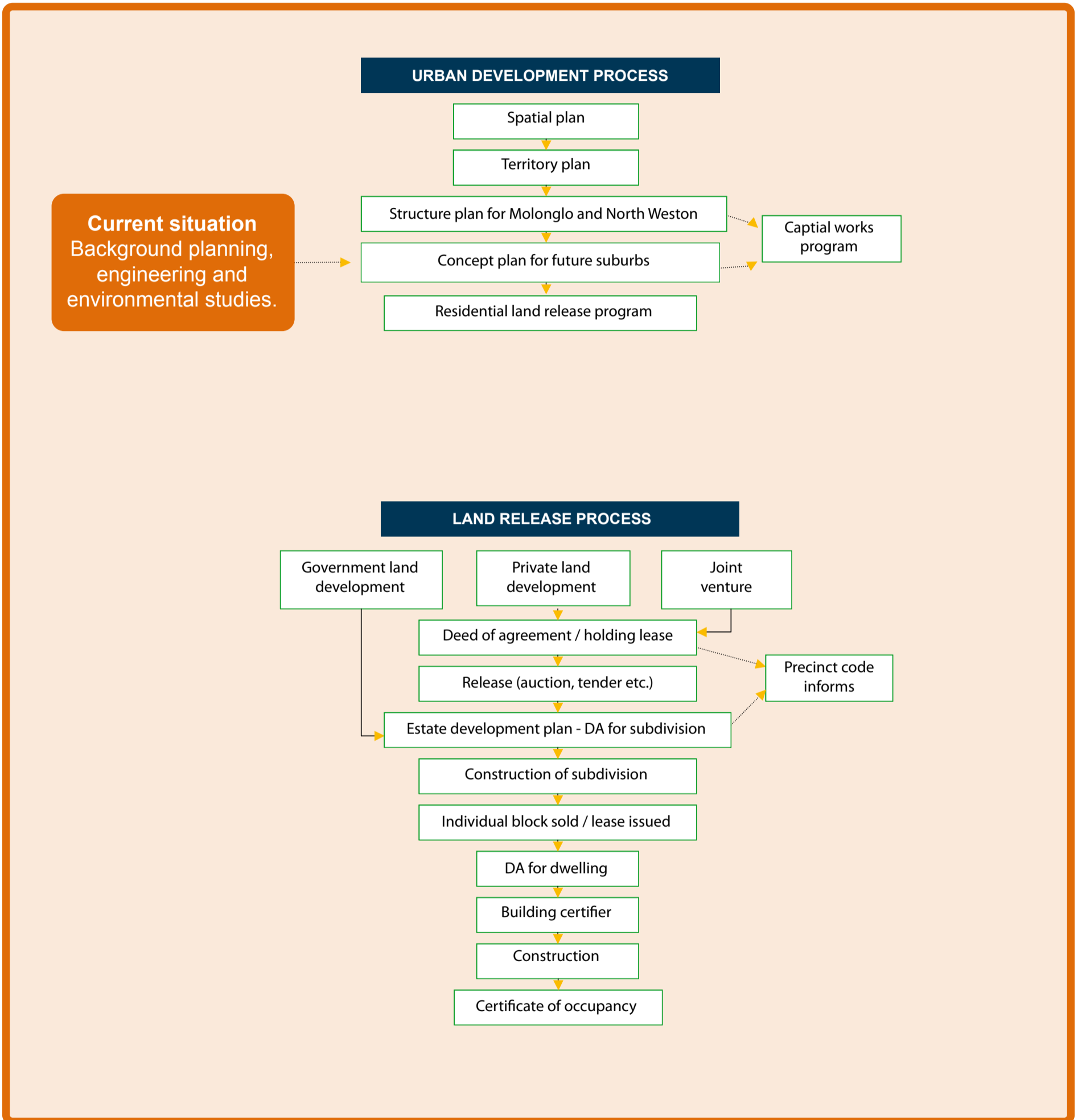




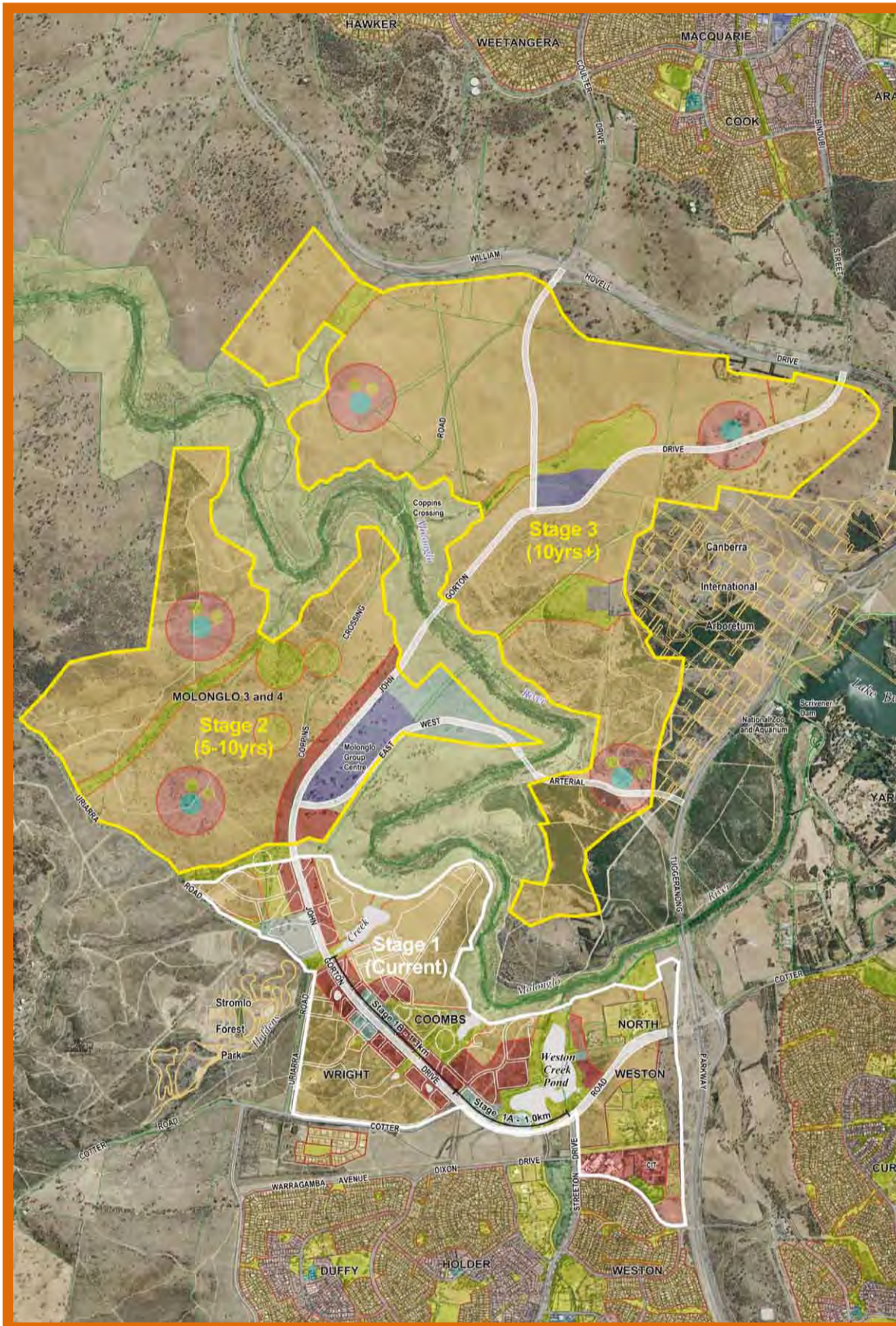
Molonglo Valley Stage 2 background studies

The diagram below outlines the processes for urban development and land release.





Overview of planning for Molonglo Valley



Molonglo Structure Plan introduced into the Structure Plan 2008.

Molonglo Valley Strategic Assessment – intergovernmental agreement underway.

Molonglo Valley stage 1

- Coombs and Wright Concept Plan.
- Wright Estate Development Plan (EDP) has been lodged.
- Coombs EDP currently being prepared.

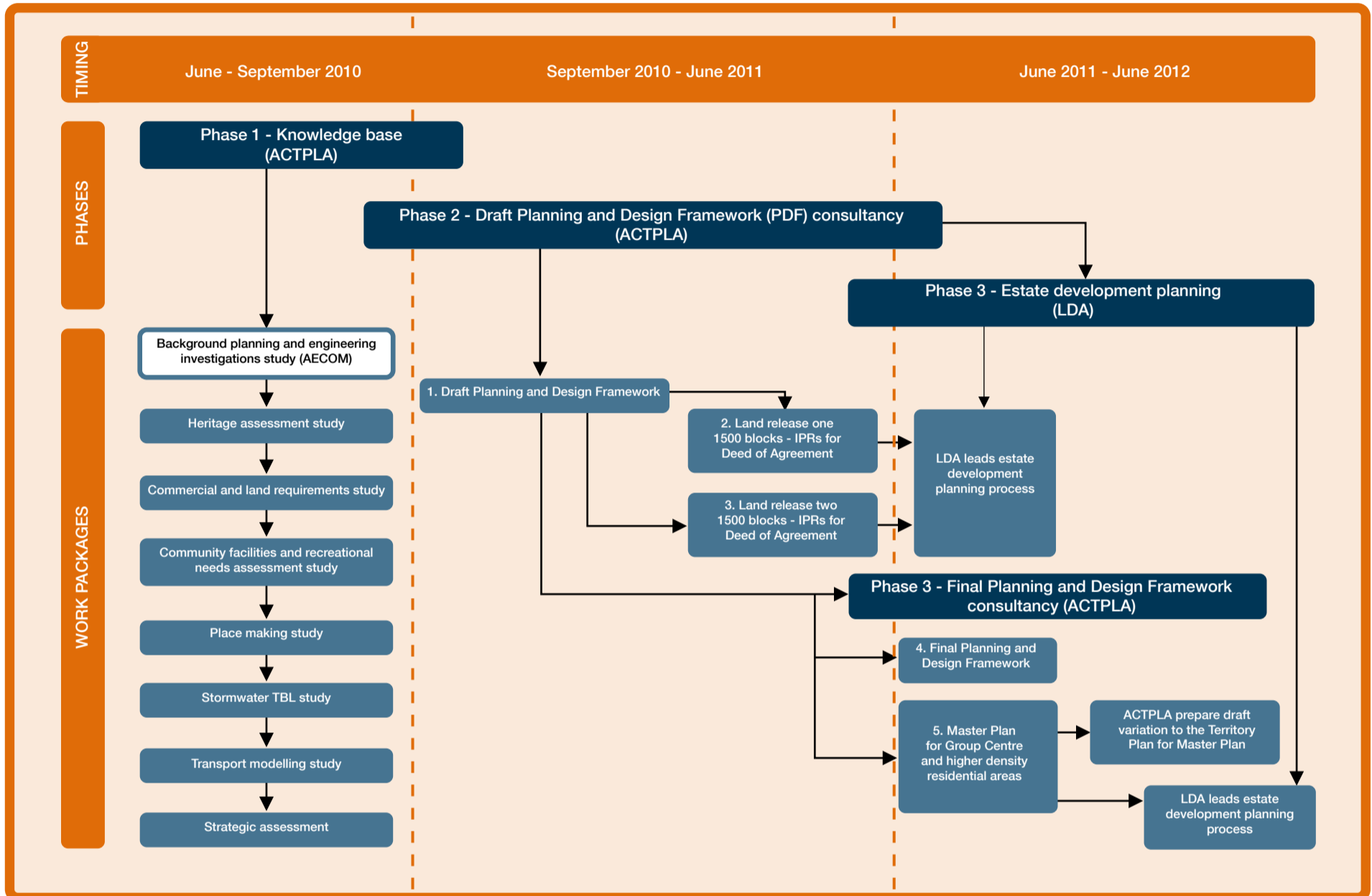
Molonglo Valley stage 2

- Detailed planning, environmental and engineering studies have commenced.
- Background investigations are underway to form knowledge base for developing the Draft Planning and Design Framework.
- Draft Planning and Design Framework to commence late 2010.
- Estate development planning by the Land Development Agency to commence in 2011.



Molonglo Valley Stage 2 planning

The diagram below outlines the phases in planning for Molonglo Valley Stage 2.

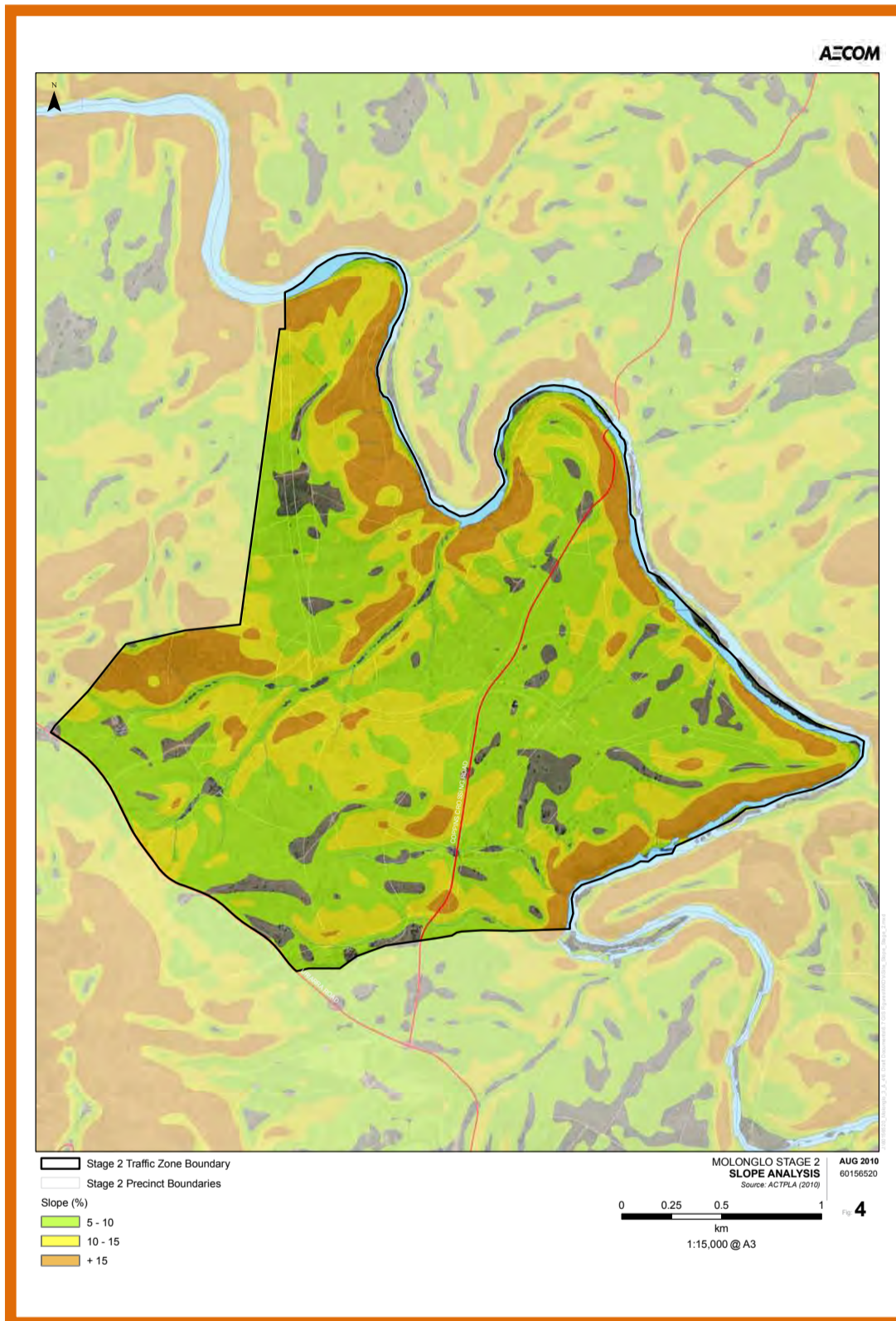


- Detailed planning, environmental and engineering studies have commenced.
- **Phase 1** - Background investigations (underway) including studies by AECOM:
 - Preliminary geotechnical investigation
 - Traffic and transport assessment
 - Noise modelling assessment
 - Civil infrastructure
 - Stormwater management and water sensitive urban design
 - Environmental site assessment (phase 1 contamination)
 - EIS triggers
 - Consultation

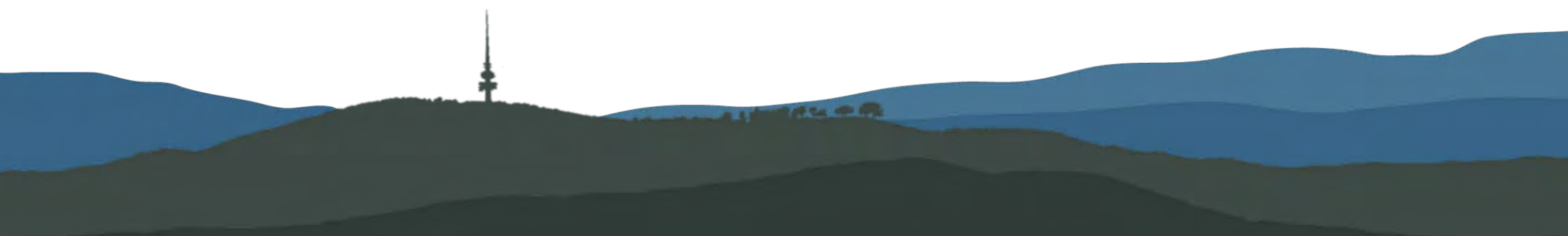
- **Phase 2** - Draft Planning and Design Framework to commence late 2010.
- **Phase 3** - Estate development planning by the Land Development Agency to commence in 2011.



Topography issues

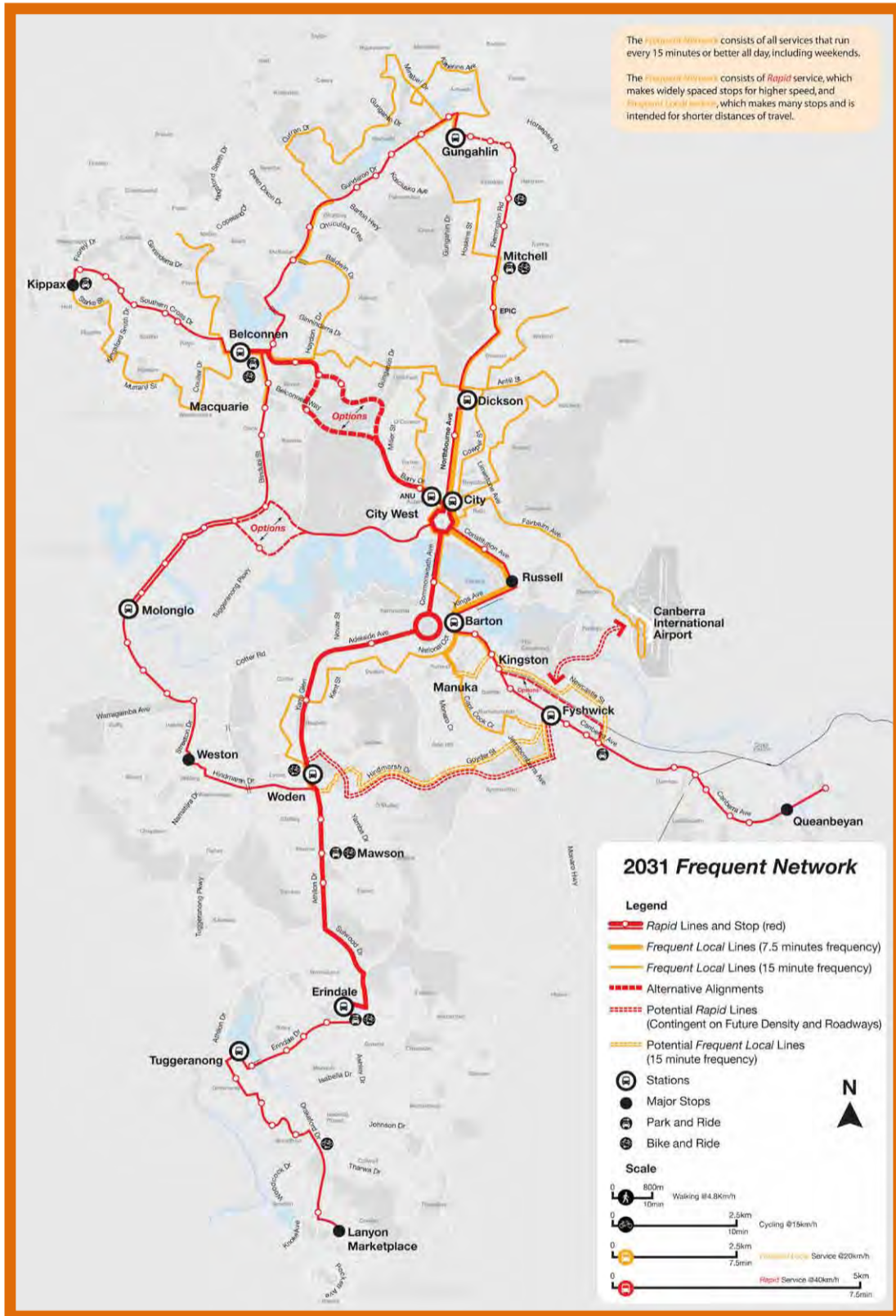


- More than 50% of site has slopes greater than 10%.
- Challenge to fit traditional house construction – slab on ground – affordable housing.
- Access issues for people with limited mobility.
- Steep grades for cyclists.
- Slope constrains bus operations.
- Part of the solution for the development of this site will be the need to develop new housing products.





2031 rapid bus network



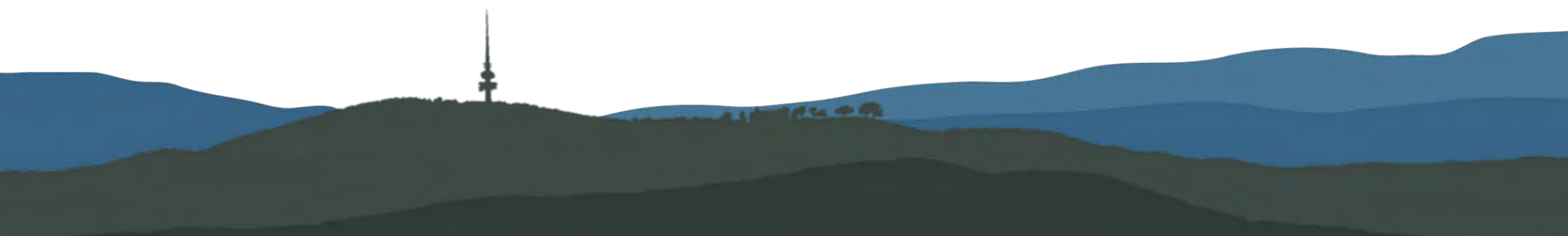
Draft public transport network plan, 2009

Doubling of bus use % by 2031

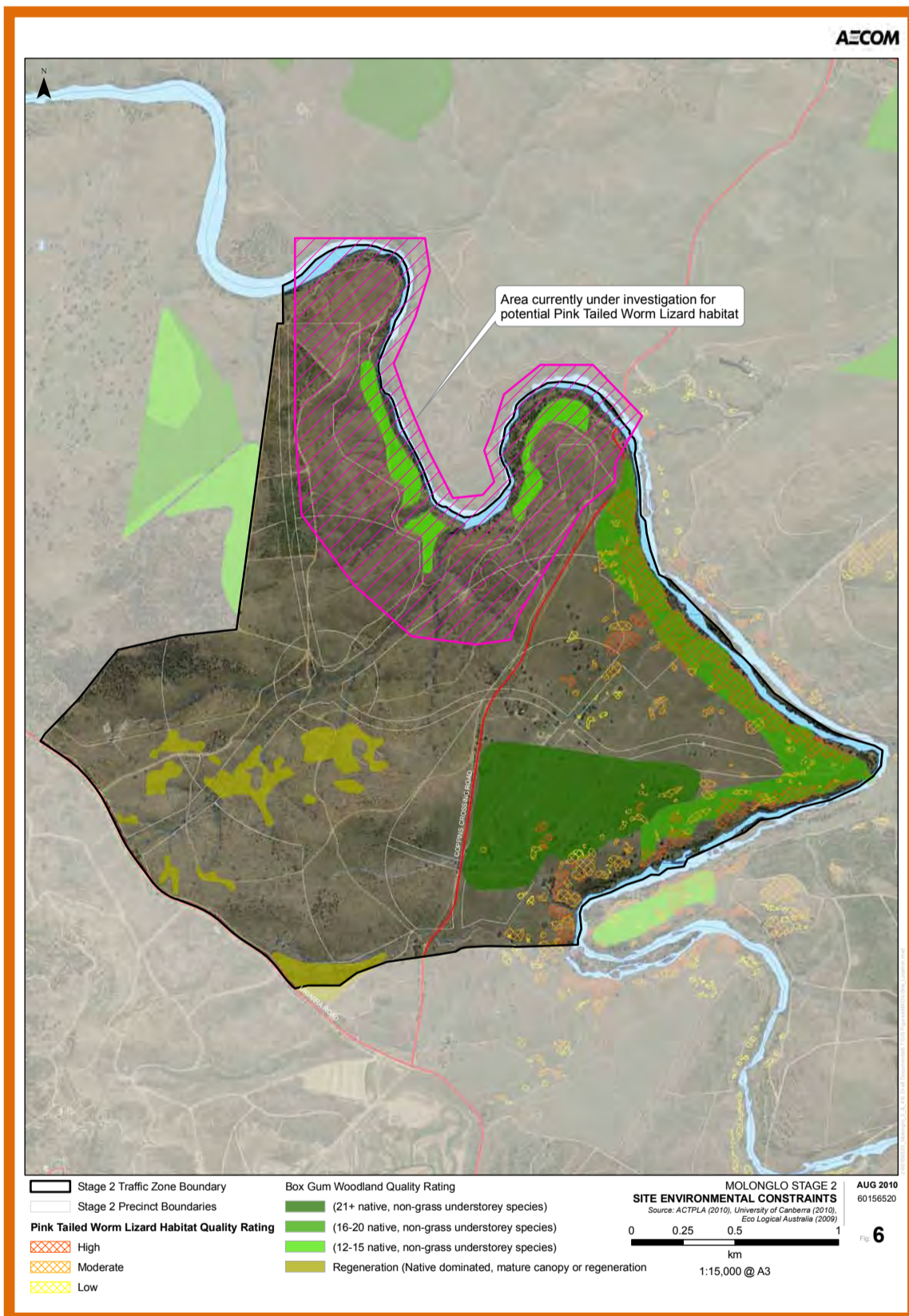
- Important new links from Molonglo Valley to Belconnen, City and Woden via John Gorton Drive
- Bus interchange in Molonglo Valley group centre

Bus stops every 100m

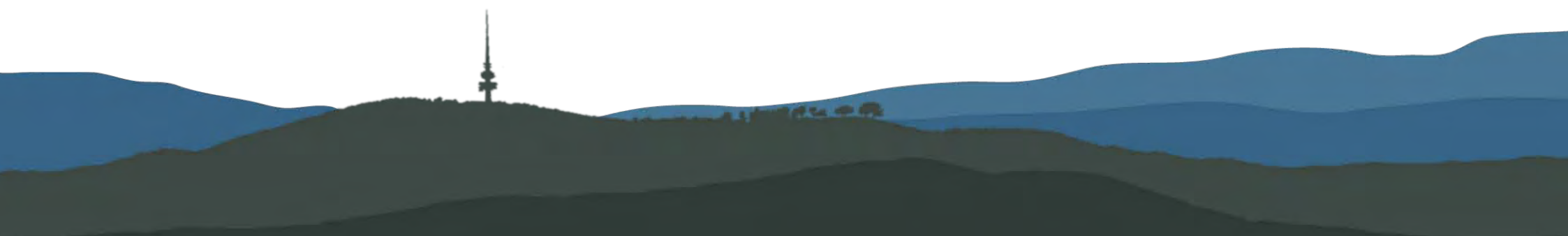
- Planning of pedestrian and bicycle links to bus stops critical
- Bicycle parking facilities at Molonglo Valley bus interchange
- Park and ride in North East corner of Molonglo Valley



Biodiversity issues



- Recent surveys in 2008-09 identified large areas of Environmental, Protection, Biodiversity Conservation Act (EPBC) listed Box-Gum Woodland in varying condition.
- These areas largely correspond with ACT listed Yellow Box Red Gum Woodland.
- Recent surveys (2008-09) did not identify any EPBC listed threatened flora species, or evidence of Golden Sun Moth.
- Molonglo Valley stage 2 also contains areas of partially and moderately modified lowland woodland vegetation.
- Large survey of the Molonglo River corridor for Pink-tailed Worm Lizards completed early 2010.
- First comprehensive survey since the early 1990s.
- Species detected in densities considered to be among the highest in the ACT.
- Other areas of potential habitat not surveyed in the study area. These areas could represent further constraints, and will undergo further assessment in Spring 2010.





Water management

Stormwater management

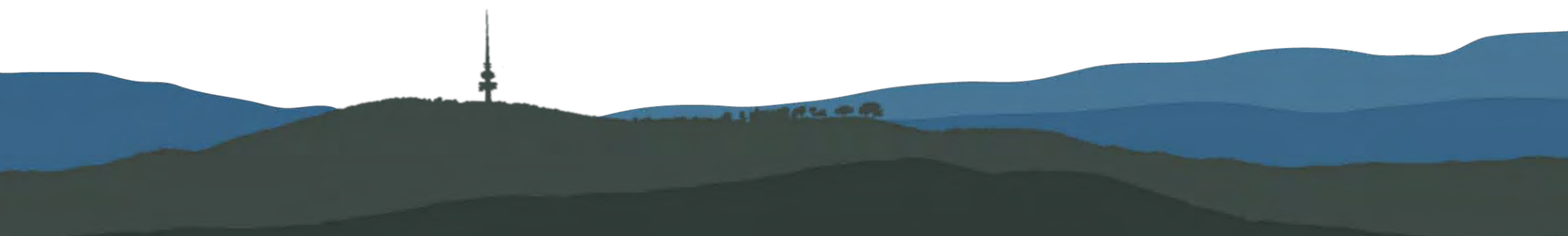
- Strategic design of Molonglo Valley Stage 2 will need to consider relevant objectives for discharge of peak flows into the Molonglo River.
- Objectives to supplement existing *Carex appressa* (tall sedge/tussock grass).
- Steep topography and shallow bedrock provide limited locations for large basins (if required).
- Options to integrate basins (if required) with other engineering works (e.g. roads), or locate them outside of the stage 2 area, with regard to other constraints.

Watercourse Design

- Steep grades will influence the design of watercourses from a safety perspective. Check dams or similar will likely be required.
- Channel lining to be used; rock lined or vegetation.
- Energy dissipation and erosion control at outlets into the Molonglo River, and in floodways.

Climate Change

- Likely increased rainfall intensity (with climate change) - important when designing the major drainage network.





Water quality



- Water quality treatment could be provided by distributed ephemeral wetlands based on the natural *Carex appressa* (tall sedge/tussock grass).
- Ephemeral wetlands hold water then can periodically dry up.
- Ephemeral wetlands could be formed by a series of low check dams across the creek lines and slowly released through 'leaky weirs' or similar.
- Landscape treatment can be specified to reduce maintenance, provide visual amenity and withstand infrequent inundation.
- Without some retention basins some large storages at the downstream ends of the creek lines would be required to provide storage capacity.
- Constructed ponds (with minimal edge vegetation) will likely render the system susceptible to algal blooms, and make treatment problematic.

