

Annual Report 2014 - 2015

Molonglo Valley Plan for the Protection of Matters of National Environmental Significance

Chief Minister, Treasury and Economic Development Directorate

Version control

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List of Abbreviations

| | |
|---------------------------------------|---|
| ACT | Australian Capital Territory |
| BGW or Box –Gum Woodland | White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native |
| CEMP | Construction Environment Management Plan (interchangeable with EMP) |
| CMTEDD | Chief Minister, Treasury and Economic Development Directorate |
| DOE | Commonwealth Department of the Environment (Previously SEWPaC) |
| ED | Economic Development, CMTEDD |
| EIS | Environmental Impact Statement |
| EPA | Environment Protection Agency |
| EPBC Act | Environment Protection and Biodiversity Conservation Act 1999 (Cwth) |
| EPD | Environment and Planning Directorate (Previously ESDD) |
| ESA | Emergency Services Agency |
| ESDD | Environment and Sustainable Development Directorate (now EPD) |
| LDA | Land Development Agency (under CMTEDD) |
| MNES | Matters of National Environmental Significance |
| NES Plan | Molonglo Valley Plan for the Protection of Matters of National Environmental Significance |
| NSW | New South Wales |
| NTG or Natural Temperate Grassland | Natural Temperate Grassland of the Southern Tablelands of NSW and the ACT |
| PDF | Planning and Design Framework |
| PTWL | Pink-Tailed Worm-Lizard, <i>Aprasia parapulchella</i> |
| SEWPaC | Commonwealth Department of Sustainability, Environment, Water, Population and Communities (now DOE) |
| TaMS | Territory and Municipal Services Directorate |

Introduction

This Annual Report is prepared in accordance with Section 6 of the Molonglo Valley Plan for the Protection of Matters of National Environmental Significance (NES Plan) September 2011. It reports on the implementation of the NES Plan from 1 July 2014 to 30 June 2015.

Section 6 provides that the ACT Government will monitor and report annually to the public on the implementation of the NES Plan. The primary purpose of monitoring and reporting is to ensure that the conservation outcomes described in the NES Plan are achieved.

The first part of this report and Table 1 is a summary of the requirements and commitments in the NES Plan for the protection of MNES in the Molonglo Valley. The second part of this report includes a summary of the non compliances, against the list of requirements, which were to be achieved in the reporting period, but were not completed. The final section of the report includes figures showing protected matters that are removed or retained over the 2014 – 2015 year.

Part 1 NES Plan Requirements and Commitments

1.1 Overview

In September 2008, the Australian Capital Territory (ACT) and Commonwealth Governments entered into an Agreement to conduct a strategic assessment under Part 10 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) .

The strategic assessment included all of East Molonglo with the exception of the suburbs of North Weston, Wright and a portion of Coombs. These suburbs have prior approval under the EPBC Act (Reference numbers: 2009/5041, 2009/4752 and 2009/5050). Refer Figure 1

The Molonglo Valley Plan for the Protection of Matters of National Environmental Significance (NES Plan), which details the ACT Governments commitments to protect MNES in the Molonglo Valley, was assessed by the Commonwealth and endorsed in October 2011. Actions associated with urban development within East Molonglo were then approved by the Commonwealth in December 2011. The West Molonglo area was not included in this approval.

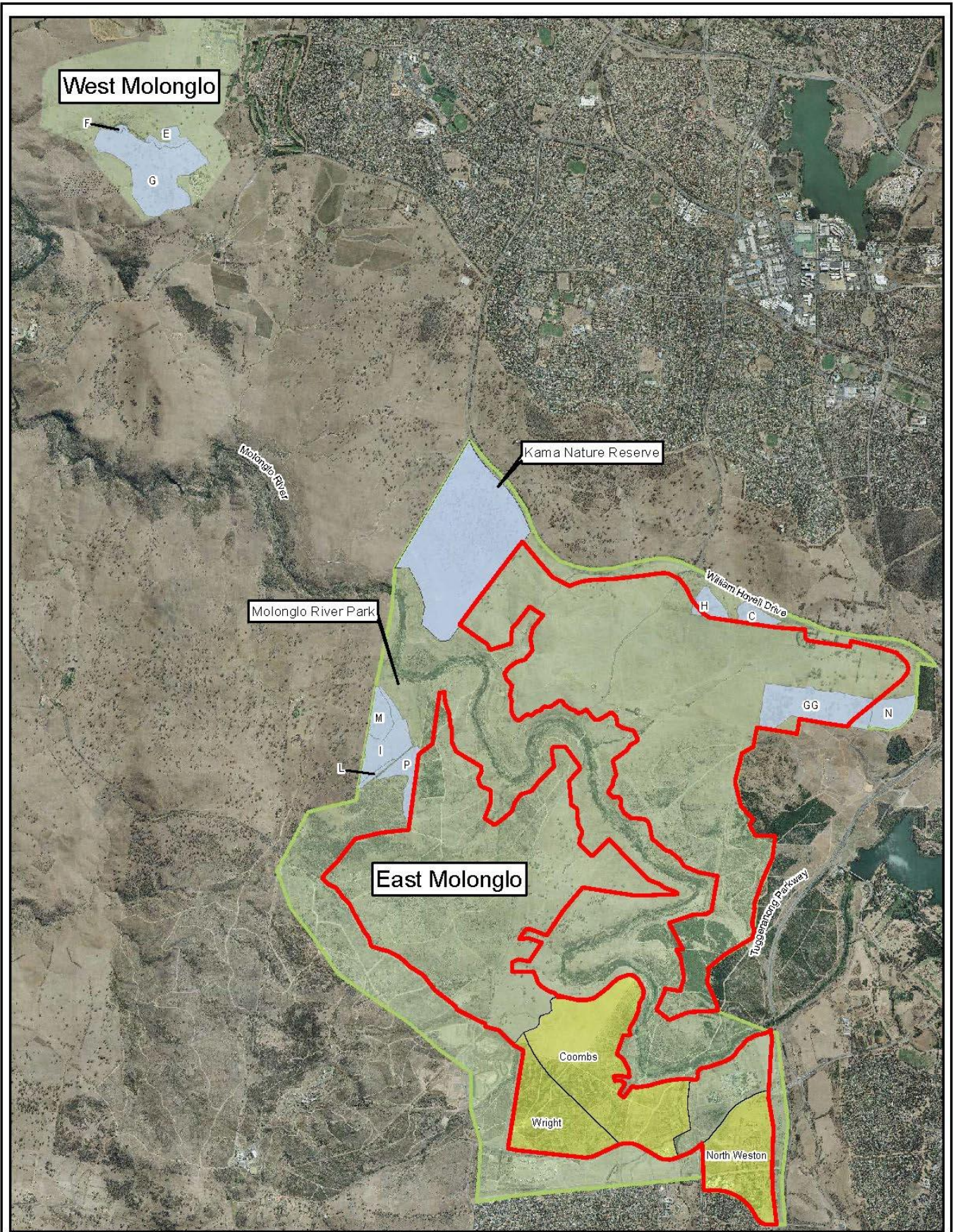
West Molonglo is included within the scope of the strategic assessment as it includes MNES and was part of the same overall process to establish the Structure Plan. West Molonglo will be included in the Riverview/West Belconnen Strategic Assessment that is currently being prepared by the Riverview Group and the Land Development Agency.

The NES Plan establishes a set of conservation activities to protect MNES. These are broadly based around three processes:

- avoidance of impact on MNES;
- mitigation of impacts on MNES including on-ground management to provide maintenance and improvement of MNES values in important areas; and
- and establishing offset areas to compensate for the unavoidable impacts on MNES.

The MNES that require protection through the NES Plan are:

- *White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland* (Box-Gum Woodland).
- *Natural Temperate Grassland of the Southern Tablelands of NSW and the ACT* (Natural Temperate Grassland).
- *Aprasia parapulchella* (Pink-tailed Worm Lizard).
- *Polytelis swainsonii* (Superb Parrot)
- *Lathamus discolor* (Swift Parrot)



- Legend**
- East Molonglo Urban Development Area
 - EP BC Approved Area
 - Other Areas
 - Strategic Assessment Area

0 195 390 780 1,170 1,560 Metres

Digital Orthophoto Map based on February 2009 photography

Projection Information:
 AGD 1966 ACT Grid AGC Zone
 Projection: Transverse Mercator
 Datum: Australian 1966
 False Easting: 200,000.0000
 False Northing: 4,510,193.4939
 Central Meridian: 149.0093
 Scale Factor: 1.0001
 Latitude Of Origin: 0.0000
 Units: Metre
 Date: 03/10/2012

Figure 1: Molonglo Valley Strategic Assessment Area

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1.2 Implementation of the NES Plan

Economic Development, Chief Minister, Treasury and Economic Development Directorate (ED, CMTEDD) currently has the responsibility for monitoring the delivery of the NES Plan for the development of urban land within Molonglo Valley on behalf of the ACT Government.

The NES Plan specifies conservation outcomes that the ACT Government will deliver to protect MNES and the actions that will be undertaken to achieve those outcomes. In particular, Section 4 of the NES Plan provides 44 specific Actions related to conservation outcomes for Box-Gum Woodland (BGW), Natural Temperate Grassland (NTG) and Pink-tailed Worm Lizard (PTWL).

In addition to these specific Actions the NES Plan also contains a number of requirements to be met in the implementation of the Plan.

EDD has produced a summary table of the NES Plan Requirements and Actions to monitor and report on the implementation of the Plan. The following table provides a reference to the NES Plan for each Action or requirement, the specific commitment, the lead Directorate responsible for implementation and a status summary as at 30 June 2013.

Table 1: Annual Report 2014 – 2015 NES PLAN REQUIREMENTS AND ACTIONS

(Endorsement Decision by Commonwealth Minister Burke on 7.10.2011, Approval Decision by Commonwealth Minister Burke on 20.12.2011)

| No | NES Plan Page Reference | Commitment | Comment/Status |
|----|-------------------------|---|---|
| 1 | 2 | <p>To ensure conservation outcomes and protect MNES adjacent to the development area in the lower Molonglo Valley, the ACT Government will make necessary amendments to the Structure Plan.</p> <p><i>(Also Items 4, 30 and 62 refer)</i></p> | <p>The relevant NES Plan actions and commitments applicable to Molonglo Valley Stage 2 were incorporated into the Planning and Design Framework (PDF) for Molonglo Valley Stage 2 prepared by EPD. The PDF was approved by the Chief Planning Executive on 17 April 2012.</p> <p>On 10 August 2012 Technical Amendment to the Territory Plan No. 2012-24, that includes the applicable provisions arising from the PDF (and NES Plan), came into effect. This included the re-alignment of parts of the river corridor boundary on the southern side of the Molonglo River adjacent to Stage 2.</p> <p>Further changes to the river corridor boundary will occur in the future in response to the Draft Reserve Management Plan and more detail planning for infrastructure and estate development for Molonglo Valley Stage 2, including the Molonglo Commercial Centre.</p> <p>EPD commenced background planning investigations for Molonglo Valley Stage 3 in 2013-14. These investigations will inform preparation of a PDF Molonglo Valley Stage 3 scheduled to be prepared by EPD in 2015-16.</p> |
| 2 | 3 | <p><i>Following endorsement of the NES Plan under the EPBC Act, actions (or classes of actions) that will occur to implement the endorsed NES Plan may be approved by the Minister.</i></p> | <p><i>Complete. Note Commonwealth Minister has provided approval on 20 December 2011. The approval has effect until 31 December 2041.</i></p> |
| 3 | 9 | <p>Infrastructure within the river corridor comprises the following activities and will be staged to be most cost effectively developed (in the following order):</p> <ul style="list-style-type: none"> • John Gorton Drive which includes the construction of dual bridges crossing the Molonglo River • East-West Arterial Road bridge crossing of the Molonglo River • Water quality control ponds; water mains; sewer mains and sewer pump stations; and • A combined sewer / pedestrian / cycle bridge. | <p>On 27 April 2012 the ACT Government advised the Commonwealth Department of Sustainability, Environment, Water, Population and Communities that the ACT Government required a change to the order of this infrastructure to effectively manage the sequencing of land release.</p> |
| 4 | 10 | <p>Variations to the East Molonglo development boundary to minimise the impact on MNES values. A particular focus of this is the reduction of impacts on moderate and high quality Pink-tailed Worm-lizard habitat.</p> <p><i>(Also Items 1 and 62 refers)</i></p> | <p>EPD commenced background planning investigations for Molonglo Valley Stage 3 in 2013-14. These investigations will inform a PDF including identification of the urban boundary to Kama nature reserve scheduled to be prepared by EPD in 2015-16. Any further changes to the river corridor boundary can then be made.</p> <p>TAMS completed the draft statutory Reserve Management Plan in November 2014, following consultation with Community Representative Groups.</p> |

| No | NES Plan Page Reference | Commitment | Comment/Status |
|----|-------------------------|--|--|
| 5 | 10 | <p>Designing infrastructure that will occur in the river corridor to avoid or minimise impacts to MNES. This process includes:</p> <ul style="list-style-type: none"> re-aligning the location of the major bridges (as compared to the original location proposed in the Molonglo Structure Plan) to minimise impacts on moderate and high quality Pink-tailed Worm Lizard habitat; and aligning other infrastructure to avoid moderate and high quality Pink-tailed Worm Lizard habitat and Box-Gum Woodland where this can be achieved. <p>(Also Items 6, 31 and 63 refer)</p> | <p>Ongoing. The design options for infrastructure will be assessed using MNES as a key criterion.</p> <p>The location of the John Gorton Drive bridge has been finalised and has been located to minimise impacts on PTWL and BGW. The location of the East-west arterial road bridge over the Molonglo River is still under consideration.</p> <p>Design principles adopted by ED and incorporated in contracts for design and construction projects.</p> <p>The extent of recreational infrastructure proposed in the River Park Concept Plan, was reviewed through the Draft Reserve Management Plan process. There are two significant refinements which emerged, these include:</p> <ul style="list-style-type: none"> where possible, the proposed trunk cycle path will be relocated to within the Inner Asset Protection Zone. This utilises the lighting corridor of the edge road and minimises fragmentation of the River Park; and centralising recreation facilities such as parks, access roads, car parking, barbecues and toilets to two areas Catherine Park (Sludge Pits) and Ryans Hill Special Purpose Reserves. <p>Both the Molonglo Sewer Pedestrian Bridge and Cravens Creek Pond projects have been designed to avoid PTWL habitat, by positioning the infrastructure clear off habitat as much as possible. For both projects, habitat close to (but not actually impacted) was required to be fenced off and protected as the first item off construction work to be undertaken.</p> <p>For the Link Bridge, an “incrementally launched” structural form was chosen to specifically avoid habitat. This method of construction allows the bridged to be “pushed” over the river and its embankments, from one abutment only, any minimises impact beneath to the piers only.</p> <p>TAMS completed construction of minor recreation facilities in the River Reserve adjacent to Coombs including a pedestrian trail linking 2 picnic shelters and board walk with lookout at Holdens Creek Hill. In addition a pedestrian trail was constructed at Box Gum Park linking the Holdens Creek Hill boardwalk. The trail features lookouts and creek boardwalk crossings and provides a pedestrian route along the buffer zone of PTWL habitat, BGW, grasslands and riparian ecosystems. Interpretive signage of the various ecologies is to be installed in 2014-15. The construction methods ensured minimum impact to conservation areas. Protective fences were installed along the route of the trail restricting access into the high conservation areas.</p> <p>These facilities were constructed using low environmental impact methods and will help to control pedestrian movement through the reserve and away from areas of high conservation value</p> |
| 6 | 10 | <p><i>A design principle to maintain ecological values within the East Molonglo development area where possible.</i></p> <p>(Also Items 5, 31 and 63 refer)</p> | <p><i>Complete.</i></p> |
| 7 | 10 | <p>A commitment to avoid impacts on MNES within West Molonglo.</p> | <p>MNES in West Molonglo, know referred to as West Belconnen are being considered through the Draft Variation to the Territory Plan No. 351, Draft Amendment to the National Capital Plan No. 85 and the West Belconnen Strategic Assessment under the EPBC Act.</p> <p>Consequential changes to land management would then occur in response.</p> |
| 8 | 11 | <p>The ACT Government will ensure that all construction activities (whether in the urban area or in the river corridor) will be subject to construction environmental management plans (CEMPs). These CEMPs will help to ensure that unnecessary impacts from construction (eg through the uncontrolled movement of machinery) are avoided. A detailed description of the content of CEMPs is provided in Section 4.</p> <p>(Also Items 32 and 64 refer)</p> | <p>Ongoing.</p> <p>ED has incorporated the requirement for CEMP’s in all Capital Works infrastructure documentation for Molonglo.</p> <p>ED has engaged a site surveillance officer to monitor projects in Molonglo.</p> <p>TAMS has incorporated the requirement for CEMP’s in all Capital Works documentation for Molonglo River Park, including:</p> <ul style="list-style-type: none"> Coombs Fire Management Zone Establishment works Coombs PTWL Habitat Protective Fence Barrer Hill Pine removal stage 1&2. |
| 9 | 11 | <p><i>Development of the “Molonglo River Park” Concept Plan as an offset site along the East Molonglo River. This Plan will establish management zones within the Park, specifically identifying areas to be designated for conservation as well as identifying recreation areas and resolving public access. The Plan will also be complementary to the management approaches developed for the area of the river corridor adjacent to Coombs as required in relation to EPBC referral 2009/5050.</i></p> <p>(Also Items 10, 36,37, 68 and 69 refer)</p> | <p><i>Complete. The Molonglo River Corridor Concept Plan prepared by EPD was endorsed by Cabinet on 28 August 2012 (10/0826/CAB). A complete version of the plan can be found at the following link</i></p> <p>http://www.planning.act.gov.au/topics/current_projects/studies/molonglo_river_park_concept_plan</p> |

| No | NES Plan Page Reference | Commitment | Comment/Status |
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| 10 | 11 | <p>Development and implementation of a management plan for the river corridor with a focus on providing long-term outcomes for Box-Gum Woodland and the Pink-tailed Worm Lizard. This management plan will then inform a statutory Plan of Management for the East Molonglo River Corridor.</p> <p><i>(Also Items 9, 36, 37,68 and 69 refer)</i></p> | <p>TAMS completed a draft statutory Reserve Management Plan for the Molonglo and Kama Nature Reserves in November 2014. Internal review of the fire management strategy has been undertaken to bring the Plan into line with the new Strategic Bushfire Management Plan version 3 which was endorsed in September 2014.</p> <p>The statutory Plan of Management (POM) is currently being prepared by TAMS for completion in 2016.</p> |
| 11 | 11 | <p>Recognition of the Kama Nature reserve as an offset site and ongoing management of the area with a focus on its MNES values. This process will include the development and implementation of management plan for the Kama Nature Reserve that will provide for adaptive management and condition improvement of the reserve. This management plan will then inform a statutory Plan of Management for Kama Nature Reserve.</p> <p><i>(Also Item 34 refers)</i></p> | <p>Ongoing.</p> <p>The statutory Plan of Management (POM) is currently being prepared by TAMS for completion in 2016. The statutory Plan of Management for the Molonglo River Reserve includes Kama Nature Reserve.</p> <p>Operational Plans for Kama Nature Reserve, Molonglo River Park and Patch GG were completed in June 2014.</p> |
| 12 | 11 | <p>The establishment of a buffer outside of the Kama Nature Reserve on its eastern side to protect the ecological values of the reserve.</p> <p><i>(Also Items 35 and 67 refer)</i></p> <p>Action 7 The buffer will be developed to ensure that fire management is undertaken outside of the Kama Nature Reserve and will provide protection against urban edge effects.</p> | <p>The buffer to Kama will be considered as part of an inter-directorate working group and documented in the PDF for Stage 3.</p> |
| 13 | 11 | <p><i>Establishment and management of Patch GG as an offset site by incorporating the area into the National Arboretum which is directly to the east.</i></p> <p><i>(Also Items 39 and 40 refer)</i></p> | <p><i>Complete. On 22 January 2013 the ACT Government purchased 'Glenloch' from its former long term lessees. On 10 February 2014 Patch GG was transferred to TAMS for incorporation into the National Arboretum to enable management as the offset site. An Operational Plan for Patch GG was completed in June 2014.</i></p> |
| 14 | 11 | <p>Management of Box-Gum Woodland patches C, H and N to maintain and enhance their ecological values.</p> <p><i>(Also Items 42 and 43 refer)</i></p> | <p>Following the Baseline Condition Assessment of BGW patches undertaken by TAMS in 2013; Patch N was divided into 3 patches reflecting the condition and the additional area of 7.8 hectares was added. Patch N will be managed as part of Patch GG.</p> <p>Revised mapping was provided in the Adaptive Management Strategy endorsed by the Commonwealth Government on 7 August 2013.</p> <p>Ecological monitoring of the NES Plan rural offset areas commenced in 2013 for all NES Plan rural offset areas. A Monitoring Procedures Manual for Molonglo was prepared by TAMS in accordance with the Adaptive Management Strategy, 2013.</p> |
| 15 | 11 | <p>Management of Box-Gum Woodland patches I, L, M and P to maintain their ecological values.</p> <p><i>(Also Items 25 and 44 refer)</i></p> | <p>Revised mapping was provided in the Adaptive Management Strategy endorsed by the Commonwealth Government on 7 August 2013.</p> <p>Ecological monitoring of the NES Plan rural offset areas commenced in 2013 for all NES Plan rural offset areas. A Monitoring Procedures Manual for Molonglo was prepared by TAMS in accordance with the Adaptive Management Strategy, 2013.</p> <p>Operational Plans for Patch P will be developed by TAMS in 16- 17.</p> <p>Patches I, L and M are managed under a rural lease with a Land Management Agreement.</p> <p>Vegetation and Woodland Bird Monitoring is ongoing</p> |
| 16 | 11 | <p>Implementation of a number of research projects to improve the knowledge relating to the conservation of Pink-tailed Worm Lizard and Box-Gum Woodland.</p> <p><i>(Also Items 51 and 76 refer)</i></p> | <p>PTWL</p> <p>TAMS is developing habitat restoration techniques for areas of PTWL habitat dominated by weeds and a research project on the development of a low-impact monitoring technique. The first stage is completed.</p> <p>The habitat restoration study is a joint project run in collaboration with the ANU Fenner School that aims to develop an effective and sustainable method for restoring/extending Pink-tailed Worm-lizard habitat and native grasslands, while also reducing fuel loads to ensure limited fire management is required within Pink-tailed Worm-lizard habitat or buffers .</p> <p>Stage 2 restoration saw over 500 ton of rock spread across 10,000sq m and 40,000 Themeda, and Poa grasses planted between the rocks.</p> <p>Monitoring of the test sites is ongoing. With initial post-treatment vegetation and ant surveys complete. In February 2015, eleven PTWLs were found across the restoration sites</p> <p>BGW</p> <p>TAMS is developing a BGW research proposal regarding the placement of woody debris in the Barrer BGW Restoration site for commencement in 2015-16.</p> |

| No | NES Plan Page Reference | Commitment | Comment/Status |
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| 17 | 11 | Management of moderate and high quality Pink-tailed Worm Lizard habitat on the western boundary of East Molonglo to maintain and enhance their ecological values. | In 2014 TAMS completed the second stage of an extensive PTWL habitat connectivity project on the western boundary of East Molonglo. Monitoring has revealed good ant colonisation. A third stage will be implemented in 2014-15. |
| 18 | 12 | Within the strategic assessment area fire management will be aimed at the protection of both built assets and MNES values. This will be achieved through the identification of appropriate asset protection zones and the application of hazard reduction techniques that will both: <ul style="list-style-type: none"> ensure that the standards for fuel loads in the SBMP are met; and protect MNES values through the use of sympathetic management techniques. | The LDA is undertaking an assessment of Ecological Attributes and Fuel Hazard Management Thresholds for the western edge and river corridor of Molonglo Valley. This study has been prepared in line with the requirements of the ACT Strategic Bushfire Management Plan Version 3 and has been agreed with the Emergency Services Authority. TAMS has prepared an indicative Fire Management Plan for the Molonglo River Corridor supported by ESA and included in the draft Statutory Reserve Management Plan to demonstrate the relationship between the protection zones and habitat. The indicative plan demonstrates changes in the Asset Protection Zone requirements endorsed through the Strategic Bushfire Management Plan v3, 2014 resulting in a significant reduction in the habitat/Asset Protection Zone overlap. |
| 19 | 17 | It is also important to note that under Division 3.3 of the <i>Nature Conservation Act 1980</i> , Pink-tailed Worm Lizard has been declared a vulnerable species and Natural Temperate Grassland and Box Gum Woodland are declared endangered communities. The effect of these statutory declarations is that these species and communities need to be managed in accordance with a prescribed Action Plan, prepared by the Conservator for Flora and Fauna. | Action Plans for MNES are incorporated into the Ecological Management Guidelines to inform all aspects of managing MNES. Action plans are required to be prepared for all protected matters identified in the <i>Nature Conservation Act 2014</i> . The <i>Nature Conservation Act 1980</i> has been repealed. |
| 20 | 18 | Construction in the Molonglo Valley stage 2 and stage 3 will not commence before completion of the respective Planning and Design Frameworks for both stages 2 and 3. The final Planning and Design Frameworks will incorporate NES actions and commitments. | The PDF for Molonglo Valley Stage 2 prepared by EPD was approved on 17 April 2012. The PDF incorporated the relevant NES actions and commitments. EPD commenced background planning investigations for Molonglo Valley Stage 3 in 2013-14. These investigations will inform a PDF for Molonglo Valley Stage 3 that is scheduled to be prepared by EPD in 2015-16. The PDF for Stage 3 will incorporate any relevant NES actions and commitments. EPD commenced background planning investigations for Molonglo Valley Stage 3 in 2013-14. These investigations will inform a PDF and concept plan for Molonglo Valley Stage 3 that are scheduled to be prepared by EPD in 2014-15. PDF for stage 3 needs to be complete before construction work starts on John Gorton Drive in Molonglo 3. |
| 21 | 18 | The ACT Government, as the proponent, will ensure that all development concerning MNES in the Strategic Assessment area is incorporated into any future development application and associated documentation to ensure any Commonwealth requirements are reflected in the decision by the Environment and Sustainable Development Directorate. | Ongoing – for consideration/application at Development Assessment stage |
| 22 | 20 | Approximately 482 ha of EPBC Act listed Box-Gum Woodland occurs within the strategic assessment area. Impacts to Box-Gum Woodland will be limited to a <u>maximum of 110ha</u> and a range of measures will be implemented to minimise this area of impact. | ED has prepared a Biodiversity Account to monitor and record impacts of development in Molonglo East. CMTEDD undertaking a budget monitoring and mapping project to consolidate all data sets for MNES and development outcomes. |
| 23 | 20 | Three offset sites will be established within the strategic assessment area (Kama Nature Reserve, Molonglo River Park, Patch GG) that will provide for the <u>long term protection of 234ha of Box-Gum Woodland</u> . The three offsite sites will be adaptively managed to maintain and enhance the ecological condition of the Box-Gum Woodland that occurs there. | The Molonglo River Park will be established at the finalisation of the Plan of Management. The statutory Plan of Management (POM) is currently being prepared by TAMS for completion in 2016. Kama Nature Reserve has been created. <i>On 22 January 2013 the ACT Government purchased 'Glenloch' from its former long term lessees. On 10 February 2014 Patch GG was transferred to TAMS for incorporation into the National Arboretum to enable management as the offset site. An Operational Plan for Patch GG was completed in June 2014. Patch GG is being managed for its ecological values.</i> |
| 24 | 20 | Adaptively manage 28ha of Box-Gum Woodland within the strategic assessment area to maintain and enhance its ecological condition. This will be made up of patches C, H and N (see Figure 3). | As above - Item 14 & 16 |
| 25 | 20 | Adaptively manage 45.4ha of Box-Gum Woodland within the strategic assessment area to maintain its ecological condition. This will be made up of patches I, L, M, and P (see Figure 3) (Also Item 15 refers) | As above –Item 14 & 16 LDA to incorporate requirements into the bushfire management assessment for the western boundary study. ED and LDA to monitor land management by TAMS to protect the integrity of the development boundary of the future urban edge. Patches I, L and M are managed under a rural lease with a Land Management Agreement. Operational Plans for Patch P will be developed by TAMS in 16- 17. |
| 26 | 20 | Maintenance and enhancement of the Box-Gum Woodland that occurs within the West Molonglo component of the strategic assessment area (see Figure 3). | As above – Item 7 |
| 27 | 20 | Improving and applying the knowledge about the management of Box-Gum Woodland. | The Barrer Hill BGW Restoration project commenced in 2013. TAMS is developing a BGW research proposal regarding the placement of woody debris in the Barrer BGW Restoration site for commencement in 2015-16. |

| No | NES Plan Page Reference | Commitment | Comment/Status |
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| 28 | 20 | "Ecological condition" for Box-Gum Woodland will be measured using a peer reviewed, repeatable and scientifically robust methodology for examining and comparing the condition of woodland and derived grassland patches over time. | The Molonglo Adaptive Management Strategy was endorsed by the Commonwealth on 7 August 2013. Baseline vegetation condition surveys were undertaken during 2012-2013 for the BGW patches identified in the NES Plan. TAMS prepared a Procedures Manual for Monitoring vegetation and habitat condition, completed September 2014 In 2014 TAMS completed annual vegetation monitoring for the second consecutive year. |
| 29 | 21 BGW Conservation Outcome (a) Action 1 | Ensure that the combined impacts on Box-Gum Woodland from development within East Molonglo and construction of infrastructure within the river corridor do not exceed 110ha . | ED has established a Biodiversity Account to monitor and record impacts of development in Molonglo East. |
| 30 | 21 BGW Conservation Outcome (a) Action 2 | Amend the East Molonglo river corridor boundary, in stages 2 and 3 respectively with a view to reducing the impacts to Box-Gum Woodland. This process will ensure that connectivity within the river corridor is maintained. | <i>Complete. The PDF for Molonglo Valley Stage 2 prepared by EPD was approved by the Chief Planning Executive on 17 April 2012.</i> EPD proposes to prepare a PDF for Molonglo Valley Stage 3 in 2014-15, which will consider amendments to the East Molonglo river corridor boundary. |
| 31 | 21 BGW Conservation Outcome (a) Action 3 | Design the infrastructure that will occur in the river corridor to minimise impacts to Box-Gum Woodland. (Also Item 6 refers) | Ongoing. Designs are progressively tested against the ecological budget to ensure impacted areas are minimised. Refer Item 5 & 8 above TAMS completed construction of minor recreation facilities in the River Reserve adjacent to Coombs including a pedestrian trail linking 2 picnic shelters and board walk with lookout at Holdens Creek Hill. In addition a pedestrian trail was constructed at Box Gum Park linking the Holdens Creek Hill boardwalk. The trail features lookouts and creek boardwalk crossings and provides a pedestrian route along the buffer zone of PTWL habitat, BGW, grasslands and riparian ecosystems. Interpretive signage of the various ecologies is to be installed in 2014-15. The construction methods ensured minimum impact to conservation areas. Protective fences were installed along the route of the trail restricting access into the high conservation areas. These facilities were constructed using low environmental impact methods and will help to control pedestrian movement through the reserve and away from areas of high conservation value. |
| 32 | 21 BGW Conservation Outcome (a) Action 4 | Develop, implement and independently monitor Construction Environmental Management Plans (CEMPs) to ensure that unforeseen direct or indirect impacts from construction activities within the development area and the river corridor are avoided. (Also Item 8 refers) | As above -Item 8. Ongoing. ED has incorporated the requirement for CEMP's in all Capital Works infrastructure documentation for Molonglo. ED has engaged a site surveillance officer to monitor projects in Molonglo. |
| 33 | 22 BGW Conservation Outcome (b) Action 5 | Develop a management plan for Kama Nature Reserve to provide for the maintenance and enhancement of the ecological condition of Box-Gum Woodland within the reserve (approximately 117ha) | As above - Item 11 |
| 34 | 22 BGW Conservation Outcome (b) Action 6 | Implement the management plan for the Kama Nature Reserve to provide for the maintenance and enhancement of the ecological condition of Box-Gum Woodland within the reserve. (Also Item 11 refers) | As above – Item 11 |
| 35 | 22 BGW Conservation Outcome (b) Action 7 | Establish a buffer outside the Kama Nature Reserve between the reserve and the proposed development area, and allow for appropriate uses consistent with nature conservation uses of the reserve. The buffer will be developed to ensure that fire management is undertaken outside of the Kama Nature Reserve and will provide protection against urban edge effects. (Also Items 12, 55 and 67 refer) | As above -Item 12 & 18 Will be considered further by an inter-directorate working group as part of preparation of the PDF for Stage 3 by EPD. |
| 36 | 23 BGW Conservation Outcome (b) Action 8 | <i>Develop a park Concept Plan for the "Molonglo River Park" which will occur along the East Molonglo river corridor. This Plan will establish management zones within the Park, specifically identifying areas to be designated for conservation as well as identifying recreation areas and resolving public access. A key focus of this plan will be the protection of Box-Gum Woodland.</i> (Also Items 9, 10, 37, 68 and 69 refer) | <i>Complete. The Molonglo River Corridor Concept Plan prepared by EPD was endorsed by Cabinet on 28 August 2012 (10/0826/CAB). A complete version of the plan can be found at the following link http://www.planning.act.gov.au/topics/current_projects/studies/molonglo_river_park_concept_plan</i> |
| 37 | 23 BGW Conservation Outcome (b) Action 9 | <i>Develop a management plan for the Molonglo River Park to provide for the maintenance and enhancement of the ecological condition of Box-Gum Woodland within the park (approximately 73ha).</i> (Also Items 9, 10, 36, 68 and 69 refer) | <i>Complete. Operational Plans for Molonglo River Park, Kama Nature Reserve and Patch GG were completed in June 2014.</i> The statutory Plan of Management (POM) is currently being prepared by TAMS for completion in 2016 |

| No | NES Plan Page Reference | Commitment | Comment/Status |
|----|---|---|--|
| 38 | 23 BGW Conservation Outcome (b) Action 10 | Implement the management plan for the Molonglo River Park to provide for the maintenance and enhancement of the ecological condition of Box-Gum Woodland within the park. | <i>Ongoing</i> As above – Item 37 & 23 In 2014, for the third consecutive year, TAMS continued woody weed control, St John's Wort chemical treatment, Blackberry, Chilean Needle Grass, Serrated Tussock and African Love Grass chemical treatment. Willow frilling along the river corridor and selective grazing to reduce biomass was also undertaken. TAMS constructed boundary fencing along the proposed Molonglo 2 urban edge boundary to increase protection of PTWL habitat within the Patch K conservation area. |
| 39 | 23 BGW Conservation Outcome (b) Action 11 | <i>Establish Patch GG as an offset site by incorporating the area into the National Arboretum.</i> (Also Item 13 refers) | <i>On 22 January 2013 the ACT Government purchased 'Glenloch' from its former long term lessees. On 10 February 2014 Patch GG was transferred to TAMS for incorporation into the National Arboretum to enable management as the offset site. An Operational Plan for Patch GG was completed in June 2014. Patch GG is being managed for its ecological values.</i> |
| 40 | 23 BGW Conservation Outcome (b) Action 12 | <i>Develop a management plan for Patch GG to provide for the maintenance and enhancement of the ecological condition of Box-Gum Woodland (approximately 44ha)</i> (Also Item 13 refers) | <i>Complete. On 22 January 2013 the ACT Government purchased 'Glenloch' from its former long term lessees. On 10 February 2014 Patch GG was transferred to TAMS for incorporation into the National Arboretum to enable management as the offset site. Patch GG is being managed for its ecological values.</i> <i>Patch N and Patch GG2, have been added to the conservation area, now referred to as "Arboretum Woodlands", comprising a total area of approximately 70 hectares.</i> <i>An Operational Plan for the Arboretum woodlands conservation area was completed in June 2014.</i> |
| 41 | 23 BGW Conservation Outcome (b) Action 13 | Implement the management plan for Patch GG to provide for the maintenance and enhancement of the ecological condition of Box-Gum Woodland. | <i>On 22 January 2013 the ACT Government purchased 'Glenloch' from its former long term lessees. On 10 February 2014 Patch GG was transferred to TAMS for incorporation into the National Arboretum to enable management as the offset site. An Operational Plan for Patch GG was completed in June 2014. Patch GG is being managed for its ecological values including in 2013, the boundary of Patch GG was secured with stock proof fences and woody weed control commenced.</i> |
| 42 | 24 BGW Conservation Outcome (c) Action 14 | Develop management plans for Box-Gum Woodland patches C, H, and N (see Figure 3) to provide for the maintenance and enhancement of the ecological condition of Box-Gum Woodland within these areas. (Also Item 14 refers) | As above – Item 14 Operational Plans for Patches C & H will be developed by TAMS in 16- 17. An Operational Plan for Patch N was developed by TAMS as part of the Arboretum Woodland Conservation Area, in 2014 |
| 43 | 24 BGW Conservation Outcome (c) Action 15 | Implement management plans for Box-Gum Woodland patches C, H, and N (see Figure 3) to provide for the maintenance and enhancement of the ecological condition of Box-Gum Woodland within these areas. | As above – Item 42 |
| 44 | 25 BGW Conservation Outcome (d) Action 16 | Develop management plans for Box-Gum Woodland patches I, L, M, and P (see Figure 3) to provide for the maintenance of the ecological condition of Box-Gum Woodland within these areas. (Also Item 15 refers) | Operational Plans for Patch P will be developed by TAMS in 16- 17. Patches I, L and M are managed under a rural lease with a Land Management Agreement. In 2013 TAMS completed a Baseline Condition Assessment of the Box-Gum Woodlands (BGW) in the Strategic Assessment Area. This Assessment divided Patch P into 3 sub-patches based on condition, as follows: P1 – 7.8ha BGW P2 – 3.2ha other vegetation P3– 1.7ha other vegetation Patch M was also divided into sub patches, as follows: M1 – 6.7ha BGW M2 – 3.1ha other vegetation This revision was reflected in the Adaptive Management Strategy endorsed by the Commonwealth on 7 August 2013. |
| 45 | 25 BGW Conservation Outcome (d) Action 17 | Undertake fuel hazard management in patches I, L, M and P (see Figure 3) with the management and protection of Box-Gum Woodland as a critical consideration (within the constraints of ensuring the safety of the urban population). | Operational Plans for Patch P will be developed by TAMS in 16- 17. Patches I, L and M are managed under a rural lease with a Land Management Agreement. During 2013 pine wildings were removed from Patches P2 and P3. |
| 46 | 25 BGW Conservation Outcome (d) Action 18 | Annually monitor the condition of the Box-Gum Woodland patches I, L, M, P (total area of 45.4ha) on the western boundary of East Molonglo to ensure that fuel hazard management is not negatively impacting on the Box-Gum Woodland values. | Baseline Condition Assessments of the BGW patches were undertaken by TAMS in 2013. Ecological monitoring of the NES Plan offset areas commenced in 2013 for all NES Plan rural offset areas, and continues annually. A Monitoring Procedures Manual for Molonglo was prepared by TAMS in accordance with the Adaptive Management Strategy, in 2013. In 2014 TAMS completed annual vegetation monitoring for the second consecutive year. |

| No | NES Plan Page Reference | Commitment | Comment/Status |
|----|---|---|---|
| 47 | 25 BGW Conservation Outcome (d) Action 19 | <p>Should the monitoring of the condition of the Box-Gum Woodland Patches I, L, M, P show that:</p> <ul style="list-style-type: none"> for a period of two consecutive years; more than 30% of the combined area of patches I, L, M, P (total area of 45.4ha) no longer meets the EPBC Act listing criteria for Box-Gum Woodland; <p>then the ACT Government will establish an offset site within two years of those monitoring results that meets the following criteria:</p> <ul style="list-style-type: none"> the offset will be in the Molonglo Valley; and the offset will include a minimum of 90.8ha of EPBC Act listed Box-Gum Woodland. | Ongoing. In 2014 TAMS completed annual vegetation monitoring for the second consecutive year. |
| 48 | 25 BGW Conservation Outcome (d) Action 20 | Should an offset site be required for Box-Gum Woodland patches I, L, M, P (in accordance with Action 19), then the offsite site will be established as a Nature Reserve and managed consistently with the other offset sites (Kama Nature Reserve, Molonglo River Park, Patch GG) | Noted. |
| 49 | 26 BGW Conservation Outcome (e) Action 21 | <p>Manage the Box-Gum Woodland that occurs in West Molonglo in accordance with the terms of a Land Management Agreement (LMA). LMAs are required by Part 9.7 of the <i>planning and Development Act 2007</i> for all non-urban leases. The LMA covering the BGW in West Molonglo contains a Land Action Plan which ensures that:</p> <ul style="list-style-type: none"> the ecological functioning and integrity of BGW on the lease is retained and improved; the extent and character of the BGW is preserved; and there is an Action Plan which details the activities, timeframes and performance measures put in place to ensure the conservation outcomes are met. | As above Item 7. Conservator of Flora and Fauna to ensure compliance with LMA and instruct accordingly. |
| 50 | 26 BGW Conservation Outcome (e) Action 22 | West Molonglo is zoned Broadacre and is not part of the ACT Government's current land release program. In the event that West Molonglo is developed in the future for Broadacre uses or residential development then, subject to confirmatory ecological assessment of Box-Gum Woodland, the area of EPBC Act Box-Gum Woodland that occurs there will be set aside as a Nature Reserve. | As above Item 49 |
| 51 | 26 BGW Conservation Outcome (f) Action 23 | <p><i>Establish and manage an off-site restoration project, as an indirect offset, for Box-Gum Woodland.</i></p> <p>(Also Item 16 refers)</p> | <p><i>Completed 2013-2014</i></p> <p>TAMS implemented Stage 2 of the BGW in 2014 comprising a total of 15 607 plants, 1,505 trees and shrubs and 14,102 groundcovers were planted.</p> <p>TAMS will commence Stage 3 of the BGW restoration in 2015-16</p> |
| 52 | 27 NTG Conservation Outcome (a) Action 24 | Protection of the Natural Temperate Grassland within the Kama Nature Reserve. | <p>As above Items, 11,12,23,33,34</p> <p>Ecological Surveys of NTG undertaken by TAMS in 2014-15 included:</p> <p>NTG Vegetation condition monitoring</p> <p>Commenced the preparation of a comprehensive Plant Field Guide for the Molonglo Valley Conservation Areas. The Field Guide will help to promote the ecological values of the reserve and thereby assist residents in the Molonglo Valley protect the reserve as their <i>treasured front yard</i>.</p> <p>The Guide will also assist land managers with evidence-based adaptive decision making.</p> <p>TAMS prepared research proposals for:</p> <p>Grassland Habitat Research – Slashing as a biomass management tool for NGT and BGW –Research Project</p> <p>NGT ecosystem recovery through habitat rock supplementation –Research Project</p> |
| 53 | 28 NTG Conservation Outcome (a) Action 25 | Develop a management plan for the Kama Nature reserve to provide for the maintenance and enhancement of the ecological condition of Natural Temperate Grassland within the reserve. | As above Items, 11,12,23,33,34 |
| 54 | 28 NTG Conservation Outcome (a) Action 26 | Implement the management plan for the Kama Nature Reserve to provide for the maintenance and enhancement of the ecological condition of Natural Temperate grassland within the reserve. | As above Items, 11,12,23,33,34 |

| No | NES Plan Page Reference | Commitment | Comment/Status |
|----|--|---|--|
| 55 | 28 NTG Conservation Outcome (a) Action 27 | Establish a buffer outside the Kama Nature Reserve between the reserve and the proposed development area, and allow for appropriate uses consistent with nature conservation uses of the reserve. The buffer will be developed to ensure that fire management is undertaken outside of the Kama Nature Reserve and will provide protection against urban edge effects. <i>(Also Items 12, 35 and 67 refer)</i> | As above – Item 37, 18 & 12 |
| 56 | 29 | Impacts to high and moderate quality PTWL habitat will be limited to a maximum of 27ha and a range of measures will be implemented to minimise this area of impact. <i>(Also Item 61 refers)</i> | Ongoing |
| 57 | 29 | Two offset sites will be established within the strategic assessment area (Kama Nature Reserve and the Molonglo River Park) that will provide for the long term protection of 66ha of high and moderate quality PTWL habitat (see Figure 6). These areas will be adaptively managed to maintain and enhance the ecological condition of the PTWL habitat that occurs there. | Ongoing. Ecological Surveys of PTWL undertaken in 2014-15 included: <ul style="list-style-type: none"> • PTWL population monitoring • PTWL habitat condition monitoring • PTWL habitat Restoration research surveys • PTWL habitat Extension research monitoring TAMS has prepared a suite of policy documents and guidelines which will provide for the long term protection of the PTWL in the off-set areas. These include the draft Statutory Reserve Management Plan , Operational Plans for Kama, River Park and Patch GG, Monitoring Procedures Manual for Molonglo and Ecological Management Guidelines for the Molonglo River Corridor |
| 58 | 29 | Continued protection of 28.1ha of high and moderate quality PTWL habitat within the Lower Molonglo Nature Reserve (see Figure 4). These areas will be adaptively managed to maintain the ecological condition of the PTWL habitat that occurs there. <i>(Also Item 73 refers)</i> | PTWL habitat mapping of the Lower Molonglo Reserve, undertaken by David Wong and Dr Will Osborne was incorporated into the Adaptive Management Strategy (endorsed by the Commonwealth 7 August 2013) An area of PTWL habitat to be protected under Action 40 is identified at Figure 3A of the Adaptive Management Strategy 2013. An Operational Plan for the area of PTWL habitat to be protected under Action 40 as identified at Figure 3A of the Adaptive Management Strategy 2013, will be prepared in 2016-17 |
| 59 | 29 | <i>Protection of an additional 23.3ha of high and moderate quality PTWL habitat within the strategic assessment area outside of the development and offset areas (see Figure 4). These areas will be adaptively managed to maintain and enhance the ecological condition of the PTWL habitat that occurs there.</i> <i>(Also Item 74 refers)</i> | <i>Protection is ongoing. An area of PTWL habitat to be protected under Action 41, is identified at Figure 3A of the Adaptive Management Strategy, 2013.</i> |
| 60 | 29 | Improving and applying the knowledge about the management of PTWL. | Ongoing. Stage 1 of the research is complete and the preparation of a research manuscript from PTWL habitat restoration research McDougall A, Milner R, Driscoll D & Smith A, 2015, <i>Resolving conflict between biodiversity conservation and fire management with threatened species habitat restoration</i> , prepared, to be submitted to <i>Biological Conservation</i> in 2015-16 In 2014 Stage 2 restoration saw over 600ton of rock spread across 10,000sq m and 40,000 Themeda and Poa grasses planted between the rocks. Monitoring of the test sites is ongoing. With initial post-treatment vegetation and ant surveys complete. In February 2015, eleven PTWLs were found across the restoration sites. The PTWL habitat restoration project will continue with a third stage in 2015-16. |
| 61 | 30 PTWL Conservation Outcome (a) Action 28 | Ensure that the combined impacts on high and moderate quality PTWL habitat from development within east Molonglo and construction of infrastructure within the river corridor do not exceed 27ha. <i>(Also Item 56 refers)</i> | ED has prepared a Biodiversity Account to monitor and record impacts of development in Molonglo East. In 2014 TAMS constructed a boardwalk and lookout structure at Holdens Creek Hill to manage pedestrian movement through high quality PTWL habitat close to the Coombs urban edge. The hill top, with surrounding PTWL habitat, was recognised as a natural lookout advantage point in the Reserve which would attract visitors. The boardwalk and habitat protection fencing is intended to control pedestrian access thus minimising impact and ongoing disturbance to the habitat. The construction was restricted to a narrow works space with all materials hand carried within the narrow corridor. Footings were established using low impact excavation techniques. The boardwalk rises up from 300mm to 2.8 metres above ground to allow natural light penetration and air circulation and encourage existing wildlife circulation. |
| 62 | 30 PTWL Conservation Outcome (a) Action 29 | Amend the East Molonglo river corridor boundary in Stages 2 and 3 respectively with a view to reducing impacts to high and moderate quality PTWL habitat. This process will ensure that connectivity within the river corridor is maintained. | As above Item 4 & 30. Planning and Design Framework for Stage 3 Molonglo commenced |

| No | NES Plan Page Reference | Commitment | Comment/Status |
|----|--|--|--|
| 63 | 30 PTWL Conservation Outcome (a) Action 30 | Design the infrastructure that will occur in the river corridor to minimise impacts to high and moderate quality PTWL habitat. <i>(Also Items 5 and 6 refer)</i> | Ongoing. Design principle adopted by all Directorates and incorporated in contracts for design and construction projects. As above. Item 5. |
| 64 | 30 PTWL Conservation Outcome (a) Action 31 | Develop, implement and independently monitor Construction Environmental Management Plans (CEMPs) to ensure that unforeseen direct or indirect impacts from construction activities within the development area and the river corridor are avoided. <i>(Also Items 8 and 32 refer)</i> | Ongoing. Construction Environmental Management Plans (CEMPs) are being prepared for projects that may impact on matters of NES. CMTEDD has procured a full time equivalent on-site Superintendent to ensure compliance. |
| 65 | 31 PTWL Conservation Outcome (b) Action 32 | Develop a management plan for the Kama Nature Reserve to provide for the maintenance and enhancement of the ecological condition of all PTWL habitat within the reserve (approximately 6ha which includes 3.33ha of high and moderate quality habitat). | As above Item 11, 12, 23 & 33). Required timing is development of management plan prior to the commencement of the construction of Sewer 3 East or within 2 years and 6 months (7.04.2014) of endorsement of the NES Plan, whichever occurs first. |
| 66 | 31 PTWL Conservation Outcome (b) Action 33 | Implement the management plan for the Kama Nature Reserve to provide for the maintenance and enhancement of the ecological condition of all PTWL habitat within the reserve. | As above. |
| 67 | 31 PTWL Conservation Outcome (b) Action 34 | Establish a buffer outside the Kama Nature Reserve between the reserve and the proposed development area, and allow for appropriate uses consistent with nature conservation uses of the reserve. The buffer will be developed to ensure that fire management is undertaken outside of the Kama Nature Reserve and will provide protection against urban edge effects. <i>(Also Items 12, 35 and 55 refer)</i> | As above |
| 68 | 31 PTWL Conservation Outcome (b) Action 35 | <i>Develop a Park Concept Plan for the "Molonglo River Park" which will occur along the East Molonglo river corridor. This Plan will establish management zones within the Park, specifically identifying areas to be designated for conservation as well as identifying recreation areas and resolving public access. A key focus of this will be the protection of high and moderate quality PTWL habitat.</i> <i>(Also Items 9, 10, 36, 37 and 69 refer)</i> | <i>Complete. The Molonglo River Corridor Concept Plan prepared by EPD was endorsed by Cabinet on 28 August 2012 (10/0826/CAB). A complete version of the plan can be found at the following link http://www.planning.act.gov.au/topics/current_projects/studies/molonglo_river_park_concept_plan</i> |
| 69 | 31 PTWL Conservation Outcome (b) Action 36 | Develop a management plan for the Molonglo River Park to provide for the maintenance and enhancement of the ecological condition of high and moderate quality PTWL habitat within the park (approximately 62ha). <i>(Also Items 9, 10, 36, 37 and 68 refer)</i> | As above Item 4, 5,10,11,23 & 37 Required timing is development of the management plan prior to the commencement of construction of Sewer 3 East or within 2 years and 6 months (7.4.2014) of endorsement of the NES Plan, whichever occurs first. |
| 70 | 32 PTWL Conservation Outcome (b) Action 37 | Establish a 20m buffer around high and moderate quality PTWL habitat (other than, for example the areas to be impacted by the bridge crossings and strategically placed walking tracks) within the east Molonglo river corridor. Manage these areas to ensure the maintenance of their conservation value. Management measures (as outlined in Section 3) will be incorporated into the management plan for the river corridor. | Infrastructure designs being progressed. |
| 71 | 32 PTWL Conservation Outcome (b) Action 38 | Implement the management plan for the Molonglo River Park to provide for the maintenance and enhancement of the ecological condition of high and moderate quality PTWL habitat within the park. | As above Item 4, 5,10,11,&23 Ongoing implementation required from completion of management plan. |
| 72 | 32 PTWL Conservation Outcome (b) Action 39 | Register a disallowable instrument under the <i>Domestic Animals Act 2000</i> to effect a cat containment policy for the Molonglo area. | Disallowable Instrument DI 2012-182, Domestic Animals (Cat Curfew Area) Declaration 2012 (No 1) was declared on 9 July 2012. The DI includes the declaration of the Divisions of Coombs, Wright, Denman Prospect and Molonglo. |
| 73 | 32 PTWL Conservation Outcome (c) Action 40 | Continued implementation of the Plan of Management for the Lower Molonglo Nature Reserve to provide for the maintenance of the ecological condition of the high and moderate quality PTWL habitat that occurs there (approximately 28.1ha). <i>(Also Item 58 refers)</i> | The statutory Plan of Management (POM) is currently being prepared by TAMS for completion in 2016. Ongoing implementation will commence on completion of the POM. An Operational Plan for the area of PTWL habitat to be protected under Action 40 as identified at Figure 3A of the Adaptive Management Strategy 2013, will be prepared in 2016-17. |
| 74 | 33 PTWL Conservation Outcome (d) Action 41 | Develop management plans for the other areas of high and moderate quality PTWL habitat that occurs within the strategic assessment area and outside of the development and offset areas (approximately 23.3ha) to provide for the maintenance and enhancement of the ecological condition of the PTWL habitat within these areas. <i>(Also Item 59 refers)</i> | As above – Item 59 Required timing is development of management plans after completion of the adaptive management strategy (see Section 7) and within 2 years and 6 months (7.4.2014) of endorsement of the NES Plan. An Operational Plan for the area of PTWL habitat to be protected under Action 40 as identified at Figure 3A of the Adaptive Management Strategy 2013, will be prepared in 2016-17 |

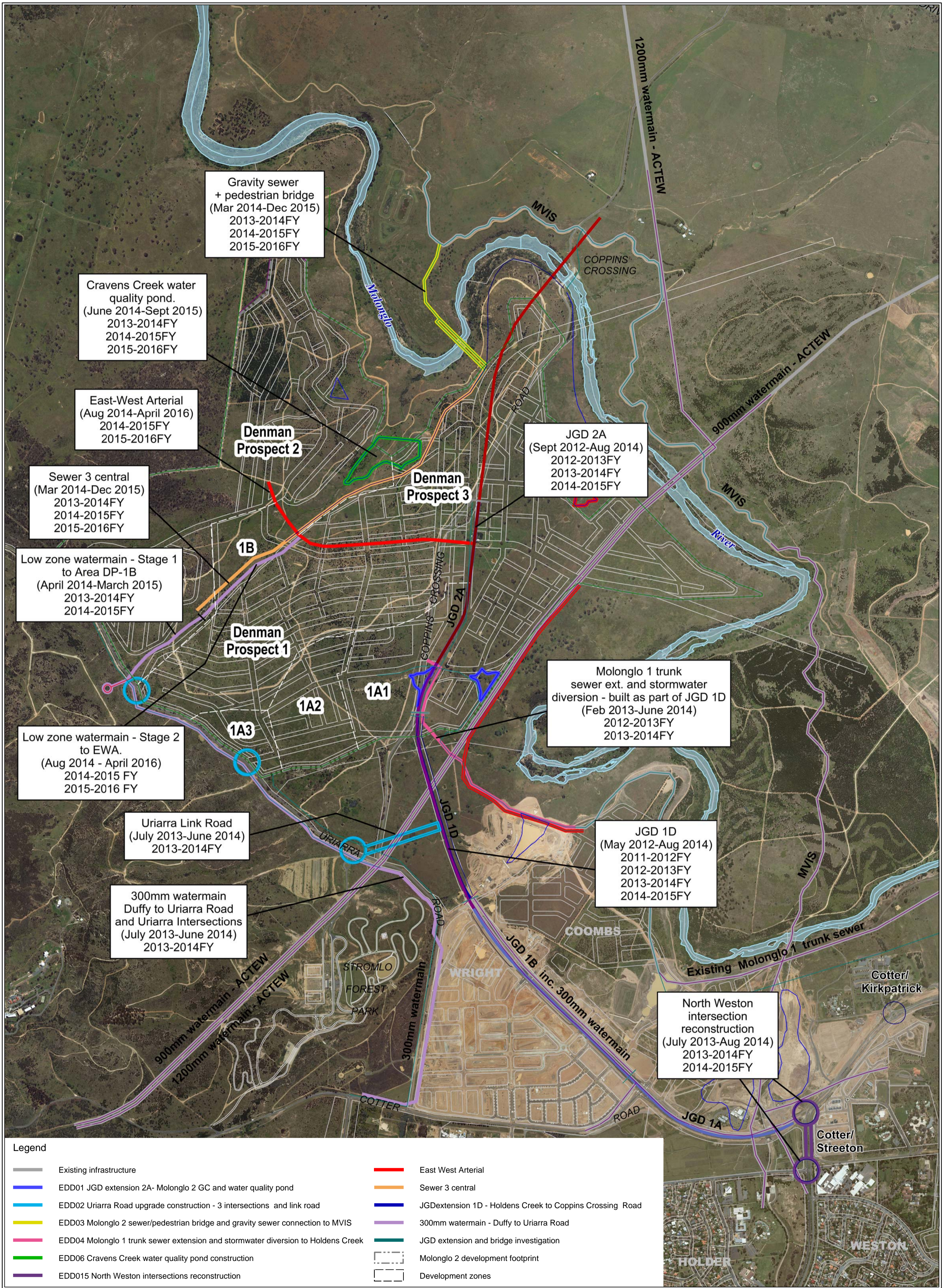
| No | NES Plan Page Reference | Commitment | Comment/Status |
|----|--|---|--|
| 75 | 33 PTWL Conservation Outcome (d) Action 42 | Implement management plans for the other areas of high and moderate PTWL habitat that occurs within the strategic assessment area and outside of the development and offset areas (approximately 23.3ha) to provide for the maintenance and enhancement of the ecological condition of PTWL habitat within these areas. | As above |
| 76 | 33 PTWL Conservation Outcome (e) Action 43 | Undertake a research project examining the effects on PTWL of disturbance and proximity to urban areas. <i>(Also Item 16 refers)</i> | Mount Taylor Case study Stage 1 Complete Stage 2, Population Monitoring techniques, is ongoing as above Item 60. |
| 77 | 33 PTWL Conservation Outcome (e) Action 44 | <i>Amend the development boundary, adjacent to high and moderate quality PTWL habitat on the western edge to avoid:</i> <ul style="list-style-type: none"> <i>direct impact from bushfire management – the Outer Asset Protection Zone (OAPZ) and Inner Asset Protection Zones (IAPZ) will be between the PTWL habitat and the development boundary; and</i> <i>indirect impacts from urban development.</i> | <i>Complete</i> <i>The development boundary, adjacent to high and moderate quality PTWL habitat on the western edge has been amended.</i> <i>TAMS is preparing a strategic Fire management Plan for the Molonglo River Corridor and is preparing Operational Plans for the River Corridor to be informed by the Baseline Condition Assessment of BGW and the draft Ecological Management Guidelines scheduled for completion by June 2014.</i> |
| 78 | 41 | The ACT Government will monitor and report annually to the public on the implementation of the NES Plan. An annual report highlighting the conservation outcomes achieved in the previous year will be published by the ACT Government and provided to the Department of the Environment. The Report will include the monitoring results on the condition of the MNES, conservation outcomes (as listed in Section 4) and the outcomes of enhancement projects. | Ongoing. To be finalised by end November each year. |
| 79 | 41,42,43 | <i>Develop an Adaptive Management Strategy to set out the framework for achieving the NES Plan's commitments through monitoring, evaluation, experimental design, reporting, auditing and continuous improvement processes. The Strategy will inform the content and timing of specific management plans and actions to ensure a consistent, integrated and efficient application of adaptive management principles and practices to achieve long term conservation outcomes for MNES.</i> <i>The approved Adaptive Management Strategy will be submitted for approval by the Minister (Commonwealth) or delegate.</i> | <i>Complete</i> <i>Adaptive Management Strategy, endorsed by Commonwealth Government on 7 August 2013.</i> |
| 80 | 44 | The NES Plan and its associated actions will to be audited by an independent, third party expert every five years, for a 30 year period. The audit reports are to be provided to the Department of the Environment for their consideration. | Incorporated as an action in the Adaptive Management Strategy May 2013. Required timing is an audit process every 5 years. |
| 81 | 44 | Appoint an independent, third party auditor and develop a customised audit protocol to ensure that: <ul style="list-style-type: none"> commitments made by the ACT Government in the NES Plan are being adhered to; and conservation outcomes for the MNES are being achieved. | As above – Item 80. Required timing is an audit process every 5 years. The Commissioner for the Environment will be undertaking this audit. |
| 82 | 44 | The Treasury Directorate will ensure that commitments and actions in the NES Plan are funded. | Directorates to scope their responsibilities under the NES Plan and prepare Budget bids. Business cases prepared by the Directorates for projects associated with the implementation of the MNES Plan will be assessed by the Treasury Directorate and considered by the ACT Government. |

Table 3 Deviation or Non-compliance:

| Ref. | Deviation or Non-compliance |
|---------------------|--|
| 5, 9, 25, 32, 36 | Management plans have been prepared for the relevant offset areas however the Molonglo River Park and Kama Nature Reserve Statutory Plan of Management has not been finalised. This is anticipated to occur in early 2016. |

Construction updates

Figure 1 shows the construction forecast for Molonglo Stage 2. Any adjustments to this program will be reported annually



Gravity sewer + pedestrian bridge (Mar 2014-Dec 2015)
2013-2014FY
2014-2015FY
2015-2016FY

Cravens Creek water quality pond. (June 2014-Sept 2015)
2013-2014FY
2014-2015FY
2015-2016FY

East-West Arterial (Aug 2014-April 2016)
2014-2015FY
2015-2016FY

Sewer 3 central (Mar 2014-Dec 2015)
2013-2014FY
2014-2015FY
2015-2016FY

Low zone watermain - Stage 1 to Area DP-1B (April 2014-March 2015)
2013-2014FY
2014-2015FY

Low zone watermain - Stage 2 to EWA. (Aug 2014 - April 2016)
2014-2015 FY
2015-2016 FY

Uriarra Link Road (July 2013-June 2014)
2013-2014FY

300mm watermain Duffy to Uriarra Road and Uriarra Intersections (July 2013-June 2014)
2013-2014FY

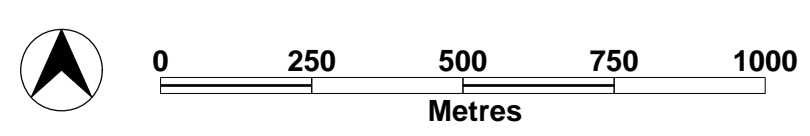
JGD 2A (Sept 2012-Aug 2014)
2012-2013FY
2013-2014FY
2014-2015FY

Molonglo 1 trunk sewer ext. and stormwater diversion - built as part of JGD 1D (Feb 2013-June 2014)
2012-2013FY
2013-2014FY

JGD 1D (May 2012-Aug 2014)
2011-2012FY
2012-2013FY
2013-2014FY
2014-2015FY

North Weston intersection reconstruction (July 2013-Aug 2014)
2013-2014FY
2014-2015FY

| Legend | |
|--------|--|
| | Existing infrastructure |
| | EDD01 JGD extension 2A- Molonglo 2 GC and water quality pond |
| | EDD02 Uriarra Road upgrade construction - 3 intersections and link road |
| | EDD03 Molonglo 2 sewer/pedestrian bridge and gravity sewer connection to MVIS |
| | EDD04 Molonglo 1 trunk sewer extension and stormwater diversion to Holdens Creek |
| | EDD06 Cravens Creek water quality pond construction |
| | EDD015 North Weston intersections reconstruction |
| | East West Arterial |
| | Sewer 3 central |
| | JGD extension 1D - Holdens Creek to Coppins Crossing Road |
| | 300mm watermain - Duffy to Uriarra Road |
| | JGD extension and bridge investigation |
| | Molonglo 2 development footprint |
| | Development zones |



Molonglo 2 - Forecast Construction Capital Works Projects Rev. 006 March 2014

<http://www.actpla.act.gov.au/actlic> DPMH - 16 Challis Street Dickson ACT 2601

Scale: 12 500 (A2) Date: 7/3/2014



2.2 The Molonglo Valley NES Plan Biodiversity Account

The MNES values for Box-Gum Woodland, Pink-tailed Worm Lizard and Natural Temperate Grassland in East Molonglo have been mapped and are included in the following figures. Potential Superb and Swift Parrot habitat is predominantly associated with the Box-Gum Woodland and is not mapped separately. The extent and condition information presented in the figures were obtained during the development of the NES Plan and the baseline condition of MNES will be established in accordance with the approved Adaptive Management Strategy.

Action 1 requires the ACT Government to ensure that the combined impacts on Box-Gum Woodland from development within East Molonglo and construction of infrastructure within the river corridor do not exceed 110ha.

Action 29 requires the ACT Government to ensure that the combined impacts on high and moderate quality PTWL habitat from development within East Molonglo and construction of infrastructure within the river corridor do not exceed 27ha.

2.3 Recorded Potential Impacts 2014-2015

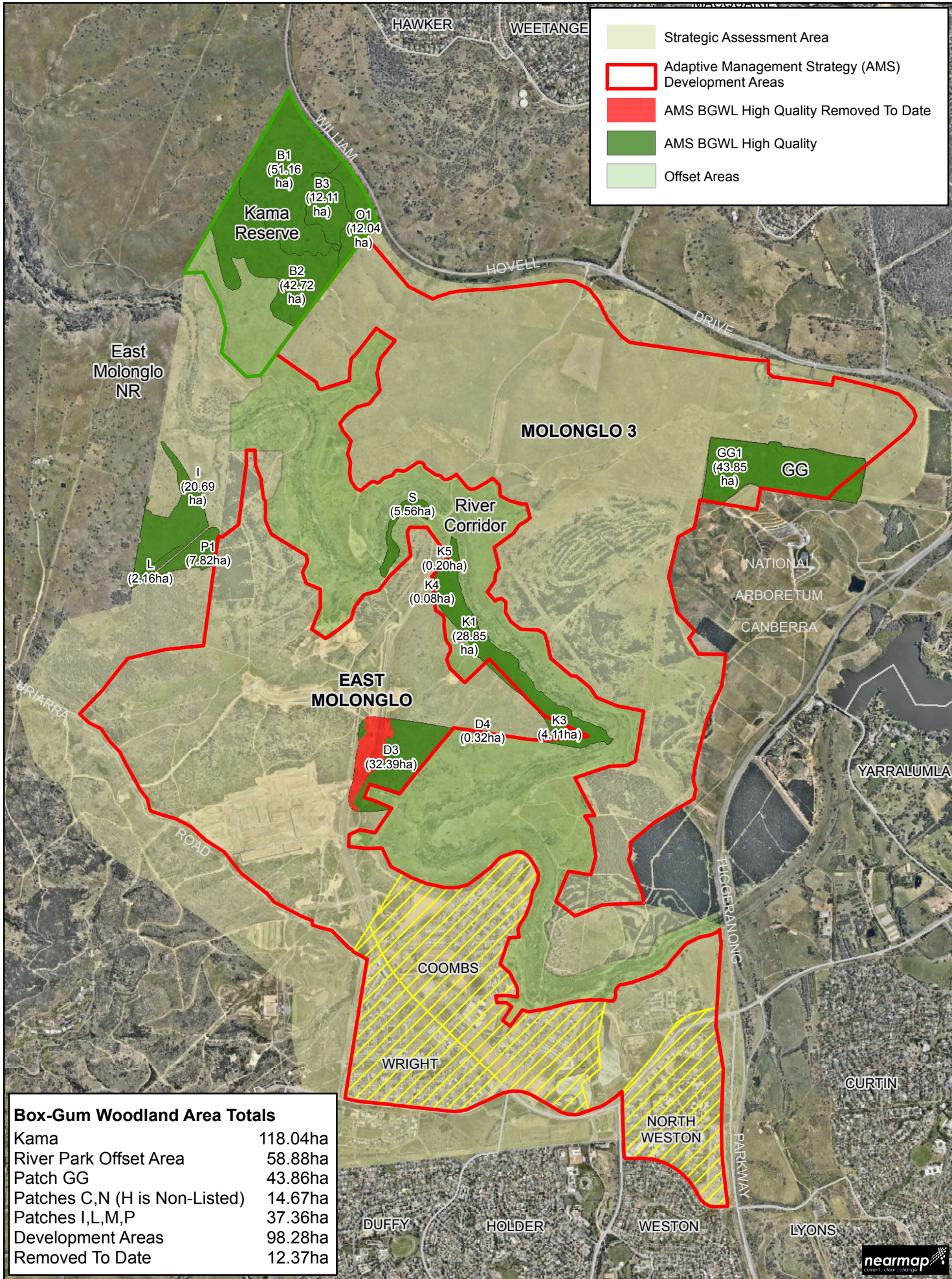
In Molonglo Stage 1 the Holdens Creek Pond project fenced construction area included the following areas of Moderate Quality Pink-tailed Worm Lizard potential habitat:

| Site Identifier: | Area (ha): |
|-------------------------|-------------------|
| 134 | 0.02095 |
| 135 | 0.00253 |
| 136 | 0.24538 |
| 207 | 0.04405 |
| 209 | 0.01157 |
| 210 | 0.01054 |
| 213 | 0.12713 |
| 218 | 0.10295 |
| 219 | 0.12169 |
| Total | 0.68679 |

An area of 0.68679 is the maximum potential area of impact on Moderate Quality Pink-tailed Worm Lizard potential habitat. The actual impacted area will be confirmed following the completion of works as executed documentation for the project and reported as required.

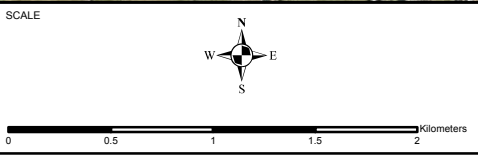
During the reporting period to 30 June 2013 there were no other physical impacts by development activities recorded to the MNES within Molonglo East Stage 1, Stage 2 or Stage 3.

Figure 2. BGW areas that have been removed in 2014 – 2015.



Box-Gum Woodland Area Totals

| | |
|-------------------------------|----------|
| Kama | 118.04ha |
| River Park Offset Area | 58.88ha |
| Patch GG | 43.86ha |
| Patches C,N (H is Non-Listed) | 14.67ha |
| Patches I,L,M,P | 37.36ha |
| Development Areas | 98.28ha |
| Removed To Date | 12.37ha |



PROJECT
Molonglo Valley MNES Plan
Annual Report 2014-2015

DRAWING TITLE
Figure 2
High Quality Box-Gum Woodland (BGWL)

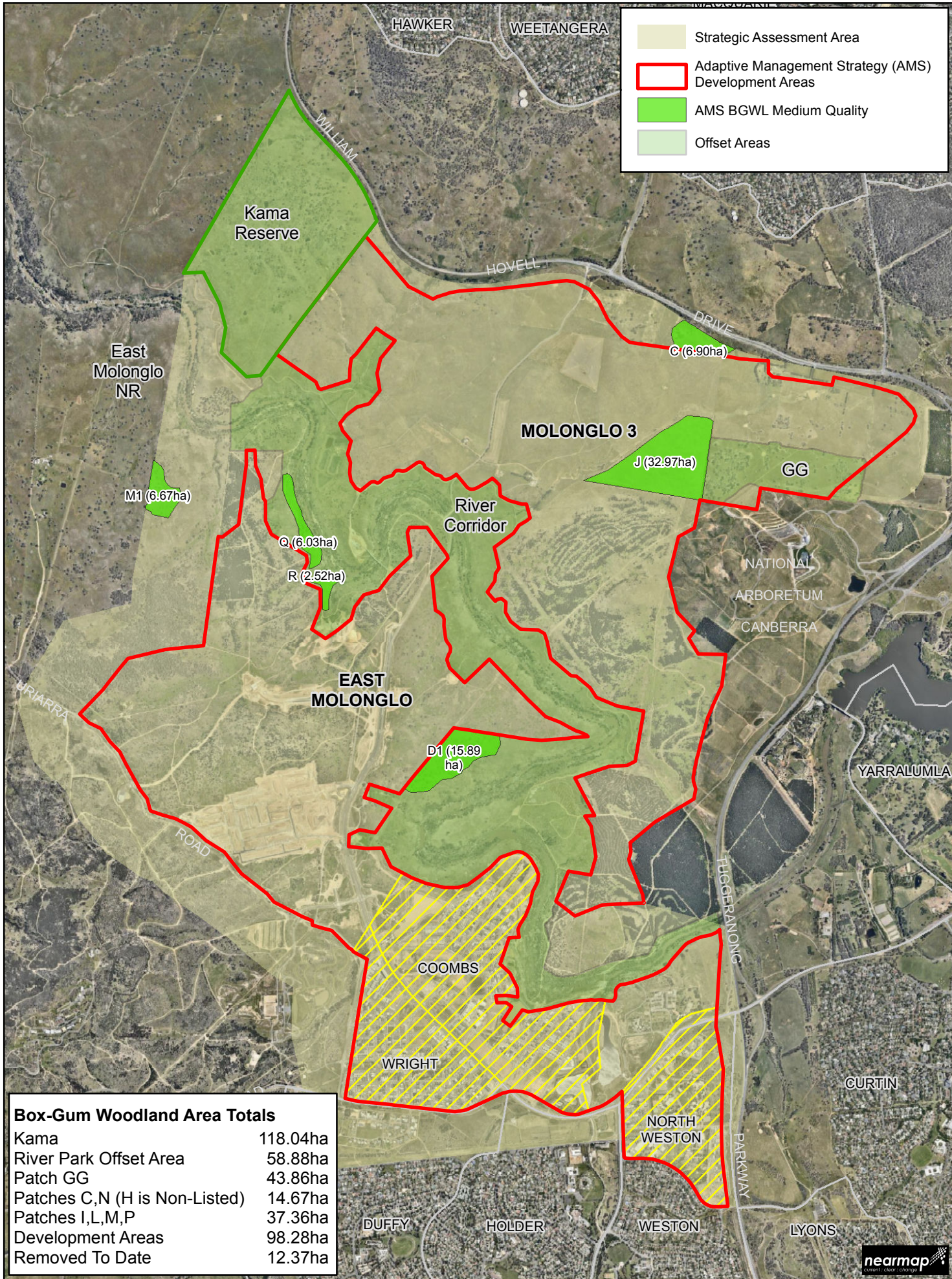
Disclaimer:
 The publisher of and/or contributors to this production accept no responsibility for any injury, loss or damage arising from its use or omissions therein. While all care is taken to ensure a high degree of accuracy, users are invited to notify any map discrepancies and should use this map with due care.

Digital Orthophoto from Nearmap Dated: 20-Nov-2015

Projection: 1966 ACT Standard Grid

PROJECT NUMBER: P01114





- Strategic Assessment Area
- Adaptive Management Strategy (AMS) Development Areas
- AMS BGWL Medium Quality
- Offset Areas

| Box-Gum Woodland Area Totals | |
|-------------------------------|----------|
| Kama | 118.04ha |
| River Park Offset Area | 58.88ha |
| Patch GG | 43.86ha |
| Patches C,N (H is Non-Listed) | 14.67ha |
| Patches I,L,M,P | 37.36ha |
| Development Areas | 98.28ha |
| Removed To Date | 12.37ha |

SCALE

PROJECT
Molonglo Valley MNES Plan
 Annual Report 2014-2015

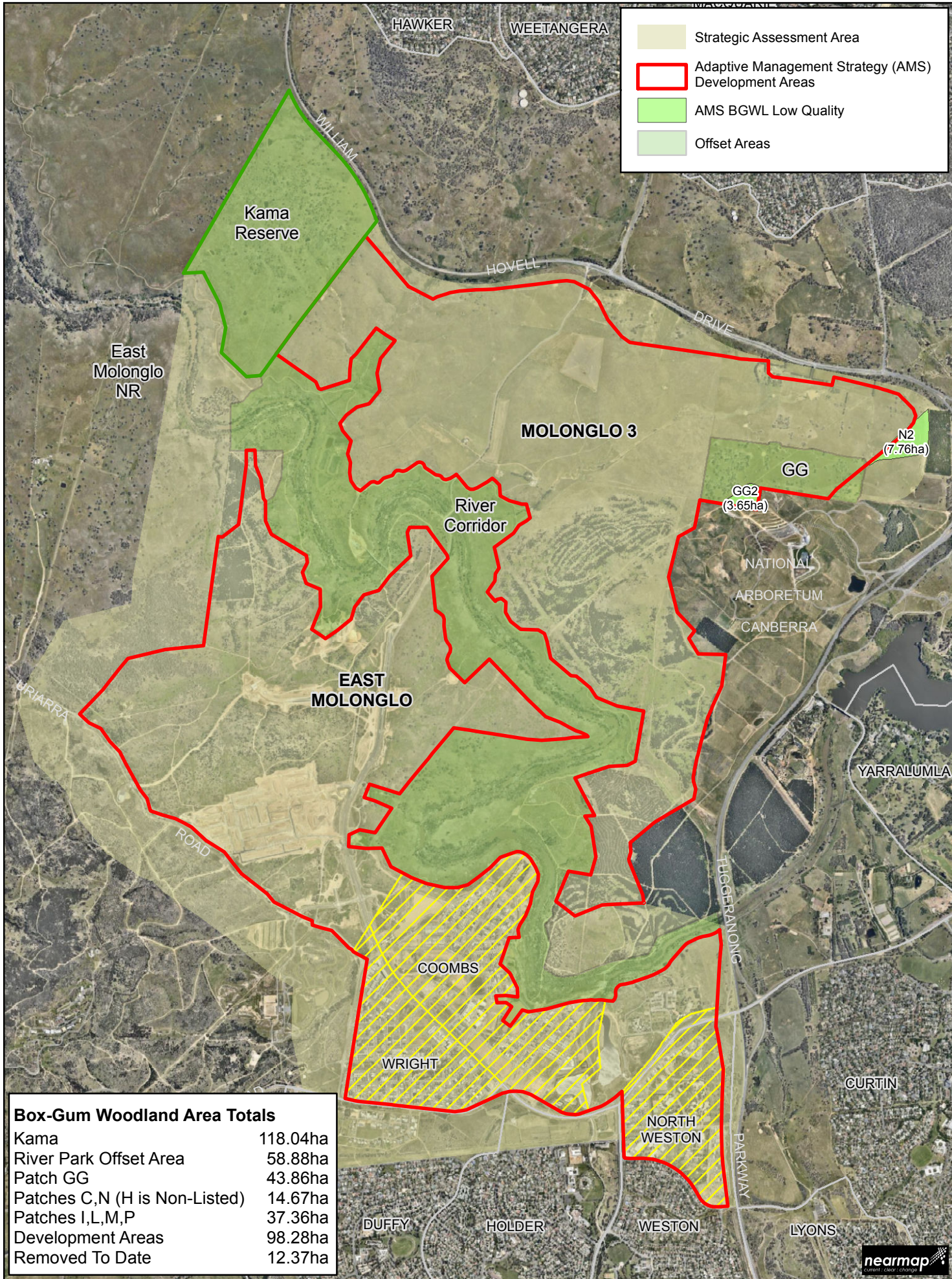
DRAWING TITLE
Figure 3
Medium Quality Box-Gum Woodland (BGWL)

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Digital Orthophoto from Nearmap Dated: 20-Nov-2015

Projection: 1966 ACT Standard Grid

PROJECT NUMBER: P01114



- Strategic Assessment Area
- Adaptive Management Strategy (AMS) Development Areas
- AMS BGWL Low Quality
- Offset Areas

| Box-Gum Woodland Area Totals | |
|-------------------------------|----------|
| Kama | 118.04ha |
| River Park Offset Area | 58.88ha |
| Patch GG | 43.86ha |
| Patches C,N (H is Non-Listed) | 14.67ha |
| Patches I,L,M,P | 37.36ha |
| Development Areas | 98.28ha |
| Removed To Date | 12.37ha |

SCALE

PROJECT
Molonglo Valley MNES Plan
 Annual Report 2014-2015

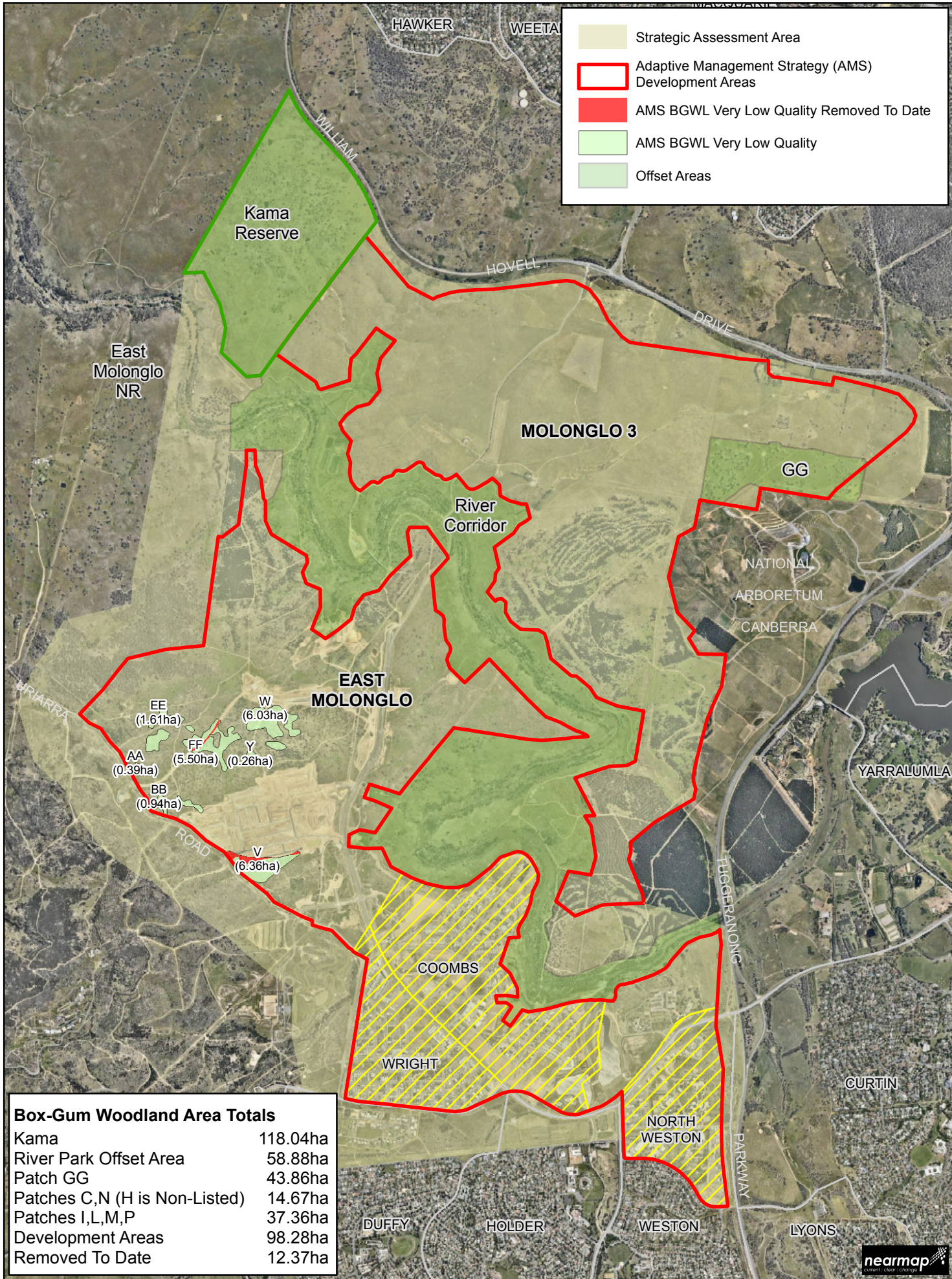
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Figure 4
 Low Quality Box-Gum Woodland (BGWL)

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Digital Orthophoto from Nearmap Dated: 20-Nov-2015

Projection: 1966 ACT Standard Grid
 PROJECT NUMBER: PO1114





- Strategic Assessment Area
- Adaptive Management Strategy (AMS) Development Areas
- AMS BGWL Very Low Quality Removed To Date
- AMS BGWL Very Low Quality
- Offset Areas

Box-Gum Woodland Area Totals

| | |
|-------------------------------|----------|
| Kama | 118.04ha |
| River Park Offset Area | 58.88ha |
| Patch GG | 43.86ha |
| Patches C,N (H is Non-Listed) | 14.67ha |
| Patches I,L,M,P | 37.36ha |
| Development Areas | 98.28ha |
| Removed To Date | 12.37ha |

SCALE

PROJECT
Molonglo Valley MNES Plan
Annual Report 2014-2015

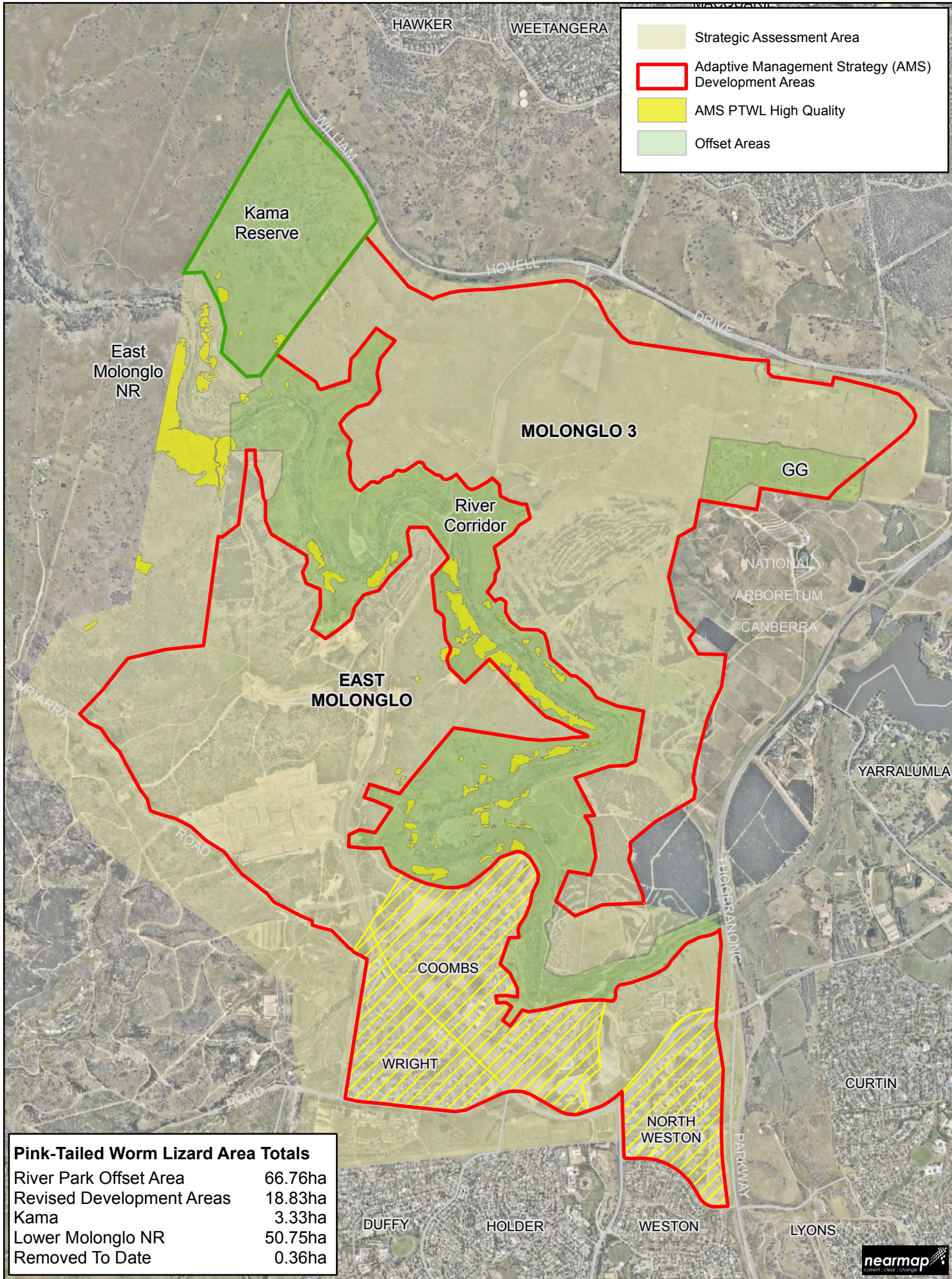
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Figure 5
Very Low Quality Box-Gum Woodland (BGWL)

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Projection: 1966 ACT Standard Grid
 PROJECT NUMBER: P01114

Figure 3. PTWL areas that have been removed in 2014 - 2015



- Strategic Assessment Area
- Adaptive Management Strategy (AMS) Development Areas
- AMS PTWL High Quality
- Offset Areas

Pink-Tailed Worm Lizard Area Totals

| | |
|---------------------------|---------|
| River Park Offset Area | 66.76ha |
| Revised Development Areas | 18.83ha |
| Kama | 3.33ha |
| Lower Molonglo NR | 50.75ha |
| Removed To Date | 0.36ha |

SCALE

0 0.5 1 1.5 2 Kilometers

PROJECT
**Molonglo Valley MNES Plan
 Annual Report 2014-2015**

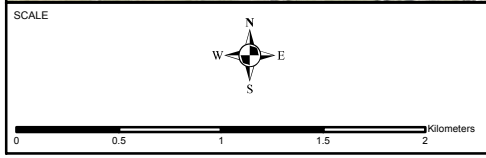
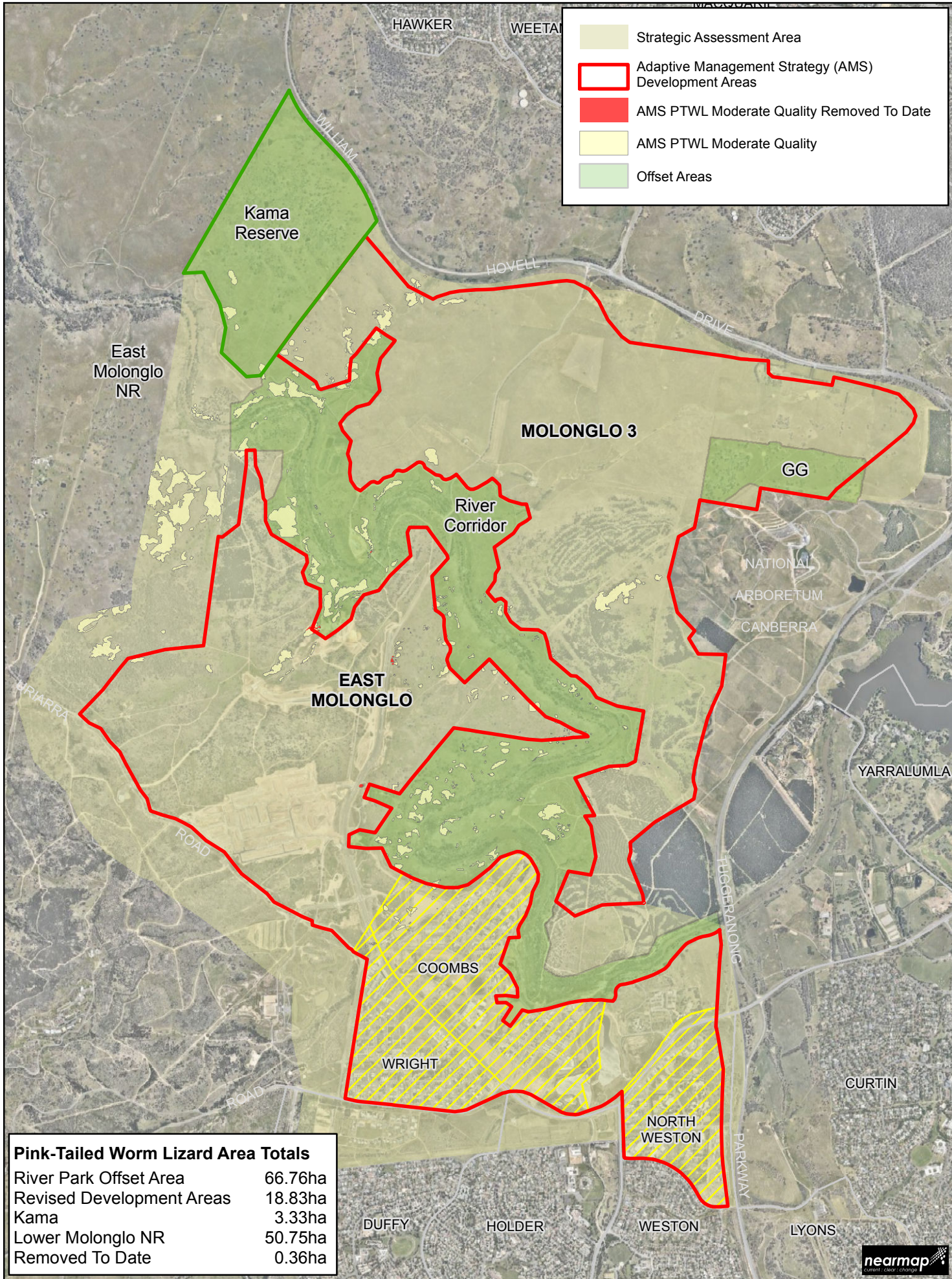
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**Figure 6
 High Quality Pink-Tailed Worm Lizard (PTWL)**

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Digital Orthophoto from Nearmap Dated: 20-Nov-2015

Projection: 1966 ACT Standard Grid

PROJECT NUMBER: P01114



PROJECT
Molunglo Valley MNES Plan
Annual Report 2014-2015

DRAWING TITLE
Figure 7
Moderate Quality Pink-Tailed Worm Lizard (PTWL)



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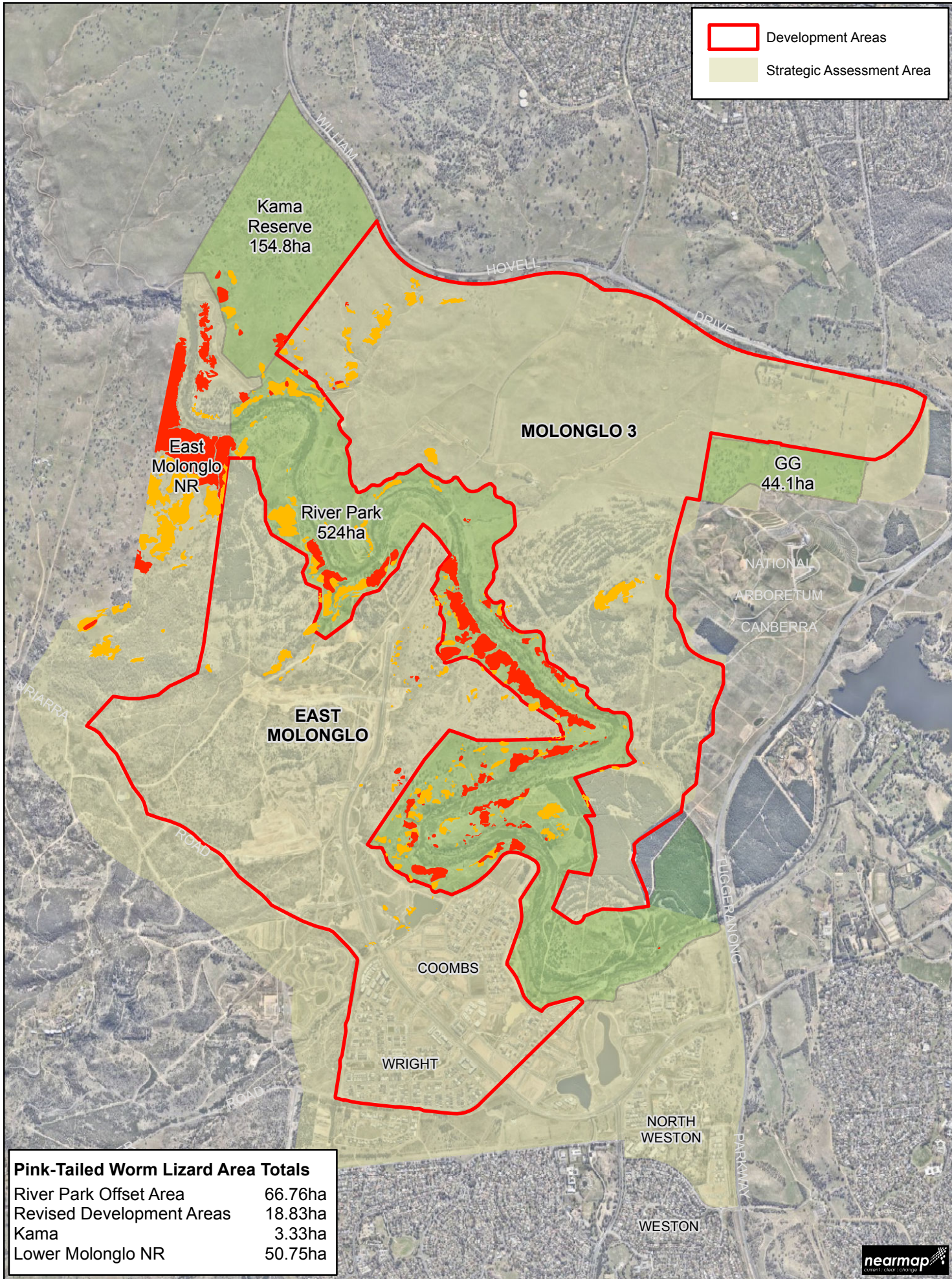
Digital Orthophoto from Nearmap Dated: 20-Nov-2015

Projection: 1966 ACT Standard Grid

PROJECT NUMBER: P01114



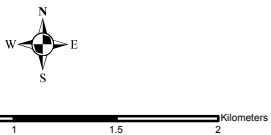
 Development Areas
 Strategic Assessment Area



Pink-Tailed Worm Lizard Area Totals

| | |
|---------------------------|---------|
| River Park Offset Area | 66.76ha |
| Revised Development Areas | 18.83ha |
| Kama | 3.33ha |
| Lower Molonglo NR | 50.75ha |

SCALE



PROJECT
**Molonglo Valley MNES Plan
 Annual Report 2014-2015**
 DRAWING TITLE
PTWL Budget (High & Moderate)

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Digital Orthophoto from Nearmap Dated: 16-May-2015

Projection: 1966 ACT Standard Grid
 PROJECT NUMBER: P01114

