

29 August 2024

Cameron Ashe
Environmental Assessment Officer
Energy, Resources & Industry Assessments
Department of Planning, Housing and Infrastructure
4 Parramatta Square, 12 Darcy St
Parramatta NSW 2150

[REDACTED]
cc: [REDACTED]

Dear Cameron

Re: 230434 – Wallaroo Solar Farm

Thank you for relaying and discussing the concerns and queries of the Independent Planning Commission onto the Wallaroo Solar Farm team. We receive initial feedback and correspondence on the following issues on 27 August 2024:

1. The IPC raised concerns about the density of planting from the PM02 photo point in the Visual Impact Assessment
2. The IPC requested confirmation that there is a 10m buffer from the Jarramlee Reserve and the Development footprint
3. The IPC asked if the indicative locations of the BESS can be shown in a map

An individual response to each of these questions is included overleaf.

If you have any questions, please contact me on 0474 925 207. I would be pleased to discuss any aspect of this project with you further.

Yours sincerely,

Ben Cranston
Project manager

Appendix A - Response to item 1 – Planting Density

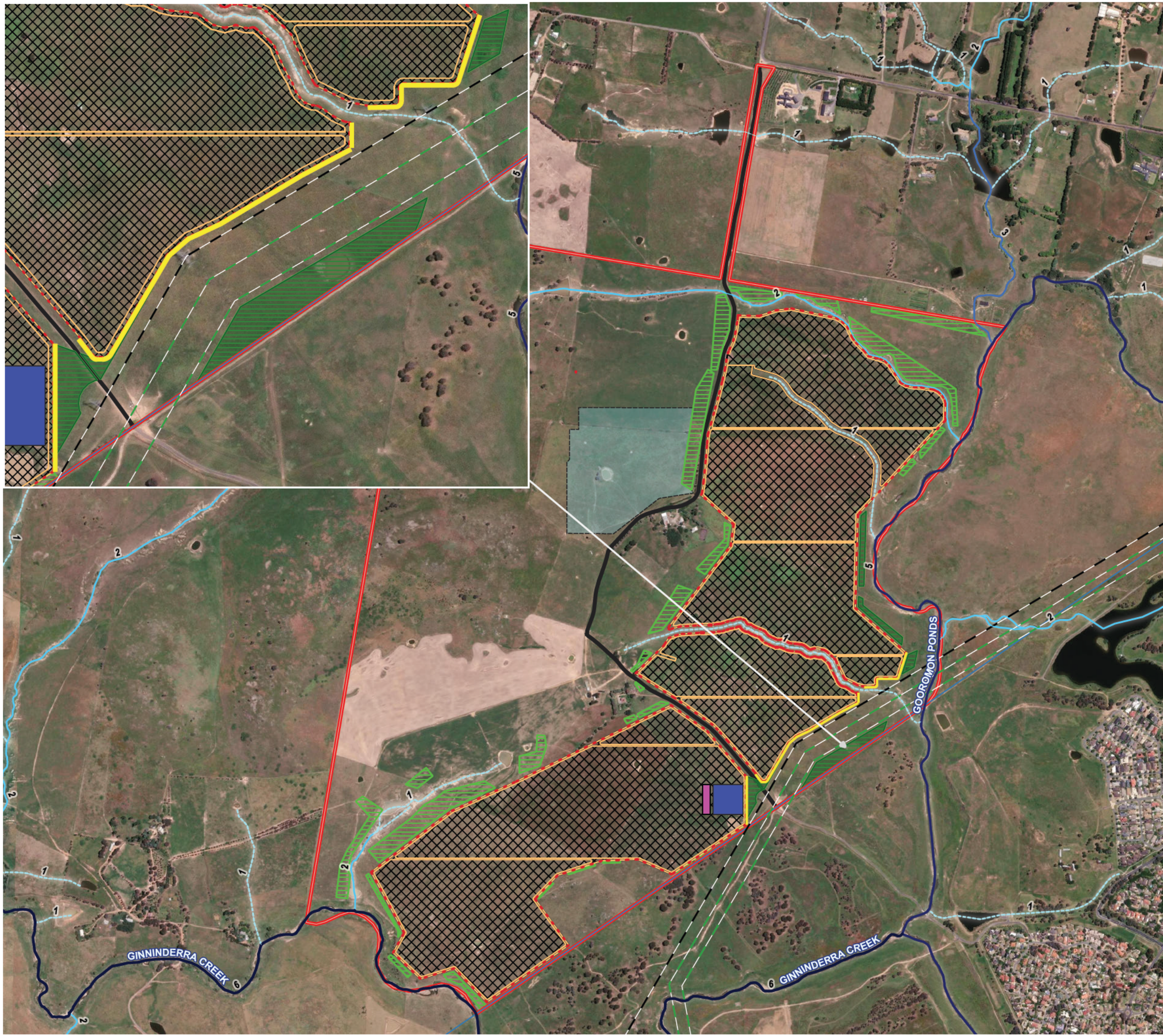
Landscape treatments were initially developed by local landscape architects during preliminary visual impact assessment to mitigate potential visual impacts. The treatments themselves have been included for consideration in wider impact assessments.

Filter screening with gaps between tree groups was proposed rather than full vegetative screens for a more natural integration into the landscape and to avoid obstruction of landscape views. Tree planting areas are selectively placed on the perimeter margins of the arrays where of most benefit for filter screening.

Tree groups have been designed with spacings of 50 – 100m between them. A focus is placed on not being a continuous perimeter ring and offering regular tree crown separation for site management and a savannah woodland appearance with an apparent 'natural' spacing (not a dense forest or linear windbreak). This was considered consistent with the past forward tree plantings on the ACT border rural open space zones that adjoin the solar farm proposal.

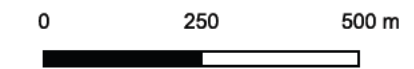
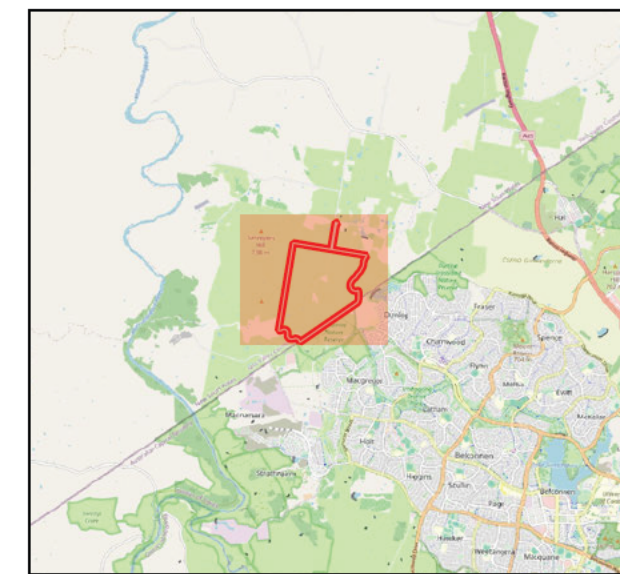
In response to the IPCs request, both denser tree plantings and showing more mature growth have been modelled as per the following photomontages.

Whilst sparser plantings were originally proposed, Wallaroo Solar Farm will now commit to providing denser plantings. The spacing between the tree planting still provides the achieved effect sought for the the savannah woodland appearance areas, whilst avoiding an unnatural perimeter ring of plantings.



Conceptual landscaping plan

- Legend**
- Project Site
 - Residual biodiversity offset area
 - Array Area
 - Facilities
 - Substation
 - Internal Roads
 - Landscaping Buffer (5 metres)
 - Indicative Tree Planting Area
 - Indicative Tree Planting Area (increased density)
 - Security Fence
 - Electricity Transmission Line 132kV
 - 330kV
 - Strahler
 - 1st Order Stream
 - 2nd Order Stream
 - 3rd Order Stream
 - 5th Order Stream
 - >5th Order Stream
 - Internal Sealed Road
 - ACT Border
 - ACT



Data Attribution
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 © MetroMap 2023
 © NSW DPE 2023

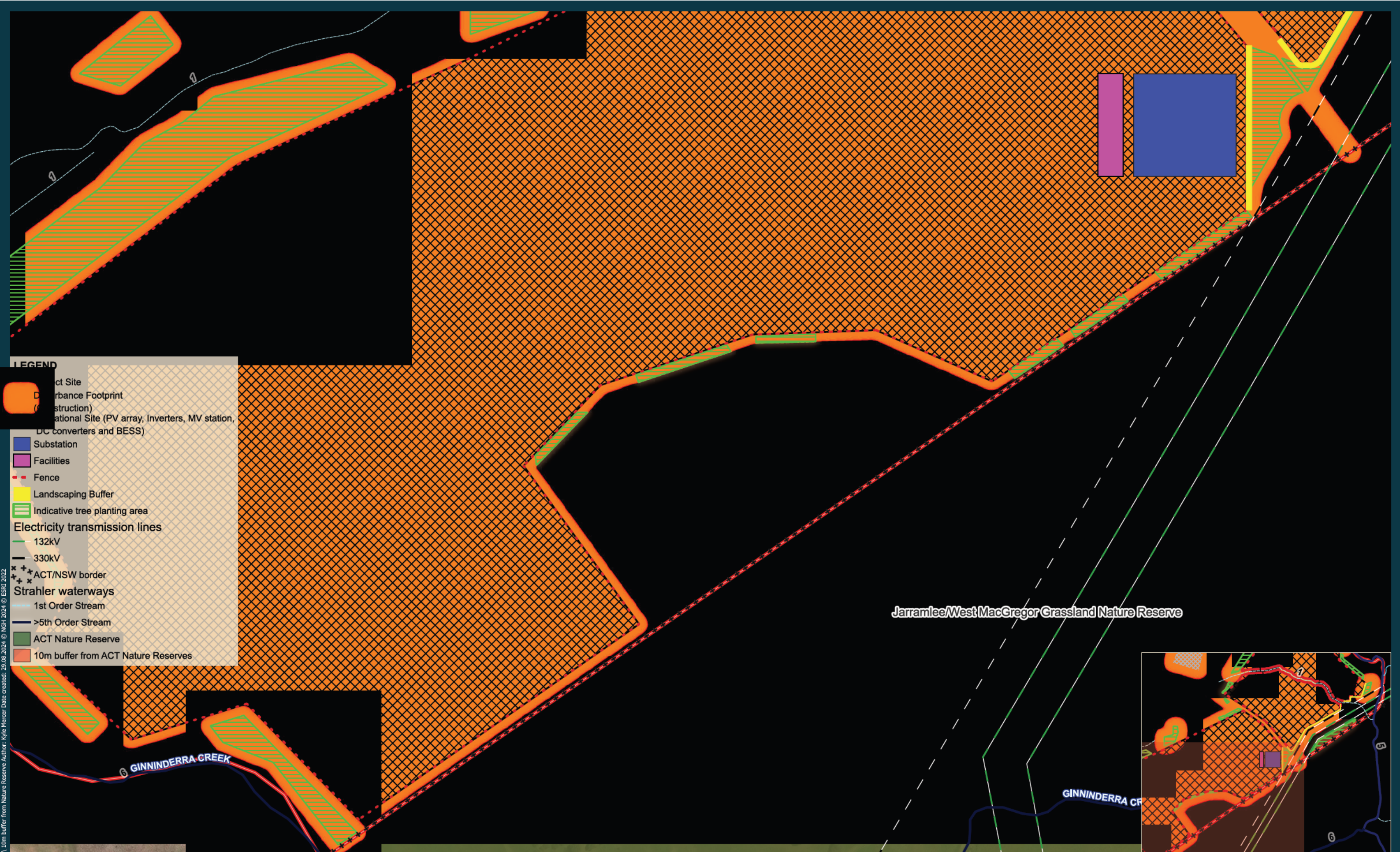
Ref: 20-707 Wallaroo SF EIS-IPC update 20240827
 \ Conceptual landscaping plan
 Author: kyle.m
 Date created: 29.08.2024
 Datum: GDA94 / MGA zone 55



NGH

Appendix B Response to item 2 - Jarramlee Reserve buffer

The Applicant can confirm that the Jarramlee Nature Reserve is greater than 10m from the boundary of the Operational Site as indicated in the map overleaf. It should also be noted that the Operational Site would also include a minimum 10m Asset Protection Zone from the fence line to the nearest building or solar panel. Therefore, it is considered that an appropriate buffer would be in place between the reserve and the solar farm.



LEGEND

- Act Site
- Disturbance Footprint (Construction)
- Operational Site (PV array, Inverters, MV station, DC converters and BESS)
- Substation
- Facilities
- Fence
- Landscaping Buffer
- Indicative tree planting area
- Electricity transmission lines**
- 132kV
- 330kV
- ACT/NSW border
- Strahler waterways**
- 1st Order Stream
- >5th Order Stream
- ACT Nature Reserve
- 10m buffer from ACT Nature Reserves

Jarramlee/West MacGregor Grassland Nature Reserve

GINNINDERRA CREEK

GINNINDERRA CR



Datum: GDA94 / MGA zone 55

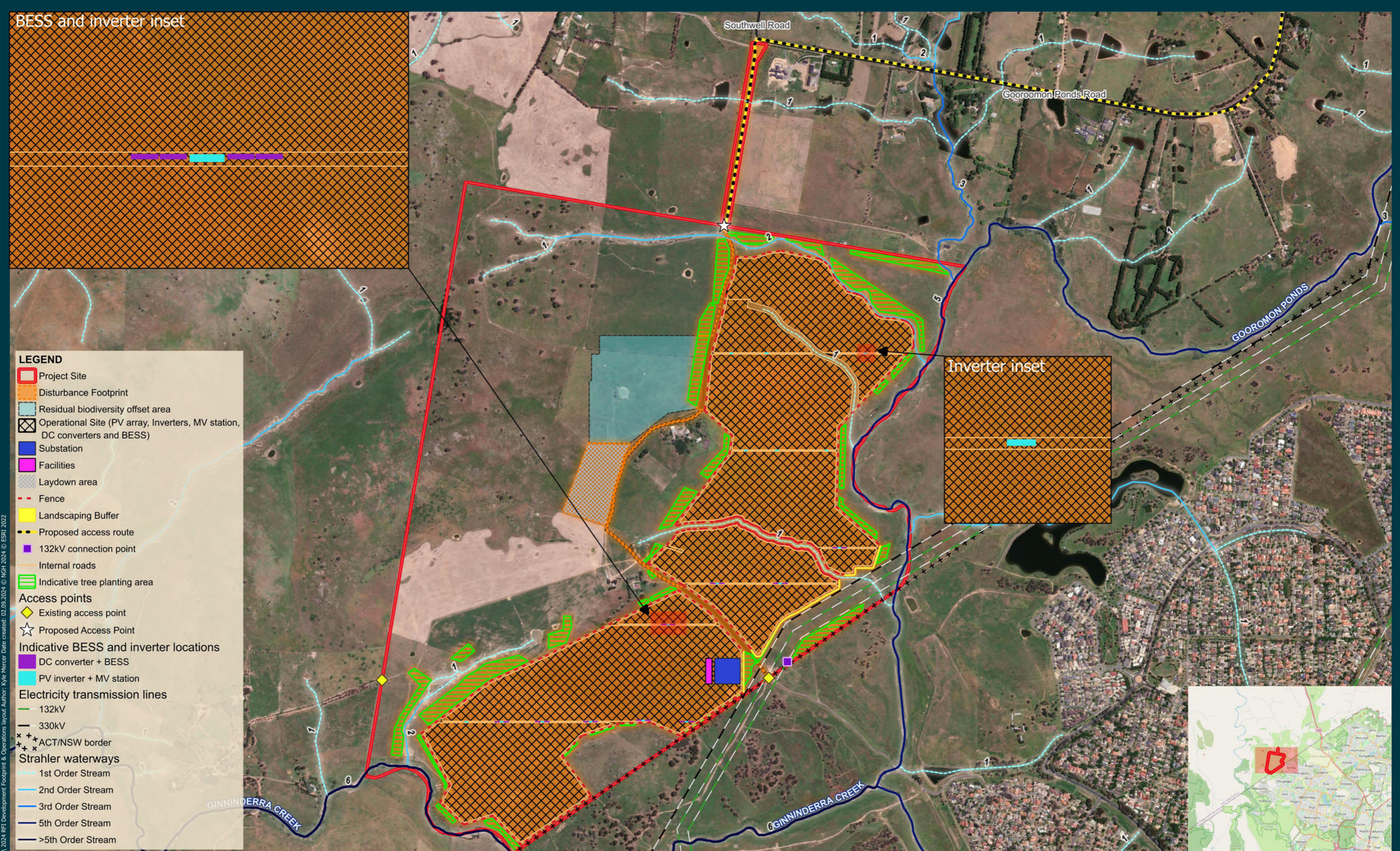


Wallaroo Solar Farm
Interface from ACT Nature Reserves

Ref: 20-707 Wallaroo SF EIS-IPC update 2024-09-27 | 10m buffer from Nature Reserve Author: Kyle Mercer Date created: 29.08.2024 © NGH 2022

Appendix C Response to item 3 – BESS locations

Indicative distributed BESS and inverter locations are shown in the figure overleaf. It is emphasised that these locations are indicative only and would be subject to final detailed design.



BESS and inverter inset

Inverter inset

LEGEND

- Project Site
- Disturbance Footprint
- Residual biodiversity offset area
- Operational Site (PV array, Inverters, MV station, DC converters and BESS)
- Substation
- Facilities
- Laydown area
- Fence
- Landscaping Buffer
- Proposed access route
- 132kV connection point
- Internal roads
- Indicative tree planting area

Access points

- Existing access point
- ☆ Proposed Access Point

Indicative BESS and inverter locations

- DC converter + BESS
- PV inverter + MV station

Electricity transmission lines

- 132kV
- 330kV

ACT/NSW border

- ACT/NSW border

Strahler waterways

- 1st Order Stream
- 2nd Order Stream
- 3rd Order Stream
- 5th Order Stream
- >5th Order Stream

0 0.5 1 km

Datum: GDA94 / MGA zone 55

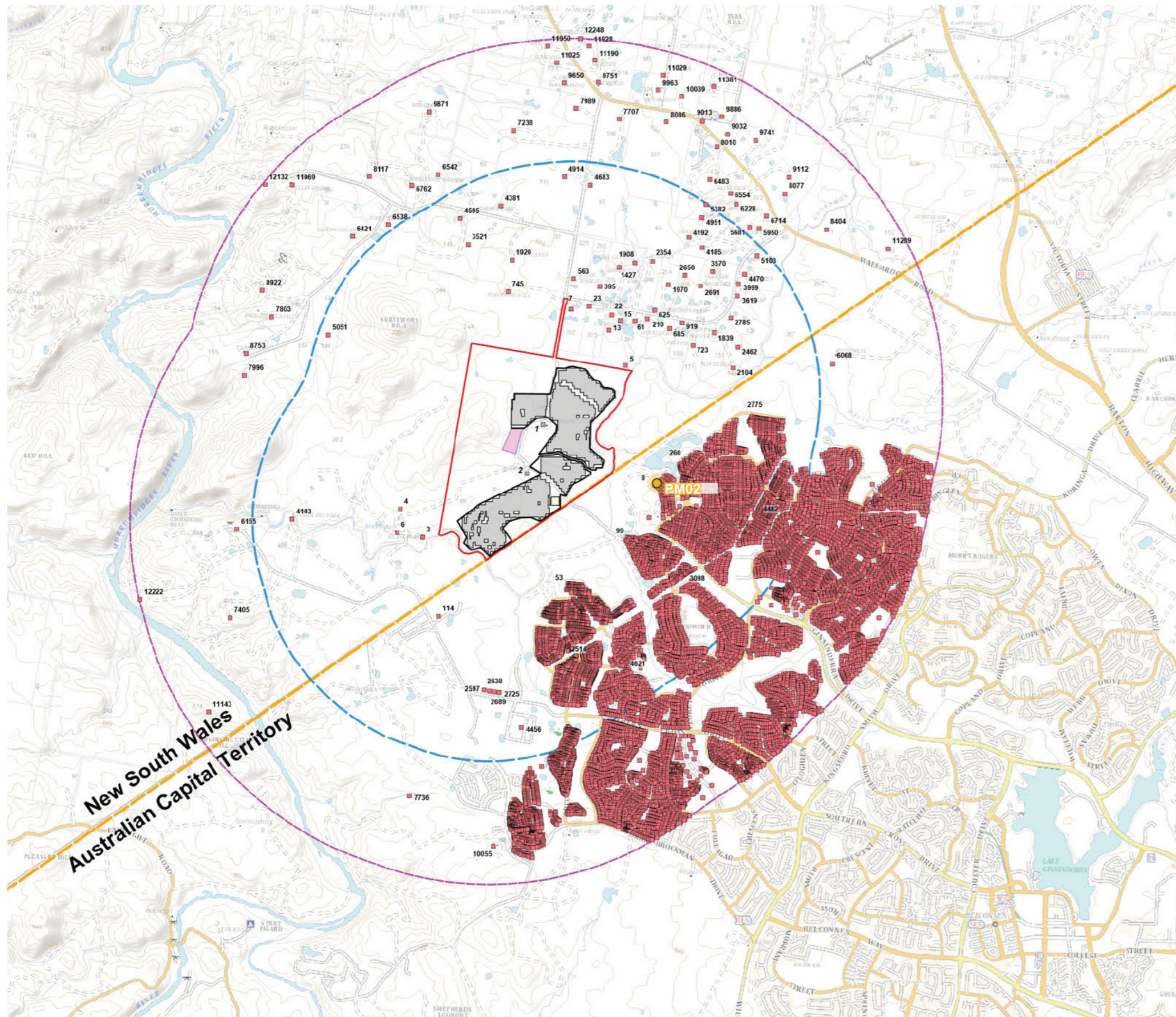


Wallaroo Solar Farm

Indicative infrastructure layout

Ref: 20-707 Wallaroo SF EIS-IPC update: 2024-08-27 | 2024 RFI Development Footprint & Operations layout. Author: Kyle Mercer Date created: 02.09.2024 © NGH 2024

Visual Impact Assessment Photomontages PM02



Photomontage Location

Proposed Wallaroo Solar Farm

LEGEND

- Project Area boundary
- Main Road
- Minor Road
- - - State Boundary
- - - 2,500 m Visual Magnitude
- - - 4,000 m Visual Magnitude
- Photomontage Location



Photomontage 02 - Sensitivity and Magnitude



Viewpoint VP04

Visual Sensitivity Discussion:

This Receptor is located approximately 660m to the eastern boundary of the Project within ACT as a Representative Viewpoint of approximately 23 dwellings from front row of the Cluster 03 (Dunlop) accessed through James Harrison St with a line of sight to the Project, considered as a worst-case scenario. (Potential visual impact will likely reduce as the distance increases and due to intervening built structure)

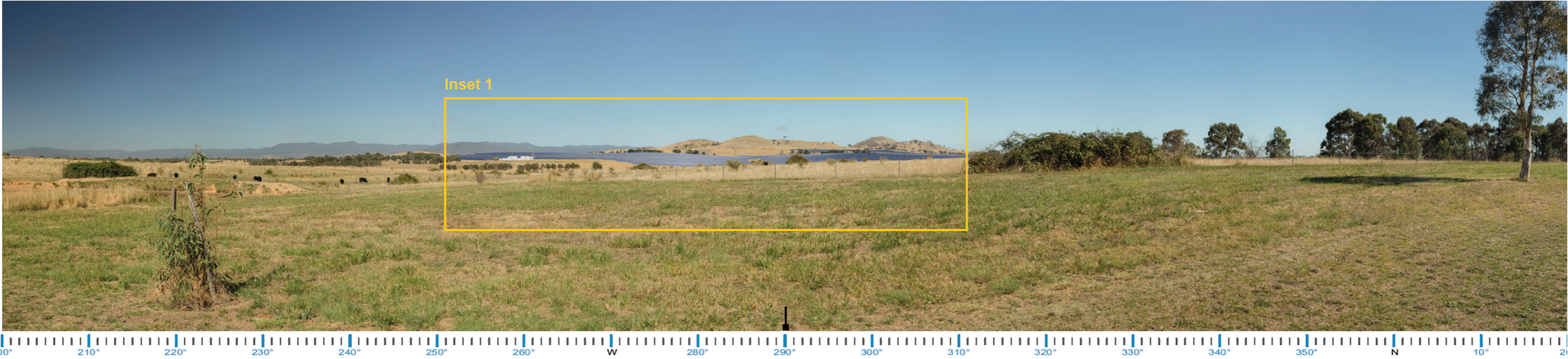
An assessment based on topography alone suggests that the Project will be visible between 252° - 330° horizontal field of view, however assessment based on representative viewpoint indicates that existing scattered vegetation in mid-ground will likely fragment some of the views to the Project.

An assessment based on visual magnitude grid tool indicates a **Low** magnitude rating and a **Moderate** visual impact rating from this location.

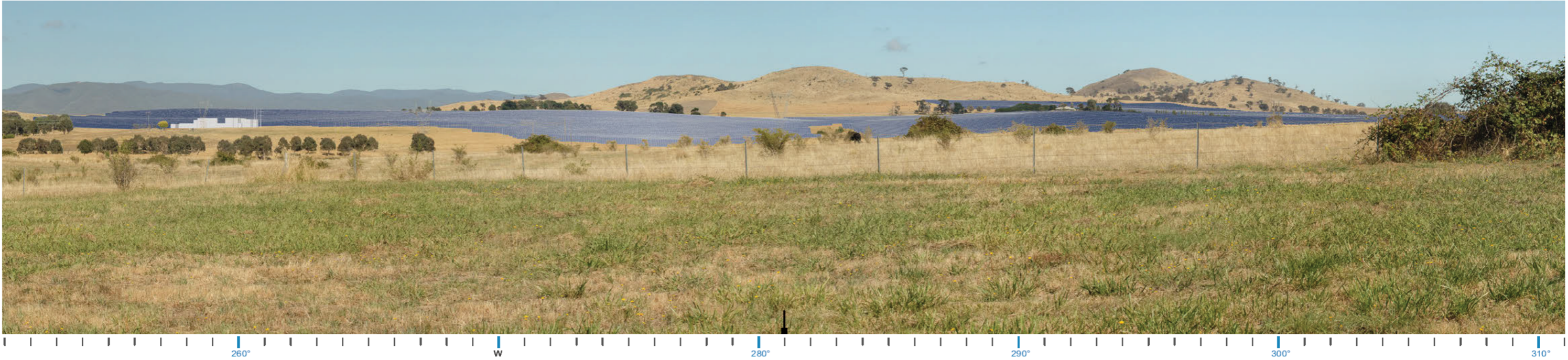
Coordinates	Distance to development:	Viewpoint Type:	Viewpoint Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
35°11'32.57"S 149° 0'49.16"E	660m	Representative Viewpoint	High	Moderate	High	8	Low	Moderate



Photomontage 02 - Preliminary Visual Impact Rating: Moderate

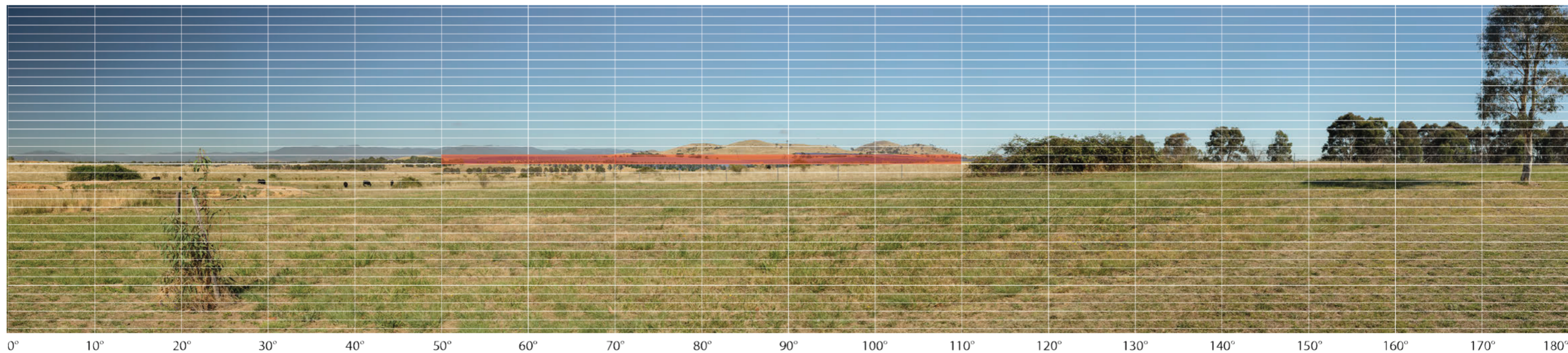


Inset 1



Photomontage 02- Mitigation - Residual Visual Impact Rating: Low

Indicative Vegetation Screening at 5 years



Mitigation and Residual Impact Discussion

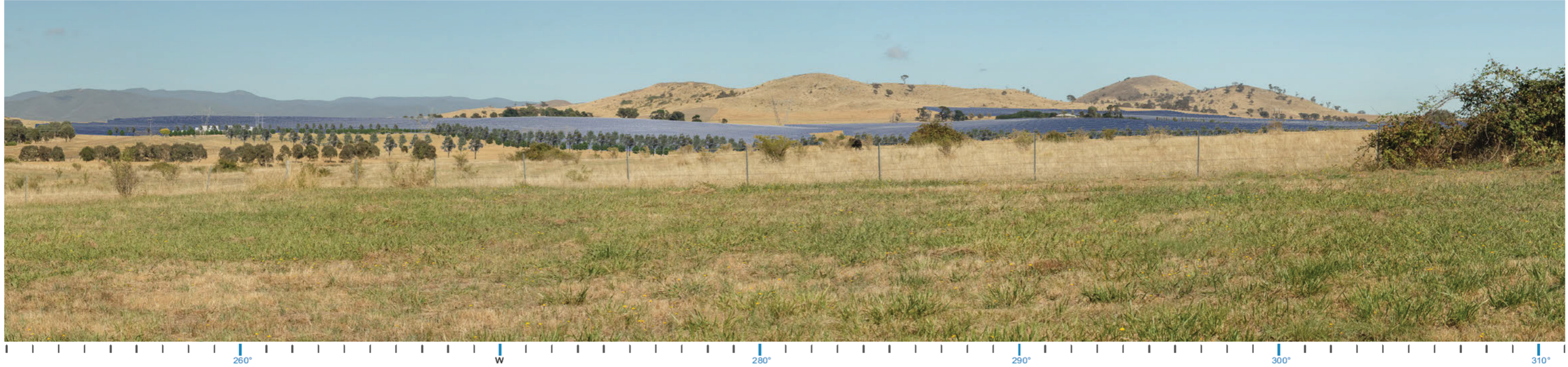
An assessment based on visual magnitude grid tool over the mitigated photomontage indicates a **Very Low** magnitude rating and a **Low** visual impact rating from this location.

Coordinates	Distance to development:	Viewpoint Type:	Viewpoint Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Residual Visual Impact Rating:
35°11'32.57"S 149° 0'49.16"E	660m	Representative Viewpoint	High	Moderate	High	6	Very Low	Low

Photomontage 02- Mitigation - Residual Visual Impact Rating: Low



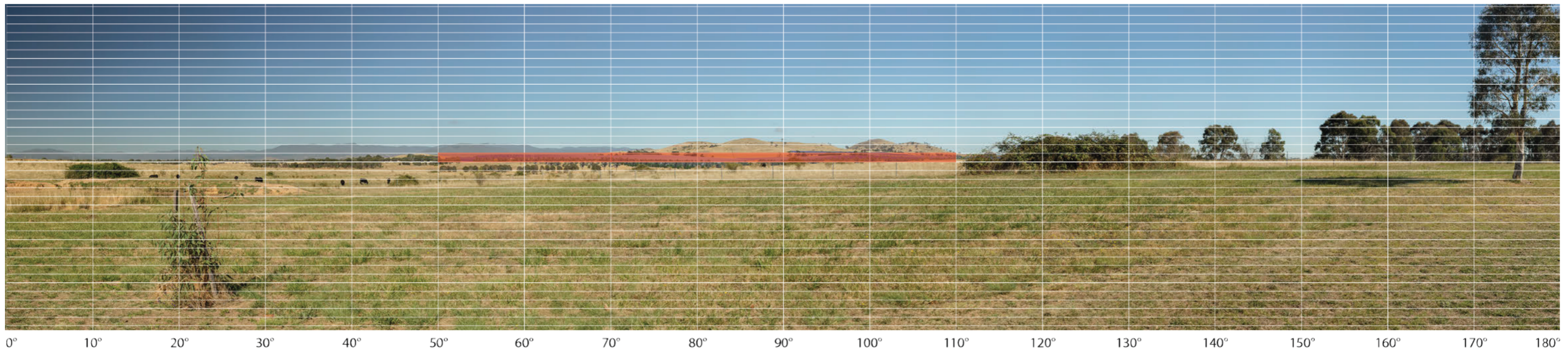
Inset 1



Planting shown is indicative at an assumed height of approximately 6 - 7 metres (m) at 5 years.
Growth rates of proposed planting is subject to variables including: weather conditions, available species, maintenance regime

Photomontage 02- Mitigation - Residual Visual Impact Rating: Low

Indicative Vegetation Screening at 10 years



Mitigation and Residual Impact Discussion

An assessment based on visual magnitude grid tool over the mitigated photomontage indicates a **Very Low** magnitude rating and a **Low** visual impact rating from this location.

Coordinates	Distance to development:	Viewpoint Type:	Viewpoint Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Residual Visual Impact Rating:
35°11'32.57"S 149° 0'49.16"E	660m	Representative Viewpoint	High	Moderate	High	6	Very Low	Low

Photomontage 02- Mitigation - Residual Visual Impact Rating: Low



Inset 1



Planting shown is indicative at an assumed height of approximately 10 -14 metres (m) at 10 years.
Growth rates of proposed planting is subject to variables including: weather conditions, available species, maintenance regime

Management Measures

The mitigation measures outlined in the Landscape Treatment Strategy prepared by NGH in collaboration with Envirolinks design are intended to reduce the potential views of the Project.

These measures proposed scattered planting along the Project boundary, which included a natural assemblage of planting in scattered groupings in keeping with the broader vegetation character.

Following the recommendations of the IPC and the DPPI, denser planting along specific areas along the eastern boundary of the Project have the potential to further fragment views from this location.

Denser planting can be achieved by increasing the quantity of proposed tree and shrub species and decreasing the gap between canopies. The dense vegetation plantings are an existing element in the landscape and are particularly evident along fence lines, boundary vegetation associated with dwellings as well as wind break vegetation, refer **Image 01** and **Image 02**. Therefore, the proposed dense planting assemblages are in keeping with the existing vegetation character of the broader landscape which is visible as roadside vegetation, windbreak, or boundary vegetation (see character images).

Measures can be undertaken to ensure planting success. These include the use and selection of local and endemic species to the area, as well as regular management and monitoring of vegetation during the construction (pre-planting) and operational phases.

These would include (but is not limited to) the following:

- Periodic weeding,
- Watering,
- Mowing,
- Fertilising, and
- Guarding against pests and other animals..

We recommend that a detailed Landscape Management Plan be prepared to ensure that the planting achieves the desired outcomes.



Image 01 – Typical vegetation character showing areas with dense vegetation along fencelines and associated with property boundaries within the surrounding areas. Image taken along Gooromon Ponds Road.



Image 02 – Dense planting observed within the surrounding landscape. Image taken along Wallaroo Road.