Edify Energy

# Darlington Point Solar Farm

## Additional Information

Final rev2 | 23 November 2018

SSD 8392

Commercial in Confidence.

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Edify Energy Pty Ltd ABN 85 606 684 99

**Edify Energy**
Level 1, 34-35 South Steyne
Manly
NSW 2095
Australia
www.edifyenergy.com

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# Contents

# 1. Introduction

In accordance with State Significant Development under Part 4 of the Environmental Planning & Assessment Act 1979, Edify Energy submitted a development application to the NSW Department of Planning and Environment (DPE) in April 2017 for the 275MWac Darlington Point Solar Farm (DPSF) and 100MWh Battery Energy Storage System (BESS), to be located at Donald Ross Drive in Darlington Point, NSW.

In response to the Secretary's Environmental Assessment Requirements, an Environmental Impact Statement (EIS) was prepared and placed on public exhibition in May/June 2018. A Response to Submissions Report was subsequently submitted to DPE in August 2018.

DPE has recently requested additional information, as contained within this report, in order to finalise its assessment of DPSF

# 2. Equipment dimensions

## 2.1 Solar panels

The DPSF modules will each measure circa 2.10m x 1.05m.

The minimum ground clearance of the module when at maximum tilt (ie. the height between mean ground level and the trailing edge of the panel) will be 500mm.

The solar panels will reach a maximum of 3m above mean ground level when at maximum tilt.

## 2.2 Inverter stations

The maximum height of inverter stations will be 4.5m above mean ground level.

The EIS originally contemplated a 2.9m high standard containerised inverter mounted on circa 1m footings (ie. 3.9m) however subsequent more detailed design has indicated some inverters may require to be installed on higher footings to manage slight variations in topography and to account for possible inundation risk on parts of the DPSF site.

The maximum height has been considered in the visual impact assessment outlined in Section 7.4 of this report and the development is assessed as having only a negligible to minor adverse visual impact on the neighbourhood. Those inverter stations that would require additional ground clearance, by their nature are in the lower laying areas of the DPSF site, all inverter stations are also set back at least circa 80m from the DPSF site boundary, and the existing vegetation on the DPSF perimeter plus the curtilage screening on nearby sensitive receiver properties ranges in height from between 6m-11m.

No additional visual impact, or indeed any other impact from those previously assessed is considered to arise as a result of a 0.6m increase in the maximum height of some inverter stations.

## 2.3 BESS

Based on currently available technology, the BESS will sit at a height of 3.3m above ground level, comprising 2.6-2.9m cubicles/containers mounted on up to 0.4m concrete footing.

## 2.4 Buildings

The maximum height of the maintenance and storage building would be 6m, based on a 5m frame and clad prefabricated structure on up to a 1m footing to account for inundation risk.

The maximum height of the office and amenities buildings would be 4.5m, based on a 3.5m frame and clad prefabricated structure on up to a 1m footing.

DPSF site buildings would be located proximate to the existing TransGrid Darlington Point Substation, which dominates the landscape, and which presently contains structures of comparable or greater height. This existing electrical infrastructure is therefore anticipated to materially screen the DPSF site buildings from any sensitive receivers, as will curtilage screening at DSPF and/or the receiver.

As such, the DPSF buildings are assessed as having only a negligible to minor adverse visual impact on the neighbourhood, as summarised within Section 7.4 of this report; noting also that the design and appearance of these buildings is of a standard comparable to existing farm buildings such as chicken sheds, barns and farm machinery and equipment sheds, which are currently scattered across the local neighbourhood including at each sensitive receiver.

*Notwithstanding current impact assessments relating to inverters and buildings, we are committed to providing additional vegetation screening, should this be reasonably requested by sensitive receivers, as affirmed in Section 7.5 of this Report.*

# 3. Battery Energy Storage System (BESS)

## 3.1 BESS Capacity

We have considered a nominal 100MWh battery energy storage system with an assumed capacity of 50MW, based on the prevailing BESS technology at the time of the DPSF Development Application which tends to favour a 2-hour discharge cycle.

However, other rates of discharge such as 1-hour technology (100MW/100MWh) and 4-hour technology (25MW/100MWh) are also prevalent.

Notwithstanding, batteries are typically rated or classified in MWh or energy storage, rather than MW or power capacity.

The power capacity of a BESS only relates to its ability to discharge energy at a certain rate, which in turn dictates electrical equipment specifications such as cable ratings and MV transformer capacity.

More importantly from a planning perspective, energy storage capability determines the overall BESS footprint and the number of cubicles/containers. To this extent, the EIS, RTS and PHA remain relevant for any 100MWh Li-ion system largely irrespective of its MW power capacity.

We have assessed an area of 2ha and circa 970 cubicles as comprising the DPSF BESS facility.

Nonetheless, we would consider the preferred BESS technology at the time of deployment and if any material change in impacts is expected, this would be subject to a modification request to DPE along with any updates to documentation such as the PHA as required.

## 3.2 Cubicles/Containers

Different battery manufacturers (OEMs - Original Equipment Manufacturers) favour different design configurations, namely individual cubicles or containerised solutions, each with varying power and energy density.

If a cubicle solution is adopted, this is likely to consist of circa 1000 individual cubicles (ref section 2.5.8 of the EIS which specifies approximately 970 battery cubicles). This estimate also includes the inverter cubicles at ≈1 inverter for every 10 powerpacks. The number of battery cubicles is based on the net energy rating of the BESS allowing for "round-trip efficiency" and through-life degradation, such that circa 970-1000 cubicles equates to a net 100MWh of dispatchable energy.

Section 2.5.8 of the EIS incorrectly stated containerised solutions could achieve a power density of up to 10MW per container. Subject to OEM selection, 2-4MW / 2-4MWh per container is more typical for currently available BESS technology. Again, accounting for additional power conversion units, a 100MWh

containerised BESS facility is likely to consist of some 30 standard 40' shipping containers, subject to the energy density configurations available from each OEM.

The EIS should also refer to "pods" rather than "cells", a pod being a field replaceable unit that integrates the battery module, an isolated DC/DC converter, and the traditional battery management system functions, and which is the smallest measurable individual unit of performance via the BESS control system.

Li-ion battery cells are housed within the pods and are propriety OEM technology, the number of cells per pod are typically not disclosed. The pods can be seen within the racking system on the right of the battery cubicle below.

*Figure 3.1 - battery cubicle showing field replaceable pods*

The number of pods and cells will inevitably vary (i) from OEM to OEM and (ii) over time due to advances in technology. It is not therefore a particularly meaningful metric relative to the number of cubicles/containers or the MWh energy rating of the BESS in terms of assessing the impacts, and the number of cells/pods should not be conditioned within the DA.

Again, should the number of cubicles/containers materially differ at the time of deployment, the impacts will be reassessed via a modification application to the conditions of consent.

## 3.3 Fencing

The BESS would reside on its own leasehold subdivision within the DPSF site and therefore be separately fenced with a standard security perimeter fence of 1.8m high wire mesh plus 3x rows of barbed wire.

# 4. Network connection and reticulation system

## 4.1 Connection between DPSF switchyard and TransGrid substation

The 132kV connection between the DPSF switchyard and TransGrid's Darlington Point substation would be an overhead connection from the HV terminals of the 33/132kV transformer(s) via a new 132kV gantry at the DPSF switchyard to an extension of the existing 132kV gantry and busbar within the TransGrid substation.

The DPSF 33/132kV switchyard is located as close to the point of connection within the TransGrid substation as reasonably practicable, so essentially it comprises a very short 3-phase overhead line across the fence line only.

## 4.2 Medium voltage electrical reticulation network

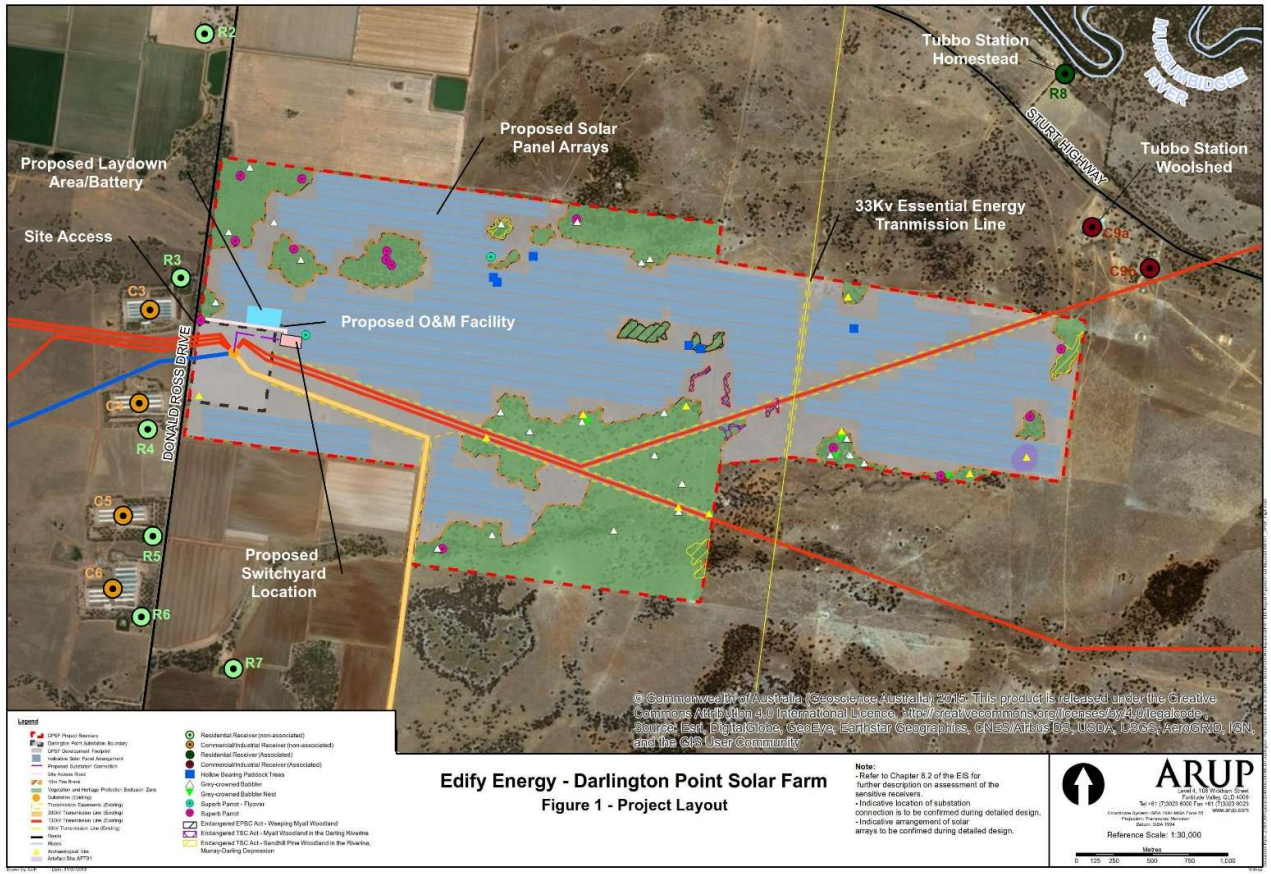
Based on additional design and development undertaken since the preparation of the EIS, all 33kV MV reticulation will be via underground cable.

The option to consider a single pole overhead 33 kV transmission line from the far eastern end of the site to the new switchyard adjacent to the TransGrid substation is therefore no longer required.

For the avoidance of doubt, the ecological impact assessment was based on cable trenching and ground disturbance associated with underground reticulation.

# 5. Project layout plan

A revised Project Layout (Figure 1) is included below, updated on 20 November 2018 to identify AFT01.



# 6. Traffic and Transport

## 6.1 Sturt Highway & Donald Ross Drive intersection

The TIA was intentionally developed on a worse-case basis to ensure a conservative assessment of traffic impacts. In particular, this assumed individual labourers would arrive/depart site at peak-hour, independently in circa 300 light vehicles, as well as 50% of westbound Sturt highway traffic exiting into Donald Ross Drive.

Notwithstanding, it was always our intention to operate a bus service from the surrounding towns to transport the workers to site and reduce peak-hour traffic volumes.

We reaffirm our commitment that our appointed EPC Contractor will operate a bus service to pick up / drop off construction workers from / to the areas where the workers will reside, which may include Griffith, Darlington Point and Coleambally etc.

Peak hourly traffic will not therefore exceed the Warrants for the Sturt Highway/Donald Ross Drive intersection treatment in accordance with Austroads Guide to Road Design (as amended by the supplements adopted by Roads and Maritime Services) and no upgrades to this intersection are required.

## 6.2 Ringwood Road

All heavy vehicles associated with bulk equipment deliveries will access the site via the northerly approach from the Sturt Highway and Donald Ross Drive, and will NOT use the southerly approach via Ringwood Road.

## 6.3 Secondary emergency access

We confirm an emergency-only access gate would be provided at the north-east Corner of the DPSF site, aligning with existing Tubbo Station internal access roads to the main Tubbo Station entry off the Sturt Highway, as shown via the blue line on the plan below.

This secondary point of entry would be used by the emergency services only, if the primary access from Donald Ross Drive is restricted.

*Figure 6.1 - Location of secondary emergency access*

## 6.4 Replacement of BESS

Any replacement of the BESS facility would typically only swap out the battery and inverter cubicles/containers and make use of the existing concrete footings and MV transformers.

Assuming redundant batteries leave site on the same vehicles as the new ones are delivered, then up to 100 heavy vehicle deliveries would be required throughout the replacement and which would not be expected to exceed 10 heavy vehicles per day. If redundant batteries are removed via separate vehicles to those delivering replacement batteries, these figures would double.

20 light vehicles per day would be expected and 0 (zero) over-dimensional vehicles.

## 6.5 Vehicle movements

### Maximum vehicles per day

As outlined in 6.1 above, the EIS/RTS/TIA has conservatively assessed up to 380 vehicle movements per day, including approximately 300 light vehicles and 80 heavy vehicles. However, the light vehicle traffic figures are significantly exaggerated on the basis that most workers will arrive at site via a bus service operated by the EPC Contractor. In practice, light vehicles will be limited to the proponent's and contractor's management and engineering personnel only, plus occasional visitors.

As per section 3.2.1 of the TIA, a maximum of 80 heavy vehicle movements a day during construction, averaging at 50 heavy vehicles per day over the construction programme as well as for upgrading or decommissioning.

The stated maximum of 80 is a conservative estimate to account for:

- the large site (275MWac as a single-stage),
- a relatively compressed construction programme,
- availability of B-Doubles relative to semi-trailers,
- contingency in scheduling the logistics of road haulage from Port of Melbourne some 400km distant, and
- buses replacing multiple light vehicles to transport workers.

For the most part, we expect heavy vehicle deliveries to be at or close to the average volumes, but there anticipated to be instances where these volumes approach the maximum vehicle movements due to the above consideration.

### Over-dimensional vehicles

It is anticipated up to 15 over-dimensional vehicles would be required through construction, primarily associated with the delivery of electrical plant and equipment associated with the new switchyard and substation augmentation.

However, these over-dimensional vehicle movements would not exceed 5 (five) in any one day during construction, upgrading or decommissioning.

Over-dimensional vehicle movements will be further assessed during the preparation of the TMP, which will be developed in consultation with RMS, Council and Police.

Aside from over-dimensional vehicles associated with transformer delivery, the maximum vehicle routinely length accessing the site would be a B-Double Max of 25-26 metres overall length, in accordance with Fig. 3 of the TIA

### Heavy vehicles during operations

The TIA has considered up to 10 vehicle movements a day during operations, principally associated with water supply (potable and panel washing) and waste/effluent removal, with occasional spares and replacement parts.

This has been assessed as having negligible impact, consisting of less than 5% of existing daily traffic levels and on the basis that construction heavy vehicle movements, which are an order of magnitude greater remain within acceptable limits of operation (ie. Level of Service A).

**Road maintenance / upgrades**

The only road upgrade required is the modification of the DPSF access road from Donald Ross Drive to accommodate the swept-path of a B-Double entering and leaving site; we are presently developing the proposed access road modifications in consultation with Murrumbidgee Council pending certification.

Road maintenance would be dictated by dilapidation surveys in accordance with the TMP as a condition of consent.

# 7. Visual impact

## 7.1 Associated and non-associated receivers

In reference to the updated Figure 1 contained in Section 5 above, the only residential receiver associated with DPSF is R8, the Tubbo Station Homestead, in the capacity of Landlord.

All other receivers R1-R7 are non-associated.

## 7.2 Private dwellings and workers accommodation

Again, in reference to Figure 1, receivers R1, R2, R7 and R8 are private residential dwellings / rural residential properties, although all are associated with commercial farming operations.

Receivers R3, R4, R5 and R6 are worker's accommodation (site supervisor) at the poultry farms.

## 7.3 Existing curtilage screening

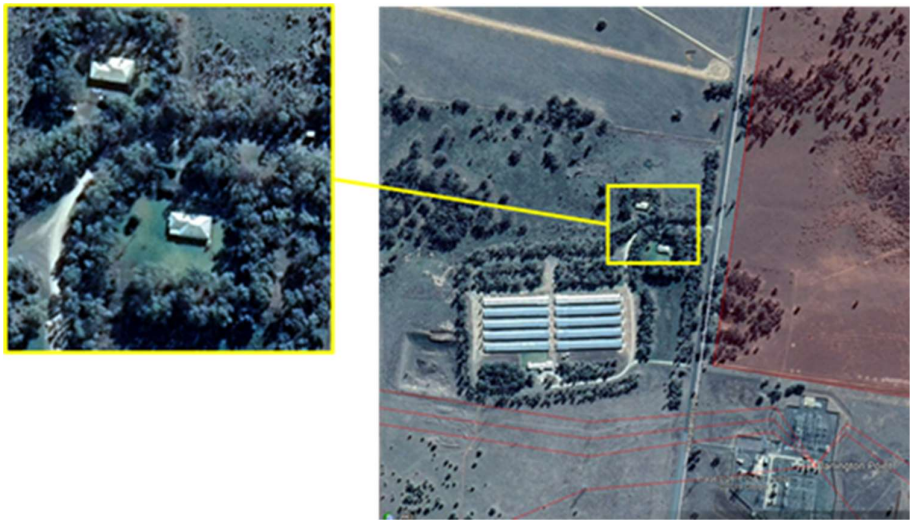
All receivers have a degree of curtilage screening, some extensively as is the case of the workers' accommodation at the poultry farms and others more marginal but nevertheless effective in screening DPSF from the residential properties.

The following images illustrate the curtilage screening at receivers R2-R7 as well as at the DPSF site boundary.

**Receiver R2 (790m from DPSF boundary)** – *Private Residence*

*Note: Residential property aspect to the North and West*

**Receiver R3 (100m from DPSF boundary)** – *Worker's Accommodation*



**Receiver R4 (100m from DPSF boundary)** – *Worker's Accommodation*

**Receiver R5 (700m from DPSF boundary)** – *Worker's Accommodation*

**Receiver R6 (1250m from DPSF boundary)** – *Worker's Accommodation*

**Receiver R7 (1500m from DPSF boundary)** – *Private Residence*

Receivers R1 and R8 have no visual impact from DPSF, being some 1750m and 1650m from the site boundary and shielded by curtilage screening at the residences, along the Donald Ross Drive and Sturt Highway road reserves respectively and at the DPSF site boundary.

The following Streetscape images adjacent to sensitive receivers on Donald Ross Drive further illustrate the extent of existing curtilage screening:

**View from Receiver R2 along Donald Ross Drive towards DPSF**

## View from Donald Ross Drive to Receiver R3


*Note: Biosecurity restrictions prevented images from the residence towards DPSF*

## View from entrance to Receiver R7 towards DPSF

## 7.4 Visual impact ratings

Based on the Landscape Institute and the Institute of Environmental Management and Assessment's Guidelines for Landscape and Visual Impact Assessment: third edition (LIIEMA, n.d.), the visual impact rating of each receiver, as a function of sensitivity and magnitude, is as follows:

| Receiver | Sensitivity | Magnitude of Change | Effect | Distance from project boundary |
|---|---|---|---|---|
| R1 | Neighbourhood | Low | Negligible | 1750m |
| R2 | Neighbourhood | Low | Negligible | 790m |
| R3 * | Neighbourhood | Low | Negligible | 100m |
| R4 * | Neighbourhood | Low | Negligible | 100m |
| R5 * | Neighbourhood | Low | Negligible | 700m |
| R6 * | Neighbourhood | Low | Negligible | 1250m |
| R7 | Neighbourhood | Moderate | Minor Adverse | 1500m |
| R8 + | Neighbourhood | Low | Negligible | 1650m |

** Workers accommodation*
*+ Associated receiver*

## 7.5 Additional visual screening

As proposed in section 8.3.4 of the EIS, we commit to offer additional vegetation screening for these residences if reasonably requested by the landowners.

The following plan highlights (in green) the areas where existing vegetation is limited, and a visual impact may arise; consisting of a 217m section on the western boundary and a 1845m section on the south-western corner.


*Figure 7.1 - Possible additional vegetation screening*

# 8. Noise

Works could be undertaken near the site boundary at any time during construction, which is expected to continue for 12-15 months.

However, the affected area which could trigger a noise exceedance at receivers R2-R7 accounts for only circa 30% of the total development footprint of DPSF (ie. 70% of the construction works occur sufficiently distant to receivers R2-R7 so as not to trigger an exceedance) and the activities that typically generate the noise exceedance relate primarily to enabling works and piling; therefore, in practice, any noise exceedance which may occur at these receivers is unlikely to prevail for the entire construction programme.

We have consulted extensively with all neighbours/sensitive receptors during the development of DPSF, including most recently seeking their consent to extend the NSW standard working hours to a 6am-7pm Mon-Sun construction regime pending a possible future modification to the DA, and this consent has been forthcoming from all properties R1-R8 suggesting construction noise is of little concern, as reinforced by the lack of public submissions.

# 9. Heritage

## 9.1 Tubbo Station Group heritage listing

The Tubbo Station woolshed complex (Place ID 14329, Place File No. 1/06/333/0003) is the nearest building in the Tubbo Station Group heritage listing, and it is 700m from the north-east boundary of DPSF, and also outwith our lease area such that DPSF has no legal right of access/use beyond this boundary.

## 9.2 Proximity of Tubbo Homestead and Woolshed

Table 45 of the EIS correctly states the Tubbo Station Woolshed Complex at 700m distant and the Tubbo Station Homestead at 1600m distant from the DPSF site boundary.

However, Figure 23 incorrectly represents the Tubbo Station Homestead – both items shown comprise the Woolshed Complex, and the Homestead is north of the Sturt Highway adjacent to the Murrumbidgee River.

The updated Figure 1 contained within Section 5 above effectively supersedes Figure 23 of the EIS, and correctly depicts the Tubbo Station Homestead as "associated residential receiver" R8 and the Tubbo Woolshed Complex as "associated commercial/industrial receiver" C9a and C9b.

# 10. Ecology and Biodiversity

## 10.1 Summary of flora & fauna impacts

**Plant Community Types**

The following table summarises the flora impacted by DPSF and should be read in conjunction with the attached management zone maps.

| Vegetation Type | Management Zones | Area (ha) | New Mapped Areas | Area (ha) |
|---|---|---|---|---|
| Yellow Box – White Cypress Pine grassy woodland on deep sandy-loam alluvial soils of the eastern Riverina and western NSW South Western Slopes Bioregions (PCT 75) | MZ1 - WBYB / Moderate to Good - Moderate - Direct | 0.16 | MZ1 - WBYB / Moderate to Good - Moderate - Direct | 0.16 |
| Black Box grassy open woodland wetland of rarely flooded depressions in south western NSW (PCT 16) | MZ2 - BB / Moderate to Good - Moderate - Direct | 0.50 | MZ2 - BB / Moderate to Good - Moderate - Direct | 0.50 |
| Black Box grassy open woodland wetland of rarely flooded depressions in south western NSW (PCT 16) | MZ3 - BB / Moderate to Good - Moderate - Panel | 2.67 | MZ3 - BB / Moderate to Good - Moderate - Panel | 2.67 |
| Black Box grassy open woodland wetland of rarely flooded depressions in south western NSW (PCT 16) | MZ4 - BB / Moderate to Good - Moderate - Non-Panel | 4.97 | MZ4a - BB / Moderate to Good - Moderate - Between Panel | 3.14 |
| | | | MZ4b - BB / Moderate to Good - Moderate - Out of Array | 1.83 |
| Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) - [Moderate] | MZ5 - PG / Moderate to Good - Moderate - Direct | 40.02 | MZ5 - PG / Moderate to Good - Moderate - Direct | 40.02 |
| Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) - [Moderate] | MZ6 - PG / Moderate to Good - Moderate - Panel | 182.15 | MZ6 - PG / Moderate to Good - Moderate - Panel | 182.15 |
| Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) - [Moderate] | MZ7 - PG / Moderate to Good - Moderate - Non-Panel | 434.14 | MZ7a - PG / Moderate to Good - Moderate - Between Panel | 348.94 |
| | | | MZ7b - PG / Moderate to Good - | 85.20 |

| | | | | |
|---|---|---|---|---|
| | | | Moderate - Out of Array | |
| Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) - [Poor] | MZ8 - PG / Moderate to Good - Poor - Direct | 2.14 | MZ8 - PG / Moderate to Good - Poor - Direct | 2.14 |
| Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) - [Poor] | MZ9 - PG / Moderate to Good - Poor - Panel | 14.67 | MZ9 - PG / Moderate to Good - Poor - Panel | 14.67 |
| Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) - [Poor] | MZ10 - PG / Moderate to Good - Poor - Non-Panel | 14.67 | MZ10a - PG / Moderate to Good - Poor - Between Panel | 10.96 |
| | | | MZ10b - PG / Moderate to Good - Poor - Out of Array | 3.71 |

## Endangered Ecological Communities

Two Endangered Ecological Communities (EEC) have been recorded at the DPSF site, namely:

- Weeping Myall Woodland is listed as endangered on the both the BC Act and EPBC Act; and
- Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions listed as endangered on the BC Act.

The development purposely avoids both of these EECs such that no threatened ecological communities will be impacted upon by the proposal.

## Threatened Fauna

Two (2) species of threatened fauna were recorded during the field surveys. These were:

- Superb Parrot listed as vulnerable under both the BC Act and EPBC Act; and
- Grey-crowned Babbler listed as vulnerable under the BC Act.

The proposal will remove only a negligible area of woodland habitat (3.33 ha) within the development site, limited for the most part to isolated paddock trees. The clearing of this small area of native woodland habitat will only result in the minimal loss of foraging, sheltering and potential breeding habitat for these species.

## 10.2 Avoidance and mitigation measures

The avoidance and mitigation measures are comprehensively outlined within Section 6 of the BAR. By way of a summary, the following summarises how the ecological impacts of DPSF will be minimised and managed:

- Retention of the majority of the woodland and open forest vegetation which were of high importance;
- Retention of the threatened communities listed as endangered under the EPBC Act and/or the BC Act;
- Retention of the majority of structurally diverse flora and fauna habitat;
- Good industry practice construction methodology intended to minimise vehicle movements across the plains grasslands;
- Installation of a security perimeter fence, eradication of feral animals, and ongoing weed and pest control; and
- Proactive land management, including selective mowing/grazing to manage out exotic species in favour of native grasses.

## 10.3 FBA Assessment

It is not realistic to assess the impacts of a solar farm by its boundary extent. The low-density nature of the installation coupled with very little ground disturbance renders many of the impacts indirect.

DPSF has therefore undertaken a thorough bottom-up assessment of the current and future site value scores for both direct and indirect (as a function of shading/radiation, rainfall and temperature) impacts as defined by the management zones, PCTs and credit species outlined in 10.1 and summarised below:

| Ecosystem / Species | Original FBA Credit Score *(BAR August 2018)* | Alternative Credit Score *(October 2018)* |
|---|---|---|
| **PCT 75:** Yellow Box - White Cypress Pine grassy woodland on deep sandy-loam alluvial soils of the eastern Riverina Bioregion and western NSW South Western Slopes Bioregion. | 9 | 7 |
| **PCT 16:** Black Box grassy open woodland wetland of rarely flooded depressions in south western NSW (mainly Riverina Bioregion and Murray Darling Depression Bioregion). | 294 | 294 |
| **PCT 45:** Plains Grass grassland on alluvial mainly clay soils in the Riverina Bioregion and NSW South Western Slopes Bioregion. | 4,137 | 3,435 |
| **10645:** Polytelis swainsonii (Superb Parrot) | 60 | 60 |
| **Total FBA Credit Score** | **4,440** | **3,796** |

## Grassland impacts

The most significant impact is in respect of PCT45 - Plains Grassland.

Our assessment has separately considered the under-panel and inter-panel areas, due to analysed differences in microclimatic impacts between these management zones; however due to limited granularity within the FBA calculator, these areas have in fact been conservatively assessed as having the same impact.

By their nature, a number of FBA attributes have a zero current, hence future site value score when applied to Plains Grassland - these are native over and mid storey cover, over storey regeneration, number of trees with hollows and total length of fallen logs.

Attributes relating to native ground cover (grasses, shrubs and other) have each been scored down by one; grasses and shrubs both from 1 to 0, and other from 2 to 1.

When assessing the future existing and future site value score for the native plant species attribute, the number of native species in the plot areas is compared to a benchmark value of 8. Currently, the native plant species richness average value for the Moderate to Good PCT 45 across all plots equals 11.44, which would therefore require a reduction of over 30% in order to score the future site value less than current. Conclusions drawn from a review of nine individual literary references affirm that the partial shading and selective seasonal mowing are not likely to result in a reduction in the diversity of native species. In fact, there is significant literary evidence to conclude that proactive and adaptive management is likely to improve diversity of native species. The future site value score for native plant species therefore remains at three.

## Credit score

The credit score of 4,440 is as contained within the BAR and has been independently assessed as comprising a fair and reasonable assessment of the impacts and fully compliant with the FBA.

During its Assessment, DPE and OEH requested a revised calculation based on the removal of “redundant multipliers” within the FBA Calculator (ie. those where current site value scores are zero as above) and a reconsideration of likely presence of ecosystem credit species, based on the reasonable likelihood of presence or otherwise of the Australian Bustard within the Riverina Murrumbidgee IBRA. Including these revisions within the calculation has the net effect of reducing the FBA credit score to 3,796 credits.

## 10.4 Offset strategy

We are currently reviewing options to enter into a Biodiversity Stewardship Agreement to generate and register credits in order to satisfy the DPSF biodiversity offset obligations. In particular, the following enquiries and activities are ongoing:

- Advanced discussions with Tubbo Station, regarding use of part of the residual land for offsetting purposes.
- Exploratory discussions with Murrumbidgee Council and Tirkandi Inaburra regarding the potential availability of suitable offset land proximate to DPSF.
- Engagement of a local "Stock and Station Agent" to identify possible offset properties in the Riverina.
- Appointment of a specialist consultant to assess the credit value of the above lands and prepare Biodiversity Stewardship Site Assessment Report(s).

In the event the above activities do not generate sufficient credits, we will pay a contribution to the NSW Biobank Fund, no later than 2-years from the commencement of construction.

# 11. Miscellaneous

## 11.1 Water

DPSF will consume up to 80ML of water during construction, principally for dust suppression, and up to 15ML per annum during operations, largely determined by the frequency requirements for panel washing.

Potable water requirements are expected to be of the order of 2kL per annum.

It is our principle intent to source water through construction and operation, via our appointed EPC and O&M Contractor, from the Coleambally Irrigation Cooperative (CIC). In this regard we have engaged with CIC, including a number of meetings at their Head Office in Coleambally, to confirm CIC's interest and ability to supply water to DPSF. Copies of relevant correspondence with CIC have been separately provided to DPE, which confirms that CIC is able to supply sufficient water year-round from within its irrigation system within 5km of the DPSF site.

*It is noted the CIC also recently supplied construction water to the nearby Coleambally Solar Farm.*

Although it is not anticipated DPSF will require alternate sources of supply, should it be required the CIC also administers a "Water Mart" whereby sellers and buyers can trade existing licence volumes. As at 18 Oct 2018, this platform offered available trades of between 40-400ML relative to DPSF's expected construction requirement of 80ML.

Finally, Lot 160//DP821551 (which DPSF will purchase as part of the project option lands on which the solar farm will reside) also has a registered operational bore with an annual extraction limit of 5ML/y, the rights to which will transfer to DPSF, and which can also be used to supplement primary water supplies from CIC as required.

## 11.2 Managed grazing during operations

As outlined in 9.2 of the EIS and throughout the BAR, conservation grazing will be considered where this enhances the biodiversity outcomes at the DPSF site.

## 11.3 Electromagnetic fields

DPSF will comply with the *National Health and Medical Research Council standards for electromagnetic fields* (which it is noted is now under the jurisdiction of ARPANSA).

Additionally, our EPC Contract technical specification mandates compliance with *EN 50178 - The use of electromagnetic equipment in power installations*, and both *EN 61000-6-2 and /6-3 - Electromagnetic standards*.

# 12. Glossary

| | |
|---|---|
| **AC** | Alternating Current |
| **BAR** | Biodiversity Assessment Report |
| **BESS** | Battery Energy Storage System |
| **CIC** | Coleambally Irrigation Cooperative |
| **DA** | Development Approval |
| **DPE** | Department of Planning and Environment |
| **DPSF** | Darlington Point Solar Farm |
| **EIS** | Environmental Impact Statement |
| **EPC** | Engineering, Procurement and Construction |
| **HV** | High voltage |
| **km** | Kilometre |
| **kV** | Kilovolt |
| **m** | Metre |
| **ML** | Megalitre |
| **MV** | Medium voltage |
| **MW** | Megawatts |
| **MWh** | Megawatt hours |
| **NSW** | New South Wales |
| **OEM** | Original Equipment Manufacturer |
| **RMS** | Roads and Maritime Services |
| **RTS** | Response to Submissions |
| **SSD** | State Significant Development |
| **TIA** | Traffic Impact Assessment |
| **TMP** | Traffic Management Plan |

# Appendix 1 - Lot Subdivision Report (Rev2)

Edify Energy

# Darlington Point Solar Farm

## DPSF Lot Subdivision Rev2

Final, Revision 2 | 18 September 2018

SSD 8643

Commercial in Confidence.

SSD 8643

Edify Energy Pty Ltd ABN 85 606 684 99

**Edify Energy**
Level 1, 34-35 South Steyne
Manly
NSW 2095
Australia
www.edifyenergy.com

# Document Verification

| | | | | | |
|---|---|---|---|---|---|
| **Job title** | | Darlington Point Solar Farm | | | **Job number** SSD 8643 |
| **Document title** | | DPSF Lot Subdivision Rev2 | | | **File reference** |
| **Document ref** | | | | | |
| **Revision** | **Date** | **Filename** | DPSF Lot Subdivision.docx | | |
| Final | 8 Aug 2018 | **Description** | First draft | | |
| | | | Prepared by | Checked by | Approved by |
| | | Name | Andy Winter | Ben Warne | Ben Warne |
| | | Signature | | | |
| Final Revision 2 | | **Filename** | DPSF Lot Subdivision Rev2.docx | | |
| | | **Description** | As above, with inclusion of Lot 3 of DP1148975 (former paper road) and aggregation of new Lots as advised by Council/Surveyor. | | |
| | | | Prepared by | Checked by | Approved by |
| | | Name | Andy Winter | Ben Warne | Ben Warne |
| | | Signature | | | |
| | | **Filename** | | | |
| | | **Description** | | | |
| | | | Prepared by | Checked by | Approved by |
| | | Name | | | |
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| | | Name | | | |
| | | Signature | | | |
| | | | | **Issue Document Verification with Document** | ✓ |

# Contents

# 1. Introduction

Darlington Point Solar Farm (DPSF) is a proposed large-scale solar farm and associated battery energy storage system (BESS) approximately 10 kilometres south of the township of Darlington Point, within the Murrumbidgee Local Government Area (LGA) in Western NSW. DPSF is proposed is to accommodate 275 megawatts (MW) alternating current (AC) of solar photovoltaic generated electricity, and 100MW BESS battery storage system storage for resupply during peak demand. The DPSF project will connect in to TransGrid's 330kV Darlington Point substation at Donald Ross Drive, which supplies power to the National Electricity Market (NEM).

An Environmental Impact Statement (EIS) was submitted to the NSW Department of Planning and Environment (DPE) in May 2018 and placed on Public Exhibition from 22 May to 20 June 2018. Thirteen government agency and no community submissions were received during the Exhibition. A Response to Submissions (RTS) Report addressing these comments has been submitted to DPE on 7 August 2018 and DPE is now conducting its assessment of the DPSF Development Application.

In preparing the DPSF RTS Report, DPE specially requested ongoing engagement with the Murrumbidgee Shire Council. In the course of these discussions, Council indicated that DPSF should seek consent to subdivide the Lots directly from DPE as part of the overall DPSF Development Application. Subsequent discussion with DPE confirmed this subdivision request should be submitted in conjunction with the RTS.

DPSF has therefore sought consent approval herein, via this Subdivision of Lots Report, for approval to subdivide the Lots which comprise the DPSF Option Lands and DPSF '*development site*' as further outlined below.

This Revision 2 of the Subdivision of Lots Report contains the following amendments:

- The inclusion of Lot 3 of DP 1148975, a former Crown Lands 'paper road' which transects the 'Tubbo Station' property and which has subsequently been transferred under Torrens Title to Tubbo Station. This Lot 3 was not evident from the original cadastre due to the scale of Lot relative to Tubbo Station as a whole, and therefore inadvertently omitted from both the Planning Application and the original Subdivision of Lots Report.
- Removal of the proposed new Lot for the DPSF Switchyard Site which will now reside within the same commercial and contractual ownership as DPSF, no longer requiring Subdivision.
- The aggregation of the new and residual Lots created by the Subdivision into a smaller number of new Lots as advised during discussions with Murrumbidgee Council and our appointed surveyor, PHL Surveyors.

*It is noted for the avoidance of doubt, that neither of these revisions affect the DPSF Study Area and overall Development Footprint. The paper road was included in all the field survey work and ecological assessment of DPSF. This Revision 2 corrects an administrative error only and simplifies the original subdivision through consolidation.*

# 2. DPSF Option Lands

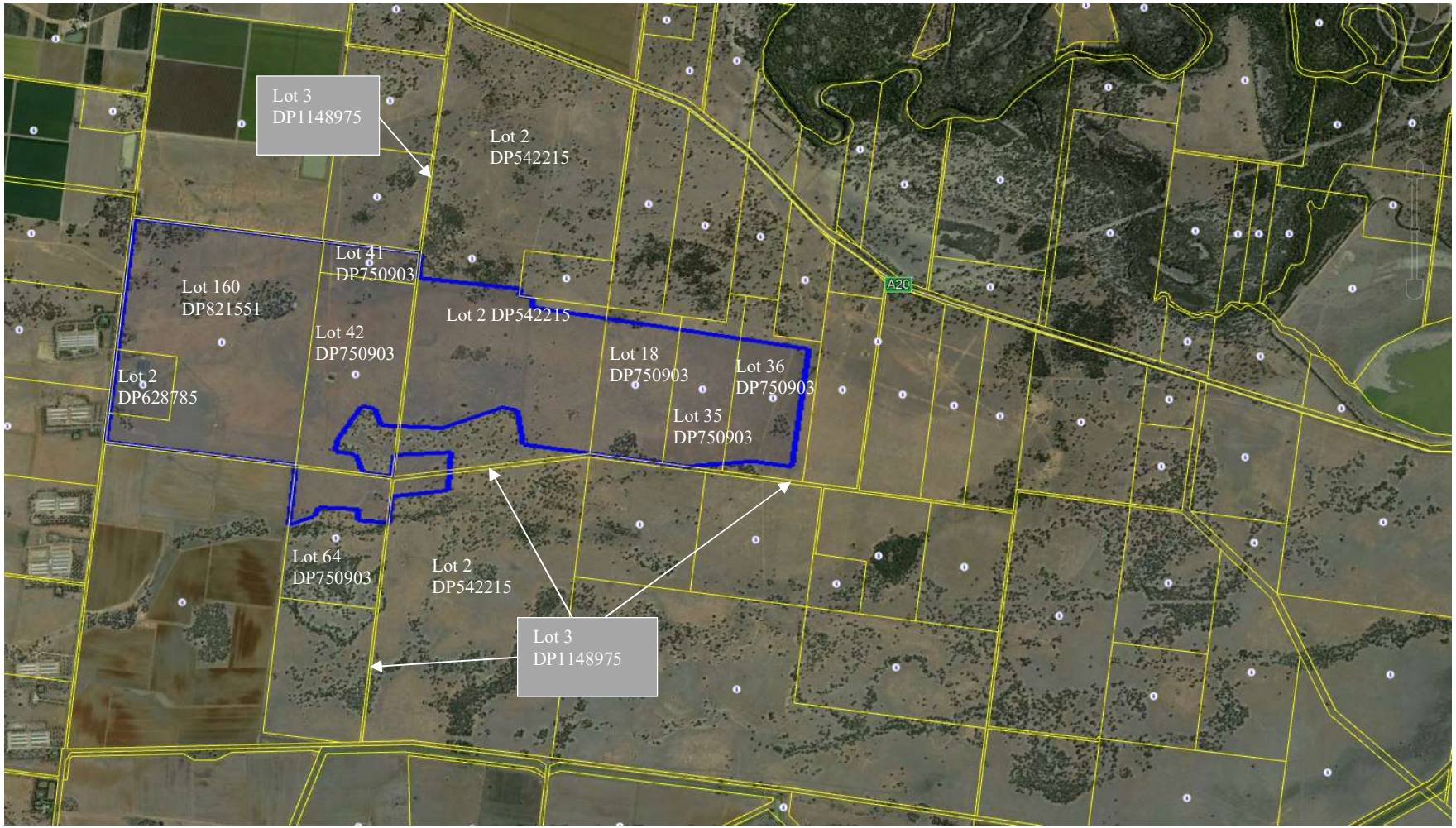
DPSF Option Lands (ie. referred to as the 'study area' within the EIS) comprises multiple Lots amounting to 1042 hectares. These Lots are:

- Lot 160 of DP 821551 (referred to as '*Anderson property*').
- Lots 18, 35, 36, 41, 42 and 64 of DP 750903, Lot 2 of DP 542215 and **Lot 3 of DP1148975** (collectively referred to as 'Tubbo Station' or part thereof).

Lot 2 of DP 628785 (being the TransGrid substation site to which DPSF will connect) is also included with the DPSF '*development site*', in accordance with TransGrid's connection policy to facilitate any substation augmentation works that may be necessary as part of the development. However, this is out with the DPSF title and not subject to subdivision.

Reference herein within Section 2 of the original Subdivision Report to '*paper roads*' is now null and void, as these Crown Lands have been transferred to Torrens Title. Any residual Lots created by this Subdivision remain contiguous with existing Tubbo Station lands, and in practice are not reliant on '*paper roads*' for access.

## 2.1 DPSF Option Lands Lot Numbers and Existing Lot Boundaries




- Existing Lot boundaries shown in yellow and Lot numbers in white.
- Blue boundary indicates the project area.

# 3. Proposed Subdivisions

## 3.1 Reasons for the Subdivision of the Land

There are several reasons why subdivisions are required over the DPSF Option Lands, as summarised below:

- DPSF intends to enter into a 30-year lease with a 4x 5-year extension options. The leased land will include parts of lots. We understand that development consent is required for the lease as the Environmental Planning & Assessment Act 1979 (NSW) treats long term leases of partial lots as development requiring consent as though the grant of the lease was effectively subdividing the land. Once the development consent has been provided, DPSF will prepare a survey plan of the leased area consistent with the consent for registration at NSW Land Registry Services.
- Tubbo Station was previously subdivided into multiple Lots under a common ownership. As a result, internal access roads and fence lines etc generally follow the natural topography and terrain of the lands rather than aligning with Lot boundaries. In granting an option over the lands for the purposes of DPSF, Tubbo Station required the perimeter of the solar farm to align with the internal fences and tracks, rather than with the cadastre. As such, DPSF only has, in some instances, the rights to use parts of the Lots and the residual balance will be retained by Tubbo Station for agricultural purposes. Figure 2 illustrates the partial lot areas relative to the Lot boundaries.
- Furthermore, in designing the DPSF, Edify Energy has intentionally avoided all threatened and endangered species, including Matters of National Environmental Significance, surveyed within the option lands/study area. DPSF will not therefore uptake the entire land area under option; instead it will only lease the minimum area required for the construction and operation of the solar farm, such that the residual areas may be retained for ongoing agricultural purposes.
- Within the DPSF development site, a portion of land will also be retained for a future battery storage area.

## 3.2 Individual Lot Requirements

The following sub-sections detail the subdivision needs as they relate to each individual Lot.

- **Lot 160 DP 821551**: This is proposed to be subdivided to allow for a future Battery Energy Storage System to be owned by a separate legal entity from the solar farm proper, and therefore these areas will be subject to separate lease provisions.
  - To provide access to the each of the new BESS subdivision, an easement will be granted over the solar farm land for access to Donald Ross Drive,

and the easement will be registered at the same time the subdivision plan is lodged.

- Most of the original Lot 160 will be used for the construction and operation of the solar farm, save those areas of vegetation which have been avoided pursuant to the Environmental Impact Statement (EIS) but which will remain within the subdivision and under lease so as not to create land-locked Lots.

- **Lot 18 DP 750903**: This requires subdivision as the DPSF option lands do not align with the Lot boundaries; DPSF the lease will therefore be across part of the Lot only.
- **Lot 35 DP 750903**: This requires subdivision as the DPSF option lands do not align with the Lot boundaries; the DPSF lease will therefore be across part of the Lot only.
- **Lot 36 DP 750903**: This requires subdivision as the DPSF option lands do not align with the Lot boundaries; the DPSF lease will therefore be across part of the Lot only.
- **Lot 3 DP 1148975**: It is noted this Lot was previously a Crown Land paper road. This requires subdivision as the Lot, being a former paper road, extends across Tubbo Station more broadly and only part of this Lot 3 will reside within the solar farm lease with the balance remaining as residual grazing lands.
- **Lot 41 DP 750903**: No subdivision is required; Lot 41 will be leased in its entirety.
- **Lot 42 DP 750903**: Part of Lot 42 will be relinquished under lease to avoid impacting on remnant vegetation; this residual land area will continue to be used for agriculture.
- **Lot 64 DP 750903**: The DPSF option lands do not extend to the entire Lot, and parts of the option lands will also be relinquished under lease to avoid impacting on remnant vegetation; this residual land area will continue to be used for agriculture.
- **Lot 2 DP 542215**: The DPSF option lands do not extend to the entire Lot, and parts of the option lands will also be relinquished under lease to avoid impacting on remnant vegetation; this residual land area will continue to be used for agriculture.

To minimise the creation of multiple, small Lot unnecessarily, the remnant areas of Lots will be aggregated where possible. The following tables detail i) a summary of the original Lots to be subdivided and ii) the proposed new Lots to be created following subdivision, and their respective new Lot sizes (subject to final survey).

## 3.3 Summary of Existing Lots to be Subdivided

| Lot | Zoning | Current Purpose | Current Lot Size (Approx.) |
|---|---|---|---|
| **Lot 160 of DP821551** | RU1 - Primary Production | Grazing *(Cattle)* | 270 ha |
| **Lot 18 DP750903** | RU1 - Primary Production | Grazing *(Sheep)* | 74 ha |
| **Lot 35 DP750903** | RU1 - Primary Production | Grazing *(Sheep)* | 64 ha |
| **Lot 36 DP750903** | RU1 - Primary Production | Grazing *(Sheep)* | 87 ha |
| **Lot 41 DP750903** | RU1 - Primary Production | Grazing *(Sheep)* | 20 ha |
| **Lot 42 DP750903** | RU1 - Primary Production | Grazing *(Sheep)* | 129 ha |
| **Lot 64 DP750903** | RU1 - Primary Production | Grazing *(Sheep)* | 88 ha |
| **Lot 2 DP542215** | RU1 - Primary Production | Grazing *(Sheep)* | 885 ha |
| **Lot 3 DP1148975** | RU1 - Primary Production | Grazing *(Sheep)* | 72 ha |
| **Total** | | | **1689 ha** |

*Note: Many of these original Lots extend beyond the DPSF Development Footprint, hence the total area of the existing Lots is significantly greater than the proposed DPSF site.*

## 3.4 Summary of New Lots to be Created

| New Lot | Previous Lots | Future Use | Future Lot Size (Approx.) [1] |
|---|---|---|---|
| **New Lot 1** | **Formally part of Lot 160 of DP821551** | BESS | 2 ha |
| **New Lot 2** | **Formally part of Lot 160 of DP821551** | Solar Farm | 268 ha |
| **New Lot 3** | **Northern residual portion of Lot 3 DP1148975** | Grazing/Residual Land | 8 ha |
| **New Lot 4** | **Amalgamated:**<br>• **Portions of Lots 18, 35, 36, 42 and 64 of DP750903;**<br>• **Portion of Lot 2 of DP 542215;**<br>• **Portion of Lot 3 DP 1148975;**<br>• **Whole of Lot 41 DP750903.** | Solar Farm | 536 ha |
| **New Lot 5** | **Amalgamated:**<br>• **Residual portions of Lots 18, 35 and 36 of DP750903;**<br>• **Residual portions of Lot 2 of DP 542215;**<br>• **Portion of Lot 3 DP 1148975.** | Grazing/Residual Land | 57 ha |
| **New Lot 6** | **Amalgamated:**<br>• **Southern residual portion of Lot 2 of DP 542215;**<br>• **Residual portion of Lot 42 DP750903;**<br>• **Southern and middles portions of Lot 3 DP 1148975.** | Grazing/Residual Land | 427 ha |
| **New Lot 7** | **Northern residual portion of Lot 2 of DP 542215** | Grazing/Residual Land | 288 ha |
| **New Lot 8** | **Residual portion of Lot 64 of DP750903** | Grazing/Residual Land | 59 ha |
| **New Lot 9** | **Eastern residual portion of Lot 3 DP1148975** | Grazing/Residual Land | 44 ha |
| **Total** | | | **1689 ha** |

*1. Final Lot sizes will be determined by survey and included within a survey plan of leased land in a form required to register the lease.*

# 4. Permissibility

All Lots at DPSF are zoned RU1 Primary Production under the Murrumbidgee Shire Council LEP. The Murrumbidgee LEP specifies that the minimum subdivision lot size for these lots, as shown on the Lot Size Map is 200 hectares. Many of these subdivisions are under the minimum subdivision lot size, and not therefore permitted under the Murrumbidgee LEP; notwithstanding many of the existing Multiple Lots on Tubbo Station are presently less than the stipulated 200 ha minimum. The purpose of the proposed subdivision is also not for primary production.

However, the proposed subdivisions are permissible under Part 4, Division 4.7 section 4.38 of the EP&A Act, which states development consent for State significant development 'may be granted despite the development being partly prohibited by an environmental planning instrument'.

DPSF therefore seeks approval for the necessary subdivisions from the NSW Department of Planning and Environment as part of its development application for a State Significant Development.

## 4.1 Landowner Consent

Landowner consent relating to the Development Approval and the original Subdivision of Lots has previously been provided to DPE.

Landowner consent specifically including reference to the previously omitted Lot 3 DP 1148975 is provided in conjunction with this Revision 2.

# 5. Preliminary Subdivision Plans

Indicative Plans, subject to a survey lease plan, are provided below depicting the proposed subdivision for each of the existing Lots that require a subdivision.

## 5.1 New Lot 1


- Green Shaded Area: New Lot 1, future BESS
- Black Line: Access Easement across solar farm land to BESS

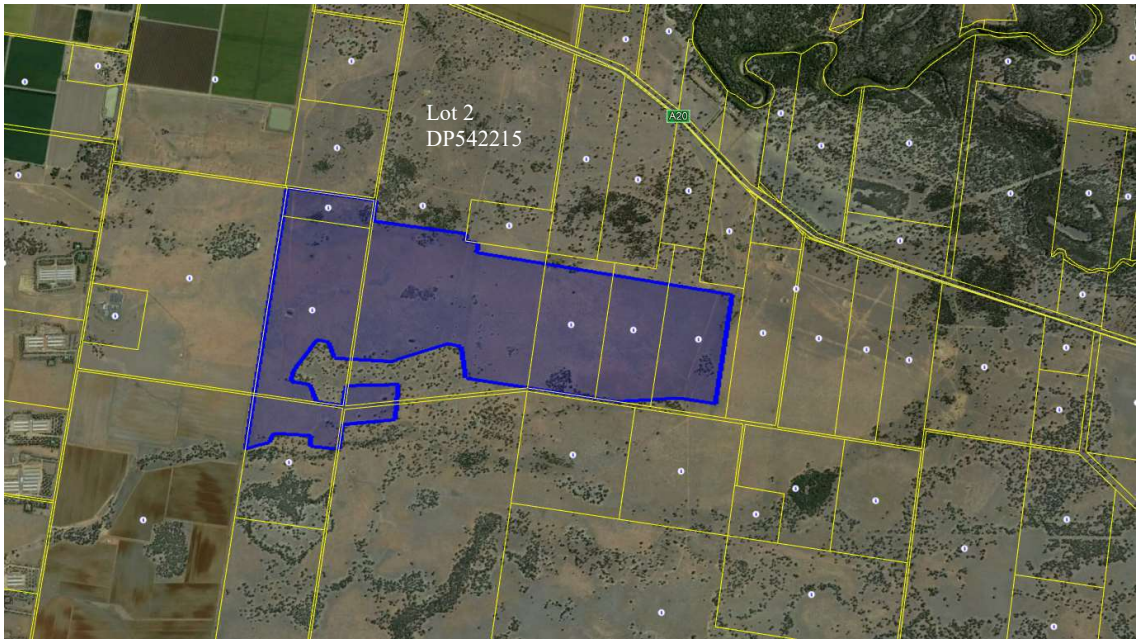
## 5.2 New Lot 2


- Blue Shaded Area: New Lot 2, Solar Farm

## 5.3 New Lot 3


- Purple Shaded Area: New Lot 3, Residual Land (Grazing) comprising former paper road outwith DPSF Development Footprint.

## 5.4 New Lot 4

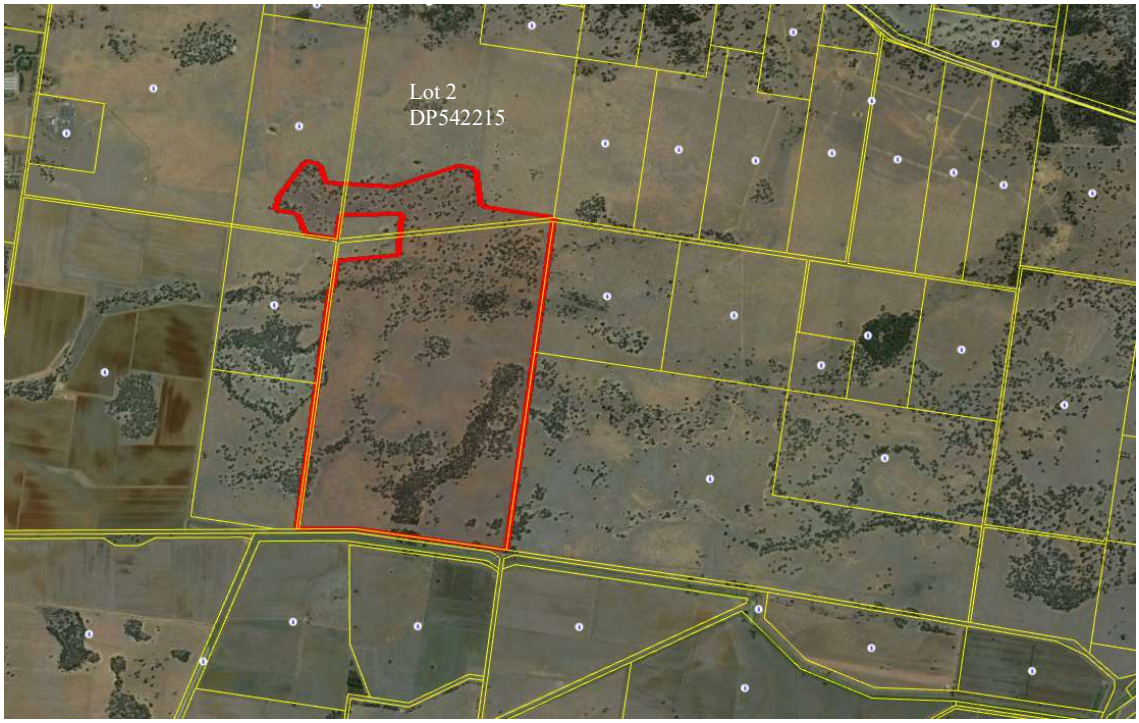



- Dark Blue Shaded Area: New Lot 4, Solar Farm.

## 5.5 New Lot 5


- Light Blue Shaded Area: New Lot 5, Residual Lands (Grazing) outwith DPSF Development Footprint.

## 5.6 New Lot 6




- Red Shaded Area: New Lot 6, Residual Lands (Grazing) outwith DPSF Development Footprint.

## 5.7 New Lot 7


- Brown Shaded Area: New Lot 7, Residual Lands (Grazing) outwith DPSF Development Footprint.

## 5.8 New Lot 8


- Pink Shaded Area: New Lot 8, Residual Lands (Grazing) outwith DPSF Development Footprint.

## 5.9 New Lot 9


- Blue Shaded Area: New Lot 9, comprising former paper road outwith DPSF Development Footprint.

# 6. Glossary

| | |
|---|---|
| **AC** | Alternating Current |
| **BESS** | Battery Energy Storage System |
| **DP** | Development Plan |
| **DPE** | Department of Planning and Environment |
| **DPSF** | Darlington Point Solar Farm |
| **EIS** | Environmental Impact Statement |
| **EP&A Act** | Environmental Planning & Assessment Act 1979 (NSW) |
| **ha** | Hectare |
| **LEP** | Local Environmental Plan |
| **LGA** | Local Government Area |
| **MW** | Megawatts |
| **NEM** | National Electricity Market |
| **NSW** | New South Wales |
| **RTS** | Response to Submissions |
| **SSD** | State Significant Development |

# Appendix 2 - Management Zones Map

*Note - The area immediately surrounding each pile (estimated to be total of 0.32ha) has been treated as direct impact. Note that these individual areas are not shown and these occur beneath panels within Management Zones 3, 6, and 9

**Legend**

- Study Area

*Areas Not Requiring Assessment*

- Transmission Easements
- Vegetation and Heritage Protection Exclusion Zone

**Management Zones**

*Areas Requiring Offset*

- MZ1 - WBYB / Moderate to Good - Moderate - Direct
- MZ2 - BB / Moderate to Good - Moderate - Direct
- MZ3 - BB / Moderate to Good - Moderate - Panel
- MZ4a - BB / Moderate to Good - Moderate - Between Panel
- MZ4b - BB / Moderate to Good - Moderate - Outside Array
- MZ5 - PG / Moderate to Good - Moderate - Direct
- MZ6 - PG / Moderate to Good - Moderate - Panel
- MZ7a - PG / Moderate to Good - Moderate - Between Panel
- MZ7b - PG / Moderate to Good - Moderate - Outside Array

*Areas Not Requiring Offset*

- MZ8 - PG / Moderate to Good - Poor - Direct
- MZ9 - PG / Moderate to Good - Poor - Panel
- MZ10a - PG / Moderate to Good - Poor - Between Panel
- MZ10b - PG / Moderate to Good - Poor - Outside Array

DONALD ROSS DRIVE

Figure A | Figure B | Figure C
Figure D | Figure E | Figure F

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| | |
|---|---|
| **Author:** | S. Wilkin |
| **Reviewer:** | T. Lambert |
| **A3 Scale:** | 1:7 000 |
| **Job Ref:** | 11299 |

0 100 200 300 400 Metres

Map Projection: GDA 1994 MGA Zone 55

**Figure A**

## Management Zones

**Darlington Point Solar Farm | NSW Australia**

31 October 2018

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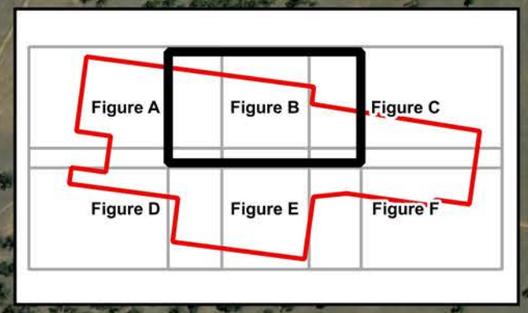
*Note - The area immediately surrounding each pile (estimated to be total of 0.32ha) has been treated as direct impact. Note that these individual areas are not shown and these occur beneath panels within Management Zones 3, 6, and 9




**Legend**

- Study Area

*Areas Not Requiring Assessment*

- Transmission Easements
- Vegetation and Heritage Protection Exclusion Zone

**Management Zones**

*Areas Requiring Offset*

- MZ1 - WBYB / Moderate to Good - Moderate - Direct
- MZ2 - BB / Moderate to Good - Moderate - Direct
- MZ3 - BB / Moderate to Good - Moderate - Panel
- MZ4a - BB / Moderate to Good - Moderate - Between Panel
- MZ4b - BB / Moderate to Good - Moderate - Outside Array
- MZ5 - PG / Moderate to Good - Moderate - Direct
- MZ6 - PG / Moderate to Good - Moderate - Panel
- MZ7a - PG / Moderate to Good - Moderate - Between Panel
- MZ7b - PG / Moderate to Good - Moderate - Outside Array

*Areas Not Requiring Offset*

- MZ8 - PG / Moderate to Good - Poor - Direct
- MZ9 - PG / Moderate to Good - Poor - Panel
- MZ10a - PG / Moderate to Good - Poor - Between Panel
- MZ10b - PG / Moderate to Good - Poor - Outside Array

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| | |
|---|---|
| **Author:** | S. Wilkin |
| **Reviewer:** | T. Lambert |
| **A3 Scale:** | 1:7 000 |
| **Job Ref:** | 11299 |

0 100 200 300 400 Metres

Map Projection: GDA 1994 MGA Zone 55

**Figure B**

## Management Zones

**Darlington Point Solar Farm | NSW Australia**

31 October 2018

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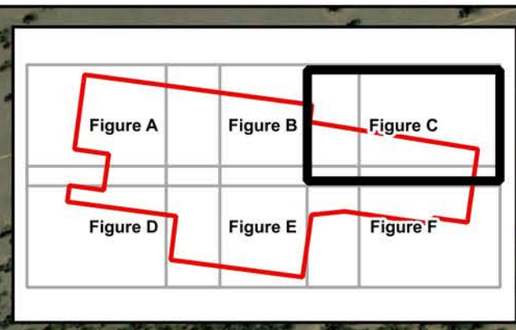


**Legend**

- Study Area

*Areas Not Requiring Assessment*

- Transmission Easements
- Vegetation and Heritage Protection Exclusion Zone

**Management Zones**

*Areas Requiring Offset*

- MZ2 - BB / Moderate to Good - Moderate - Direct
- MZ3 - BB / Moderate to Good - Moderate - Panel
- MZ4a - BB / Moderate to Good - Moderate - Between Panel
- MZ4b - BB / Moderate to Good - Moderate - Outside Array
- MZ5 - PG / Moderate to Good - Moderate - Direct
- MZ6 - PG / Moderate to Good - Moderate - Panel
- MZ7a - PG / Moderate to Good - Moderate - Between Panel
- MZ7b - PG / Moderate to Good - Moderate - Outside Array

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| | |
|---|---|
| **Author:** | S. Wilkin |
| **Reviewer:** | T. Lambert |
| **A3 Scale:** | 1:7 000 |
| **Job Ref:** | 11299 |

0 100 200 300 400 Metres

Map Projection: GDA 1994 MGA Zone 55

**Figure C**

## Management Zones

**Darlington Point Solar Farm | NSW Australia**

31 October 2018

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| **Author:** | S. Wilkin |
| **Reviewer:** | T. Lambert |
| **A3 Scale:** | 1:7 000 |
| **Job Ref:** | 11299 |

0 100 200 300 400 Metres

Map Projection: GDA 1994 MGA Zone 55

**Figure D**

## Management Zones

**Darlington Point Solar Farm | NSW Australia**

31 October 2018

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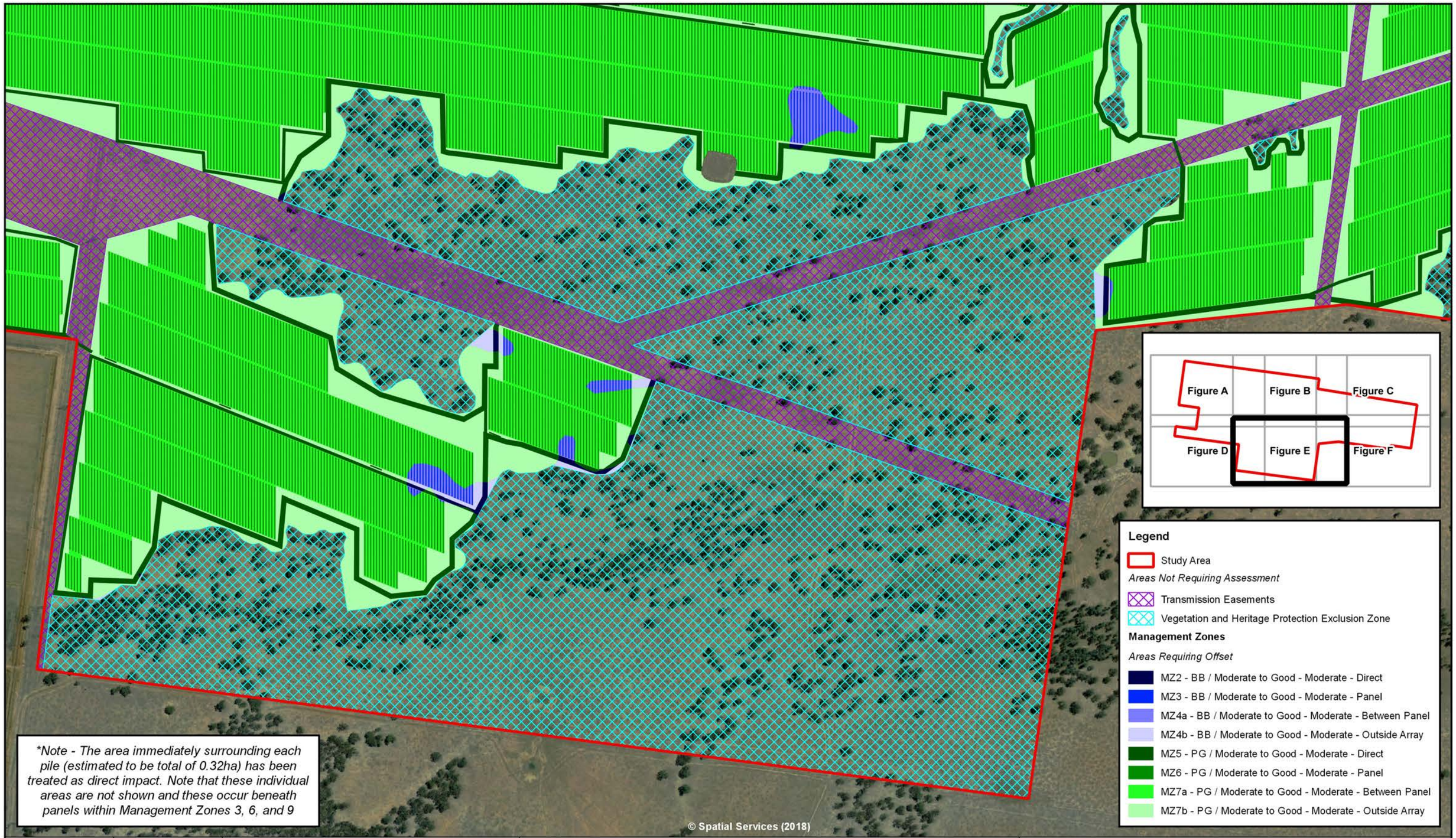


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| **Reviewer:** | T. Lambert |
| **A3 Scale:** | 1:7 000 |
| **Job Ref:** | 11299 |

0 100 200 300 400 Metres

Map Projection: GDA 1994 MGA Zone 55

**Figure E**

## Management Zones

**Darlington Point Solar Farm | NSW Australia**

31 October 2018

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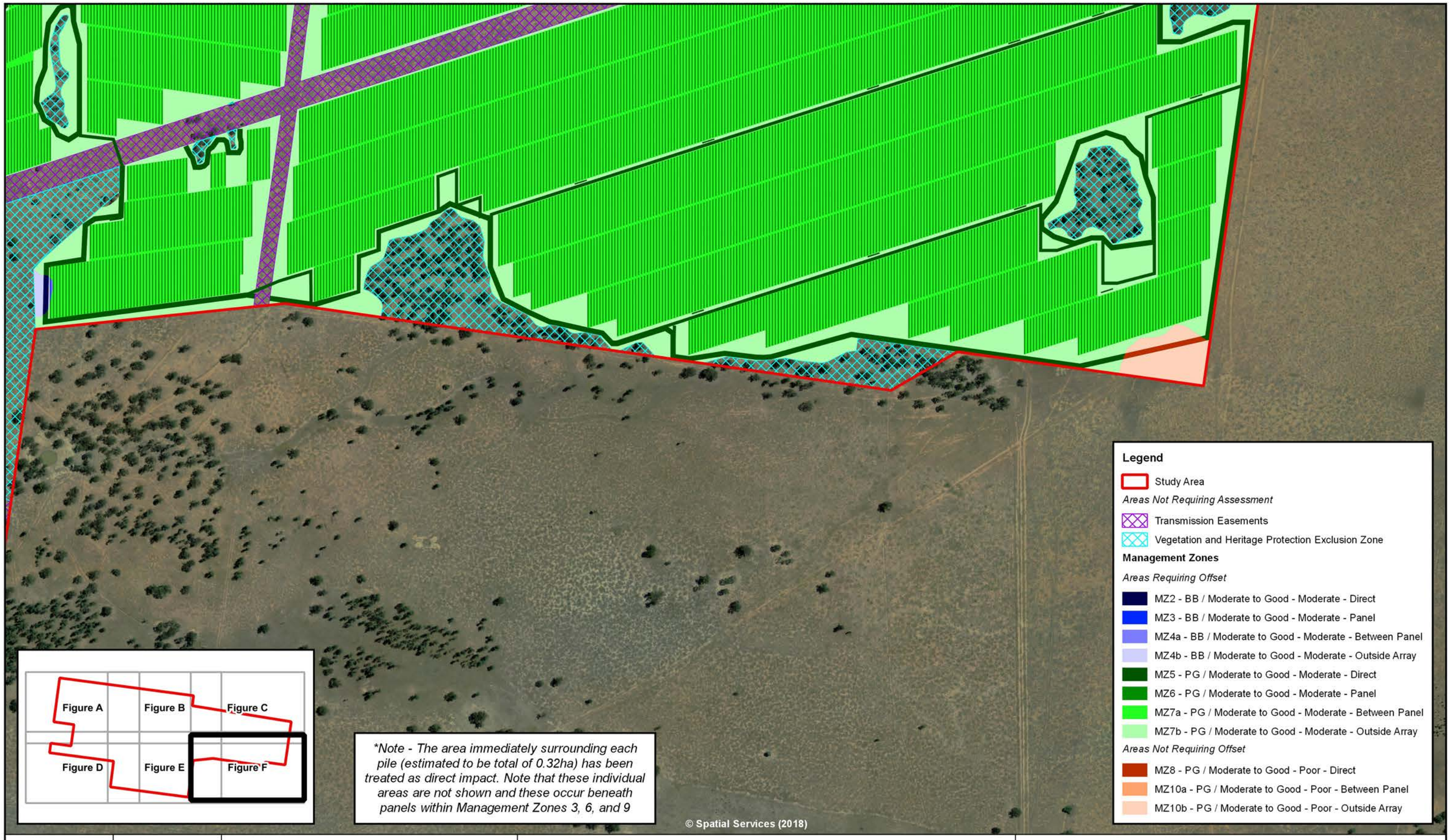


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|---|---|
| **Author:** | S. Wilkin |
| **Reviewer:** | T. Lambert |
| **A3 Scale:** | 1:7 000 |
| **Job Ref:** | 11299 |

0 100 200 300 400 Metres

Map Projection: GDA 1994 MGA Zone 55

**Figure F**

## Management Zones

**Darlington Point Solar Farm | NSW Australia**

31 October 2018

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