lightsource bp

Landscaping Plan

WELLINGTON SOLAR FARM



AUGUST 2020



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ACRONYMS AND ABBREVIATIONS

| CoC | Conditions of Consent |
|---------------|--|
| CEMP | Construction Environmental Management Plan |
| DP&E | (NSW) Department of Planning and Environment |
| EEC | Endangered ecological community |
| EMS | Environmental Management Strategy |
| EIS | Environmental Impact Statement |
| EPA | Environment Protection Authority |
| EPBC Act | Environment Protection and Biodiversity Conservation Act 1999 (Cwth) |
| LP | Landscaping Plan (this document) |
| NSW | New South Wales |
| MP | Management Plan |
| RMS | Roads and Maritime Services |
| SoC | Statement of Commitment |
| SWMP | Soil and Water Management Plan |
| The Proponent | Lightsource BP |
| The Project | Wellington Solar Farm |
| TfNSW | Transport for New South Wales (formally RMS) |



1 INTRODUCTION

1.1 BACKGROUND

Planning approval was received on 25 May 2018 for the construction and operation of a 174 megawatt (MW AC) photovoltaic (kv) solar farm with an energy storage facility, located 2 km north-east of Wellington within the Dubbo Local Government Area (LGA). The Wellington Solar Farm ('the Project') is a State Significant Development and represents an important contribution to renewable energy generation in New South Wales.

On December 11, 2019, a Modification Application (NGH 2019) was approved by the Department of Planning, Industry and Environment (DPIE) to expand the existing substation on Goolma Road and change the transmission connection to it. This was required to facilitate connection of the project to the substation.

On 3 April 2020, the second Modification Application (NGH 2019) was approved by DPIE to modify the solar panel layout, electrical and transmission connection routes, expand the battery storage facility and add an additional operations and maintenance building. This Modification Application also confirmed panel technology and the site access point relocation.

This Landscape Plan (LP) has been prepared to address the requirements of the mitigation and management measures listed in the *Wellington Solar Farm Environmental Impact Statement* (EIS) (NGH Environmental 2018), final amended Statements of Commitment (SoCs) listed in the Wellington Solar Farm Submissions Report and the Conditions of Consent (CoC) from the New South Wales, Minister for Planning.

NSW Department of Planning, Industry and Environment approved this LP 2/10/2019 (Appendix D).

1.2 THE PROJECT

The Scope of Works under the contract includes all works necessary to design, construct, test, commission, energise, decommission, and train staff in the operation of a 174 MW AC solar farm including energy storage (approximately 25 MW / 100 MW rated capacity), and inverter stations.

The Scope of Works consists of but is not limited to:

- Approximately 500,714 solar panels (up to 4.5 metres (m) in height) and approximately 33 inverter stations (up to 2.9 m in height).
- An energy storage facility (approximately 25 MW / 100 MW rated capacity) with up to 6 purpose-built blocks (which will be constructed at a later date outside the main construction period).
- Underground 33kV, 132 kV or 330 kilovolt (kV) transmission cables connecting the energy storage facility to the TransGrid substation.
- Internal access tracks, staff amenities, car parking, laydown area and security fencing.
- The substation expansion includes underground transmission cables and an additional substation bench (located on the western edge of the existing substation).

Note:

- The number of panels has increased from the estimated 440,000 in the EIS to 500,714.
- The number of inverter stations has decreased from 50 to 33.

During construction, the site will be accessed off Goolma Road, approximately 4.6 km north of the intersection with the Mitchell Highway. Key road works for the Project will involve upgrading the intersection of Goolma Road and the site access point with a Basic Right Turn (BAR) and Basic Left Turn (BAL) treatment.

The construction period will last for up to 12 months from the commencement of site establishment works and include a peak period of 6 months. Construction hours will be limited to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1pm.

The estimated Capital Investment Value of the Project is \$270 million.

The regional locality is shown in Figure 1-1 below. The project overview is shown in Appendix A.1.



Figure 1-1 Regional locality

1.3 ENVIRONMENTAL MANAGEMENT STRATEGIC FRAMEWORK

The LP is part of the Lightsource BP's environmental management framework for the Project, as described in the overall Environmental Management System (EMS).

Used together, the EMS, LP and other sub-plans, TCPs, procedures and EWMS form management guides that clearly identify required environmental management actions for reference by Lightsource BP Infrastructure personnel and contractors.

The review and document control processes for this plan are described in the EMS.

2 PURPOSE AND OBJECTIVES

2.1 PURPOSE

The purpose of this is to ensure that landscaping is planned, established and maintained to mitigate the visual impact for nearby receivers and road users of the operational solar farm infrastructure.

2.2 OBJECTIVES AND SCOPE

Specifically, the LP aims to:

- Ensure appropriate planning, controls and procedures are implemented during construction to facilitate the preparation and completion of landscape areas to be maintained during operation.
- Ensure appropriate measures are implemented to address the CoC.
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements.

2.3 TARGETS

The following targets have been established for the management of the visual amenity impacts during construction and operation of the Project:

- Ensure full compliance with the relevant legislative requirements, including conditions of approval.
- Landowners satisfied with the planting provided for on their properties.
- Effective screening of solar farm infrastructure within 3 years of commencement of construction.

3 ENVIRONMENTAL REQUIREMENTS

3.1 RELEVANT LEGISLATION AND GUIDELINES

3.1.1 Legislation

Legislation relevant to landscaping management includes:

- NSW Biosecurity Act 2016 (BS Act).
- NSW Pesticides Regulation 2017.
- *NSW Biodiversity Conservation Act 2016* (NPW Act).

Relevant provisions of the legislation are explained in the register of legal requirements in the EMS.

3.1.2 Guidelines and standards

The main guidelines, specifications and policy documents relevant to this Plan include:

- AS 4419-2003 Soils for landscaping and garden use
- AS 2303:2015 Tree stock for landscape use

3.1.3 Conditions of Consent (CoC)

Conditions 7, 8 and 15 of Schedule 3 of the CoC detail the requirements of the LP (Table 3-1).

Table 3-1 Conditions of Consent relevant to landscaping.

| Conditions of Consent | Reference |
|--|---|
| Schedule 3 | |
| (7) The Applicant must establish and maintain a mature vegetation buffer (landscape screening) at the locations outlined in the in Appendix 1 [included as Appendix A of this LP] to the satisfaction of the Secretary. This vegetation buffer must: | |
| (a) Consist of a variety of vegetation species that are endemic to the area; (b) Within 3 years of the commencement of construction be effective at screening view of the solar panels and ancillary infrastructure (excluding the overhead | Addressed in section 6 and Appendix C of this |
| power lines) on site and surrounding residences; and(c) Be properly maintained with appropriate weed management, unless the Secretary agrees otherwise. | LP |
| (8) Prior to the commencement of construction, the Applicant must prepare a detailed Landscaping Plan for the development in consultation with RMS, Council and surrounding landowners, to the satisfaction of the Secretary. This plan must include: | Addressed in |
| (a) A description of measures that would be implemented to ensure that the vegetated buffer achieves the objectives of conditions 7 (a) – (c) of this consent; | section 6 and Appendix C of this LP |
| (b) Include a program to monitor and report on the effectiveness of these measures; and | |
| (c) Include details of who would be responsible for monitoring, reviewing and implementing the plan, and timeframes for completion of actions. | |

Conditions of ConsentReferenceFollowing the Secretary's approval, the Applicant must implement the landscaping
plan.(15)(15) The Applicant must:
(a) Minimise the off-site visual impacts of the development, including the
potential for any glare or reflection from the solar panels;
(b) Ensure the visual appearance of all ancillary infrastructure (including paint
colours) blends in as far as possible with the surrounding landscape; and
(c) Not mount any advertising signs or logos on site, except where this is required
for identification or safety purposesSection 6.

3.1.4 Project Commitments

Table 3-2 Project commitments outlined in the Response to Submissions and Modification Applications.

| Commitment | Reference |
|--|---|
| Solar farm vegetation screening (a) A sparse vegetation screen, 1 -2 rows deep, would be established with reference to Proposed onsite screening. | Addressed in section 6 and Appendix C |
| (b) The screen would be comprised of varying native species appropriate to the area and of varying height to soften not block the view of the site. | |
| (c) Breaks in the screen, reflecting natural breaks in existing remnants would be appropriate. | |
| (d) Planting should be undertaken as soon as practical in the construction process depending on the season, as it will take time for the plants to establish and become effective as a screen. Seasonal requirements for planting should also be considered. | |
| (e) The screen would be maintained for the operational life of the solar farm. Dead plants would be replaced. Pruning and weeding would be undertaken as required to maintain the screen's visual amenity and effectiveness in breaking up views. | |
| Residential receiver screening Establish plantings for receivers R2, R4 and R8, in consultation with landowners, based on the as-built views of the solar farm. | Addressed in section 6 and Appendix B |
| (a) Where feasible, underground rather than overhead power lines would be considered. (b) Where feasible, co-location of powerlines would be undertaken to minimise the look of additional power poles. If additional poles are required, these would match existing pole design as much as possible. | Addressed in section 6 |
| (c) The materials and colour of onsite infrastructure will, where practical, be non- reflective and in keeping with the materials and colouring of existing infrastructure or of a colour that will blend with the landscape. Where practical: | |
| i. Proposed new buildings will be non-reflective and in eucalypt green, beige or muted brown. | |
| ii. Pole mounts will be non-reflective. | |
| Security fencing posts and wire would be non-reflective; green or black rather than grey would reduce the industrial character of the fence. | |

| Commit | Reference | |
|-------------------|---|--|
| (a) (b) (c) | During construction, dust would be controlled in response to visual cues. Areas of soil disturbed by the Project would be rehabilitated progressively or immediately post-construction, reducing views of bare soil. Ground cover would be maintained beneath the panels and within the site | Not this plan. Addressed in Biodiversity |
| (0) | boundary, to break up views of the infrastructure from the side and back views. | Management Plan. |
| (d) | Night lighting would be minimised to the maximum extent possible (i.e. manually operated safety lighting at main component locations). | |
| (e) (f) | Maintenance of ground cover beneath panels, to reduce dust. Minimise traffic movements on unsealed tracks, to reduce dust. | |
| (g) | Night lighting would be minimised to the maximum extent possible (i.e. manually operated safety lighting at main component locations). | Addressed in section 6 |

4 CONSULTATION

4.1 DURING ASSESSMENT

Pre-approval, community consultation was undertaken as part of the impact assessment phase:

- On 9 May 2017, a Project Manager met with Kathy Webb, Business Manager of the Wellington Correctional Centre. On 15 May 2017 Kathy Webb requested information about the interaction between solar panels and security cameras. An email was sent to Kathy Webb on the 15 May detailing responses to the questions raised.
- On 10 May 2017, all adjacent and close neighbours, including local businesses and agencies, were visited. If at home, a Project Manager and Project Support Officer provided introduction to the Project and provided a notification letter with the Project contact information and a feedback form. If a resident was not at home, the letter and form were left in either the letter box or a prominent location (e.g. at a doormat or screen door). During this period one close neighbour was met with in person and was not concerned about the impact of the solar farm as their views do not face the solar farm.
- Neighbours with potential for extensive views of the solar farm (identified via the visual impact assessment) were met with in person on the 27 June, and 8 August 2017. A visual impact assessment consultant prepared montages in consultation with neighbours, where requested. On 30 August 2017 further meetings were scheduled with the Project Manager to discuss the photomontages, discuss impacts and mitigation options, where appropriate.

4.2 POST APPROVAL

Post approval consultation regarding landscaping for the Project occurred with Transport for NSW (formally Roads and Maritime Services (RMS) and Dubbo Regional Council in April 2019 (Appendix D). Their comments have been addressed in this plan.

Post approval consultation for the WSF landscaping occurred with three landowners in relation to four dwellings. The four dwellings were R1, R2, R4 and R8 (Figure 5-1). This consultation commenced in May 2019 with a site visit to each dwelling by Lightsource BP representatives and David Moir, the Project Landscape Architect. During the site visit desired landscaping outcomes were discussed with the landowners. Moir subsequently prepared plans and montages (example provided in Appendix D) of the landscaping.

On the 1st of August 2019 plans and montages prepared by Moir were sent to each of the landowners for R1, R2, R4 and R8. The plans and montages demonstrated the level of impact the project would have and illustrated that additional landscaping on the landowner's properties would have a marginal improvement on the visual impact above that mitigated by the approved Project perimeter screening. The landowners agreed that a post construction review of visual impact would best determine any additional need for further screening of the Project. Lightsource BP have committed to revisit landscaping and visual impact following construction with the owners of R1, R2, R4 and R8, if requested.

Following a request from DPIE to undertake further consultation with additional residences, a consultation letter was sent to 13 landowners within 1.0 km of the Project. This letter was sent on the 20th September 2019. The location of the 13 residences consulted includes:

• 1 x Cadonia Drive Wuuluman NSW

- 6 x Cadia Place Wuuluman NSW
- 2 x Cadonia Drive Wuuluman NSW
- 2 x Twelve Mile Road Wuuluman NSW
- 1 x Bela Vista Lane Montefiores NSW
- 1 x Cobbora Road Maryvale NSW

Landowners were asked to respond within seven days of the letter. As of the 30th September 2019 only one of the 13 landowners responded to the consultation. His concern was that screen planting for landscaping may affect sightlines for motorists along Goolma Road, and at the intersection of Goolma Road and Twelve Mile Road. Lightsource BP assured the landowner that plantings had been designed in consultation with the TfNSW and Dubbo Regional Council and would be setback between 6m and 13.5 m of the road corridor, ensuring that appropriate sightlines would be provided.

| Landowner input | The procedure to seek landowner input is provided in Appendix B. This plan will be updated following landowner consultation, to occur prior to construction. |
|---|---|
| | The concluded the landowners identified above. These receivers were identified as: |
| | Having higher potential for visual impact in the EIS process. Landowner indicated they were interested in screening during EIS consultation (Table 5.1). Landowner within 1km of the Project. |
| Transport for NSW (TfNSW) | TfNSW have been consulted and provided high level comments. Refer to Appendix D.1. |
| Council | Dubbo Regional Council have been consulted and provided two sets of comments. Refer to Appendix D.2. |
| NSW Department of Planning Industry and Environment (DPIE) | This plan will be submitted to DPIE for approval prior to commencement of construction. |

5 EXISTING ENVIRONMENT

5.1 GENERAL ENVIRONMENT

5.1.1 Soils

Full details of the soil characteristics are contained in the Soil and Water Management Plan (SWMP). Details below are relevant to this LP.

The topography of the Project site is flat to gently undulating and sits at an elevation of between 300 and 415 metres above sea level (ASL). The site includes the following topographic features:

- A hill is located in the north-eastern part of the site (rising to 415 metres ASL).
- The Wuuluman Creek, and two tributaries of the creek, occur on the site and generally drain water from the site in an east to west direction.

One soil landscape occurs at the Project site: Bodangora (bz). This soil landscape has the following limitations:

- High erosion hazard under cultivation and low cover levels
- Moderate fertility
- Friable surface soils
- Moderate to high shrink-swell potential in subsoils
- Aggregated clays may leak in earthworks

eSpade (OEH, 2017) indicates that the Project site has a moderate to very high salinity hazard. There is no potential for acid sulphate soils to occur at the Project site.

Soil surveys were undertaken to assess the subsurface soil and groundwater conditions across the site found the risk of erosion to be low and generally low salinity and sodicity of topsoils and subsoils.

No specific remediation treatment is considered to be required for the planting of vegetation screening.

5.1.2 Vegetation

The site is dominated by cleared areas that are primarily used for cropping and grazing, which provide very little in terms of native fauna habitat (around 250 ha or 47% within the site boundary). Fragmented areas of grassy woodland also occur within the Project boundary.

The Project has been designed to minimise clearing of native woodland vegetation and threatened species habitats. In this regard, the development footprint comprises only around 316 ha of the Project area, primarily to minimise biodiversity impacts.

The proponent has ensured the retention of:

- The majority of grassy woodland vegetation of high importance.
- The majority of threatened communities listed as endangered under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and/or the *Biodiversity Conservation Act 2016* (BC Act).

Two Plant Community Types (PCTs) were identified in the development site:

- White Box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes (PCT 266).
- Blakely's Red Gum Yellow Box grassy tall woodland (PCT 277).

Both of these PCTs are listed as Endangered Ecological Communities (EECs) and occur in varying condition states across the site.

5.1.3 Weeds

Fifty-three species of weed were recorded in the Project area. None of these species are listed on either the BS Act and/or are weeds of national significance. However, *Lycium ferocissimum* (African Boxthorn), is listed on NSW WeedWise as having a prohibition on dealings in Dubbo Regional LGA, and *Heliotropium* sp. (A Heliotrope), as banned from being bought, sold, carried, or released to the environment.

5.2 VISUAL IMPACT ASSESSMENT

A VIA was prepared as part of the EIS for the Project. The VIA concluded that there are no high impact view locations for the Project. The infrastructure is generally low lying with limited view durations available to receivers and would be located in an area with existing infrastructure components.

Several medium visual impact locations are present. Mitigation to soften views of infrastructure, either on the solar farm site or at specific offsite locations, was recommended. The resulting recommendations were that:

- 1. A sparse vegetation screen be included in specific sections of Goolma Road, to mitigate cumulative impacts and lessen the contrast of the infrastructure given the close proximity of the proposed infrastructure in this location. Additionally, two areas where small groves could be established have been identified. These will provide a more natural structure to the vegetation; akin to small remnants. Refer to [Appendix A of this LP] for the proposed [and approved] locations of the screen. The screen would be of varying native species and of varying height to soften not block the view of the site. Breaks in the screen, reflecting natural breaks in existing remnants would be appropriate. A hedge or formal row of trees is not proposed.
- 2. Investigation of specific residential receivers; R1, R2, R3, R4, R8; (Table 5-1) [Appendix B of this LP]. Assessment from public vantages was not sufficient to understand the acceptability of views from these locations. Further consultation and assessment were undertaken with these landowners. A commitment to provide onsite screening for receivers R2 and R8 was made.

The second Modification Application resulted in a minor expansion of the western edge of the site bringing the site closer to R4. The resulting recommendation was that:

• In consideration of screen planting on private properties, R4 should also be consulted regarding mitigation of the 'as built layout' if panels remain in areas that bring the development closer to R4.

In summary, while the visual *contrast* produced by the development would be high along Goolma Road, the sensitivity of the receiving environment in this area, which includes commercial and industrial developments, reduced the overall visual impact at these locations. Perimeter planting could assist to break up the views of the infrastructure and would also address cumulative impacts of this infrastructure to maintain the landscape character and avoid a more industrial character becoming dominant.

In all other locations surrounding the site, view durations would be less for passing motorists, due to undulating terrain, additional distance of infrastructure from the road, less linear edge of infrastructure boundary and existing vegetation between the site and receivers.

| ID | Street address | Reason for further investigation | Outcome |
|----|----------------------|--|---|
| R1 | Off Bella Vista Lane | Elevated site approximately 800m from site boundary. Public road access could not ascertain extent of | The developer undertook a site visit to investigate potential impacts and discuss the Project with the resident. |
| | | views from residence and outdoor recreational spaces. | Additional mitigation was not agreed. |
| R2 | Off Bella Vista Lane | Elevated site approximately 850m from site boundary. | The developer undertook a site visit to investigate potential impacts and discuss the Project with the resident. |
| | | Public road access could not ascertain extent of views from residence and outdoor recreational spaces. | Montages were requested. Additional mitigation was agreed and included in the Project mitigation strategy. |
| R3 | Off Bella Vista Lane | Elevated site approximately 1000m from site boundary. Public road access could not ascertain extent of views from residence and outdoor recreational spaces. | The developer undertook a site visit to investigate potential impacts and discuss the Project with the resident. A montage was not requested. Additional mitigation was not agreed. |
| R4 | Off Cobbora Road | Close proximity (30m) to site boundary. Public road access could not ascertain extent of views from residence and outdoor recreational spaces. | The developer undertook a site visit to investigate potential impacts and discuss the Project with the resident. A montage was not requested. Additional mitigation was not requested by the resident, but this receiver was consulted regarding mitigation using buffer vegetation |
| R8 | Off Goolma Road | Elevated site approximately 650m from site boundary. Public road access could not ascertain extent of views from residence and outdoor recreational spaces. | The developer undertook a site visit to investigate potential impacts and discuss the Project with the resident. Montages were requested. Additional mitigation was agreed and included in the Project mitigation strategy. |

Table 5-1 Assessment of specific residential locations

Landscaping Plan Wellington Solar Farm



Figure 5-1 Receivers and Landscape Character Units (Wellington Solar Farm EIS; NGH 2017)

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6 LANDSCAPE MANAGEMENT PROTOCOLS

6.1 **PROPOSED LANDSCAPE TREATMENTS**

6.1.1 Plantings on private land

Consultation would be undertaken with the three private landholders (R2, R4 and R8) to select appropriate landscape treatments for effective screening. This would be conducted together with the project's Landscape Architect. It will be undertaken based on the 'as built' layout of the solar farm.

The protocol provided in Appendix B details:

- A strategy to obtain input from landholders and the Landscape architect.
- How to locate plantings.
- Species selection.
- How to ensure planting persistence.
- A verification process to ensure the 'as built' impact is mitigated.
- Roles and responsibilities.

6.1.2 Perimeter plantings

Sections of perimeter plantings would be established. The main aim is to minimise views of infrastructure for motorists on Goolma Road and traffic entering from Twelve Mile Road.

One to two rows of sparse, native plantings, in keeping with the local native vegetation community, would be established. This will include a 50m section either side of the solar farm access point and sections along the southern boundary of the site. In two areas, the plantings would be expanded into more of a 'grove', in keeping with the pattern of remnants in the area and supplementing existing vegetation.

The planting specification provided in Appendix C details:

- A strategy to obtain an effective screen within 3 years.
- Locations for planting
- Species selection
- Planting establishment and monitoring requirements.
- Roles and responsibilities.

6.2 OTHER VISUAL AMENITY MITIGATION WORKS

Other actions which will be implemented to minimise views of infrastructure are included in Table 6-1.

| Stage o Project | f Objective | Management protocol | Resources | Responsibility |
|--------------------|--|---|---|-------------------|
| Design | Minimise the off-site visual impacts of the development including potential for glare from the reflection of panels. | Use underground rather than overhead power lines where feasible. Co-locate powerlines where feasible Where overhead poles are required, match existing pole design as much as possible. Use non-reflective materials as much as possible. Pole mounts will be non-reflective. Security fencing posts and wire would be non-reflective; green or black rather than grey would reduce the industrial character of the fence. During construction, dust would be controlled in response to visual cues. For built structures, use eucalypt green, beige or muted brown material colours. Do not mount any advertising signs or logos on site, except where this is required for identification or safety purposes. | Final design plans, to be presented to DPE Visual Impact Assessment, Appendix F of the EIS (NGH Environmental 2017). | EPC Contractor |
| Design | Minimise the off-site lighting effects of the development. | Ensure that all external lighting associated with the development: is installed as low intensity lighting (except where required for safety or emergency purposes); does not shine above the horizontal; and complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version. | Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting | EPC Contractor |
| Design | Allow room for vegetation screen in detailed design | Areas will be designated for the landscape screening as set out in Appendix A.2 <i>Detailed planting locations</i> of this plan. This includes: No planting within the road reserve At least 5 m corridor dedicated to screening, between the property boundary and the perimeter fencing. | Appendix A.2 <i>Detailed</i> <i>planting locations</i> of this LP | EPC Contractor |

Landscaping Plan

Wellington Solar Farm

| Stage of Project | Objective | Management protocol | Resources | Responsibility |
|-------------------------------|--|--|--|-----------------------------------|
| Construction | Establish vegetation screening on Private properties | Consultation and planting will be undertaken as set out in Appendix B. Including: A strategy to obtain input from landholders and the Landscape architect Locations for planting Species selection Planting persistence. | Appendix B <i>Plantings on</i> <i>Private Land</i> of this LP | Proponent |
| Construction | Establish vegetation screening on the solar farm site, to minimise views to motorists | Planting will be undertaken as set out in Appendix C Planting Specification of this LP. Including: A strategy to obtain and effective screen within 3 years. Locations for planting Species selection Planting establishment and monitoring requirements including water crystals and fertiliser (specific to native plants) would be used unless long stem tube stock are used. | Appendix C <i>Planting</i> <i>Specification</i> of this LP | EPC Contractor |
| Construction and Operation | Protect plants | The landscaping area will be protected during construction as set out in Appendix C <i>Planting Specification</i> of this LP, including: Watering Tree guards Replacement of plants to maintain 90% success rate for plantings. | Appendix C <i>Planting</i> <i>Specification</i> of this LP. | EPC Contractor and Operator |
| Operation | Monitor the planting | • The plantings will be monitored and maintained for the life of the Project. Monitoring requirements for the Project are included in Appendix C. | Appendix C <i>Planting</i> <i>Specification</i> of this LP. | Operator |

7 COMPLIANCE MANAGEMENT

7.1 ROLES AND RESPONSIBILITIES

Lightsource BP Project Team's organisational structure and overall roles and responsibilities are outlined in the EMS and summarised in Table 7-1. Specific responsibilities for the implementation of environmental controls will be detailed in the CEMP.

Below is a flow chart outlining the overall hierarchy of teams responsible for the construction of the Project.



Lightsource BP shall ensure specific responsibilities are communicated to all personnel via appropriate environmental management training (part of the initial safety and environment induction).

Lightsource BP's organisational chart is provided below in Figure 7-1.



Figure 7-1 Lightsource BP company organisational chart

Table 7-1 Construction team roles and responsibilities

| Role | Responsibility | Authority | | | |
|---|--|--|--|--|--|
| EPC Project Manager | Ensure resources are made available to enable works to comply with EMS and other environmental management requirements. Ensure that all procedures are followed adequately. Ensure appropriate approvals and licences are held. Ensure all staff and contractors are aware of environmental compliance requirements and environmental controls. Responsible for reporting pollution incidents. | Order Stop-work for an activity that may cause material or environmental harm. Release of environmental hold points, if required. | | | |
| EPC Health Safety and Environment and Quality Manager (HSEQ) | Maintaining all environmental management documents. Identifying where environmental measures are not meeting the targets and where improvements can be achieved. Monitoring and reporting environmental compliance. Reviewing Project environmental documents. Reporting of pollution incidents. | Recommend Stop-work for an activity that may cause material or environmental harm. Release of environmental hold points, if required. | | | |
| EPC Site Manager | Responsible for the implementation of | Order Stop-work if any items in the CEMP are in danger of breach. | | | |

| Role | Responsibility | Authority |
|---|---|---|
| | environmental management plans. Responsible for the induction of staff and contractors. Responsible for all aspects of the worksite including the coordination and management of all staff and contractors. Undertake routine environmental site inspection. Maintaining environmental records. Receiving plant, materials and chemicals and ensuring all items are appropriately stored. Responsible for addressing corrective actions arising from Environmental Inspections. | Approve and accept waste disposal methods requested by staff or contractors. Approve minor changes to environmental sub-plans, including Erosion and Sediment Control Plans (ESCP). |
| All Lightsource BP staff: LSBP Project Manager/Site Superintendent LSBP Steering Committee LSBP Technical Team | Ensure contractors are working in accordance with the requirements of the EMS, as required under the EPC contract. Undertake site visits during construction to monitor compliance with EMS requirements. Report and raise any issues that arise that may have an environmental impact. Report and raise the discovery of any artefacts, Aboriginal relics or places and cease work until the matter has been addressed. | Report any issues that may have the potential to cause material or environmental harm. Report any incidents or near- misses that may impact on the environment or breach conditions set-out in this EMS. |

Specific to this plan,

- The *Plantings on private property* requirements are set out in Appendix B.3, including persons responsible for these actions and the timing required. These include roles for the proponent, landscape architect and Landowner. Timing extends from pre-construction to operation.
- The *Perimeter planting* establishment is set out in Appendix C.4.1 and C.4.2. with reference to persons and timing it includes:
 - o Planting would be undertaken by an experienced landscape contractor
 - Planting would be undertaken as soon as practical in the construction process, as it will take time for the plants to establish and become effective as a screen.
 - Planting would occur in autumn *following sufficient rainfall*. While planting in autumn is generally the best time, there would be no use planting this autumn (2019), given dry conditions, unless irrigation will be installed, or weekly hand watering is undertaken...
- The *Perimeter planting* monitoring program in Appendix C.4.5 sets out persons responsible for these actions and the timing required for each action. It extends from the first 12 months of planting through to decommissioning. It includes roles for the EPC Contractor and Operator, dependent on the stage of the project.

7.2 TRAINING

All employees, contractors and utility staff working on Site will undergo Site induction training. Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in landscape management. Targeted training would address the requirements of the environmental control measures (Section 6).

7.3 MONITORING AND INSPECTION

Monitoring requirements for perimeter plantings are detailed in Appendix C.4 of this document.

7.4 WEATHER MONITORING

Weather monitoring requirements for perimeter plantings is detailed in Appendix C.4 of this document.

7.5 INCIDENT MANAGEMENT

All incidents will be managed in accordance with the incident response procedures contained in the EMS.

7.6 AUDITING

Audit requirements are detailed in the EMS.

7.7 **REPORTING**

Reporting requirements and responsibilities are outlined in the EMS. Specific to this plan, monitoring requirements for perimeter plantings are detailed in Appendix C.4 of this document.

In summary, they will include:

- Establishment (first 12 months after planting) Monthly; Report on success of watering, weeding, mortalities, supplementary. Suggest changes as required.
- **Two years post planting** Quarterly; Report on success of watering, weeding, mortalities, supplementary. Suggest changes as required.
- Three years post construction Annually; Report on success of watering, weeding, mortalities, supplementary. Suggest changes as required.
- Six years post construction to decommissioning Annually; Report on success of watering, weeding, mortalities, supplementary. Suggest changes as required.

Monitoring and reporting are not included for plantings on private land; the Landowner is to maintain these plantings.

8 **REVIEW AND IMPROVEMENT**

8.1 CONTINUOUS IMPROVEMENT

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets to identify opportunities for improvement.

8.2 LP UPDATE AND AMENDMENT

This LP will need to be revised whenever the construction program, scope of work, or work methods change, whenever the work methods and control structures are found to be ineffective, or if directed by the Principal. This will occur as needed and in accordance with the process outlined in the EMS.

A copy of the updated LP and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure identified in the EMS.

8.3 DOCUMENT CONTROL

Document control procedures are outlined in the EMS.

9 **REFERENCES**

NGH Environmental (2018) Submissions Report Wellington Solar Farm, prepared for First Solar, 2018.

NGH Environmental (2017) Environmental Impact Statement Wellington Solar Farm, prepared for First Solar, 2017.

APPENDIX A LANDSCAPING LOCATIONS

A.1 CONSENTED LANDSCAPING LOCATIONS, FROM DPIE APPROVAL



A.2 PERIMETER AND GROVE PLANTING SPECIFICATIONS

The following figures show the planting specification for each grove and infill planting location for each Landscaping "Site" within the Project Boundary.



Figure A.2 1 Overview Map



Figure A.2 2 Site 1: Two rows of trees with rows spaced 5m apart, 48 trees planted 20m apart.



Figure A.2 3 Site 2: Infill planting of approximately 18 trees, planted 20m apart.



Figure A.2 4 Site 3: Two rows of trees with rows spaced 5m apart, 240 trees planted 20m apart.



Figure A.2 5 Site 4: Approximately 15 trees planted 20m apart and Site 5: Approximately 12 trees planted 20m apart.

APPENDIX B PLANTINGS ON PRIVATE LAND

B.1 AIM

The aim of this protocol is to establish plantings for receivers R2, R4 and R8 (refer to Figure 5-1), in consultation with landowners, to break up views of the 'as-built' solar farm within 3 years of establishment. It therefore includes a verification process and strategies to establish the screening rapidly.

B.2 SPECIFICATIONS

Species selection will be determined by a Landscape Architect in consultation with the landowner. No other criteria apply to these areas with regard to species selection (although reference is made to Appendix C, if native species are to be selected).

Establishment techniques will depend on species selection and will be investigated once this decision is made.

B.3 PROCESS

| Action required | Timing | Responsibility |
|---|----------------------|----------------|
| Consult with landowners prior to construction to introduce the Landscaping Plan (this document) and specific requirements for plantings on private land. Specific requirements include: Break up the view of the solar farm, not eliminate views. Achieve effective screening within 3 years. Mitigate 'as built' view of infrastructure, a post construction verification and augmentation process may be required. | Preconstruction | Proponent |
| Landscape architect to inspect the site and discuss likely planting locations and species selection, any remediation requirements with landowner. Strategies may include: Use of pioneer species. Planting more mature plants. Planning for some mortalities as vegetation matures. | Construction | Proponent |
| Landscape architect to finalise planting locations and species selection, any remediation requirements in consultation with landowners. | Construction | Proponent |
| Proponent to arrange for and fund plant establishment and provide information regarding maintenance to the landowner. | Construction | Proponent |
| Second inspection by Landscape architect once the 'as built' impact is understood (at the end of construction) to discuss how to: Augment the planting and ensure it is effective in terms of location. Augment plantings to ensure it will be effective within 3 years. | Post construction | Proponent |
| Landowner to maintain plantings. | Operation | Landowner |





APPENDIX C PERIMETER PLANTING SPECIFICATION

C.1 PLANTING STRATEGY

In all cases, the aim of the plant screening is to break up the views of infrastructure and not eliminate them. Relatively sparse plantings, rather than a formal 'hedge' effect, is considered more appropriate to the existing environment. Additionally, two areas where small groves could be established have been identified. These will provide a more natural structure to the vegetation; akin to small remnants.

In order to achieve effective screening within 3 years, this Strategy relies on:

- Planting would be undertaken by an experienced landscape contractor.
- Planting as soon as possible in the construction process.
- Use of quality seasoned tube stock / long stem tube stock.
- Maintenance (watering and protection from stock and other herbivores) during establishment.
- Inclusion of 'pioneer species'. The species list includes pioneer species that grow rapidly and will be replaced by slower growing longer lived species over time

In order to avoid adverse impacts on the adjacent road corridor, plantings will:

- Avoid species with large habits, where falling limbs or trunks may provide a hazard
- Where large species are used, this will be located further back from the road reserve
- Where planting is undertaken near access ways, location and species will be selected to ensure sight lines are not impeded.

C.2 PLANTING AREAS

Screen planting will be undertaken as shown in Appendix A.2.

Plantings will:

- Be located in 1-2 rows, 5 m in total width, for perimeter plantings, more in groves.
- Be planted approximately 20m apart, with the back and front row staggered
- Be located on the solar farm site, not within the road reserve
- Be located adjacent to perimeter fencing, allowing sufficient space for plants to mature.

C.3 PLANT SELECTION AND PLANT NUMBERS

Plantings will:

- Be native species known to be associated with either PCT 266 or 277 (which occur on the adjacent solar farm site)
- Be either tall shrubs or small trees and will therefore be most effective screening views for motorists.
- Be mixed and offset to produce a heterogeneous mix of plantings.
- Minimise the use of large spreading trees that may impact road user safety through falling limbs or impeding sight lines.
- Provide a successional planting strategy whereby:
 - Fast growing pioneer species are planted in the first row (closest the road)



- Slower growing species are planted in the second row
- Pioneer species are replaced by the slower growing species either as they senesce or as the slower growing species become effective in screening infrastructure
- Plantings won't be more than 25m apart
- Shrubs, such as wattles would be planted in between larger trees to create a natural look to the screen.
- Long stem tube stock would be sourced from locally collected endemic seed where feasible (using a local nursery).
- 10% of the species will be from larger pots, where available.

Species list and appropriate abundance guidance

| Species and mature height | Known from PCT | Approximate abundance |
|--|----------------|---------------------------------|
| Back row | | |
| Eucalyptus polyanthemos (10-20m) | 277 | Not more than 10% |
| <i>Brachychiton populneus</i> supbsp. Populneus (to 20m high, slow growing) | 266 | Not more than 10% |
| <i>Callitris glaucophylla</i> (10-20m, not often propagated but good windbreak and screen) | 277 | Not more than 40% |
| Acacia dealbata (1.5-10m, coloniser) | 277 | Heterogenous mix of these |
| Acacia implexa (5-12m, colonising) | 266 | species or front row species |
| Bursaria spinosa subsp. Spinosa (to 10m, coloniser) | 266 | Not more than 10% |
| Front row (closest to road) | | |
| Acacia decora (1-4m high, colonising) | 266 | Heterogenous mix of at |
| Acacia deanei subsp. Paucijuga (2-4m, colonising) | 266 | least 5 of these species |
| Acacia genistifolia (1-3m, colonising, probably not great screening) | 266 | |
| Acacia penninervis var. penninervis (up to 8m, coloniser) | 266 | |
| Acacia buxifolia subsp buxifolia (1-4m, coloniser) | 266 | |
| Acacia paradoxa (1-4m high, coloniser) | 266 | |
| Dodonea viscosa subsp cuneata (1 to 3m, possible coloniser) | 266 | |
| Cassinia aculeata (1 - 2.6m, coloniser) | 266 | |



Plant numbers

Based on the Appendix A.2 locations of planting, the following plant numbers will be required.

| Location | Approximate number of individuals |
|----------|-----------------------------------|
| Site 1 | 48 |
| Site 2 | 18 |
| Site 3 | 240 |
| Site 4 | 15 |
| Site 5 | 12 |
| Total | 333 |

C.4 PLANTING METHODS

C.4.1 Establishment

- Planting would be undertaken by an experienced landscape contractor.
- Planting would be undertaken as soon as practical in the construction process, as it will take time for the plants to establish and become effective as a screen.
- Tube stock should be sourced as early as possible, refer to C.4.2 below.
- Ripping and soil amelioration is not proposed (as appropriate to the soil conditions set out in Section 5.1.1).
- Weed control will be undertaken in the sites proposed for each planting:
 - If mechanical, manually clear an area 1m buffer from the planting to minimise encroachment during establishment.
 - For more intensive infestations of weeds (in accordance with the project's Biodiversity Management Plan), the use of selective herbicides may be warranted to prevent seed set and promote weed control. The advice of an ecologist and agronomist will be sought to advise on the control of weed infestations. 10% non-native groundcover is the target requiring corrective action.
 - Monitoring of weed infestations will occur as part of the routine environmental inspections to determine effectiveness of management controls. The presence of any weeds and the necessary management actions will be noted on the Environmental Inspection Checklist.
 - Pesticide application will only be administered by authorised personnel wit ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.
 - Pesticides will only be applied in accordance label instructions for that product.
 - A Pesticide Application Record will be completed, and public notifications made in accordance with relevant legislation, where pesticides are to be used in areas that could be accessed by members of the public.
 - Only pesticides registered for use near water may be used near any waterways.



- Water spear / high pressure hose is recommended to drill hole for planting if long stem tube stock is used. These provide deep and soaking watering for establishment. Holes will not be substantially deeper than the tube stock used or else a cavity may result beneath the planting.
- Water crystals and fertiliser (specific to native plants) would be used unless long stem tube stock are used.
- Tree guards will be used to protect plants (creating a microclimate to reduce water loss and making follow up maintenance easier).

C.4.2 Planting timing and need for irrigation

Planting would occur in autumn *following sufficient rainfall*. While planting in autumn is generally the best time, there would be no use planting this autumn (2019), given dry conditions, unless irrigation will be installed, or weekly hand watering is undertaken. The dry conditions may continue next autumn so meeting the consent condition of 'effective screening in 3 years may require irrigation or use of larger plants.

There would be safety benefits for ongoing maintenance if irrigation was installed, limiting worker access from the road corridor to the plantings. Irrigation will also improve the success of the plantings, reducing replacement of mortalities.

Where irrigation is used, temporary polypipe, moveable water tanks and moveable pumps would be used to irrigate the plantings during establishment. This will allow more frequent lower intensity watering and have safety benefits for access, when compared to hand watering. No additional water sources or quantities are required.

C.4.3 Planting monitoring and maintenance

- Weed control will be undertaken around plantings, as required to ensure they are not outcompeted by surrounding vegetation:
 - If mechanical, manually clear an area 1m buffer from the planting to minimise encroachment during establishment.
 - For more intensive infestations of weeds (in accordance with the project's Biodiversity Management Plan), the use of selective herbicides may be warranted to prevent seed set and promote weed control. The advice of an ecologist and agronomist will be sought to advise on the control of weed infestations. 10% non-native groundcover is the target requiring corrective action.
 - Monitoring of weed infestations will occur as part of the routine environmental inspections to determine effectiveness of management controls. The presence of any weeds and the necessary management actions will be noted on the Environmental Inspection Checklist.
 - Pesticide application will only be administered by authorised personnel wit ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.
 - Pesticides will only be applied in accordance label instructions for that product.
 - A Pesticide Application Record will be completed, and public notifications made in accordance with relevant legislation, where pesticides are to be used in areas that could be accessed by members of the public.
 - Only pesticides registered for use near water may be used near any waterways.
- Replace tree guards as required and remove once plants have outgrown them.
- Replace dead plants to achieve an overall 90% success rate for the life of the Project.



C.4.4 Works schedule

This schedule of work guides the timing and outcomes of landscaping work. This table will be modified based on alterations to Project phases and climatic conditions.

| Project Phase | Landscaping Work | Preferred Season | Performance Target | Measure and Monitor | Variation |
|-------------------------------------|---|--|--|---|---|
| Preconstruction | Source / order tube stock | As soon as possible, noting the planting timing predicted | Sufficient numbers ordered | Check in to ensure order is on track | - |
| Construction | Weed control (herbicide) and mulch | End of summer | 1m buffer around planting sites targeted | Grass cover dead by autumn | Second control session if required |
| Construction | Plant tube stock | Autumn after rainfall | Sufficient numbers planted | Climatic conditions, area covered, watering, ensure the plant location and spacing are aligned with the planting schedule above. | Install irrigation or hand water |
| Construction | Maintain plantings (watering, follow up weed control) | Fortnightly for first 8 months, then reduced as required | Plants alive | Mortality and soil moisture | Reduce watering if heavy rain fall or irrigated |
| Construction and life of Project | Replace dead plants | As required (note as substantial lead time is required, order surplus quantities) | 90% success | Mortality and soil moisture | - |

C.4.5 Planting monitoring program

| | Establishment (first 12 months after planting) | | | Т | wo years post plan | ting | Three years' post construction | | | Six years post construction to decommissioning | | |
|----------|--|--|--|---------|---|---|--------------------------------|---|---|--|---|--|
| Monitor | Timing | Action | Responsibility | Timing | Action | Responsib ility | Timing | Action | Responsi bility | Timing | Action | Responsibi lity |
| | Weekly | Regular hand weekly watering where <30mm of rain has occurred in that month, unless irrigated | EPC Contractor – landscape / maintenance contractor | Weekly | Water when rainfall less than 10mm/month unless irrigated | Operator landscape / maintena nce contractor | Monthl y | Water when rainfall less than 10mm/month | Operator landscape / maintena nce contracto r | Monthly | Water when rainfall less than 10mm/mont h | Operator – – landscape / maintenan ce contractor |
| Watering | Weekly | For sections with temporary irrigation, check all drippers operational and water once per week | EPC Contractor – landscape / maintenance contractor | Monthly | For sections with temporary irrigation, check all drippers operational and water once per month | Operator landscape / maintena nce contractor | Monthl y | For sections with temporary irrigation, check all drippers operational and water once per month | Operator landscape / maintena nce contracto r | Remove dr | ippers once esta | ablished. |
| Weeds | Monthly | Spot spray or manually remove weeds within 1.5 m of planting | EPC Contractor – landscape / maintenance contractor | Monthly | Spot spray or manually remove weeds within 1.5 m of planting | Operator - landscape / maintena nce contractor | Quarter ly | Spot spray or manually remove weeds within 1.5 m of planting | Operator landscape / maintena nce contracto r | Every six months | Spot spray or manually remove weeds within 1.5 m of planting | Operator – – landscape / maintenan ce contractor |

| Mortality | Monthly | Supplementary planting to occur in areas where plantings have died (not to occur during summer) to achieve a 90% success rate. | EPC Contractor – landscape / maintenance contractor | Quarterl Y | Supplementary planting to occur in areas where plantings have failed to effectively screen views (not in summer) | Operator landscape / maintena nce contractor | Annuall y in summe r | Supplementary planting to occur in areas where plantings have failed to effectively screen views (not to occur during summer) | Operator landscape / maintena nce contracto r | Annually in summer | Supplement ary planting to occur in areas where plantings have failed to effectively screen views (not to occur during summer) | Operator – – landscape / maintenan ce contractor |
|-----------|---------|---|--|---------------|---|--|-------------------------------|--|--|--------------------------|---|--|
| Reporting | Monthly | Report on success of watering, weeding, mortalities, supplementary. Suggest changes as required | EPC Contractor – landscape / maintenance contractor | Quarterl Y | Report on success of watering, weeding, mortalities, supplementary Suggest changes as required | Operator – – landscape / maintena nce contractor | Annuall y | Report on success of watering, weeding, mortalities, supplementary. Suggest changes as required | Operator – – landscape / maintena nce contracto r | Annually | Report on success of watering, weeding, mortalities, supplement ary. Suggest changes as required | Operator – – landscape / maintenan ce contractor |

APPENDIX D CONSULTATION RECORDS

D.1 TRANSPORT FOR NSW

Comments were provided by **TfNSW.** These are addressed in this Plan as set out below. The email chain confirming the correspondence is provided below.

| Key matters raised | Where these are addressed in this LP |
|---|--|
| Consideration with regards to locations of where planting is proposed so as not to impact on the road corridor. | Clarification we are not in road reserve but within the project site boundaries provided Table 6.1 and Appendix C.2; |
| | At least 5 m corridor dedicated to screening, between the property boundary and the perimeter fencing. |
| | No planting within the road reserve |
| | References to species that will not drop limbs that may pose a hazard to traffic provided in Appendix C.3: |
| | Minimise the use of large spreading trees that may impact road user safety through falling limbs or impeding sight lines. |
| A Road Occupancy License (ROL) is required in the event there are works commencing within three (3) metres of the travel lanes along the classified road network. It is noted there were no plans to undertaken landscaping within the road reserve. Should this change prior to the works being undertaken, the proponent is to contact TfNSW's Traffic Operations Coordinator on 1300 656 371 to determine if a ROL is required. | As above, no plans to plant within 3m of travel lanes. |
| Discussions pertaining to site access – ensure any current vegetation buffers are adequately maintained so as to offer a satisfactory level of screening of the project site and ancillary areas. Noted the approved landscape location shows two 50m long sections of perimeter planting adjacent to the access. If these are retained ensure Safe Intersection Sight Distance (SISD) is maintained in accordance with the <i>Austroads Guide to Road Design</i> . Consideration of plant species needs to account for these safety factors. | Appendix C.1 and Appendix C.3: Minimise the use of large spreading trees that may impact road user safety through falling limbs or impeding sight lines. Where planting is undertaken near access ways, location and species will be selected to ensure sight lines are not impeded. |
| Powerlines issues connecting to substation – consider if future vegetation maintenance by TransGrid will impact on our suggested plantings | No planting is proposed on the southern (substation) side of Goolma Road, see Appendix A.2. Plantings are low growing, Appendix C.3: Be either tall shrubs or small trees and will therefore be most effective screening views for motorists. |



| Not interested in onsite plantings for r1 and r8 – these are not relevant to the roads. | ΝΑ |
|--|--|
| Glare for motorists, NGH will address in design issues and by planting lower species that break up views for motorists. | Design measures included in Table 6.1 to reduce glare: Use non-reflective materials as much as possible. Pole mounts will be non-reflective. Security fencing posts and wire would be non- reflective; green or black rather than grey would reduce the industrial character of the fence. For built structures, use eucalypt green, beige or muted brown material colours. |
| Species list – ensure appropriate to trees in the corridor already so as not to create a safety hazard for motorists. | As above, no plans to plant within 3m of travel lanes. Plantings are low growing, Appendix C.3: Be either tall shrubs or small trees and will therefore be most effective screening views for motorists. |
| Don't plant species that will drop large limbs on the road once established, not massive gum trees that create collision hazard | As above. |
| Maintain existing planting in the road corridor. Keep our planting to project site – i.e. trees on boundary, then fence, then infrastructure | As above, no plantings in the road reserve but only within the project site boundaries provided Table 6.1 and Appendix C.2 and C.3; At least 5 m corridor dedicated to screening, between the property boundary and the perimeter fencing. No planting within the road reserve Minimise the use of large spreading trees that may impact road user safety through falling limbs or impeding sight lines. |

From: BRUEM Ainsley <ainsley.bruem@rms.nsw.gov.au>

Sent: Thursday, 7 March 2019 2:05 PM

To: Brooke Marshall <brooke.m@nghenvironmental.com.au>

Cc: Vitaly kolin <vitaly.k@nghenvironmental.com.au>; Development Western

<development.western@rms.nsw.gov.au>

Subject: RE: Landscape Plan Wellington Solar

Dear Brooke,

I can confirm that a teleconference took place on Tuesday 05 March with yourself to discuss the Wellington Solar Landscape 'Draft' Plan.

As discussed, RMS has a key interest in the following:

• Consideration with regards to locations of where planting is proposed so as not to impact on the road corridor.



- A Road Occupancy License (ROL) is required in the event there are works commencing within three (3) metres of the travel lanes along the classified road network. It is noted there were no plans to undertaken landscaping within the road reserve. Should this change prior to the works being undertaken, the proponent is to contact RMS's Traffic Operations Coordinator on 1300 656 371 to determine if a ROL is required.
- Discussions pertaining to site access ensure any current vegetation buffers are adequately
 maintained so as to offer a satisfactory level of screening of the project site and ancillary areas.
 Noted the approved landscape location shows two 50m long sections of perimeter planting
 adjacent to the access. If these are retained ensure Safe Intersection Sight Distance (SISD) is
 maintained in accordance with the *Austroads Guide to Road Design*. Consideration of plant
 species needs to account for these safety factors.
- Powerlines issues connecting to substation consider if future vegetation maintenance by TransGrid will impact on our suggested plantings
- Not interested in onsite plantings for r1 and r8 these are not relevant to the roads.
- Glare for motorists, NGH will address in design issues and by planting lower species that break up views for motorists.
- Species list ensure appropriate to trees in the corridor already so as not to create a safety hazard for motorists.
- Don't plant species that will drop large limbs on the road once established, not massive gum trees that create collision hazard
- Maintain existing planting in the road corridor. Keep our planting to project site i.e. trees on boundary, then fence, then infrastructure

As discussed, happy to look through final draft when completed.

Kind regards,

Ainsley Bruem

Acting Manager

Land Use Developments

Western Region | Regional Customer Services

Roads and Maritime Services Level 1 51 - 55 Currajong St Parkes NSW 2870

PO Box 334 Parkes NSW 2870

From: Brooke Marshall [mailto:brooke.m@nghenvironmental.com.au]
Sent: Wednesday, 6 March 2019 11:04 AM
To: BRUEM Ainsley
Cc: Vitaly kolin
Subject: Re: Landscape Plan Wellington Solar

Hi Ainsley

could you please confirm the text below is an accurate account of our conservation, or feel free to update with any additional comments as we finalise the landscape plan.

thanks again for your input

Cheers, Brooke



Ainsley Bruem (RMS) and Brooke Marshall (NGH)

High level discussion on working draft 05 03 2019

Matters discussed

- Key RMS interest is where planting is proposed or would impact on the road corridor
- Planting in road corridor not road occupancy license required if we are out of road corridor.
- Access for existing vegetation, maintain it in its current condition. Don't plant more as in time it
 may create a sight distance issue. Note the approved landscape location shows two 50m long
 sections of perimeter planting adjacent to the access. If these are retained, we need to state that
 its only where sight lines are not impeded. Consider type of plantings here for this purpose.
- Powerlines issues connecting to substation consider if future vegetation maintenance by TransGrid will impact on our suggested plantings
- Not interested in onsite plantings for r1 and r8 these are not relevant to the roads.
- Glare for motorists, NGH will address in design issues and by planting lower species that break up views for motorists
- Species list ensure appropriate to trees in the corridor already
- Don't plant species that will drop large limbs on the road once established, not massive gum trees that create collision hazard
- Maintain existing planting in the road corridor. Keep our planting to project site i.e. trees on boundary, then fence, then infrastructure

From: BRUEM Ainsley <<u>ainsley.bruem@rms.nsw.gov.au</u>>
Sent: Monday, 4 March 2019 11:32:25 AM
To: Brooke Marshall
Cc: Vitaly kolin; Sarah Hillis; Development Western
Subject: RE: Landscape Plan Wellington Solar

I will await the draft plan prior to our meeting tomorrow

Thank you

D.2 DUBBO REGIONAL COUNCIL

Comments in yellow where latest matters raised and are now addressed in V2 and subsequent versions of the LMP:

From: Lynton Auld
Sent: Wednesday, 3 April 2019 5:10 PM
To: 'sarah.h@nghenvironmental.com.au' <<u>sarah.h@nghenvironmental.com.au</u>>
Cc: Michael Chan <<u>michael.chan@dubbo.nsw.gov.au</u>>
Subject: Wellington Solar LMP

Hi Sarah,

Here are my comments to Brooke, and comments in black re how well these issues have been addressed;



Why have the species been deliberately chosen from the more arid western NSW suite of species rather than currently endemic spp such as those already on site? – Endemic spp have now been chosen, this is a conservative approach, I was quite excited to see what could have been a pro-active approach to Climate Change. There need to be planting numbers. This document should form the basis for contracting the planting tasks. Currently it couldn't perform that task.

Plant numbers now included in Appendix C.3 and show on better maps, Appendix A.2

 The mapping is not clear. This is a landscaping plan and needs to have a clear and accurate plan of the landscape areas. Can clear and accurate mapping of the planting areas be provided please? – This has been adequately addressed at the large scale originally offered. In the case of any part 4 or Part 5 development Council is assessing we would require a planting plan. The documentation is not specific in this regard, instead it's a generic discussion.

Stipulation is made for an experienced contractor to implement. In advance of EPC contractor and detailed design plans, we believe the level of detail is sufficient. This now includes better mapping and plant numbers.

2. 5m planting corridors are very tight. I can only assume 3 rows of plantings; these plants will be very competitive with each other once established. – Clarified, 2 rows of plantings, widely spaced. Again, we would normally expect to see a Planting Plan.

<mark>As above.</mark>

3. What are plans for irrigating the plantings? – This is unclear. There is a discussion in the LMP without recommendations. In order to meet the 3 year time frame irrigation will be necessary and should be required. In order to adequately address this water sources for irrigation must be identified and confirmed as adequate

No additional water sources are required than described in the EIS. While both options are retained more emphasis and detail is added for irrigation, Appendix C.4.2

There would be safety benefits for ongoing maintenance if irrigation was installed, limiting worker access from the road corridor to the plantings. Irrigation will also improve the success of the plantings, reducing replacement of mortalities.

Where irrigation is used, temporary polypipe, moveable water tanks and moveable pumps would be used to irrigate the plantings during establishment. This will allow more frequent lower intensity watering and have safety benefits for access, when compared to hand watering. No additional water sources or quantities are required.

4. What are plans for weed control? – Glyphosate is discussed as if it will only impact grasses and this is incorrect; "use only non-residual chemicals targeting grasses (i.e. Glyphosate)". Glyphosate is a broad spectrum herbicide. It will kill most plants. If Glyphosate is to be used directions must be given for its safe use, particularly near creek lines or waterbodies. Alternatively, a non-residual grass specific herbicide could be nominated, with its specific issues addressed. Safe working methods/PPE has not been addressed.

Weed control has been covered better by the Biodiversity Management Plan and I have now pulled the LMP in line with this using the same text (but also allowing mechanical chipping of weeds if more appropriate):

- Weed control will be undertaken in the sites proposed for each planting:
 - If mechanical, manually clear an area 1m buffer from the planting to minimise encroachment during establishment.
 - For more intensive infestations of weeds (in accordance with the project's Biodiversity Management Plan), the use of selective herbicides may be warranted to prevent seed set and promote weed control. The advice of an ecologist and agronomist will be sought to advise on the control of weed infestations. 10% non-native groundcover is the target requiring corrective action.



- Monitoring of weed infestations will occur as part of the routine environmental inspections to determine effectiveness of management controls. The presence of any weeds and the necessary management actions will be noted on the Environmental Inspection Checklist.
- Pesticide application will only be administered by authorised personnel wit ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.
- Pesticides will only be applied in accordance label instructions for that product.
- A Pesticide Application Record will be completed, and public notifications made in accordance with relevant legislation, where pesticides are to be used in areas that could be accessed by members of the public.
- Only pesticides registered for use near water may be used near any waterways.
- 5. What are plans/specs for planting procedures? I.e. is any fertiliser proposed? This has not been adequately addressed. Long stem tube stocks are discussed in passing, from the discussion Brooke and I had their use allows for the non-tillage planting style, and the water jets proposed for planting were specifically discussed in relation to long stem tube stock, utilising water spears for all tube stock would not be appropriate as they dig too deep a hole and the air spaces remaining would likely kill farm tube stock.

Section 5.1.1 states the site has Moderate fertility

Appendix C.4.1 states Water crystals and fertiliser (specific to native plants) would be used <u>unless long stem</u> tube stock are used.

Clarification is made around use of water spears in Appendix C.4.1:

Water spear / high pressure hose is recommended to drill hole for planting <u>if long stem tube stock is used</u>. These provide deep and soaking watering for establishment. <u>Holes will not be substantially deeper than the tube stock</u> used or else a cavity may result beneath the planting.

The process for monitoring is not addressed in this document, Appendix C (4.3) is inadequate. C.\$.3 does not address Monitoring at all. Maintenance begins to be discussed but this discussion is inadequate/inappropriate. Who will monitor, how often, how will they report and who to, what is the process if they observe an issue, how do they replace dead or damaged plantings, approval pathways? Etc. Maintenance activities are inadequately addressed. I.e. *"Weed control will be undertaken"* When? By whom? How? With what? This is a plan, it needs to be prescriptive, this is not a discussion it's a Plan. Don't offer choices, i.e. *"If chemical use..." "If mechanical, ..."*. And again, Glyphosate is not a grass specific herbicide. The Plan needs to be specific, detailed and prescriptive.

Monitoring will be by site environment officers / contractors as part of construction and operational monitoring. It is appropriate in Section 7 therefore to reference the Environmental Management Strategy, which set this out. Note, in advance of EPC contractor and detailed design plans and staffing, we believe the level of detail is sufficient. A copy of the EMS is also provided.

A general work schedule was provided as Appendix C.4.4 – no change. Actions regarding monitoring of plantings were included in Appendix C.4.5. This included actions, timing and responsibility but has been updated to include some additional detail below.

See Table Appendix C.4.5

From: Auld <Lynton.Auld@dubbo.nsw.gov.au> Lynton Sent: Wednesday, March 2:37 6 2019 PM To: Brooke Marshall

brooke.m@nghenvironmental.com.au> Subject: RE: SSD 8573 Wellington solar farm - landscaping plan

That looks good Brooke Cheers



Lynton Auld Environmental Planner Dubbo Regional Council P 02 6801 4626 F 02 6801 4259 E Lynton.Auld@dubbo.nsw.gov.au

Brooke Marshall Lynton Auld <Lynton.Auld@dubbo.nsw.gov.au>; Vitaly kolin Sent Items Many thanks for your time today Lynton. could you please confirm below covers our meeting and feel free to add to below, and we will endeavour to incorporate into the LMP. cheers, Brooke

Lynton Auld (Council) and Brooke Marshall (NGH) High level discussion on working draft 06 03 2019 Matters discussed

- Species selection: there are several shrub and small trees from the PCT that could be used to screen views for motorists. These may not be persisting onsite due to grazing but would be appropriate for the area
- Clear map set required showing areas of planting outside of the road reserve perimeter fence, rows for planting (2; one for pioneer species, one for longer lived slower growing species)
- 5m planting corridors are very tight. Width of planting will be difficult to create an effective screen, competing and running tall for the light.
- If 3 rows of plantings, these plants will be very competitive with each other once established. If only 2 rows, one for pioneers and one for longer lived species, this should be ok.
- What are plans for irrigating the plantings? Given access will be from road reserve (safety issue) may be more appropriate to install irrigation. This will save maintenance time for workers and improve success.
- Agree that planting in autumn is generally the best time but there is not use planting this autumn, given dry conditions, unless irrigation will be installed. The dry conditions may continue next autumn so meeting the consent condition of 'effective screening in 3 years may require irrigation.
- What are plans for weed control? More specificity required in the plan.
- What are planting procedures? I.e. is any fertiliser proposed? More specificity required in the plan.
- Suggestions: Use Long stem tube stock these have 12 months extra growth on them compared to regular tube stock. They are planted by stripping most of the leaves so the stem will establish roots. Best approach is to plant with a water spear / high pressure hose, to drill hole and saturates soil and root ball. Council is getting very high success rate with this approach. Long lead times will be required to source local plants so this should happen as soon as possible.

Matters for consideration in other plans:

- Using native species for rehab of exotic areas. The worst that can happen is it will revert to exotic but best case the natives will persist. They are likely to be more persistent in drought.
- Would be useful environmentally to continue planting along Wuuluman creek, not a requirement but would have benefits.
- Considering ground cover, even in exotic areas, new exotic species could become a problem if planted. Recommend natives as the precautionary / safer approach. Worst case, the same persistent exotics come back. Best case, natives get a foothold and reduce ingress issues.
- Hydro mulch with natives rather than rip and sow for less soil disturbance prior to pylons going in.
- If laydown areas are compacted, they will need ripping then hydro mulch.



• Ground cover management of the site – if grazing is to be used, may benefit from farming expertise to ensure that it's not overgrazed, com. What other methods will be used?



D.3 EXAMPLE MOIR PLANS AND MONTAGES

lightsource bp

Wellington NSW 2820

1 August 2019

Thank you for meeting with the Wellington Project Team on the 28th May 2019. Following those discussions, our landscape architect, Moir Landscape Architecture, has prepared a landscaping plan for proposed vegetation screening. Enclosed you will find an aerial image indicating where the vegetation is proposed to be planted, accompanied by photo simulations showing the view of the Project from your property once the vegetation has reached maturity.

We are interested in hearing your thoughts on the proposed planting. It would be greatly appreciated if you could please provide your feedback to the Project Team by the 12th August 2019 by contacting myself via email at <u>diana.mitchell@lightsourcebp.com</u> or directly by phone on 0409 601 473.

Kind regards

Diana Mitchell Principal Environmental Planner



Lightsource Development Services Australia PtyLtd, part of the Lightsource BP Renewable Energy Investments Limited group, is registered in Australia Company number 623 301 799 'CBW' Level 19 181 William Street Melbourne Vic 3000





Wellington Solar Farm Private Land Landscape Screening

Prepared for: Lightsource BP Project No: 1767 Issue: 02 Date: 31st July 2019



VP2 - MITIGATION





VP2 Viewpoint - Existing



VP2 Viewpoint - indicative visible solar farm areas



VP2 Viewpoint - indicative visible solar farm areas with proposed mitigation

D.4 RESIDENTIAL CONSULTATION SEPTEMBER 2019



lightsource bp

NSW 2820

19 September 2019

Dear Resident,

Lightsource BP is a global market leader in the funding, development and long-term management of large-scale solar projects. We are the owner of the Wellington Solar Farm (the Project), which is a 174 megawatt (MW) photovoltaic (PV) solar farm located approximately 2 km north-east of Wellington off Goolma Road. The Project received planning approval on 25 May 2018 and is due to commence construction in the near future.

As part of the Project we will be undertaking landscaping at a number of locations along the Project site's perimeter. Enclosed you will find an aerial image indicating where the landscaping is proposed to be planted, as well as detailed specifications for the perimeter planting.

As you are a neighbour of the Project, we are interested in hearing your thoughts on the proposed landscaping plan. It would be greatly appreciated if you could provide your feedback to the Project Team by Friday, September 27th. Please do so by contacting myself via email at <u>diana.mitchell@lightsourcebp.com</u> or directly by phone on 0409 601 473.

Regards

Diana Mitchell Principal Environmental Planner



Lightsource Development Services Australia Pty Ltd, part of the Lightsource BP Renewable Energy Investments Limited group, is registered in Australia Company number 623 301 799 'CBW' Level 19 181 William Street Melbourne Vic 3000



PERIMETER AND GROVE PLANTING LOCATIONS





Landscaping Plan Wellington Solar Farm

PERIMETER PLANTING SPECIFICATION

1 PLANTING STRATEGY

In all cases, the aim of the plant screening is to break up the views of infrastructure and not eliminate them. Relatively sparse plantings, rather than a formal 'hedge' effect, is considered more appropriate to the existing environment. Additionally, two areas where small groves could be established have been identified. These will provide a more natural structure to the vegetation; akin to small remnants.

In order to achieve effective screening within 3 years, this Strategy relies on:

- Planting would be undertaken by an experienced landscape contractor.
- Planting as soon as possible in the construction process.
- Use of quality seasoned tube stock / long stem tube stock.
- Maintenance (watering and protection from stock and other herbivores) during establishment.
- Inclusion of 'pioneer species'. The species list includes pioneer species that grow rapidly and will be replaced by slower growing longer lived species over time

In order to avoid adverse impacts on the adjacent road corridor, plantings will:

- Avoid species with large habits, where falling limbs or trunks may provide a hazard
- Where large species are used, this will be located further back from the road reserve
- Where planting is undertaken near access ways, location and species will be selected to
 ensure sight lines are not impeded.

2 PLANTING AREAS

Screen planting will be undertaken as shown in Appendix A.2.

Plantings will:

- Be located in 1-2 rows, 5 m in total width, for perimeter plantings, more in groves.
- Be planted approximately 20m apart, with the back and front row staggered
- Be located on the solar farm site, not within the road reserve
- Be located adjacent to perimeter fencing, allowing sufficient space for plants to mature.

3 PLANT SELECTION AND PLANT NUMBERS

Plantings will:

- Be native species known to be associated with either PCT 266 or 277 (which occur on the adjacent solar farm site)
- Be either tall shrubs or small trees and will therefore be most effective screening views for motorists.
- Be mixed and offset to produce a heterogeneous mix of plantings.
- Minimise the use of large spreading trees that may impact road user safety through falling limbs or impeding sight lines.
- Provide a successional planting strategy whereby:
 - \circ $\;$ Fast growing pioneer species are planted in the first row (closest the road)

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- Slower growing species are planted in the second row
- Pioneer species are replaced by the slower growing species either as they senesce or as the slower growing species become effective in screening infrastructure
- Plantings won't be more than 25m apart
- Shrubs, such as wattles would be planted in between larger trees to create a natural look to the screen.
- Long stem tube stock would be sourced from locally collected endemic seed where feasible (using a local nursery).
- 10% of the species will be from larger pots, where available.

Species list and appropriate abundance guidance

| Species and mature height | Known from PCT | Approximate abundance | | |
|---|----------------|--|--|--|
| Back row | | | | |
| Eucalyptus polyanthamus (10-20m) | 277 | Not more than 10% | | |
| <i>Brachychiton populneus</i> supbsp. Populneus (to 20m high, slow growing) | 266 | Not more than 10% | | |
| Callitris glaucophylla (10-20m, not often propagated but good windbreak and screen) | 277 | Not more than 40% | | |
| Acacia dealbata (1.5-10m, coloniser) | 277 | Heterogenous mix of these | | |
| Acacia implexa (5-12m, colonising) | 266 | species or front row species | | |
| Bursaria spinosa subsp. Spinosa (to 10m, coloniser) | 266 | Not more than 10% | | |
| Front row (closest to road) | | | | |
| Acacia decora (1-4m high, colonising) | 266 | Heterogenous mix of at least 3 of these species | | |
| Acacia deanei subsp. Paucijuga (2-4m, colonising) | 266 | | | |
| Acacia genistifolia (1-3m, colonising, probably not great screening) | 266 | | | |
| Acacia penninervis var. penninervis (up to 8m, coloniser) | 266 | | | |
| Acacia buxifolia subsp buxifolia (1-4m, coloniser) | 266 | | | |
| Acacia paradoxa (1-4m high, coloniser) | 266 | | | |
| Dodonea viscosa subsp cuneata (1 to 3m, possible coloniser) | 266 | | | |
| Cassinia aculeata (1 - 2.6m, coloniser) | 266 | | | |



Landscaping Plan Wellington Solar Farm

Plant numbers

| Location | Approximate number of individuals |
|----------|-----------------------------------|
| Area 1 | 48 |
| Area 2 | 18 |
| Area 3 | 240 |
| Area 4 | 15 |
| Area 5 | 12 |
| Total | 333 |

Based on the Appendix A.2 locations of planting, the following plant numbers will be required.

4 PLANTING METHODS

4.1 Establishment

- Planting would be undertaken by an experienced landscape contractor.
- Planting would be undertaken as soon as practical in the construction process, as it will take time for the plants to establish and become effective as a screen.
- Tube stock should be sourced as early as possible, refer to C.4.2 below.
- Ripping and soil amelioration is not proposed (as appropriate to the soil conditions set out in Section 5.1.1).
- Weed control will be undertaken in the sites proposed for each planting:
 - If mechanical, manually clear an area 1m buffer from the planting to minimise encroachment during establishment.
 - For more intensive infestations of weeds (in accordance with the project's Biodiversity Management Plan), the use of selective herbicides may be warranted to prevent seed set and promote weed control. The advice of an ecologist and agronomist will be sought to advise on the control of weed infestations. 10% non-native groundcover is the target requiring corrective action.
 - Monitoring of weed infestations will occur as part of the routine environmental inspections to determine effectiveness of management controls. The presence of any weeds and the necessary management actions will be noted on the Environmental Inspection Checklist.
 - Pesticide application will only be administered by authorised personnel wit ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.
 - o Pesticides will only be applied in accordance label instructions for that product.
 - A Pesticide Application Record will be completed and public notifications made in accordance with relevant legislation, where pesticides are to be used in areas that could be accessed by members of the public.
 - o Only pesticides registered for use near water may be used near any waterways.



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- Water spear / high pressure hose is recommended to drill hole for planting if long stem tube stock is used. These provide deep and soaking watering for establishment. Holes will not be substantially deeper than the tube stock used or else a cavity may result beneath the planting.
- Water crystals and fertiliser (specific to native plants) would be used unless long stem tube stock are used.
- Tree guards will be used to protect plants (creating a microclimate to reduce water loss and making follow up maintenance easier).

4.2 Planting timing and need for irrigation

Planting would occur in autumn *following sufficient rainfall*. While planting in autumn is generally the best time, there would be no use planting this autumn (2019), given dry conditions, unless irrigation will be installed or weekly hand watering is undertaken. The dry conditions may continue next autumn so meeting the consent condition of 'effective screening in 3 years' may require irrigation or use of larger plants.

There would be safety benefits for ongoing maintenance if irrigation was installed, limiting worker access from the road corridor to the plantings. Irrigation will also improve the success of the plantings, reducing replacement of mortalities.

Where irrigation is used, temporary polypipe, moveable water tanks and moveable pumps would be used to irrigate the plantings during establishment. This will allow more frequent lower intensity watering and have safety benefits for access, when compared to hand watering. No additional water sources or quantities are required.

4.3 Planting monitoring and maintenance

- Weed control will be undertaken around plantings, as required to ensure they are not outcompeted by surrounding vegetation:
 - If mechanical, manually clear an area 1m buffer from the planting to minimise encroachment during establishment.
 - For more intensive infestations of weeds (in accordance with the project's Biodiversity Management Plan), the use of selective herbicides may be warranted to prevent seed set and promote weed control. The advice of an ecologist and agronomist will be sought to advise on the control of weed infestations. 10% non-native groundcover is the target requiring corrective action.
 - Monitoring of weed infestations will occur as part of the routine environmental inspections to determine effectiveness of management controls. The presence of any weeds and the necessary management actions will be noted on the Environmental Inspection Checklist.
 - Pesticide application will only be administered by authorised personnel wit ChemCert accreditation – AQF 3 in accordance with SafeWork requirements.
 - \circ ~ Pesticides will only be applied in accordance label instructions for that product.
 - A Pesticide Application Record will be completed and public notifications made in accordance with relevant legislation, where pesticides are to be used in areas that could be accessed by members of the public.
 - Only pesticides registered for use near water may be used near any waterways.
- Replace tree guards as required, and remove once plants have outgrown them.
- Replace dead plants to achieve an overall 90% success rate for the life of the Project.



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4.4 Works schedule

This schedule of work guides the timing and outcomes of landscaping work. This table will be modified based on alterations to Project phases and climatic conditions.

| Project Phase | Landscaping Work | Preferred Season | Performance Target | Measure and Monitor | Variation |
|-------------------------------------|---|--|--|---|--|
| Preconstruction | Source / order tube stock | As soon as possible, noting the planting timing predicted | Sufficient numbers ordered | Check in to ensure order is on track | - |
| Construction | Weed control (herbicide) and mulch | End of summer | 1m buffer around planting sites targeted | Grass cover dead by autumn | Second control session if required |
| Construction | Plant tube stock | Autumn after rainfall | Sufficient numbers planted | Climatic conditions, area covered, watering, ensure the plant location and spacing are aligned with the planting schedule above. | Install irrigation or hand water |
| Construction | Maintain plantings (watering, follow up weed control) | Fortnightly for first 8 months, then reduced as required | Plants alive | Mortality and soil moisture | Reduce watering if heavy rain fall or irrigated |
| Construction and life of Project | Replace dead plants | As required (note as substantial lead time is required, order surplus quantities) | 90% success | Mortality and soil moisture | - |

4.5 Planting monitoring program

| Monitor | Establishment (first 12 months after planting) | | | Two years post planting | | | Three years' post construction | | | Six years post construction to decommissioning | | |
|----------|--|--|--|-------------------------|---|---|--------------------------------|---|---|---|---|--|
| | Timing | Action | Responsibility | Timing | Action | Responsib ility | Timing | Action | Responsi bility | Timing | Action | Responsibi lity |
| Watering | Weekly | Regular hand weekly watering where <30mm of rain has occurred in that month, unless irrigated | EPC Contractor – landscape / maintenance contractor | Weekly | Water when rainfall less than 10mm/month unless irrigated | Operator landscape / maintena nce contractor | Monthl Y | Water when rainfall less than 10mm/month | Operator landscape / maintena nce contracto r | Monthly | Water when rainfall less than 10mm/mont h | Operator – – landscape / maintenan ce contractor |
| | Weekly | For sections with temporary irrigation, check all drippers operational and water once per week | EPC Contractor – landscape / maintenance contractor | Monthly | For sections with temporary irrigation, check all drippers operational and water once per month | Operator landscape / maintena nce contractor | Monthl y | For sections with temporary irrigation, check all drippers operational and water once per month | Operator landscape / maintena nce contracto r | Remove drippers once established. | | |
| Weeds | Monthly | Spot spray or manually remove weeds within 1.5 m of planting | EPC Contractor – landscape / maintenance contractor | Monthly | Spot spray or manually remove weeds within 1.5 m of planting | Operator - landscape / maintena nce contractor | Quarter ly | Spot spray or manually remove weeds within 1.5 m of planting | Operator landscape / maintena nce contracto r | Every six months | Spot spray or manually remove weeds within 1.5 m of planting | Operator – – landscape / maintenan ce contractor |

Landscaping Plan Wellington Solar Farm

| Mortality | Monthly | Supplementary planting to occur in areas where plantings have died (not to occur during summer) to achieve a 90% success rate. | EPC Contractor – landscape / maintenance contractor | Quarterl Y | Supplementary planting to occur in areas where plantings have failed to effectively screen views (not in summer) | Operator landscape / maintena nce contractor | Annuall y in summe r | Supplementary planting to occur in areas where plantings have failed to effectively screen views (not to occur during summer) | Operator landscape / maintena nce contracto r | Annually in summer | Supplement ary planting to occur in areas where plantings have failed to effectively screen views (not to occur during summer) | Operator – – landscape / maintenan ce contractor |
|-----------|---------|---|--|---------------|---|---|-------------------------------|--|---|--------------------------|---|--|
| Reporting | Monthly | Report on success of watering, weeding, mortalities, supplementary. Suggest changes as required | EPC Contractor – landscape / maintenance contractor | Quarterl y | Report on success of watering, weeding, mortalities, supplementary Suggest changes as required | Operator landscape / maintena nce contractor | Annuall Y | Report on success of watering, weeding, mortalities, supplementary. Suggest changes as required | Operator landscape / maintena nce contracto r | Annually | Report on success of watering, weeding, mortalities, supplement ary. Suggest changes as required | Operator – – landscape / maintenan ce contractor |

D.5 DPIE LP APPROVAL LETTER



 Planning and Assessment

 Energy and Resources

 Contact:
 Tatsiana Bandaruk

 Tel:
 0282751349

 Email:
 tatsiana.bandaruk@planning.nsw.gov.au

Ms Diana Mitchell Principal Environmental Planner Light Source BP Level 5 383 George Street, Sydney New South Wales 2000

Email: diana.mitchell@lightsourcebp.com

Dear Ms Mitchell

Wellington Solar Project (SSD 8573) – Landscaping Plan

I refer to your email dated 1 October 2019 asking the Secretary for approval of the *Wellington Solar Farm Landscaping Plan* (Version 2.3, dated 30 September 2019).

The Department has carefully reviewed the plan and notes that you have consulted with RMS, Council and surrounding landowners.

The Department is satisfied that the plan addresses the applicable requirements of condition 8, Schedule 3 of the Wellington Solar Project development consent (SSD 8573).

Accordingly, the Secretary has approved the *Wellington Solar Farm Landscaping Plan* (Version 2.3, dated 30 September 2019).

Please ensure that the approved document is placed on your website as soon as possible.

If you require further information, please contact Tatsiana Bandaruk on 02 8275 1349 or by email at tatsiana.bandaruk@planning.nsw.gov.au.

Yours sincerely 2.10.19

Paul Freeman A/Director Resource Assessments as nominee of the Secretary

Department of Planning, industry and Environment 320 Pitt Street Sydney 2000 | GPO Box 39 Sydney 2001 | planning.nsw.gov.au



APPENDIX E LANDSCAPING PLAN APPROVAL LETTER





Mrs Diana Mitchell Principal Environmental Planner Lightsource Development Services Australia Pty Ltd Level 10, 420 George Street Sydney NSW 2000

24/08/2020

Dear Diana

Wellington Solar Farm (SSD 8573) Landscaping Plan

I refer to the Landscaping Plan submitted in accordance with Condition 8 of Schedule 3 of the Development Consent for the Wellington Solar Farm (SSD8573).

The Department notes that the plan has been updated since it was last approved to incorporate changes resulting from modification 2.

The Department has carefully reviewed the document and is satisfied that it addresses the conditions of consent.

Accordingly, the Planning Secretary has approved the Landscaping Plan (Revision 2.8, dated 10 August 2020). Please ensure that the approved plan is placed on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Wayne Jones on 02 6575 3406.

Yours sincerely

Nicole Brewer Director Energy Assessments

As nominee of the Planning Secretary