Land Management Plan
Gunnedah Solar Farm



Prepared for: Gunnedah Solar Farm Pty Ltd.

Client representative: Robert Ibrahim

Date: 9 April 2018
Rev 01

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1. Cover Note

This Draft Land Management Plan (LMP) is a supporting document to the Gunnedah Solar Farm Environmental Impact Statement (EIS), 2018 and should be read in conjunction with the EIS and specialist reports provided as part of the EIS. The following EIS chapters and associated specialist reports have informed the preparation of this LMP to determine what constitutes appropriate environmental practices:

- *Biodiversity (including Flora Impact Assessment Report and Fauna Impact Assessment)*
- *Bushfire Risk (including Bushfire Management Plan)*
- *Heritage (including Archaeological report)*
- *Soils, Geology and Contamination*
- *Surface water, Hydrology and Groundwater (Including Flood Impact Assessment).*

This Draft LMP provides a framework for the preparation of a Final LMP for the Gunnedah Solar Farm pending approval of the Proposal and receipt of conditions of consent. The Draft LMP contains an indication of the minimum management measures proposed and the overarching methodology for management of land during operation as a Solar Farm. Additional information, management measures and standard reports/forms for monitoring are still to be included.

The Final LMP will form part of the Operational Environmental Management Plan (OEMP) prepared for the Gunnedah Solar Farm.

Further detail including site specific management measures, monitoring programs and reporting will be included in conjunction with development of the OEMP for the Gunnedah Solar Farm. It should be noted this plan only covers the operations of the Solar Farm.

Land management techniques during construction will be developed through the Construction Environmental Management Plan (CEMP).

2. Introduction

2.1 Purpose

The primary function of the Gunnedah Solar Farm LMP is to develop a framework for the ongoing management of land, water and vegetation on the property. This requires documenting the existing conditions and use of the property, and providing a methodology for key land management activities such as the maintenance of groundcover vegetation and soil health.

Pursuant to the Minister's approval, this LMP must be submitted for the approval of the Director-General prior to the commencement of Operation of the project, or within such period as otherwise agreed by the Director General.

Operation of the Gunnedah Solar Farm, as defined under the Minister's Conditions of Approval (CoA) will be written in the conditions of approval, if the application is successful.

It should be noted the LMP will be revised if / after the Conditions of Approval from Department of Planning and Environment are obtained. The LMP will be appended to the Operational Environmental Management Plan (OEMP). All environmental management activities specified in this LMP (refer Section 5.2) must be undertaken in a manner that is fully compliant with the OEMP (to be developed following approval of the Proposal) and Health and Safety Management Plan for the Gunnedah Solar Farm.

2.2 The Proposal

The Gunnedah Solar Farm ("the Proposal") would comprise of the construction and operation of a solar farm with an upper capacity of 150 MW supplied to the National Electricity Market (NEM). The power generated would be transmitted via TransGrid overhead powerline to the existing Gunnedah substation.

The Proposed site is located at 765 Orange Grove Road, Gunnedah and the solar farm footprint is contained within parts of Lot 1 DP 1202625, Lot 153 DP 754954, Lot 264 DP 754954, Lot 2 DP 801762, Lot 151 DP 754954 and Lot 1 DP 186590 (the "Subject Land"). The Proposal is located within the Gunnedah Local Government Area (LGA) and is approximately 9km north-east from the Gunnedah town centre (Figure 1).

Construction of the Proposal is detailed within the EIS and subsequent Construction Environmental Management Plan (CEMP) to be prepared following approval of the Proposal.

Once operational, activities would include daily operations and maintenance for a period of 25 years including:

- Remote 24/7 on-line monitoring
- Scheduled visual inspections and general maintenance
- Repair and cleaning operations of the PV arrays (as required)
- Replacement of equipment and infrastructure (as required)
- Land management monitoring and activities including
  - Management of sheep
  - Maintenance of groundcover vegetation
  - Weed control
  - Erosion and Sediment control
  - Pest and vermin control.

The site will be monitored for site security including 24hr response should a security event occur.

Daily operations and maintenance by site staff would be undertaken during standard working hours of:

- Monday – Friday 7am to 6pm
- Saturday 8am to 1pm.

Emergency response, inspections and maintenance activities may be required to be undertaken out of hours or at night however these would be minimised where practicable.

During the operational phase of the proposal, it is anticipated there would be six to ten staff located onsite and in Sydney. Minimal operational plant and equipment will be required for operation of the facility including ad hoc maintenance vehicles (Utility Vehicle Mazda BT-50 or similar) and other equipment associated with the activities outlined above.

There would some occasions, such as during a major substation shutdown, that additional maintenance staff may be required on site. During operation of the solar farm, water would be required for stock watering and vegetation management which would be supplied from existing on-site dams and irrigation systems. Emergency firefighting water would be stored in a tank (approx. 50,000L) located adjacent to the maintenance storage containers.

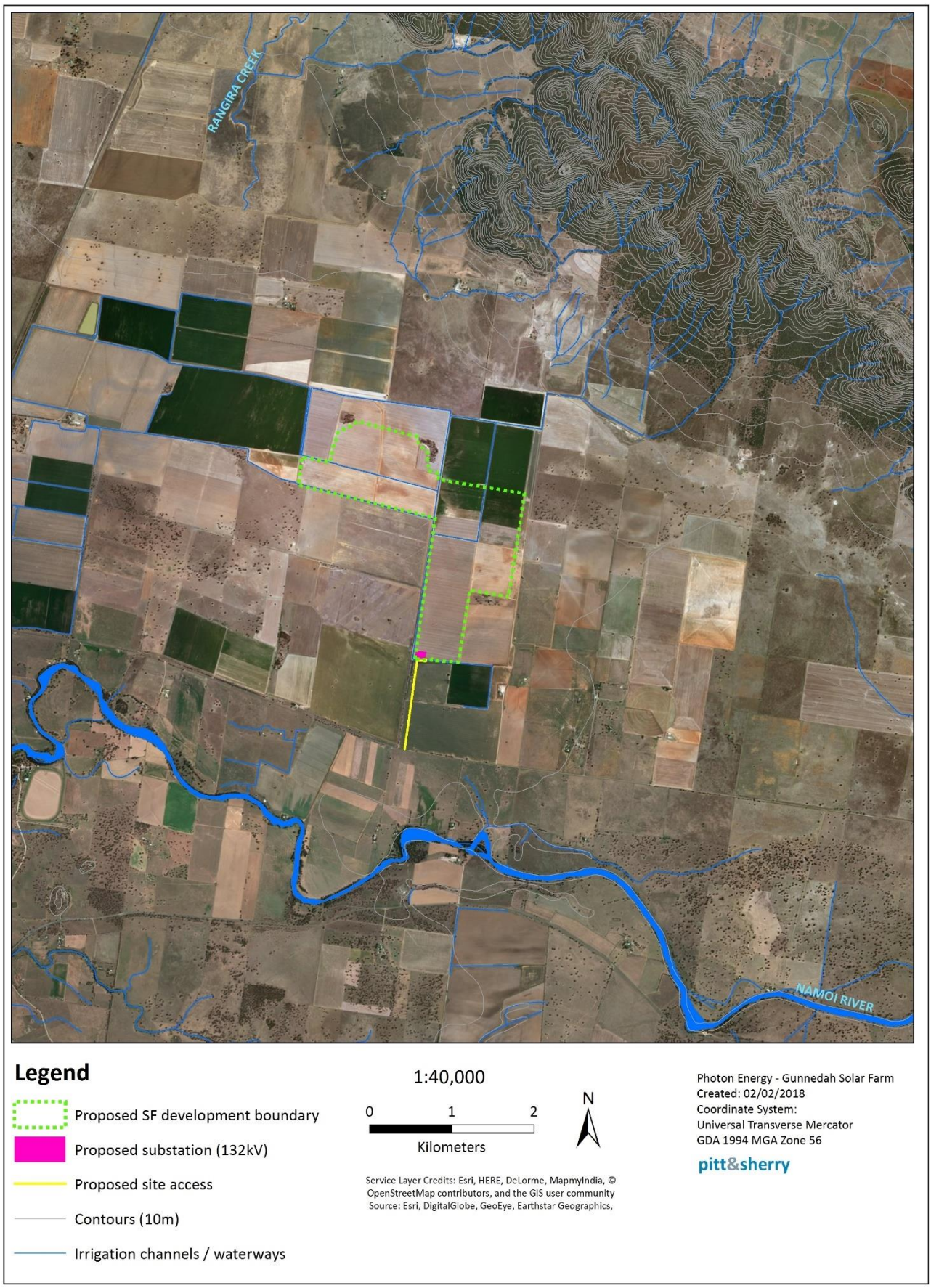

Figure 1 Proposed site layout of Gunnedah Solar farm

2.2.1 Existing Operations

The Subject Land is currently used for the production of agricultural crops, utilising both dryland and irrigation techniques. The property has been irrigated for over 10 years with a series of irrigation channels providing water to each paddock, where individual paddocks have been levelled to allow for the flow of water. The property is serviced by a network of access roads which are located along the edges of the irrigation channels and the outer perimeter of each cropping bay.

Dryland wheat and other cereal crops are grown on the property, along with irrigated cotton and chickpeas. Prior to the establishment of the property for irrigation, it was used for beef cattle grazing. To facilitate irrigation of the property bores have been established. Two large off stream water storages totalling 700 megalitres have also been constructed on the northern end of the property.

As stock are not currently located on the property, it is fenced around the external boundary with the only internal fencing being around the sheds and landowner's residence (currently under construction).

2.2.2 Existing Site Conditions

The Site and surrounding land is cleared agricultural land which has historically been used for grazing agriculture and is currently used for cropping agriculture. It is located on a floodplain and as such has a very flat topography. Highpoints in the area include the Kelvin Hills located 1.9km to the north of the Site and nearby water courses include the Namoi River which is located approximately 900m south of the Site with no other defined water courses in the general locality.

The vegetation and soils of the Site have been significantly disturbed by construction of roads, farming activities (landform changes), and construction of rural infrastructure including residential dwellings, sheds and silos.

Vegetation

The Site is largely devoid of native vegetation with only small, isolated stands of remnant vegetation recorded as identified in Figure 2.
Target weeds recorded in the vicinity include African Boxthorn (*Lycium ferocissimum*) which has already been identified on the site under current agricultural conditions and is subject to ongoing treatment to remove it from the site.

A total of 2 native vegetation communities were recorded on the Site, these being:

1. River Red Gum (*Eucalyptus camaldulensis*) – Yellow Box (*Eucalyptus melliodora*) Dry Sclerophyll Woodland/Open Woodland; and
2. Bimble Box (*Eucalyptus populnea* subsp. *bimbil*) Dry Sclerophyll Open Woodland.

Further details on the occurrence, condition and structure of these communities is detailed in Appendix E of the EIS.

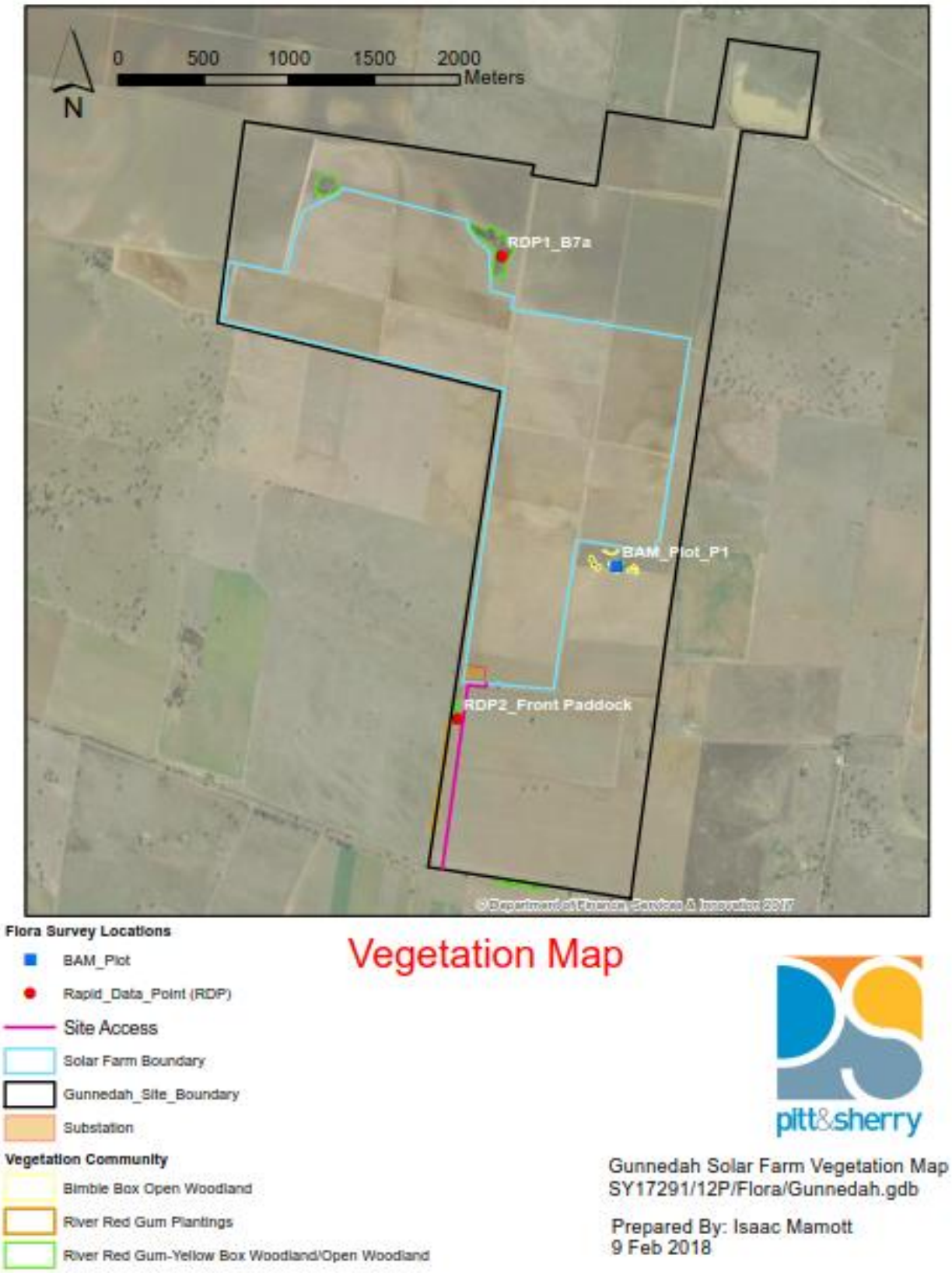

Figure 2 Vegetation Map - Existing Conditions

Soils

The soils of the area are quite deep and relatively fertile at present, however, baseline testing from six test plots indicate that soil structure is being depleted most likely through the regular cultivation activities currently occurring on site.

Chemical analysis is showing that some of the soils are trending to being slightly acidic as shown by the pH and this can be easily rectified with the application of an ameliorant such as lime. The soil tests also show that the existing soils can be prone to hard setting when left unvegetated and this has implications for managing surface water runoff and reducing the incidence of sheet erosion.

See Appendix L of the EIS for further details including soil sampling results.

Weather

To assist with establishment of improved pastures and management of the site generally, weather data has will be reviewed to determine suitable pasture species.

Generally in Gunnedah, January is the hottest month while July is the coldest. Median rainfall is summer dominant with the highest totals in December, and lowest in Aptril. The long term median annual average rainfall is 620 mm.

The varying temperature and rainfall conditions in the area can have a significant impact on summer growing species. It is therefore very important that any pasture established would have a mix of both summer and winter growing species.

3. Land Management

3.1 Structure and Responsibility

The LMP will form part of the OEMP compiled to ensure ongoing environmental management during operation of the Gunnedah Solar Farm.

The carriage and use of this plan will be the responsibility of Gunnedah Solar Farm Pty Ltd. (GSF) and the onsite management representative, whether it be a GSF employee or contractor.

3.1.1 Property Owner

The land required for the solar farm will be contained within part of: Lot 1 DP 186590; Lot 1 DP 1202625; Lot 153 DP 754954; Lot 264 DP 754954; Lot 2 DP 801762; and Lot 151 DP 754954.

The land is privately owned and would be subject to a lease agreement between Photon Energy AUS (which is a part owner of GSF) and the landowner.

3.1.2 Lessee

The lessee of the proposed solar footprint would be Photon Energy AUS.

3.1.3 Electricity Infrastructure Owner

TransGrid operates and manages a large portion of the major high voltage electricity transmission network in NSW and the ACT, connecting power generators, distributors and major end users.

Their core role is to connect electricity consumers to a safe, secure and reliable network through efficient maintenance and effective operation and management of electricity supply assets.

The Gunnedah Solar Farm will connect into the existing TransGrid 132 kV network which is located in close proximity to the site.

3.1.4 Contractors

Details of the contractor will be included when they are available.

4. Approvals and Licensing

Compliance with all relevant approvals and licences will be addressed in the OEMP. Table 3 provides a list of the key legal instruments relevant to the requirements of the LMP.

Table 2 Legislation reference for requirements of the LMP

Legal Instrument	Reference to LMP
Environmental Planning and Assessment Act 1979	Compliance with Conditions of Approval
Protection of the Environment Operations Act 1997	No pollution of waters. Reporting environmental harm.
Waste Avoidance and Resource Recovery Act 2001	Appropriate disposal of waste to a lawful facility
Noxious Weeds Act 1993	Treatment of noxious weeds
Rural Fires Act 1997	Compliance with Rural Fire Service directives

4.1.1 Conditions of Approval

Will be furnished once specific conditions have been assigned to project.

4.1.2 Agreements

Any agreements made with respect to land management will be detailed here.

5. Implementation

5.1 Risk Assessment

Potential impacts on the environment from the Gunnedah Solar Farm have been identified through consideration of the operations to be undertaken on site. This includes risks identified in Chapter 6 of the Gunnedah Solar Farm EIS. Risks were identified by environmental specialists and stakeholders (neighbours, local community and government agencies) during the approvals process.

Potential impacts from some of these risks can be managed through the implementation of this LMP.

Potential risks identified from the operation of the Gunnedah Solar farm associated with Land Management practices and addressed by this LMP are outlined below:

- Change in land use from cropping to grazing and non- agricultural use of land. See Section 5.2.1
- Maintenance of adequate and suitable groundcover (e.g. pasture for grazing). See Section 5.2.2
- Management of fuel loads and potential for bushfires. See Section 5.2.3
- Weed and feral animal management. See Section 5.2.4
- Disturbance to soil and generation of dust. See Section 5.2.5.

Other operational risks identified in the EIS would be addressed in the OEMP including incident response and management.

5.2 Management Activities and Controls

This section of the LMP details the environmental management activities, mitigation and control measures that will be used to prevent or minimise environmental risks and impacts associated with management of the land.

5.2.1 Grazing Management

Objective

Grazing objectives to be determined including continuing agricultural use and vegetation management.

Grazing Management Plan

A grazing management plan will be developed in consultation with the landowner and included as part of this LMP prior to commencement of operation. Strategic internal electric fencing and watering points would also need to be established to assist with management of grazing live stock.

This would include details of the grazing regime (i.e. when sheep arrived, head numbers and when they were taken off the site) or the date of mechanical slashing and the location of the activity carried out.

5.2.2 Vegetation Management

Objective

Establish and maintain a minimum of 80% groundcover with minimal weed incursion over the Solar Farm footprint that does not create or increase a fuel hazard and minimises the potential for erosion and sediment laden runoff.

Management of vegetation on site will be undertaken to maintain groundcover rather than agricultural production. If the seasonal factors lead to a drop in vegetative cover, the need for fuel load reduction would not be needed and stock grazing would be managed accordingly.

A baseline of site conditions will be recorded prior to construction and again prior to operation as well as regularly throughout operation of the Proposal in accordance with Section 6. The following characteristics will be recorded:

- vegetation type
- groundcover type
- percent groundcover
- weed and noxious weed occurrence
- fire hazard
- feral animal presence.

Establish and Maintain Groundcover

Following disturbance from construction or other activities, improved grasses and legumes are to be established from the list of species outlined in Table 3 List of suitable groundcover species.

Pastures would be established to provide competition to reduce the potential for weed propagation. Well managed pasture is a cost-effective alternative to slashing and using herbicides for weed control management. Apart from the improved grasses suggested below, there would have been some useful native grass and legume species existing prior to them being cultivated out. Over time, some of these may recruit from seedbanks along roadsides and nearby forested areas.

All areas where the cells are to be erected have to be established with an improved perennial grass stand of summer and winter active species with a legume component for nitrogen supply. The native vegetation areas would be managed with grazing to control excessive vegetation growth and weeds. Ideally this would be maintained at a height of 10 to 15 cm high. These areas could also serve as a sacrifice paddock if conditions became dry to ensure the perennial pastures were maintained in the cell areas. If dry conditions persisted, then stock numbers would have to be reduced to ensure groundcover was maintained to prevent water and wind erosion over the site.

A list of pasture species is provided in Table 3, but some suggestions are grasses suited to a 600-mm rainfall zone with a summer dominance. Suitable grasses are cocksfoot, fescue, phalaris and yellow seeded Yanninicum and Brachycalycinum type sub clovers suited to heavier self-mulching soils and white clover. Suitable lucerne species could be sown in the pasture mix.

Summer growing species to be considered in the mix would be Bambatsi panic grass, Bluegrass and Rhodes grass. The exact pasture species and sowing rates change periodically so up to date advice could be obtained from the local DPI or local agronomists.

When establishing pasture observe many of the common recommendations such as:

- killing out all existing plants and weeds before sowing,
- application of appropriate fertilisers or ameliorants such as lime determined from the soil tests,
- Sow into a warm soil >12 degrees Celsius,
- Sow seed into a firm seed bed no deeper than 15 mm
- Insects controlled and monitored
- Apply nitrogen fertiliser 2 to 3 times in the first six months

- Weeds are monitored and sprayed early if identified
- No grazing until the plants are firmly rooted and higher than 15 cm.
- Avoid a first grazing in wet paddocks to prevent puffing and destroying young plants.

There are seed treatments available from seed companies such SowEast KickStart which has appropriate legume inoculation with a polymer insecticide which enhances the emergence of pastures.

Table 3 List of suitable groundcover species

Temperate Grass Species	Temperate Legume Species	Tropical Grass Species	Tropical Legume Species
• Phalaris (Phalaris aquatica) • Cocksfoot (Dactylis glomerata) • Fescue (Festuca arundinacea)	• Lucerne (Medicago sativa) • Snail medic (Medicago scutellata) • Barrel medic (Medicago truncatula) • Sub clover (Trifolium subterraneum) • Rose clover (Trifolium hirtum) • Serradella (Ornithopus spp.) • Biserrula (Biserrula pelecinus) • Disc/Strand hybrid medic (Medicago tornata/ littoralis) • Gland clover (Trifolium glanduferum) • Sulla (Hedysarum coronarium) • Purple clover (Trifolium purpureum)	• Panic (Panicum spp.) • Setaria (Setaria incrassata) • Rhodes (Chloris gayana) • Digit (Digitaria eriantha) • Buffel (Cenchrus ciliaris) • Bluegrass (Bothriochloa spp.)	• Annual lablab (Lablab purpureum) • Perennial lablab (Lablab purpureum) • Atro siratro (Macroptilium atropurpureum) • Burgundy bean (Macroptilium bracteatum) • Cowpea (Vigna unguiculata) • Butterfly pea (Clitoria ternata) • Desmanthus (Desmanthus virgatus)

Management of grazing will focus on ensuring 80% groundcover in accordance with Section 5.2.1 including adapting the frequency, duration and intensity of grazing, and the timing of any mechanical slashing, to suit the prevailing seasonal conditions.

Monitoring

The following will be regularly monitored by the Site Manager in accordance with a Vegetation Monitoring Form (to be prepared):

- The health and overall percentage of ground cover across the entire site will be monitored regularly and monitoring would be an ongoing activity and duty of personnel working on the Solar Farm
- Regular inspection across the site following intense rainfall events to check that drainage is stable and localised scouring hot-spots are not appearing
- Maintain buffers from existing vegetation surrounding the Site during operational activities.

With good grazing management to maintain 70% groundcover and pasture growth at around 10 cm, the issues of bare ground and hard setting topsoil should not be an issue. The monitoring will be based on assessing ground cover and height within the grazing rotation. The issues of hard setting topsoil will be significantly reduced with groundcover and the return of organic matter for improving soil organic matter. Additionally, there may be some self-mulching at the soil surface over time.

If groundcover gets below 50% in the cell area all stock should be removed and placed on the native grass paddocks as sacrifice areas. In fact, as the native grass areas will need grazing over time to control vegetation height they can be included in the grazing rotation plan. If all areas have groundcover less than 50% then all stock will have to be removed from the solar farm area to another area of the farm or be moved to another property.

Records

When vegetation management procedures are undertaken the Site Manager would record details of the activity undertaken.

Indicators of groundcover conditions in these inspections would include:

- Percentage ground cover and fuel load
- Presence of noxious weeds
- Vegetation health
- Areas devoid of groundcover
- Signs of localised erosion.

These parameters are listed on a Schedule which will form part of the ongoing monitoring program and record keeping for the operation which are listed in Section 5.5.

5.2.3 Bushfire Management

Objective

Manage and maintain the Gunnedah Solar Farm to reduce the risk of a fire originating from the Site, and/or ensure the Site does not intensify an approaching bushfire due to excessive fuel loads on the Site.

Management Measures

- A minimum 15m wide mineral earth Asset Protection Zone (APZ), will be constructed and appropriately maintained around the perimeter of the Site as per Figure 3
- A permanent water tank for storing firefighting water is to be located on Site (50,000L) near the entrance to the Solar Farm. An indicative location is identified in Figure 3
- Fuel loads will be managed by grazing, slashing or mowing as detailed in Section 5.2.2

- No operational activities with the risk of grass fire ignitions will be undertaken on site while the Grassland Fire Danger Index (GFDI) is or forecast to be 35 or greater
- An Emergency Response Plan (ERP) will be prepared as part of the OEMP in accordance with the requirements outlined in Appendix K of the EIS
- Consultation with Gunnedah Local Emergency Management Committee shall be undertaken prior to the commencement of operation and ongoing as required
- Regular briefing shall be provided to local volunteer fire fighters and neighbouring farmers at pre-season fire meetings on safety issues and procedures associated with the Gunnedah Solar Farm.

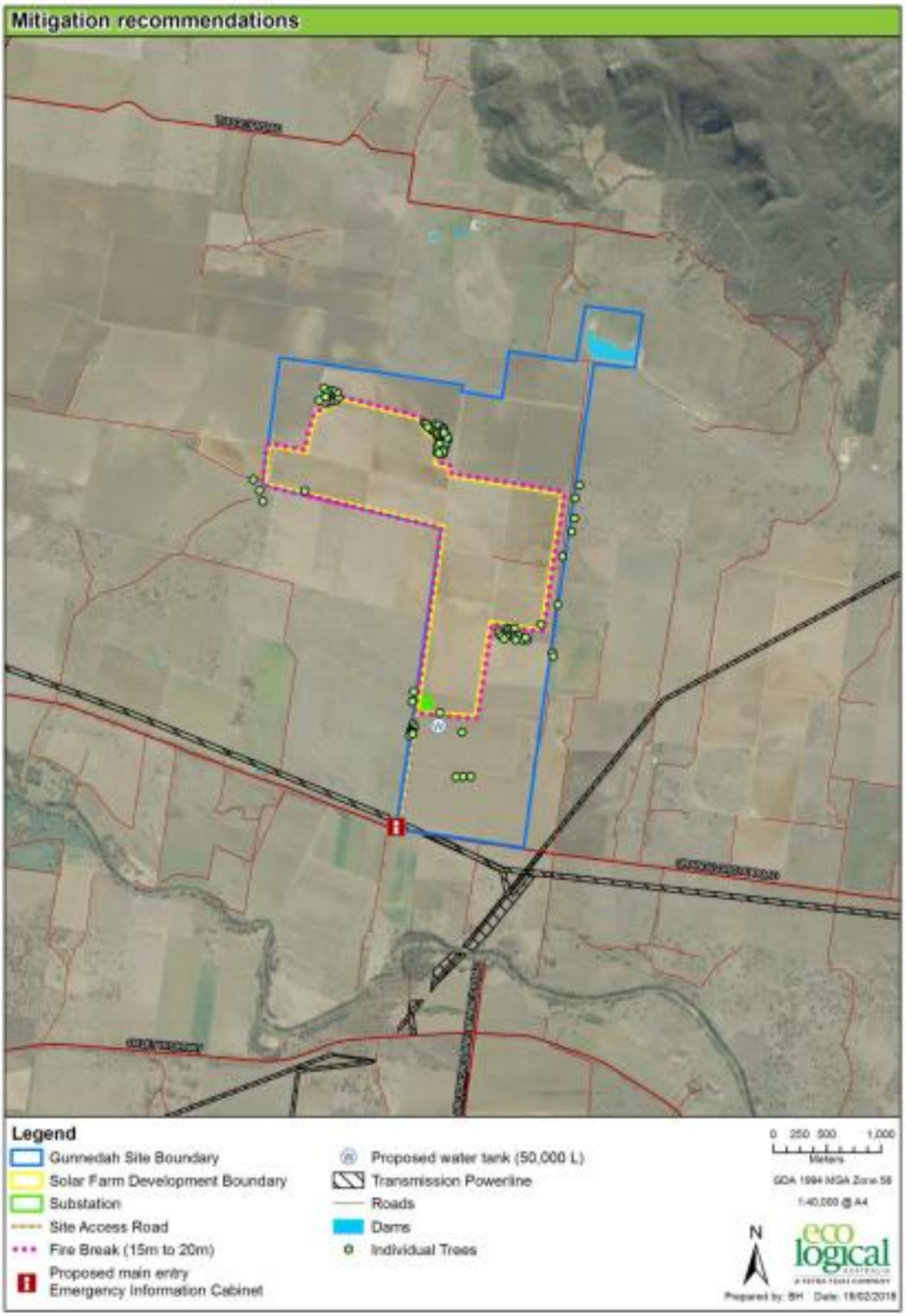

Figure 3 Bushfire Mitigation Measures

5.2.4 Weed and Feral Animal Management

Objective

The objective of weed and feral animal management is to

- prevent the spread of noxious weeds and feral animals
- ensure the operation of the Gunnedah Solar farm complies with the *Noxious Weeds Act 1993*.

Management Measures

Any noxious weed or feral animals detected on-site will be managed using appropriate methods.

Where this requires the application of pesticides GSF will ensure:

- an appropriately accredited (ChemCert) local contractor is engaged
- a copy of the contractor's application treatment will be retained and filed by GSF
  - this treatment record will detail the date, chemical applied and at what rates, weather conditions and the weed species sprayed.

Noxious weeds as identified by the Noxious Weeds Act 1993 will be notified to the relevant authority as required in accordance with the Act. If weeds are becoming an issue, advice will be sought from DPI or local agronomists of the best strategies. Regular monitoring will be required as proposed, as weeds are more easily controlled when they first germinate.

5.2.5 Soils Management

Objective

Soil management objectives to be determined following detailed design and receipt of the Conditions of Approval (CoA).

Management Measures

The following chemical and physical soil parameters will be recorded prior to construction and again prior to operation as well as regularly throughout operation of the Proposal in accordance with Section 6 including:

- pH
- N, P and S levels
- ECe / salinity
- Surface crusting
- Erosion – surface / rills/ gullies
- Contamination – spills.

The objectives of soil management on the Site is to minimise potential for impacts upon soil health including erosion and soil degradation. The intention to maintain a perennial ground cover suitable for grazing livestock will assist with having a positive impact on the soils at the Site. Possible benefits could include;

- increases in soil moisture
- an increase in soil carbon levels
- improvements to the soils structural integrity, and,
- an improvement in conditions for soil biota.

The proposed soil testing schedule will allow the introduction of required ameliorants prior to the establishment of groundcover, in addition to ongoing monitoring which will assist in maintenance of soil health and condition during the life span of the Solar farm. This program should assist in ensuring no loss of productive potential during the operation of the proposal.

Current soil conditions on site do not present any major physical or chemical constraints as the soils are:

- quite deep and relatively well drained
- generally, within the acceptable pH range
- non-saline
- moderate to highly erodible (K factors) however the overall erosion hazard is very low due to climate and landform factors.

During operation of the solar farm soil health may be impacted by:

- loss or deterioration of groundcover material
- surface crusting on areas devoid of vegetation
- increased surface runoff / sheet erosion if soils are allowed to become crusted
- compaction of soils along access thoroughfares
- loss of soil through wind erosion
- poor weed control
- poor stock management and overgrazing of pastures / groundcover.

As the Solar panels sit above the ground, vegetation will be maintained beneath and surrounding the panels (excluding internal access tracks). The objective is to maintain the current vegetation (or alternative grass cover sown) which will minimise the erosion hazard.

The site is susceptible to westerly winds which can be problematic for wind erosion and the soils are high in silt with a reasonable clay content (21 - 39%), which would powder very readily if disturbed vehicle use or heavy machinery during operational and maintenance activities thus exposing the soils to wind erosion. Maintenance of ground cover during operation of the Solar Farm will reduce the potential for wind erosion however it may still occur on internal access roads between the solar panels.

If soils are impacted by operational activities and left in a dry powdery condition, the potential risk of strong winds creating dust would be high. However, conventional dust management activities such as watering of soils using a water cart and application of synthetic dust suppressants, can be employed effectively to manage wind erosion and reduce dust as required.

If pH or soil fertility is identified as an issue during operation of the Solar farm the addition of ameliorants such as organic mulches and lime can assist in reducing alkalinity or acidity and fertility can be improved through targeted addition of nutrients and ameliorants.

6. Monitoring

To assist with the ongoing management of site conditions, a monitoring program will be implemented. This monitoring will include onsite and visual analysis along with annual laboratory testing for a suite of parameters. With regard to nutrient monitoring analysis of specific paddocks would be required as there is a wide variation within the baseline samples analysed. This would be due mainly to the range of paddocks being irrigated cropping through to native paddocks. Appropriate monitoring will require approximately 10 surface tests to determine precisely the nutrient and acidity levels for individual paddocks. This will provide a basis for fertiliser and ameliorant application if required for the individual cell areas to establish pastures. Once this is established the paddock monitoring could be reduced to once every two years rather than every year.

In the unimproved grass areas fertiliser, and ameliorant application should be much less than the improved areas. Advice on nutrient requirements can be obtained from the DPI or local agronomists once the vegetation composition is determined. The cost of soil testing could be reduced to only monitor pH and major nutrients as EC and organic matter will not significantly change in the short term and would require measurement every 5 years. Table 4 details the proposed regime and will be subject to change depending on ongoing analysis of results. This will be required as part of the OEMP.

Table 4- Frequency of soil testing requirements during the operation of the Gunnedah Solar farm.

Soil Parameter	On site / laboratory	Frequency
Bare patches / scalds	Onsite – visual	Monthly
Hard setting	Onsite - visual	Monthly
N, P, K, S	Laboratory	Annual
pH	Laboratory	Annual
ECe	Laboratory	Annual

To assist with the ongoing management of vegetation on site, a monitoring program will be implemented. This monitoring will include onsite and visual analysis along with laboratory testing should it be required. Table 5 details the proposed regime.

Table 5- Frequency of vegetation monitoring requirements during the operation of the Gunnedah Solar farm.

Vegetation Parameter	On site / laboratory	Frequency
Bare patches / scalds	Onsite – visual	Monthly
Vegetation condition	Onsite - visual	Monthly
% groundcover	Onsite - visual	Monthly
Weed species present	Onsite - visual	Monthly
Species composition	Onsite - visual	Annual

6.1 Reporting

A series of schedules will be available to document management actions for the site. These will include:

- Complaints register / record
- Grazing / stock management register
- Noxious Weed Treatment
- Soil testing.

These schedules to be used on-site would be developed and provided in the OEMP.

7. Remediation Plan

As has been documented in the Gunnedah Solar Farm EIS, the Solar Farm has a projected life span of 25 years. At this time, the infrastructure will be assessed and a decision will be made as to whether the Site will be refurbished to allow ongoing operation or to close and decommission the Site.

If the decision is made to decommission the Solar Farm, GSF have made a commitment to remove all above and below ground infrastructure and remediate the site to allow it to be returned it to its original use and condition as agricultural land. At this time a specific Site Remediation Plan will be compiled to ensure the removal of material from the Site is done in a structured and appropriate manner in accordance with relevant approvals and permits, and in conjunction with all necessary works and processes to return the Site to its pre- development condition.

The specifics of the Remediation Plan will be established prior to decommissioning and in consultation with relevant stakeholders including the Shire of Gunnedah. The following aspects would be address in the plan:

- Remediation goals
- Discussion of the extent of remediation
- Discussion of possible remedial options and risk reduction
- Rationale for the selection of recommended remedial actions
- Proposed testing to validate the site after remediation
- Contingency plan if the selected remedial strategy fails
- Interim site management plan (before remediation), including
  - Fencing
  - erection of warning signs
  - stormwater diversion
- Site management plan (decommissioning phase) including:
  - Site stormwater management
  - Soil management
  - Noise control
  - Dust control
  - Vegetation management
  - Waste and Contaminated material management
  - Occupational health and safety plan
- Remediation schedule
- Hours of operation
- Contingency plans to respond to site incidents, to minimise potential impacts on the surrounding environment and community
- Identification of regulatory compliance requirements such as licences and approvals
- Names and phone numbers of appropriate personnel to contact during remediation
- Community Consultation
- Staged progress reporting, where appropriate

- Long-term site management plan.

8. Audit and Quality Management

8.1 Review

This management plan is to be reviewed at an agreed appropriate interval in conjunction with other relevant plans that are subject to review.

The review will include an assessment of the effectiveness of the established controls and their performance against the LMP's objectives. In addition, progressive amendments / updates will be made to this LMP as / if required.

8.2 Records

All records associated with this LMP are to be retained by GSF.

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