3.2 PERMITS

PERMIT	STATUS	DECIDING BODY	DATE SUBMITTED	DATE APPROVED
Building Permit – Fencing – Site 1	Approved	Private Certifier	9 May 2021	25 Jun 2021
Building Permit – Fencing – Site 2A	Approved	Private Certifier	9 May 2021	17 Jun 2021
Building Permit – Fencing – Site 2B	Approved	Private Certifier	9 May 2021	25 Jun 2021
Powerlink Easement Application – Fencing	Approved	Powerlink	10 May 2021	26 Aug 2021
Development Permit for Operational Works (Earthworks)– **Site 1**	Approved	Gympie Regional Council	13 May 2021	20 Sep 2021
Development Permit for Operational Works (Earthworks) – **Site 2A**	Approved	Gympie Regional Council	03 May 2021	10 Sep 2021
Development Permit for Operational Works (Earthworks) – **Site 2B**	Approved	Gympie Regional Council	13 May 2021	22 Sep 2021
Development Permit for Building Works (Foundations) – Site 1	Approved	Australian Structural Engineers	12 Aug 2021	24 Aug 2021
Development Permit for Building Works (Foundations) – Site 2A	Approved	Australian Structural Engineers	12 Aug 2021	24 Aug 2021
Development Permit for Building Works (Foundations) – Site 2B	Approved	Australian Structural Engineers	12 Aug 2021	24 Aug 2021
Demolition Permit – Site 1	Approved	Private Certifier	28 Jun 2021	2 Jul 2021
Building Permit – Piling – Site 1	Approved	Private Certifier	14 Jun 2021	25 Jun 2021
Building Permit – Piling – Site 2A	Approved	Private Certifier	14 Jun 2021	25 Jun 2021
Building Permit – Piling – Site 2B	Approved	Private Certifier	14 Jun 2021	25 Jun 2021
Plumbing Permit for Site Facilities – North	Approved	Gympie Regional Council	26 Aug 2021	09 Sep 2021
Plumbing Permit for Site Facilities – South	Approved	Gympie Regional Council	25 Aug 2021	09 Sep 2021
LSBP:				
TMR Approval for Cable Crossing at Wide Bay Hwy	Approved	Transport and Main Roads (TMR)	30 Jul 2021	11 Aug 2021
TMR Approval for OH Lines	Approved	Transport and Main Roads (TMR)	06 Aug 2021	16 Aug 2021

3.3 CONTEMPLATED VARIATION LOG

INITIATED BY	CHANGE ORDERS	STATUS	CRX NO.	CRX STATUS
LSBP	LTR 002 – Harmonic Compliance - Design and Procurement	Closed	CRX 006	Approved
LSBP	LTR 002 – Harmonic Compliance – Install and Commissioning	Pending	TBD	Pending
PCL	LTR 003 – Offset Management Plan	Open	CRX-001	Submitted (LSBP)
PCL	LTR 006 – Public Road Upgrades	Open	CRX-002 (Site 1)	Pricing
			CRX-003 (Site 2A)	Pricing
			CRX-004 (Site 2B)	Pricing

4.0 RFI LOG

4.1 NEW RFI (REQUEST FOR INFORMATION)

CONSTRUCTION

RFI Log
PCL CONSTRUCTORS PACIFIC RIM PTY LTD.
PCL Constructors Pacific Rim
LSBP Reports

Project #: 9110003
Project Name: LSBP - Woolooga Solar
Location: 1580 Wide Bay Highway
GYMPIE
QLD

RFI No	Rev	Title	Status	Due Date	Assigned To Company
RFI-00086	0	Meteorological station locations	Open	7/10/2021	WOOLOOGA FUND PTY LTD AS TRUSTEE FOR THE WOOLOOGA TRUST

Run Date: 10/04/2021 9:45 PM

5.0 RISK, SLIPPAGE, AND RECOVERY

5.1 CONTRACTOR/OWNER IDENTIFIED RISKS

RISK	SLIPPAGE TO PROJECT SCHEDULE	PLAN FOR RECOVERY
Harmonic filter design	▪ To be determined when design and subsequent requirements (Q@Night) are finalized. ▪ Confirmed during meeting on 21 May 2021 between LSBP, PCL and EPEC that R1 modeling shall wait for harmonic assessment to be completed. Current R1 submission timeline cannot be met due to this requirement	Updated harmonic assessment received from LSBP on 29 July. PCL submitted budgetary Variation Proposal to LSBP on 20 August for discussion. VAR 02 issued by LSBP for design and procurement. Installation and commissioning to be determined. **PCL awaiting direction by LSBP.**
Risen Module Delivery	▪ Risen has communicated a revised delivery schedule for the project with modules starting to arrive in October 2021 ▪ 27 Sep 2021: Update received from Risen showing further delays to deliver schedule	Remediation identified in response under LTR 005. **PCL currently reviewing with LSBP**
Cable Procurement Delay	▪ **5 Oct 2021: Hengtong has communicated that production of the AC, DC and PV cable for the project will be impacted by the manufacturing restrictions imposed by the Chinese government.**	**Under review**

5.2 COVID-19 IMPACTS

RISK	DESCRIPTION
Switchroom Impacts – Siemens located in Sydney	PCL monitoring, refer to LTR 007.1 dated 27 July. Lock down is escalating in Sydney, restricting the ability to continue with production and manufacturing. Switchgear is due to arrive in Sydney this month. Further switchroom manufacturing delays have been experienced due to heightened restrictions in NSW, specifically the Sydney region. Formal updated provided to LSBP under LTR 007 on 20 August. 30 August 2021: Delay still ongoing due to restrictions remaining in place across NSW. 06 SEP 2021: Switchroom construction still being affected by restrictions in NSW – delivery to Site currented estimated for 27 October 2021. 13 SEP 2021: No changes – delivery to Site still estimated for 27 October 2021 27 SEP 2021: No change **05 OCT 2021: No change**
SMA PCU Delivery	SMA has communicated the PCU deliveries have been delayed – formal notice provided to LSBP under LTR 011 on 16 August. Updated Letter provided on 27 August. 06 SEP 2021: PCU delay ongoing – currently estimated at five (5) weeks 13 SEP 2021: Five (5) week delay remains unchanged. 27 SEP 2021: No change **05 OCT 2021: No Change**
Hengtong Cable Delivery	Hengtong has communicated the cable deliveries have been delayed due to drum manufacturing impacts and shortages – formal notice provided to LSBP under LTR 013 on 27 August

RISK	DESCRIPTION
	21 SEP 2021: PCL provided a formal update on 9 September outlining a twelve (12) day delay 27 SEP 2021: No change **05 OCT 2021: No change**

6.0 PHOTOGRAPHS

WOOLOOGA SOLAR FARM

Deliveries Received September 21 to 24 2021

WOOLOOGA SOLAR FARM

Deliveries Received September 27 2021 to October 1 2021

Item Number	Item Description	Quantity Expected	Quantity Received	Delta
46222	Torque Tube, 1156mm Spacing, 6 + 2 Module, 9.83m, 2.5mm THK, 60KSI, PRE-GALV, HTC	232	232	0
46222	Torque Tube, 1156mm Spacing, 6 + 2 Module, 9.83m, 2.5mm THK, 60KSI, PRE-GALV, HTC	232	232	0
46204	Torque Tube, 1156mm Spacing, 7 Module, 8.76m, 2.5mm THK, 60KSI, PRE-GALV, HTC	232	232	1

Received to Date Summary	Total Percentage
Total All Items % received =	96%
Total Piles % received =	101%
Total Torque Tubes % received =	87%

Appendix 7–

Clearing and Grubbing Procedure

Clearing & Grubbing Procedure

Site 1 and Site 2B

Revision No. 1 – 9 July 2021

In accordance with the Biodiversity Management Plan and the Environmental Management Plan issued by RPS Group, PCL will be undertaking the following procedures to complete the clearing and grubbing scope of work:

1) All personnel entering the project site must complete an PCL's online HSE induction;
2) Prior to the commencement of clearing, all trees and natural habitat features will be located and recorded using a Global Positioning System (GPS) device and clearly demarcated on site using flagging tape;
3) Within 7 days prior to clearing, habitat features will be inspected by a suitably qualified Spotter Catcher using thermal imaging UAV (including Koala detection). Any fauna found will be rehomed to a suitable spot pre-determined by the Spotter Catcher who will have required Rehabilitation Permit; and,
4) If any hollow bearing trees are identified within the areas to be cleared, a nesting box for each tree will be installed by a qualified Ecologist in the remnant vegetation zone. AWEC Environmental Consultants has been retained for this scope of work.

General Comments/Notes:

- Any trees suitable for milling shall be reclaimed to reduce the overall carbon emissions; and,
- Tree tops and hardwood not harvested for logs will be stockpiled and chipped over a 4-6 week period and removed from site. The stockpile area to be confirmed agreed to by the PCL Construction Manager. Stumps and hardwood not practicable to chip will be burned.

Sequencing

- Carrying out the clearing in stages. This includes ensuring not more than 3 ha or 3 percent of the site area is cleared within 24 hours. There must be 12 hours respite between clearing events and the following stages must be followed:
    - Stage 1 - Under-scrubbing of the entire project area.
    - Stage 2 - After a period of at least two days, clearing of trees can commence, pending applicable fauna was not present.

Process of Clearing

1) Identify suitable feedstock trees within clearing area, which includes any trees that are suitable for milling.
2) Two working days after completing Stage 1 works, and within 7 days of inspection of habitat trees in the clearing zone by AWEC Environmental Consultants, clearing will commence.
3) Felling of Trees:
    a) Hollow Bearing Trees (HBT):
        i) Will be knocked on with an excavator bucket or grab to encourage fauna to evacuate the tree immediately prior to felling under the supervision of the Spotter Catcher. The

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Level 38, Olderfleet 477, Collins Street
Melbourne, Vic 3000 Australia
Phone (780) 733-5000 **www.pcl.com**

HBT is to be 'soft felled' by using a combination of dozer and excavator to release roots.

ii) Felled HBT's must be left for 2 nights on the ground to give any fauna trapped in the trees an opportunity to escape before further clearing of the trees.

iii) After it has been confirmed that there is no fauna in the tree, any suitable salvaged hollows are to be set aside and placed in adjacent retained vegetation zones to provide future habitat spots for native fauna.

b) Trees marking for reclaiming by sawmill:
   i) Depending on the size, tree roots will be released with an excavator or dozer before felling.
   ii) Tree to be felled in a direction that is safe and does not interfere with progressing clearing or other parties on site.
   iii) Tree will be trimmed, and stump removed by harvester.
   iv) Logs will be loaded for transport to log stockpile (location to be determined by PCL Construction Manager).
   v) Logs will then be loaded on to road trucks from the stockpile. Alternatively, subject to access, trucks may be loaded directly.
   vi) Tree tops, branches, stumps and roots will be loaded into articulated dump trucks and transported to the stockpile.

c) All other trees:
   i) Depending on size, tree roots will be released with an excavator or dozer before felling.
   ii) Tree to be felled in a direction that is safe and does not interfere with progressing clearing or other parties on site.
   iii) Stump to have soil removed to satisfactory level and placed back into stump hole for remediation.
   iv) Tree will be broken apart with excavator and transported by articulated dump truck to stockpile for chipping.

4) Tree tops and logs not taken for processing will be chipped.
5) Burning process for stumps and logs not practicable to chip (which includes stumps that are greater than 50cm diameter at the base):
   a) Burn permit to be acquired from Queensland Fire and Emergency Services (QFES).
   b) Burn piles will be kept to a minimum to allow for greater control and to provide the necessary quantity of fuel (timber) for efficient incineration.
   c) Overnight fire watchers to be provided when necessary in consultation with QFES.
   d) Burn pile locations to be determined on site that are located away from all infrastructure and near a water source. ie. Away from powerlines, buildings, etc. and close to a bore or dam.
   e) Dead branches and logs will be stacked first and then broken up further with an excavator for kindling.
   f) Operator will light the pile.
   g) Fires will be stoked periodically with dozer and stick rake or an excavator with a grab to ensure efficient and total incineration of all vegetation. Operator to ensure the fire does not get contaminated with soil.

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h) At the completion of burning, any ash leftover will be relocated by the civil contractor.

Proposed machines and personnel on site will be as follows:

Machine/Other personnel	Description of works	Number Required
Cat D7/8 Dozer Cat D6 Dozer	Used to fell trees, stick rake and push up burn heaps.	1
Case Dozer	Used to fell trees, stick rake and push up burn heaps.	1
Volvo 40ton Articulated Dump Truck	Used to transport stumps, roots and other debris around site to stockpiles for either burning or future mulching for landscaping.	1
25ton Excavator with full set of attachments including tilt bucket, GP bucket, ripper, and hydraulic grab	With a grab and stick rake, clean up debris in areas where trees have been felled and load the moxie to either burn piles or stockpiles for future mulching.	1
30ton Excavator and attachments.	Used to help fell large trees with ripper and travel around site stoking and feeding burn piles as per point 4e) above and for knocking on and felling HBTs.	1
Fauna Spotter/Catcher – AWEC Environmental Consultants	For all day fauna spotting and placing of nesting boxes.	1
Supervisor/Foreman	To ensure all daily paperwork is completed and machines are on task. To monitor schedule and budget. To plan out daily working activities.	1

i) To be completed at the sawmill:

Machine/Other personnel	Description of works	Number Required
Forwarder/skidder	To transport cut logs from where they fell to the log stockpile for loading and transport off site.	1

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Harvester	To cut stumps of all trees and load logs on to road trucks for transport off site.	1
Road log trucks	To collect logs and take to sawmill.	1

j) To be completed by chipping:

Machine/Other personnel	Description of works	Number Required
Option A – Mobile chipper	Follows the log harvester from South-East to North-West direction, chipping the treetops and left-over logs as it progresses. Then loads directly into road trucks for carting off site.	1
Option B – Static chipper	Sits at stockpile locations and chips vegetation to be removed later.	1

Program

Week 1: Ecologist report to be submitted.
Weeks 2-5: Fell all trees in a South-East to North-West direction, in accordance with above method.
Weeks 3-5: Harvester to follow dozers with a one week delay to cut off all stumps and reclaim suitable logs, working in a South-East to North-West direction.
Weeks 4-8: Leftover vegetation to be taken to stockpile for chipping (on site or off site, depending on program) working in a South-East to North-West direction. Stumps to be taken to burn piles or placed in offset areas as directed by PCL. Leftover stumps to be burned with remnants from stick raking in a suitable location.
Weeks 5-6: Dozers come back through from South-East to North-West for stick raking.
Weeks 4-10: Chipping continues at designated stockpile locations.

Sequencing

Please refer to Appendix A attached.

Conclusion

- AWEC will prepare a report upon completion of clearing activities for submission to the Environmental Manager and Gympie Regional Council, as per the Biodiversity Management Plan within 30 days of the completion of clearing activities

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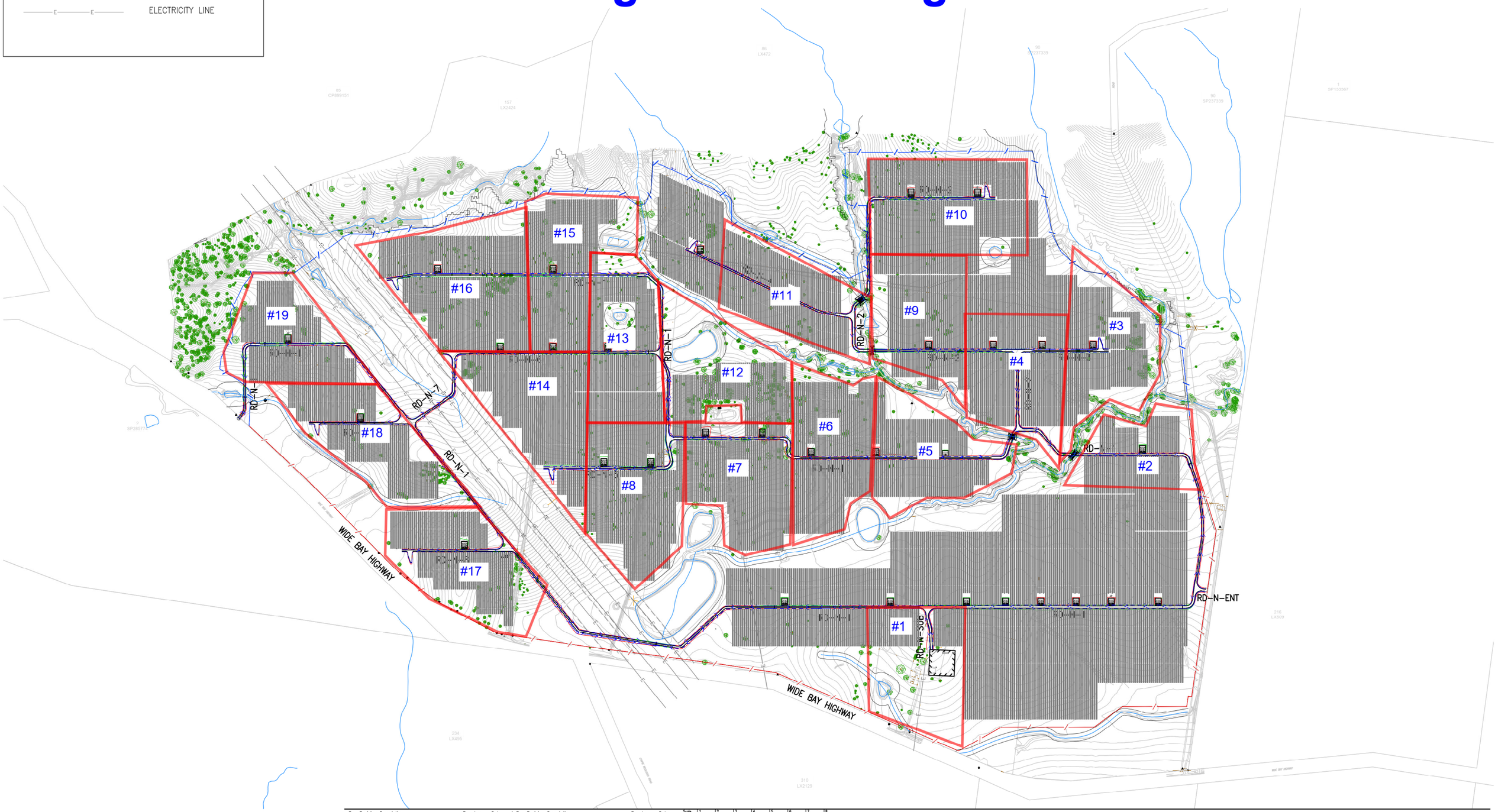
Appendix A

Northern Site Phasing Plan
Vegetation Management

OVERLAYS LEGEND

- VEGETATION
- WATERCOURSE
- BOUNDARY EASEMENT
- ELECTRICITY LINE



SCALE 1:5000

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80% PACKAGE
ISSUED FOR REVIEW

PRINT DRAWING IN COLOUR

Rev	Revision Description	By	App	Date
A	30% DESIGN DEVELOPMENT	RSW	DMH	25/03/21
B	80% DESIGN DEVELOPMENT	RSW	DMH	25/05/21

Rev	Revision Description	By	App	Date

Scale 1 2 3 4 5 6 7 8

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS
REFER TO GENERAL NOTES UNLESS NOTED OTHERWISE

Structural, Civil & Construction Engineering Consultant

MELBOURNE OFFICE

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Client

entura
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Title
OVERALL LAYOUT PLAN – NORTH

Project
WOOLOOGA SOLAR FARM

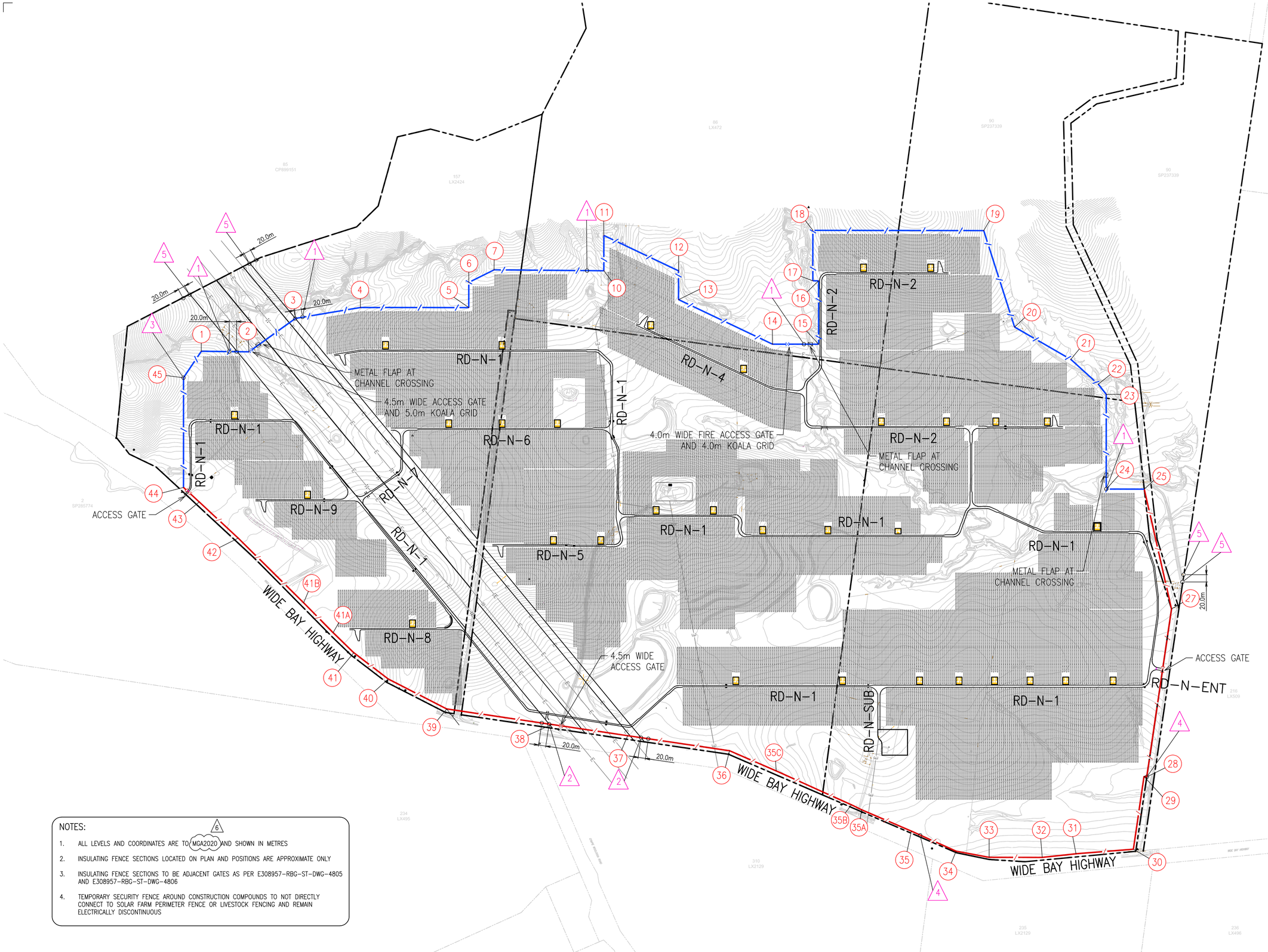
Scale at A1	Drawn	Design Checker
1:5000	R.WANIGASEKARA	–
Date	Designer	Approved
01/2021	J.ANDREWS	D.HORAN
		Job Number 20569

NOT FOR CONSTRUCTION

Drawing Number	Revision
E308957-RBG-CIV-DWG-4300	B

Appendix 8–

Final Koala Exclusion Fencing Plan and photos of temporary fencing



LEGEND

- PROPOSED NORTH SIDE FENCE REFER TO STRUCTURAL DRAWINGS E308957–RBG–ST–DWG–4803 TO 4805
- PROPOSED KOALA FRIENDLY SECURITY FENCE REFER TO STRUCTURAL DRAWINGS E308957–RBG–ST–DWG–4803 TO 4806
- 1 TYPE–1 STRAIGHT ISOLATING SECURITY FENCE SECTION WITH KOALA FLASHING, 3 m MIN. WIDE AS DEFINED BY DRG E308957–ENT–ELE–2115
- 2 TYPE–2 STRAIGHT ISOLATING SECURITY FENCE SECTION, 3 m MIN. WIDE AS DEFINED BY DRG E308957–ENT–ELE–2115
- 3 TYPE–3 CORNER ISOLATING SECURITY FENCE SECTION WITH KOALA FLASHING, 2 OF 3 m MIN. WIDE SECTIONS AS DEFINED BY DRG E308957–ENT–ELE–2115
- 4 TYPE–4 CORNER ISOLATING SECURITY FENCE SECTION, 2 OF 3 m MIN. WIDE SECTIONS AS DEFINED BY DRG E308957–ENT–ELE–2115
- 5 TYPE–4 ISOLATING LIVESTOCK FENCE SECTION, 3 m MIN. WIDE SECTIONS AS DEFINED BY DRG E308957–ENT–ELE–2115
- 8 FENCING SETOUT POINTS
- TYPE 2–T–B/B–T ACCESS GATES AS PER AS 1725.1
- METAL FLAP AT CHANNEL CROSSING

FENCING SETOUT TABLE

POINT	COORDINATES EASTING	COORDINATES NORTHING	REMARKS
1	442204.110	7115912.891	–
2	442334.724	7115911.659	–
3	442461.277	7116002.768	–
4	442639.093	7116032.714	–
5	442935.528	7116032.554	–
6	442935.528	7116101.212	–
7	443004.672	7116135.672	–
10	443304.888	7116133.239	–
11	443304.888	7116229.762	–
12	443509.170	7116132.966	–
13	443509.170	7116054.268	–
14	443766.304	7115932.327	–
15	443892.167	7115932.327	–
16	443892.167	7116105.631	–
17	443876.435	7116105.631	–
18	443876.435	7116243.624	–
19	444343.680	7116242.971	–
20	444428.181	7115979.180	–
21	444581.940	7115890.809	–
22	444656.792	7115823.073	–
23	444678.742	7115795.271	–
24	444678.742	7115536.072	–
25	444782.722	7115536.072	–
27	444857.260	7115208.464	–
28	444789.436	7114749.162	–
29	444781.962	7114750.499	–
30	444752.982	7114551.491	–
31	444595.978	7114538.966	–
32	444503.652	7114529.112	–
33	444358.500	7114529.326	–
34	444268.149	7114546.133	–
35	444145.772	7114600.928	–
35A	444009.614	7114659.394	–
35B	443981.676	7114672.963	–
35C	443776.296	7114765.622	–
36	443648.616	7114820.760	–
37	443370.055	7114861.904	–
38	443162.942	7114892.516	–
39	442875.273	7114935.014	–
40	442715.579	7115016.761	–
41A	442564.553	7115143.609	–
41B	442483.809	7115225.426	–
41	442621.294	7115088.733	–
42	442304.967	7115402.171	–
43	442198.378	7115501.010	–
44	442155.476	7115540.785	–
45	442155.484	7115840.745	–

NOTES:

1. ALL LEVELS AND COORDINATES ARE TO MGA2020 AND SHOWN IN METRES
2. INSULATING FENCE SECTIONS LOCATED ON PLAN AND POSITIONS ARE APPROXIMATE ONLY
3. INSULATING FENCE SECTIONS TO BE ADJACENT GATES AS PER E308957–RBG–ST–DWG–4805 AND E308957–RBG–ST–DWG–4806
4. TEMPORARY SECURITY FENCE AROUND CONSTRUCTION COMPOUNDS TO NOT DIRECTLY CONNECT TO SOLAR FARM PERIMETER FENCE OR LIVESTOCK FENCING AND REMAIN ELECTRICALLY DISCONTINUOUS

SCALE 1:5000

100 0 100 200m

PRINT DRAWING IN COLOUR

Rev	Revision Description	By	App	Date
A	30% DESIGN DEVELOPMENT	RSW	DMH	25/03/21
B	80% DESIGN DEVELOPMENT	RSW	DMH	25/05/21
0	ISSUED FOR CONSTRUCTION	RSW	DMH	07/07/21
1	ISSUED FOR CONSTRUCTION	RSW	DMH	14/07/21
2	ISSUED FOR CONSTRUCTION	RSW	DMH	05/08/21
3	ISSUED FOR CONSTRUCTION	RSW	DMH	08/09/21
4	ISSUED FOR CONSTRUCTION	RSW	DMH	13/10/21
5	ISSUED FOR CONSTRUCTION	RSW	DMH	27/10/21
6	DATUM NOTE UPDATED	RSW	DMH	16/03/22

Rev Revision Description By App Date

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ACN 010 580 248

Client
Lightsource BP, advancing solar
PCL CONSTRUCTION
entura
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Title
FENCING LAYOUT PLAN – NORTH

Project
WOOLOOGA SOLAR FARM

Scale at A1 1:5000
Date 07/2021
Drawn R.WANIGASEKARA
Designer J.ANDREWS
Design Checker D.HORAN
Approved D.HORAN
Job Number 20569

FOR CONSTRUCTION

Drawing Number E308957–RBG–CIV–DWG–4650
Revision 6

Appendix 9–

Project HSE Plan and Inspection Checklist

PCL Environmental Inspection

Inspection Date: _____
Inspection By: _____
Verbal/Written Notification given to: _____
Stage of Construction: _____

ITEMS	YES	NO	N/A	COMMENTS/ CORRECTIVE ACTIONS	COMPLETED BY	DATE COMPLETED
Hazard products/ Fuel storage						
Have hazard product and fuel storage locations been designated- is there adequate spill containment,						
Are fire extinguishers available nearby?						
Is the location properly labelled (ie. flammable, no smoking, etc)						
Is fuel storage stored outside and away from the building?						
Is there a fire extinguisher within an appropriate distance from the area?						
Are spill trays used when storing and for refueling?						
Can spill trays hold 110% of the potential product that could spill sufficient size for the products stored in them?						
Are SDS sheets available for products being used.						
Spill Response						
Are spill kits available – check their contents and refill if used. Are kits watertight.						
Are spill kits in the required location? Consider activities and areas of most risk						
Is mechanical equipment fitted with spill kits where applicable or is a kit located in close proximity?						
Is there are spill response plan in place?						
Has any training been given to those involved in spill response?						
Is there an environmental designate assigned to the project? Have they completed the required training?						

Air contaminants						
Is there any activities which are creating dust or air borne particles?						
Is there a dust control plan in place? Is it effective?						
Is there any activities which are creating fumes?						
Is there an air quality control plan including ventilation in place? Is it effective?						
Is equipment idling on site?						
Are flammable products being used? Verify that no other hot works are ongoing within the same area.						
Waste Management						
Is there a waste management plan in place? Is it being implemented?						
Is the Site clean and free from garbage?						
If the site requires separation of waste, check bins to ensure compliance.						
Wastewater						
Have catch-basins located on site been identified? Have silt bags been placed to filter any runoff from site? Are these in place and in good condition?						
Is there a concrete washout located on site? Is concrete run off sufficiently contained?						
Has sediment and erosion control measures been installed as required by the IFC drawings and project requirements? Are the effective and in good condition?						
Excavations/ Equipment Use						
Are slopes stabilized?						
Any evidence of contaminated materials within the excavation?						
Are stockpiles stabilized/ protected? Consider dust generation in dry conditions?						
Are trees protected?						

Is there a dewatering plan in place? Is it effective?						
Has water infiltrated "dry" areas or equipment creating a potential for mold?						
If pumping into the City's sanitary or stormwater system, have the proper discharge permits been obtained?						
Excavations/ Equipment use						
Are slopes stabilized?						
Any evidence of contaminated materials within the excavation?						
Are stockpiles stabilized/ protected? Consider dust generation in dry conditions?						
Misc. Environmental Requirements						
Do existing or retained vegetation need to be protected? Is protection installed or appropriately segregated/delineated?						
Is the site perimeter secure? Any sign of potential unauthorized access?						
Is the perimeter secure from access by feral and domestic animals, including dogs?						
Is there a Project plan in place to deal with vegetation growth and management? Is it effective? Are work areas clear easily accessible to allow construction?						

HEALTH, SAFETY & ENVIRONMENT PLAN

Woolooga Solar Farm

9110003
3317 Gympie Woolooga Road, Lower Wonga;
1418, 1496, 1580 & 1612 Wide Bay Highway, Lower Wonga; and
1706 Wide Bay Highway, Lower Wonga QLD 4570

Site Specific HSE Plan – Project: Woolooga Solar Farm
Project #: 9110003
Release Date: September22, 2021
Version: 6

Page 1

PROJECT SPECIFIC HEALTH, SAFETY & ENVIRONMENT PLAN
Woolooga Solar
3317 Gympie Woolooga Road, Lower Wonga;
1418, 1496, 1580 & 1612 Wide Bay Highway, Lower Wonga; and
1706 Wide Bay Highway, Lower Wonga
QLD 4570

Prepared By:	Mark Stacey	Date:	February 17, 2021
Reviewed By:	Ethan Kent	Date:	June 15, 2021
Approved By:	Jeff Ewert	Date:	June 15, 2021

Revision Log

Version Number	Revised By	Date	Revised Section	Description
1	Mark Stacey	November 12, 2020	Full Document	Initial preparation of WSF HSE Plan
2	Mark Stacey	December 14, 2020	Full Document	Updates based on feedback + formatting to PCL revised standard
3	Mark Stacey	January 28, 2021	Full Document	Updates based on meeting with ES and WHS regulators
4	Mark Stacey	February 17, 2021	Full Document	Update in preparation for signature
5	Mark Stacey	June 09, 2021	Full Document	All sections reviewed and release version 1 prepared for release
6	TJ Le'Mon	September 22, 2021	Full Document	All sections reviewed , Version 6

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Appendices

Appendix A: PCL Comprehensive Hazard ID & Control Process
Appendix B: Leadership and Administration Standard HSE-02
Appendix C: HSE Roles and Responsibilities Matrix
Appendix D: WSF Legislative Compliance Procedure
Appendix E: PCL Constructors Pacific Rim Legislative Compliance Register
Appendix F: WSF Legislative Compliance Procedure
Appendix G: Standard HSE-03 Orientation and Training
Appendix H: PCL Toronto District Training Matrix
Appendix I: PCL 2021 Individual Training Matrix
Appendix J: WSF Workplace Communication & Consultation Plan
Appendix K: Standard HSE-04 HSE Communication Systems
Appendix L: Standard HSE-05 Hazard Identification and Controls
Appendix M: WSF Construction Hazard Assessment
Appendix N: WSF Operational Risk Register
Appendix O: Woolooga Environmental Impact Statement
Appendix P: WSF Community Engagement Plan
Appendix Q: WSF Safety in Design Plan
Appendix R: CHAIR: Safety in Design Tool (2001)
Appendix S: Standard HSE-06 Inspections and Audit
Appendix T: Woolooga Inspection Schedule 2021/2022
Appendix U: HSE Inspection Checklist HSE-06-01
Appendix V: Bob Tarr Audit Instrument
Appendix W: WSF Occupational Health & Hygiene Management Plan
Appendix X: District HSE Trend Action Plan * TBD based on 2021 priorities
Appendix Y: Woolooga Emergency Response Plan REV 001
Appendix Z: Standard HSE-08 Emergency Response Plan
Appendix AA: WSF Emergency Exercise Schedule
Appendix BB: Emergency Response Evaluation Form
Appendix CC: PCL Response Protocol for Major Incidents & Near Misses
Appendix DD: PCL Crisis Management Plan
Appendix EE: Standard 14 Injury Management
Appendix FF: WSF Rehabilitation and Return to Work Plan
Appendix GG: WSF Bushfire Management Plan
Appendix HH: WSF Fire Prevention Plan
Appendix II: WSF Hazardous Materials Management Plan
Appendix JJ: Woolooga Traffic Management Plan
Appendix KK: Woolooga Site Traffic Management Plan
Appendix LL: WSF Mobile Plant Management Plan
Appendix MM: Standard HSE-13-Incident Investigation
Appendix NN: Conducting Incident and Near Miss Investigations

Appendix OO Woolooga - HSE Incident Reporting Action Diagram
Appendix PP: HSE-13-01 Incident Investigation Form ABC

1 Project

1.1 Overview

Throughout this site specific HSE Plan, the term “Project” refers to the Woolooga Solar Farm located on Wide Bay Highway, Lower Wonga QLD.

The Project Specific HSE Plan consolidates a host of valuable information, from company standards to detailed information about project specific issues such as scope, security, emergency response, and trade contractor HSE programs. The combination of company standards with the project specific expectations is the result of a hazard identification process. If effectively developed, the Project Specific HSE Plan engages a variety of stakeholders, including senior management, in a cohesive hazard identification and control process. Alongside the CHA, the process of developing a Project Specific HSE Plan can identify gaps in other assessments and can therefore also stimulate development of more detailed procedures where needed.

The Project is located at:

- 1580, 1496, 1612 and 1418 Wide Bay Highway, Lower Wonga, on Lot 158, LX327, Lots 159 and 90 SP237339 and Lot 86 LX472 (Woolooga 1); and
- 3317 Gympie Woolooga Road, Lower Wonga Lot 232, Lot 2383 and Lot 107 LX562 (Woolooga 2 Site A South); and
- 1706 Wide Bay Highway, Woolooga Lot 157 LX2424 (Woolooga 2 Site B North),

herein collectively referred to as the ‘Site’.

The Project Specific HSE Plan aims to address the following scope of works;

- Design stages
- Initial site works
- Project construction
  - Site specific scopes of work include; fencing, civil, piling, mechanical and electrical install.
- Project commissioning and closeout

The solar farm will cover an area of 1105 acres and is estimated to consist of up to 398,748 PV panels installed on a single axis tracking system which will follow the movement of the sun through the course of the day. The PV panels will be fixed on mounting structures which would extend ~2.0 below ground. The maximum height of panels during tracking movement is up to 3m. In addition to the solar PV panels the Project will also include the construction upgrade of unnamed road from its intersection with the Wide Bay Highway to the nominated access point, approximately 517 meters from the Wide Bay Highway, installation of electrical infrastructure such as the on-site substation, overhead transmission lines, inverter station and landscaping works.

PCL has long acknowledged the importance of maintaining a safe and healthy work environment for all personnel and the stewardship required in maintaining an effective and successful program.

This project specific HSE Plan applies to all on-site personnel and describes the safety and environmental standards, which govern the work performed on this project.

Full compliance with this project HSE Plan and applicable safety and environmental laws and regulations are the **minimum** acceptable standards on this project. Where there is conflict between this project HSE Plan and any regulatory requirement, the more stringent will apply and shall be enforced.

This project HSE Plan is a document that integrates local HSE regulations, owner/client HSE requirements, and PCL HSE standards into a single package that can be easily referenced by project management, line supervision, and workers.

This project HSE Plan can be amended as site conditions warrant. Substantive changes will be documented on the revision sheet.

The Project Manager is responsible for the development of the site specific HSE Plan prior to project commencement. PCL requirements for development of a project specific HSE Plan are outlined in PCL Comprehensive Hazard ID & Control Process (Appendix A). The Senior Construction Manager is ultimately responsible for the health and safety on site and is required to sign off on this plan.

Upon completion of development of this HSE Plan, it is the responsibility of the Project Manager to ensure all project senior management members have completed review and authorization of the plan.

The Project Manager is responsible for the continued review and evaluation of this HSE Plan. At a minimum the HSE Plan will be reviewed annually and at the following prompts;

1. Changes to legislation and codes of practice
2. Changes to operating procedures
3. After a significant event
4. After annual audit
5. After new hazards or risks identified
6. A change in the scope of works

CONSTRUCTION

PCL Constructors Pacific Rim Pty Ltd.

CORPORATE

HEALTH, SAFETY & ENVIRONMENT
POLICY STATEMENT

PCL Constructors Pacific Rim Pty Ltd. is committed to prevention of pollution and biodiversity as well as providing and maintaining safe and healthy working conditions for the prevention of work-related injury and disease.

PCL shall achieve the abovementioned objectives by:

- Complying with applicable statutory and industry obligations and the requirements of ISO 45001;
- Eliminating workplace and environmental hazards;
- Providing induction and training to employees and contractors;
- Establishing meaningful safety and environmental targets with the aim of continual improvement of our WHS and environmental performance;
- Facilitating ongoing consultation and participation of workers, and where applicable, workers representatives in the management of health and safety issues; and
- Periodically reviewing the effectiveness of our management system.

All employees and trade contractors must promptly report incidents, unsafe acts or conditions and supervisors are responsible for taking immediate action on issues that arise.

Fostering a safety culture requires the dedication, commitment, involvement, and participation of all employees and trade contractors. Working together will allow us to achieve safety excellence.

David G. Filipchuk
Director

Gopinath Govindraj
Director

William Parker
Director

Date: January 2021

CONSTRUCTION

PCL Constructors Pacific Rim Pty Ltd.

PREVENTION OF WORKPLACE VIOLENCE, HARASSMENT & DISCRIMINATION POLICY STATEMENT

PCL believes in the prevention of violence, harassment and discrimination; and promotes a workplace that is violence, harassment and discrimination free. Any act of violence, harassment or discrimination committed by, or against, any worker or member of the public is unacceptable conduct and will not be tolerated.

We are committed to:

- Providing our employees with an appropriate level of protection from the risks associated with workplace violence, harassment or discrimination;
- Investigating reported incidents of workplace violence, harassment or discrimination in an objective and timely manner;
- Taking necessary action on acts of workplace violence, harassment or discrimination; and
- Providing appropriate support for victims of workplace violence, harassment or discrimination.

Employees have a responsibility to;

- Become familiar and comply with this policy;
- Report incidents of workplace violence, harassment or discrimination to their supervisor; and
- Participate in work site risk assessments and implement control measures to mitigate associated risks as required.

No action shall be taken against an individual for making a complaint unless the complaint is made maliciously or without reasonable and probable grounds.

No employee or any other individual affiliated with PCL shall subject any other person to violence, harassment or discrimination in the workplace.

David G. Filipchuk
Director

Gopinath Govindraj
Director

William Parker
Director

Date: January 2021

CONSTRUCTION

PCL Constructors Pacific Rim Pty Ltd.

FALL PREVENTION AND PROTECTION
POLICY STATEMENT

PCL is committed to protect company personnel and other on-site workers from fall related injuries when working at elevated heights.

We are committed to:

- Review and familiarize themselves with legislative jurisdictional requirements regarding fall prevention and protection;
- Comply with legislative jurisdictional requirements;
- Evaluate each project and compile a Site-Specific Fall Prevention and Protection Plan where elevated work and fall protection is necessary;
- Provide the necessary resources, equipment and training; and
- Monitor the effectiveness of the Fall Prevention and Protection Plan.

Subcontractors/trade contractors will be responsible to compile and implement their own Site-Specific Fall Prevention and Protection Plan for the work they perform.
These plans should be in accordance with the applicable regulatory requirements and PCL's Site-Specific Fall Prevention and Protection Plan.

All personnel are responsible for:

- Complying with the PCL Site Specific Fall Prevention and Protection Plan; and
- Reporting unsafe acts and conditions, and if necessary, taking action to see that corrective measures are implemented.

David G. Filipchuk
Director

Gopinath Govindraj
Director

William Parker
Director

Date: January 2020

CONSTRUCTION

PCL Constructors Pacific Rim Pty Ltd.

ENVIRONMENTAL POLICY STATEMENT

We are committed to the goal of conducting our business operations in a manner that protects our environment.

We achieve this goal by:

- complying with all legislative, regulatory and contractual requirements relating to the environment,
- monitoring our compliance with those requirements through the establishment and continued review of environmental objectives and targets,
- reporting to our board of directors on our compliance with legislative and regulatory requirements,
- minimizing hazards to public health,
- taking steps to protect the environment from adverse effects of construction operations and a commitment to continued improvement of environmental practices and the prevention of pollution, and
- working with industry, government and workers to maintain and enhance environmental awareness.

On large, complex construction projects of substantial duration and on projects with known environmental contaminants, we take additional steps to achieve this goal by:

- appointing an environmental designate,
- providing education to project personnel, to enable them to understand and share in the responsibility for monitoring and protecting the environment,
- maintaining an effective reporting and communications system, and
- developing a project environmental action plan.

David G. Filipchuk
Director

Gopinath Govindraj
Director

William Parker
Director

Date: January 2021

PCL Harassment and Discrimination Policy

Policy Purpose
The purpose of this policy is to help create a working environment for all PCL workers that is free of harassment and discrimination and that respects their dignity and worth.

Application
This policy applies to all PCL workers at their place of employment, at PCL-sponsored social events and while traveling or otherwise engaged in business for a PCL company.
For PCL workers working in the United States, this policy is supplemented by the United States Equal Employment Opportunity and Affirmative Action Policy.

Meaning of Terms Used in This Policy
Harassment
In this policy, the term "harassment" means any objectionable conduct, comment or display that a reasonable person would realize was unwelcome and that creates an intimidating, hostile or offensive work environment, or leads to adverse job-related consequences for the victim of such conduct, comment or display. It includes, without limitation:

- unwanted physical conduct, such as touching, assault, impeding or blocking movements.
- threats of a sexual nature.
- unwanted sexual propositions, teasing or requests.
- unwanted sexual advances, whether physical or verbal.
- offering an employment benefit (such as a raise or promotion or assistance with one's career) in exchange for sexual favors, or threatening an employment detriment (such as termination, demotion or disciplinary action) for a person's failure to engage in sexual activity.
- unwanted visual conduct of a sexual nature (such as leering, making sexual gestures, displaying of sexually suggestive objects or pictures, cartoons, posters or calendar); or,
- verbal or written abuse of a sexual nature, graphic commentaries about an individual's body, use of sexually degrading words to describe an individual or sending or forwarding obscene letters, emails, notes or invitations.

Discrimination
In this policy, the term "discrimination" means unjustified discrimination on a prohibited ground.

- The term "unjustified" means conduct that is not justified under the human rights laws of the jurisdiction in which the discrimination occurs.
- The term "prohibited ground" means:
  - race, religion, color, sex, sexual orientation, physical disability, mental disability, age, ancestry, place of origin, national origin, marital status or family status; and,
  - in any given jurisdiction in which discrimination may occur, any other ground on which discrimination is prohibited under the laws, including the human rights laws, that are applicable in that jurisdiction.

PCL Workers
In this policy the term "PCL workers" means employees, officers and directors of a PCL company, and agents, consultants and contract workers engaged by a PCL company.

Third Party

In this policy, the term “third party” includes employees of clients, trade contractors and suppliers of a PCL company, and members of the public.

Policy

Compliance with Applicable Laws

Each of the PCL companies and all PCL workers will comply with all applicable laws relating to harassment and discrimination.

Prohibition of Harassment

Harassment, including sexual harassment, of PCL workers in respect of their employment or in the course of their employment is prohibited. This prohibition includes harassment by a PCL company, by other PCL workers or by a third party.

Prohibition of Discrimination

Discrimination against PCL workers with respect to their employment is prohibited. This prohibition includes discrimination by a PCL company, by other PCL workers or by a third party.

Discrimination by PCL workers in the course of their employment is prohibited. This prohibition includes discrimination against other PCL workers or a third party.

Effect of Violation

Violation of this policy by PCL workers will result in disciplinary action, up to and including immediate termination of employment. Violation of this policy by a PCL company or by a third party will result in appropriate action being taken, including action to end such violation.

Reporting

If you believe that you have been harassed or discriminated against in your employment with a PCL company, you should report the offending conduct, in accordance with the Unethical Conduct Reporting Policy under the Code of Conduct.

Further, it is the responsibility of any person who is a supervisor or manager of a PCL company to take immediate and appropriate action to report or deal with incidents of harassment or discrimination, whether brought to their attention or personally observed. Under no circumstances should an observation or legitimate report of harassment or discrimination be dismissed or downplayed.

This policy is not intended to discourage or prevent any person who is subject to harassment or discrimination from exercising any other legal rights available to such person, including rights under applicable human rights legislation.

Outcomes of Harassment or Discrimination

For absolute clarity the Anti-Discrimination Act QLD 1991 outlines 16 categories of unlawful attributes on which to discriminate There are sixteen attributes listed under the Act which are protected by the discrimination laws. These are:

- Age.
- Race, which may include color, ethnic origin or ancestry, and nationality.
- Sex (gender).

- Pregnancy.
- Impairment. This has an extensive definition and includes physical or mental disability by reason of a disease or condition, or the loss of any bodily parts or bodily functions. Impairment is often referred to as disability in discrimination legislation in the Commonwealth and the other states and territories.
- Relationship status; which includes being single, divorced, married, living in a registered relationship under the Relationships Act 2011, being widowed, and being separated.
- Sexuality, which means bisexuality, heterosexuality or homosexuality.
- Breastfeeding. This is an extension of the prohibition of discrimination on the basis of pregnancy.
- Gender identity. This includes whether a person is an indeterminate sex (intersex) and identifies as belonging to a particular sex and includes where a person identifies or has identified as a member of the opposite sex and seeks to live that way.
- Parental status: namely, whether or not a person is a parent.
- Family responsibilities, which means that a person has a dependent child or another member of the immediate family for which they are a carer or they are in a support worker role.
- Lawful sexual activity, which means whether or not a person is a lawfully engaged sex worker.
- Religious beliefs or activity. This includes whether a person does or doesn't believe in, or engage with, a certain religion.
- Political beliefs or activity.
- Trade union activity.
- Relationship with or association with a person having any of the above attributes.

Any allegations of discrimination on these grounds to PCL will be thoroughly investigated.

Effect of Violation
Contingent upon the severity of the alleged violation, PCL employees will be dealt with in accordance with Human Resources processes. This may range from formal counselling to instant dismissal.

Third Parties, Subcontractors, or visitors who are found to have violated these provisions will have their site access revoked and be unable to attend the worksite for the remainder of the project.

1.2 Project Team List

List of Project Team Members

Woolooga Solar Core Project Team List

Operations Lead	Ryan O'Connell
Project Manager	Ethan Kent
Project Coordinator	Michaela McGinn

Senior Construction Manager	Jeff Ewert
Construction Manager	Mark Hickey
Construction Manager	Dan Quee

Commissioning Manager	Brendon Lloyd
Construction Risk Manager	Andrew Fleetwood

Senior Supervisor	Polo Sath
Senior Supervisor	Derek Erlendson

Project HSE Supervisor	TJ Le'Mon

Accountant	Eric Acheampong

Admin. Assistant	Renee Goddard

2 Leadership & Management

The purpose of the Leadership and Management section is to define the functional responsibilities of PCL employees, as well as third party companies or individuals who perform contract work for PCL. Please refer to the project team list for PCL project management staff.

The Project Manager is responsible for ensuring all PCL project personnel have access and have completed all training applicable to their role. This is administered by the Toronto District Training Matrix. This matrix includes all WHS training based on PCL's WHS management system requirements relevant to their specific role. This training is accessed and recorded through PCL Learn (PCL's online learning system).

To ensure senior management commitment and involvement in the project HSE program, each member of senior management ***MUST*** attend one site per month to participate in safety programs including formal inspections, Toolbox Talks and HSE Committee Meeting and note specific interactions with workers in the Notes section of the SMC Inspection Report. During this time overall WHS issues will be discussed with the site management team and workers. This commitment is outlined in the Leadership and Administration Standard HSE-02 (Appendix B) and it is the responsibility of the Project Manager to ensure compliance.

Note: Throughout this section and the plan, the term **worker** shall refer to all individuals working on a PCL work site (includes, without limitation, employees and individuals who work for trade contractors, suppliers, consultants, and other third parties).

2.1 WHS Obligations

All PCL employees have obligations set out in the Work Health and Safety Act 2011 (QLD) and Work Health and Safety Regulation 2011 (QLD) in regard to maintaining a safe place of work for all workers. These obligations include:

- Demonstrating due diligence
- Primary duty of care
- Duty to consult
- Maintain a register of injuries
- Manage workplace injuries
- Develop and maintain a return to work program and
- Manage hazards and risks in the workplace

The HSE Supervisor will ensure all senior managers and supervisors are made aware of and understand their obligations by completing the PCL Senior Managers & Supervisors WHS Obligations QLD training session. A record of the training will be maintained in the PCL project files.

PCL has developed an HSE Roles & Responsibilities Matrix (Appendix C) specific to the Woolooga Solar Project which outlines the HSE Manual responsibilities to assist project teams in understanding HSE requirements, frequency of tasks and most importantly, who is responsible for ensuring completion of tasks on your project.

This HSE tool is to be used during the HSE specific internal project start-up meeting to assign responsibility and help ensure teams successfully achieve the deliverables of the HSE program.

What is it?
The HSE Roles and Responsibilities Matrix ("the Matrix" for the purpose of this SUB) is a project-specific document that:

- Lists all HSE tasks required on a project (both one-time and repetitive tasks) and identifies the HSE Safety Manual prescribed responsibility.
- Identifies who specifically from your project team will be assigned responsibility to carry out each task.
- Identifies timelines for one-time tasks (date required by) and frequency for repetitive tasks.
- Records the specific date one-time tasks are completed.
- Identifies any required process or procedure related to each task.
- Identifies the specific tools expected to be used in carrying out each task (form, template, system, etc.).

2.2 Construction Manager

The Construction manager is responsible to assist in the development and implementation of the Project Specific HSE Plan on assigned construction projects.

Responsible to:

- Implement HSE standards and procedures as stated in the HSE Manual;
- Conduct PSI audits;
- Verify that the SMC is being utilized and updated on an on-going basis;
- Comply with regulatory requirements and building codes, as to construction means, methods and project specifications;
- Exercise authority to maintain compliance with regulatory and company requirements;
- Establish goals and objectives for employee training; (HSE-03)
- Participate in the required training for their position; (HSE-03)
- Provide resources necessary to carry out training goals and objectives; (HSE-03)
- Verify that the Construction Manager is chairing, and the project manager is co-chairing the project HSE committee meetings; (HSE-04)
- Participate and attend all required HSE committee meetings; (HSE-04)
- Implement the District Strategic HSE Plan and report progress to the district HSE committee; (HSE-04)
- Prepare HSE topics/issues for meeting agendas with clients, suppliers, and trade contractors;
- Verify that the hazard assessment process is followed on each project; (HSE-05)
- Develop and approve the Project Specific HSE Plan prior to mobilization; (HSE-05)
- Complete regular revisions of the Project Specific HSE Plan as project conditions change; (HSE-05)
- Participate and approval of the CHA; (HSE-05)
- Provide coaching and recognition to employees on the implementation and development of SWPs, HSEOPs, JHAs, and the overall hazard assessment process; (HSE-05)
- Verify that projects are following the Project Specific HSE Plan standards through auditing and observation; (HSE-05)
- Verify that applicable procedures are an integral part of the project HSE program;
- Verify that project management is familiar with the Project Specific HSE Plan; (HSE-05)
- Verify that corrective actions identified during inspections are implemented; (HSE-06)
- Complete corrective action plans for items identified during audits; (HSE-06)
- Conduct one formal inspection per month, at a minimum; (HSE-06)
- Set an appropriate example for employees under their direction; (HSE-07)
- Verify that PPE standards outlined in this manual or otherwise established by the district are followed; (HSE-07)
- Provide sufficient resources (including materials, equipment, and training) to effectively deal with potential emergencies at the workplace; (HSE-08)
- Assist in the development of the ERPs and verify that it is implemented on projects; (HSE-08)
- Provide sufficient resources, including materials, equipment, and training to effectively deal with security needs and issues; (HSE-09)
- Submit the completed Environmental Scope of Work form and the CHA to the appropriate project management team to facilitate their assistance with the development of the Project Specific HSE Plan;

- Assist with the development of the Project Security Plan, and verify that it is part of the overall Project Specific HSE Plan; (HSE-09)
- Assist with the development of the Construction Environmental Action Plan and verify that it is implemented on each project; (HSE-10)
- Verify that projects are following the Environmental Action Plan standards through auditing and observation; (HSE-10)
- Participate in the environmental inspection components of the Construction Environmental Action Plan and address deficiencies where required; (HSE-10)
- Assist with the implementation of the PCL trade contractors' screening
- Continuously monitor trade contractors with poor HSE performance to the point where their HSE performance has sufficiently improved; (HSE-11)
- Notify trade contractors of work schedule, location, hazards, and special precautions, including the Project Specific HSE Plan content prior to the start of the project; (HSE-11)
- Verify the Project Specific HSE Plan acknowledgement form has been signed and returned to the project management team; (HSE-11)
- Monitor trade contractors to verify their work is conducted in a safe, responsible and compliant manner, is in accordance with the Project Specific HSE Plan and the trade contractor's HSE Plan; (HSE-11)
- Review the trade contractor's designated HSE qualifications; (HSE-11)
- Provide support and resources for the inspection, maintenance, and repair of equipment and tools; (HSE-12)
- Participate, support and reinforce the incident investigation and reporting process; (HSE-13)
- Review incident investigation reports and verify that the company incident investigation process is followed; (HSE-13)
- Communicate and report incidents to the appropriate client representatives as per district management directive; (HSE-13)
- Support corrective actions identified in incident investigations; (HSE-13) and
- Provide adequate support and resources for all aspects of the injury management program. (HSE-14)
- Ensure Chain of Responsibilities as Consignor or Consignee are met including but not limited to ensuring loads do not exceed vehicle mass or dimension limits; goods will be secured appropriately; operators carrying freight containers will provide a valid Container Weight Declaration; PCL will not encourage drivers to exceed the speed limits, exceed their regulated driving hours, fail to meet the minimum rest requirements or drive while they are impaired by fatigue.

2.3 Project Manager

The project manager is responsible for assisting in the development and implementation of the Project Specific HSE Plan for assigned projects. The project manager will work closely with the project Construction Manager and the district HSE manager to implement these.

In addition to the responsibilities of all employees set out in the HSE manual, Project Managers responsibilities include, but are not limited to, the following:

- Account to the Construction Manager;
- Report to Construction Manager promptly on occurrence of any significant health, safety, or environment incident;

- Implement HSE standards and procedures as stated in the HSE Manual;
- Conduct PSI audits;
- Verify that the SMC is being utilized and updated on an on-going basis;
- Comply with regulatory requirements and building codes, as to construction means, methods and project specifications;
- Exercise authority to maintain compliance with regulatory and company requirements
- Where practical, participate in site orientations; (HSE-03)
- Participate in the required training for their position; (HSE-03)
- Provide resources necessary to carry out training goals and objectives; (HSE-03)
- Develop the Project HSE Trend Analysis; (HSE-04)
- Develop action plans arising from the Project HSE Trend Analysis; (HSE-04)
- Verify that the Construction Manager is chairing, and the project manager is co-chairing the project HSE committee meetings; (HSE-04)
- Participate and attend all required HSE committee meetings; (HSE-04)
- Implement the District Strategic HSE Plan and report progress to the district HSE committee; (HSE-04)
- Prepare HSE topic/issues for meeting agendas with clients, suppliers, and trade contractors; (HSE-04)
- Assist in the development and verify implementation of the Project Specific HSE Plan; (HSE-05)
- Verify that the hazard assessment process is followed; (HSE-05)
- Complete regular revisions of the Project Specific HSE Plan as project conditions change; (HSE-05)
- Participate in the creation of the CHA; (HSE-05)
- Provide coaching and recognition to employees on the implementation and development of SWP's; HSEOP's; JHA's; and the overall assessment process; (HSE-05)
- Verify that the project is following the Project Specific HSE Plan standards through auditing and observations; (HSE-05)
- Verify that corrective action plans identified during inspections are implemented; (HSE-06)
- Complete corrective action plans for items identified during audits; (HSE-06)
- Conduct one formal inspection per month, at a minimum; (HSE-06)
- Set an appropriate example for employees under their direction; (HSE-07)
- Verify that PPE standards outlined in the Project Specific HSE Plan are followed; (HSE-07)
- Provide sufficient resources including materials, equipment, and training to effectively deal with potential emergencies at the workplace; (HSE-08)
- Assist in ERP development and monitor the implementation on the project; (HSE-08)
- Provide sufficient resources to effectively to effectively deal with security needs and issues; (HSE-09)
- Assist with the Project Security Plan development, and verify that it is part of the overall Project Specific HSE Plan; (HSE-09)
- Assist with the Environmental Action Plan development and monitor the implementation on the project; (HSE-10)
- Participate in the environmental inspection components of the Environmental Action Plan and address deficiencies where required; (HSE-10)
- Assist with the implementation of the PCL trade contractor screening and approval process; (HSE-11)

- Hold a pre-job meeting to discuss trade contractor HSE performance expectations and communicate HSE requirements to the trade contractor prior to start of their contract; (HSE-11)
- Continuously monitor trade contractors with poor HSE performance to the point where their HSE performance has sufficiently improved; (HSE-11)
- Verify the Project Specific HSE Plan acknowledgement form has been signed and returned to the project management team prior to contractor payment; (HSE-11)
- Monitor trade contractors to verify the work is conducted in a safe, responsible and compliant manner, is in accordance with the Project Specific HSE Plan, and trade contractor's HSE Plan; (HSE-11)
- Provide support and resources for the inspection, maintenance, and repair of equipment and tools; (HSE-12)
- Participate, support and reinforce the incident investigation and reporting process; (HSE-13)
- Review incident investigation reports and verify that the company incident investigation process is followed; (HSE-13)
- Communicate and report incidents to the appropriate client representatives as per district management directive; (HSE-13)
- Support corrective actions identified in incident investigations; (HSE-13) and
- Provide adequate support and resources for all aspects of the injury management program (HSE-14)

2.4 Project HSE Manager/Supervisor/Coordinator

The project HSE supervisor assists with the development, implementation, and monitoring of the Project Specific HSE Plan with the assistance of the project management team and the Construction Manager.

Responsible to:

- Report to and advise project management on current legislation, information, and issues regarding HSE;
- Assist project management in evaluating HSE performance and exercising authority to maintain compliance with regulatory and company requirements;
- Research legislation and information applicable to operations;
- Assist project management on HSE related issues;
- Conduct PSI audits (HSE-05);
- Verify that employees right to refuse unsafe work is supported by managers and supervisors; (HSE-02)
- Participate in HSE associations;
- Monitor, assess and document the performance of subordinate project HSE staff as defined in the Project Specific HSE Plan; (HSE-15)
- Liaise with district HSE manager on project HSE related issues;
- Assist with, and verify that, the information contained in the SMC is up-to-date and accurate;
- Issue and circulate HSE literature to enhance and maintain awareness; (HSE-04)
- Review investigation reports of incidents including HSE, medical, first aid cases, and damage to property or equipment and verify that corrective action has been completed; (HSE-13)

- Notify government agencies of project starts and reportable incidents in accordance with local and federal regulations as directed by the district HSE manager;
- Assist with development of education and training programs for the project; (HSE-03)
- Assist with development and review of HSEOPs;
- Assist with development of HSE audit results and industry trends which could impact project operations; (HSE-04)
- Prepare monthly HSE performance statistics and circulate to project management and as otherwise directed by project management; (HSE-04)
- Review weekly HSE Field meeting minutes to verify that meaningful information is being provided to workers; (HSE-04)
- Assist in the organizing, planning, and implementation of the worker HSE orientation program (HSE-03) and the on-site PSI program (HSE-05);
- Participate and attend all required HSE committee meetings; (HSE-04)
- Review hazard assessments for accuracy and relevance to the work being performed; (HSE-05)
- Review the Project Specific HSE Plan prior to distribution; (HSE-05)
- Assist with hazard assessments where required; (HSE-05)
- Provide coaching and recognition to employees on the implementation and development of SWPs, HSEOPs, JHAs, and the overall hazard assessment process; (HSE-05)
- Verify that the hazard assessment process is followed on the project; (HSE-05)
- Verify the project is following the Project Specific HSE Plan standards contained through auditing and observation; (HSE-05)
- Assist with CHA prior to mobilization to site; (HSE-05)
- Research, evaluate, and select medical facilities and service providers to accommodate project requirements;
- Assist with revisions of the Project Specific HSE Plan as project conditions change; (HSE-05)
- Coordinate the development, implementation, coordination, distribution, and communication of the Project Specific HSE Plan standards; (HSE-05)
- Verify the Project Specific HSE Plan is current; (HSE-05)
- Verify the Project Specific HSE Plan is communicated to all project personnel in orientation; (HSE-05)
- Coordinate training for line supervision on the Project Specific HSE Plan content; (HSE-05)
- Audit the PSI process where the employees are performing the work; (HSE-05)
- Provide appropriate methods of documenting inspections; (HSE-06)
- Perform one formal work site inspection per week, at a minimum;
- Perform audits and additional inspections as directed by project management;
- Verify the project inspections are conducted according to policy; (HSE-06)
- Verify that corrective actions identified during inspections are implemented; (HSE-06)
- Evaluate HSE inspection reports to identify unsatisfactory performance trends;
- Complete corrective action plans for audits completed in their area of responsibility; (HSE-06)
- Verify that PPE standards are developed for the tasks performed by PCL; (HSE-07)
- Recommend PPE that meets applicable government, industry, or customer standard(s) governing its use; (HSE-07)
- Set an appropriate example for employees under their direction; (HSE-07)
- Assist in the development and implementation of the ERP; (HSE-08)
- Verify that the applicable ERP procedures are part of the Project Specific HSE Plan; (HSE-08)

- Verify through inspections that procedures are up to date; (HSE-08)
- Verify project personnel are aware of, and have knowledge of, proper emergency reactions; (HSE-08)
- Investigate, report, and recommend future preventative action plans; (HSE-08)
- Verify that all personnel are familiar with the plan and can adequately respond if required; (HSE-08)
- Exercise the ERP with the emergency evacuation team in test situations at a frequency of no less than once per year. On major construction sites as defined by the district manager/HSE manager, emergency procedures should be completed every six months; (HSE-08)
- Verify that proper first aid procedures are carried out until the arrival of emergency response personnel; (HSE-08)
- Assist in the development and implementation of site security plans; (HSE-09)
- Review the Environmental Action Plan prior to distribution; (HSE-10)
- Evaluate the trade contractor's pre-qualification documentation to determine the ability to achieve expected HSE performance; (HSE-11)
- Monitor trade contractor safety performance and verify correction and redirection as needed; (HSE-11)
- Determine the degree of PCL involvement in the trade contractor's HSE efforts; (HSE-11)
- Develop programs to verify that equipment and tools are maintained in safe working condition; (HSE-12)
- Monitor or assist company-owned or rented equipment safety maintenance programs;
- Provide incident investigation training to project management and project supervision; (HSE-13)
- Investigate or assist with the HSE incident investigations; (HSE-13)
- Review incident investigation reports to verify accuracy, completeness, and evaluate corrective actions taken; (HSE-13)
- Determine in conjunction with Construction Manager if the Incident Investigation Form HSE-13-01 or if the Near Miss Form should be used; (HSE-13)
- Verify that employees and supervisors are trained in injury management; (HSE-14)
- Assist with development of processes and training to accomplish injury management program goals; (HSE-14)
- Verify that modified work programs are implemented within the requirements of the policy and local regulations; (HSE-14)
- Ongoing liaison with medical practitioners and district HSE regarding rehabilitation or return to work plans; (HSE-14)
- Manage claims on compensation cases and/or assist injury management coordinators;
- Verify that applicable procedures are an integral part of the project HSE program;
- Assist supervisory staff with preparation of agenda and material for project HSE committee meetings and weekly HSE Field meetings; (HSE-04)
- When the behavioural based observation system is employed, conduct the required weekly observer meetings; (HSE-16)
- Provide assistance to project management in the implementation of corrective actions in regard to behavioural based safety; (HSE-16)
- Review HSE related reports and memorandums for accuracy and then forward, as required, to the district HSE manager; and

- Verify that site supervisors have adequately prepared their employees to act appropriately in emergency response situations (HSE-08).

2.5 Foreman/Supervisor/Lead Hand

The foreman/supervisor/lead hand is responsible for promoting health, safety, and environment awareness and demonstrating to the workers, through day-to-day example and actions.
In addition to the responsibilities of all employees as set out in section 3.1 of the HSE manual (HSE-02), the foreman/supervisors/lead hands are responsible to:

- Account to the applicable immediate supervisor/project Construction Manager;
- Report to project Construction Manager promptly on occurrence of any significant health, safety, or environment incident; (HSE-13)
- Verify that workers are able to conduct their work in a safe manner;
- Participate in supervisory training outlined by the district;
- Perform informal daily inspections of assigned work areas; (HSE-06)
- Support the employee's right to refuse unsafe work by investigating the circumstances and communicating the support and hazard abatement actions to employees as warranted; (HSE-02)
- Develop and maintain good housekeeping standards; (HSE-03)
- Hold weekly HSE field meetings with employees as per HSE-04; (HSE-13)
- Verify that operator's complete equipment inspection checklists;
- Check that operators are qualified, fit, and authorized to operate equipment or vehicles safely;

* ***When Foreman/Supervisor/Lead Hand is not on site or a part of the PCL site team, these responsibilities will be dispersed amongst qualified members of the team.***

2.6 Sub-Contractors

Trade contractors on PCL worksites are responsible for the safety of their workers.

Sub-Contractors must:

- Account to the project management;
- Investigate and report to project Construction Manager promptly on occurrence of any HSE incident; (HSE-11) (HSE-13)
- Perform one formal HSE work inspection per month, at a minimum; (HSE-11)
- Attend an on-site worker HSE orientation meeting; (HSE-03) (HSE-11)
- Provide pre-job safety instructions to workers whenever new tasks are assigned or when job conditions change; (HSE-05)
- Before commencing work, contact the project Construction Manager for instructions regarding health, safety, and environment hazards; (HSE-05) (HSE-11)
- Review and signoff on the Project Specific HSE Plan and return the Project Specific HSE Plan Acknowledgement Form, HSE-15-01, to project management; (HSE-11) (HSE-15)
- Advise their workers of the Project Specific HSE Plan and verify compliance through personal observation; (HSE-11) (HSE-15)
- Provide education and training, and enforce the use of applicable PPE; (HSE-07)
- Provide specific hazard analysis that is commensurate with their scope of work (this may include SWP's; HSEOP's; JHA's) to the project; (HSE-05)

- Make arrangements with the project Construction Manager concerning emergency procedures; (HSE-08)
- Immediately correct any unsafe conditions and acts observed in their jurisdiction;
- Immediately report to the PCL project Construction Manager any unsafe acts and conditions observed outside of their jurisdiction;
- Cooperate with all health, safety, and environment PCL representatives having jurisdiction at the jobsite;
- The use of mobile phones is prohibited while operating Mobile plant/Machinery/Vehicles whilst in motion.
- Contact the PCL project Construction Manager if they have any doubt regarding the meaning or interpretation of the Project Specific HSE Plan; (HSE-15)
- Conduct HSE meetings with their workers, document the meetings, and submit a copy of the minutes to the PCL project Construction Manager; (HSE-04)
- Conduct PSI audits; (HSE-05)
- Participate in the PSI program; (HSE-05)
- Maintain good housekeeping practices in their work areas; (HSE-03)
- Designate a qualified person to coordinate their project HSE program; (HSE-11)
- Understand and fully comply with the Project Specific HSE Plan, client HSE requirements, and legislative jurisdictional requirements; (HSE-11)
- Fully comply with all requirements related to trade contractors in the HSE Manual; (HSE-11)
- Communicate the above items to all contractor supervisors and workers; (HSE-11) and
- Demonstrate commitment to the PCL HSE policies and goal for zero incidents.

2.7 Visitors/Suppliers/Consultants

Visitors, suppliers, and consultants are responsible for safeguarding their own health and safety and the safety of project workers and to:

- Report to the project office before entry to the project site; (HSE-03)
- Report to PCL project Construction Manager promptly on occurrence of any significant health, safety, or environment incident; (HSE-13)
- Participate and comply with health, safety, and environment directives received from the PCL project Construction Manager;
- Comply with the PCL Project Specific HSE Plan; (HSE-15)
- Wear appropriate PPE; (HSE-07)
- Report any unsafe acts and/or unsafe conditions to the PCL project Construction Manager that could have any negative health, safety, or environment consequence;
- Report any injury sustained on the jobsite; (HSE-14) and
- Demonstrate commitment to the PCL HSE policies and goal for zero incidents.

2.8 Workers

Workers are responsible for safeguarding their own health and safety and the safety of project workers and to:

- Never proceed with work that creates an unusually dangerous risk that is beyond the risks that are typically expected in his/her occupation;
- Participate in the required training for their position and attend the general orientation; (HSE-03)

- Not conduct work where the worker doesn't evaluate they are competent and the work is within their capabilities
- Except for short duration workers and visitors, all workers at a PCL work site must complete a health, safety, and environment orientation; (HSE-03)
- At the completion of the HSE Orientation video, workers must complete HSE-03-02, Orientation Quiz; (HSE-03)
- If appointed to an HSE committee, attend all applicable committee meetings; (HSE-04)
- Encourage fellow workers to make HSE suggestions; (HSE-04)
- Participate in the hazard assessment process; (HSE-05)
- Comply with the PCL Project Specific HSE Plan; (HSE-15)
- Wear appropriate PPE; (HSE-07)
- Report any unsafe acts and/or unsafe conditions to the PCL project Construction Manager that could have any negative health, safety, or environment consequence;
- Report any injury sustained on the jobsite; (HSE-14) and
- Demonstrate commitment to the PCL HSE policies and goal for zero incidents.
- Follow the standards contained in the Project Specific HSE Plan; (HSE-05)
- Follow hazard control measures identified for their work; (HSE-05)
- Participate in inspections as requested; (HSE-06)
- Wear PPE as required in PCL policy, practices, and procedures or where site specific requirements request PPE in addition to the company standard; (HSE-07)
- Care for and maintain the PPE issued to them according to manufacturer instructions, codes of practice, and related training they have received; (HSE-07)
- Use only AS/NZS compliant and approved PPE that is in clean and in good condition or repair; (HSE-07)
- Participate in PPE training; (HSE-07)
- Understand the ERP for their work area; (HSE-08)
- Participate in emergency response training and testing of the Emergency Response Plan; (HSE-08)
- Secure tools, equipment, and materials; (HSE-09)
- Report any losses of tools, equipment, materials, or other incidents of security to the project supervision as soon as they are discovered; (HSE-09)
- Report any suspicious behaviour or presence of unauthorized individuals on the work site; (HSE-09)
- Inspect all equipment and tools before use; (HSE-12)
- Keep all equipment and tools in good repair; (HSE-12)
- Operators of vehicles/equipment shall be made aware of the servicing, maintenance schedule, and methods of maintaining the company vehicle; (HSE012)
- Remove and tag out from service any defective tool or piece of equipment; (HSE-12)
- Leave all HSE devices operative on equipment and tools; (HSE-12)
- Report all incidents and injuries to their supervisor immediately; (HSE-13)
- Actively participate as required, in the incident investigation process; (HSE-13)
- Provide honest statements of known facts to investigators when requested; (HSE-13)
- Participate in the modified work program, where medically acceptable; (HSE-14)
- Notify treating health care providers that modified work is available; (HSE-14)
- Notify project HSE staff and supervisors regarding medications, medical appointments, and medical work restrictions; (HSE-14)

- Notify project HSE staff and supervisors regarding any problems or concerns with the modified work; (HSE-14)
- Follow the standards contained in the Project Specific HSE Plan; (HSE-15)

2.9 Compliance and Enforcement of HSE Rules

All workers, foremen, supervisors, team leaders, trade contractors, workers and visitors must:

- Comply with company and legislated HSE standards is necessary to maintain a safe and healthy work environment as:
  - Violations will be the cause for corrective action, which could result in disciplinary action up to and including termination of employment or service contract

Compliance with the Project Specific HSE Plan is mandatory.

- To this end, PCL has developed a system of discipline to deal with infractions to the policies outlined within this plan.

2.9.1 Infractions Which May Result in Immediate Dismissal, Suspension or Termination

The following acts of misconduct are zero tolerance activities. They will be investigated and upon confirmation will result in immediate removal from the job site, suspension or termination. This list includes, but is not limited to:

- Possession of firearms on client or PCL property, not even in vehicle;
- Any criminal or illegal activities including, but not limited to, theft and vandalism;
- Any physical fighting or other acts of workplace violence including horseplay or rough housing;
- Smoking in non-designated areas;
- Bomb threats;
- Unauthorized access/modifications to a red flagged area or red tagged scaffold;
- Entry into a confined space without a valid permit;
- Disregard of or failure to follow fall prevention rules or comply with the manufacturer recommendations on the use and maintenance of equipment;
- Disregard of or failure to follow equipment safe operating procedures;
- Operating equipment without proper authority or qualifications;
- Tampering with fire protection devices or equipment;
- Alcohol or illicit drug possession on the job site and/or substance abuse;
- Non-compliance with the use (or misuse) of PPE;
- Failure to utilize proper sanitary facilities;
- Violation of the Lock Out/Tag Out procedure(s) and/or legislation requirements;
- Unauthorized removal of lock or tag used in a lockout/tag out procedure.
- Undertaking high risk construction activities without a Safe Work Method Statement.
- The use of mobile phones whilst operating mobile plant/machinery/vehicles in motion.
- Disregarding any requirement of Codes of Practices – COP's are called up by Queensland legislation and therefore form part of the mandatory legal requirements of work.

3 Legislative Compliance

3.1 Introduction

The purpose of the Legislative Compliance section will be to outline all health and safety legislation, codes of practice and Australian standards identified relevant to the company operations and the project/site activities. Specific details are outlined in the PCL Woolooga Legislative Compliance Procedure (Appendix D).

3.2 PCL Pacific Rim - Compliance Register

The HSE Supervisor is responsible for ensuring the development and maintenance of a reference list of Legislation, Codes of Practice and Australian Standards relevant to the scope of work and these are to be recorded in the PCL Pacific Rim Legislative Compliance Register (Appendix E) for all of company operations.

PCL HSE Supervisor, in consultation with PCL Senior Management, identified the legal and other requirements (e.g. Acts, Regulations, Codes of Practice, Australian Standards, WorkSafe QLD, Safe Work Australia etc.) pertaining to WHS, through an internet-based review of the requirements and information provided by relevant regulatory authorities, industry bodies and consultants.

All reviews, changes and updates to the LCP are recorded on the *Legislation Change Register* tab or the *COP Change Register* tab to ensure ongoing monitoring and changes are permanently recorded.

3.3 Project Specific - Compliance Register

The HSE Supervisor is responsible for development and maintenance of a Woolooga Solar Farm Legislative Compliance Register (Appendix F). The Project Specific Legislative Compliance Register is derived from the PCL Pacific Rim Legislative Compliance Register. This Register shall be reviewed at each project kick-off meeting and amended to suit the requirements of the project.

The HSE Supervisor will be responsible for ensuring all applicable health and safety legislation and codes of practice are posted to the project site safety bulletin and/or located in the site safety office.

PCL has electronic access to all Australian Standards through the annual subscription to SAI Global Standards database. All subcontractors and employees shall be given access to the latest version of Health and Safety Act, Regulations, Codes of Practice and Australian Standards relevant to their work. This is communicated to the subcontractors and employees as part of project induction and displayed on the site Safety Bulletin Board as such:

> *"If you require access to WHS Act, Regulations, Codes of Practice and Australian Standards relevant to your work, please see PCL HSE Supervisor."*

PCL will also maintain USB drives with applicable safety legislation and codes of practice to allow easy, anytime access for all workers to stay informed of the latest standards.

All reviews, changes and updates to the LCP are recorded on the *Legislation Change Register* tab or the *COP Change Register* tab to ensure ongoing monitoring and changes are permanently recorded.

3.4 Changes to Health & Safety Legislation

In the event that changes occur to any health and safety legislation, codes of practice or Australian Standards PCL has subscribed to SAI Global Standards database to be notified of immediately of changes to applicable standards. Once notified of a change in WHS law or AS Standards, the PCL HSE Supervisor, Construction Manager and Project Manager will be able to determine the correct action to update applicable PCL HSE documentation and ensure this is clearly communicated at the site level and access provided to workers.

The HSE Supervisor is responsible for ensuring that revisions made to project procedures and processes including risk registers, JHAs are communicated to all workers on site through the Site Safety Bulletin Board and Toolbox Talks. All changes to operating procedures such as JHAs will require workers involved in the tasks to participate in the review and acknowledge changes by signing off on the revised JHA.

The HSE Supervisor must be hold formal qualifications and relevant experience to undertake the review of any changes that may occur to any health and safety legislation, codes of practice or Australian Standards prior to implementation on the project.

3.5 Access to registers and Legislation in limited internet situations

To ensure all personnel have access to Legislation relevant to the project, the HSE Supervisor will keep an external drive with relevant safety related information (Legislation, Regulations, Codes of Practice and Registers). This drive will be updated upon review or notification of changes to Legislation, Regulations or Codes of Practice as advised from time to time.

4 HSE Orientation & Training

4.1 Introduction

The purpose of the PCL Standard HSE-03 Orientation and Training (Appendix G) is to provide a common system of site induction for all subcontractors, workers and visitors with consistent health, safety, and environment information, orientation, education, and training while working on this specific project.

4.2 Minimum Training Requirements

HSE-03 also outlines the minimum WHS training, competency, qualification and licensing requirements for *ALL* workers on the project and is briefly outlined as follows;

Full Time Workers

1. HSE Orientation Video
2. Life Saving Absolutes (LSA) Video
3. PSI Video
4. Site-Specific Safety Overview Presentation
5. Completion of an *HSE Orientation Checklist (HSE-03-01)*
6. Completion of an *HSE Orientation Quiz and Answer Sheet (HSE-03-02)*
7. **All workers must produce a valid QLD White Card**
   *further details outlining the orientation process below

Short Duration Workers

1. Short duration workers will attend a short duration work orientation facilitated by an employee which includes completion of the *Site-Specific Safety Overview Presentation*.
2. Completion of *Short Duration Worker Orientation Checklist*
3. Provide relevant training competencies or licenses for the work to be undertaken
4. All short duration workers must sign in and sign out at the project office.
5. **All short duration workers must produce a valid QLD White Card or interstate or territory general construction induction training cards with the exclusion of the NSW green card which are no longer valid in NSW or recognised.**
   *further details outlining the orientation process below

Visitors

1. Completion of a *Visitor Orientation Checklist*
2. All visitors must sign in and sign out at the project office.
3. All visitors are to be accompanied by a fully orientated worker at all times.
4. Visitors are not to conduct any physical work – if work is required then a Short Duration Worker Induction is required.

The PCL Toronto District Training Matrix (Appendix H) and the PCL 2021 Individual Training Matrix (Appendix I) outlines the minimum WHS training, competency and qualification for *PCL* workers on the project. The PCL Project Manager is responsible for ensuring the PCL Project Team is appropriately trained for their given role. Completion of this training is recorded in the PCL 2020 Individual Training Matrix and on PCL's online training platform, PCL Learn. All PCL training is maintained on the PCL Learn system.

4.3 HSE Orientations

The PCL HSE Supervisor is responsible for ensuring all employees, trade contractors, visitors, and suppliers shall attend a site-specific safety orientation prior to commencing work. A site designate will be appointed to accommodate this portion and will be assigned by the Project Construction Manager. Following this portion of the orientation, each employer supervisor will review site specific potential hazards associated with the employee's task.

All workers will be required to submit a completed copy of the General Safety Orientation Checklist and a completed copy of the PCL Safety Orientation Questionnaire after viewing the corresponding safety orientation video.

The extent of the orientation will depend on the level of work activity a person is conducting on site. Orientation programs may be tailored to suit;

- Full time site workers who may work unescorted;
- Short term workers who may work unescorted;
- Short term workers escorted by a fully inducted site worker;
- Site Delivery drivers;
- Visitors.

Regardless of the orientation extent all personnel will complete the appropriate orientation paperwork which will be submitted to the PCL Supervisor on site.

Note: HSE Orientations must be completed utilizing the following checklists provided in the corporate PCL HSE manual, Standard HSE-03, and completed copies shall be retained on site.

The full-time worker orientation consists of the following program;
HSE Orientation Checklist (HSE-03-01)
HSE Orientation Quiz and Answer Sheet (HSE-03-02)

Orientations are Online and will vary in times to complete, Face to Face Orientations are available if required under special circumstances
Orientations will take approximately 90 minutes to complete.

- 45 minutes for PCL Safety Orientation
- 10 minutes for PSI review
- 5 Minutes Life Saving Absolutes-LSA
- 5 minutes for Orientation Checklist review
- 10 minutes for site specific review (Site plot plan; mustering location; PPE requirements; disciplinary actions; current site-specific hazards, etc.)

Note: All workers must provide records of training during the orientation. Workers will not be permitted access to the site unless all applicable training records have been provided at the time of the orientation. (i.e. White Card; Certificates of Qualification; crane, forklift etc.). PCL will make copies of training records and will retain on site.

4.4 Refresher Training

All workers shall participate and receive refresher orientation every 2 years. Each 24 months, every employee working on or visiting projects shall receive HSE refresher training in the basic

orientation subject matter, and applicable legislative jurisdictional requirements. HSEOP's and HSE Manual revision training shall be conducted as they are released. Targeted packages may be deployed requiring completion where significant changes to legislation/regulations occur, post incident or where workplace requirements change.

4.5 Worker training to Specific Hazards

All workers are to receive formal technical training to effectively deal with hazards associated with their work. The identification of this training is to be developed from the analysis of the construction hazard assessment (CHA) and developing the list of training needs shall be a function of the site Project Management team.

- **Identified Training**
  Project Management shall identify and list all training objectives. The training objectives shall be listed and updated on the attached site-specific training log.

- **Training Certifications**
  All workers must provide copies of all training certifications and proof of competency, as required, to the HSE Orientation facilitator prior to accessing the site.

4.6 Visitor/ Short Duration Work Orientations

Short duration work refers to:

- Work conducted on a PCL work site for a period of less than 2 business days;
- Not repetitive or anticipated to be repeated through the duration of the project;
- A visitor is an individual (i.e. employee, worker or other) who is not assigned to the job site, office or permanent facility.

Visitors and short duration workers will attend a visitor/short duration work orientation facilitated by the HSE Supervisor or a member of the PCL management team. These visitors/short duration work orientations must be authorized by the PCL project management team prior to access to the PCL job site. Upon each separate visit, the visitor/short duration worker orientation will be repeated.

All visitors/short duration workers must sign in and sign out at the project office.

A PCL employee or designate who has completed the full health, safety and environmental orientation will be responsible to escort the visitor/short duration worker while the visitor/short duration worker is on site. The escort will be responsible for the safe acts and conditions from the visitor/short duration worker.

Note: Visitor/Short Duration Orientations must be completed utilizing the following checklists provided in the corporate PCL HSE manual, Standard HSE-03, and completed copies shall be retained on site.

4.7 Delivery Driver Orientation

Trade contractor foreman will complete the orientation with delivery drivers upon arrival to site and prior to the task of loading and/or unloading the delivery vehicle. The project management team to conduct spot checks during deliveries, to ensure the Delivery Driver Orientation has been completed. If a spot check reveals the orientation has not been completed, the delivery must be stopped until the orientation is completed. This does not apply to courier personnel who deliver to the project site office trailer, or for delivery drivers who have completed the full PCL Orientation.
Note: Delivery Driver Orientations must be completed utilizing the Delivery Driver Orientation form. Completed orientations must be filed on site.

4.8 Transition to Online Orientation

HSE Orientations are being migrated to an online platform for all PCL sites in Australia. Once this process has been completed the PCL orientation will be completed by the worker ***prior*** to attending site. The orientation portal will require workers to select their relevant worksite, complete the online induction and safety quiz, upload their qualifications, white card, and operating licenses.

Each of the categories except for Delivery Driver Orientation will be available online and personnel must complete them prior to attending site. Workers are required to print their identification card containing a unique QR-Code that will be linked back to an individual profile.

4.9 Site Specific

The Woolooga Solar Project has site-specific orientation requirements that have been developed by the PCL Project Management team. These requirements will be reviewed during the general site orientation training.

The HSE Supervisor will ensure that all PCL employees as part of the orientation program review relevant plans specific to Work Health and Safety. Employees will acknowledge review and understanding of relevant plans on the PCL Employee WHS Plan Acknowledgement Form which forms part of the Employee orientation package. The acknowledgement form will be maintained in the project files with other orientation documentation.

PCL Superintendents are to ensure specific safety procedures relevant to individual construction activities are highlighted through the JHA process. All subcontractors are required to submit JHAs to PCL Management for review and approval prior to beginning such activities. Once JHAs have been approved, it is the responsibility of the PCL Superintendents to ensure subcontractor adherence. All workers are to be trained and familiar with JHAs relevant to their work activities and acknowledge this on the PCL HSE Orientation Checklist prior to starting work onsite.

4.10 Verification of Orientation & Licensing Requirements

The PCL HSE Supervisor is responsible for ensuring that copies of all relevant WHS training, competencies, qualifications and licenses are obtained during the induction process and maintained in the Project Document Management System and where suitable in PCL Learn on the individual training transcripts.

Training and licensing requirements are enforced through the Subcontract Deed with all subcontractors working with PCL.

The Construction Manager is responsible for ensuring that all subcontractors maintain a copy of worker training records, competencies, qualifications and license and when requested provide a copy of these to PCL management.

The Operational Risk Register identifies subcontractor minimum WHS training, competency, qualification and licensing requirements for the project. The HSE supervisor will provide a copy of the operational risk register prior to work commencing on site. All workers and subcontractors will provide evidence of licensing and /or competencies during the site orientation. These will be documented under the "Worker Training" section of the orientation documentation.

To assist in determining the required license or qualification reference should be made to the WSF High Risk Work Competency Verification Matrix which outlines relevant license classes and competencies for high risk work activities.

4.10.1 Acceptable Evidence of Competencies

The following can be used as evidence of competency:

- High-Risk Work License issued by a State or Territory under the National Certification System as per the legislation; or
- Where a High-Risk Work License is not required by legislation:
    - License or Certificate of Competency issued under previous State or Territory legislation for which there is no longer a High-Risk Work License required e.g. load shifting equipment; or
    - Statement of Attainment or Certificate issued by a Registered Training Organization (RTO) for the successful completion of the appropriate unit of competency in the Nationally Recognized Training (NRT) package; or
    - evidence of formal Verification of Competence assessment (VoC) against defined competency standards, which should:
        - be completed, or confirmed as having been completed, by the accredited company to an acceptable level, such as the relevant NRT, internal VoC process, or equivalent;
        - include a detailed and documented assessment standard;
        - be completed by a person (or persons) who meets the documented competency as defined by the company to conduct a VoC assessment; and
        - be evidenced by a signed, completed VoC assessment.

4.11 Verification of Orientation & Licensing Requirements

Third parties and sub-contractors must provide monthly returns of the training matrices of each of their staff members and have available for inspection records of staff qualifications. Where substantial non-compliance is identified by PCL the third party or contractor or sub-contractor will be stood down until such time as satisfactory records management is in place. As a reference non-PCL parties should retain records of section 4.1-4.10.

5 HSE Communication Systems

5.1 Introduction

This section defines the communication systems that will be used on this project. The intent is to provide all workers with up-to-date information regarding HSE requirements.

5.2 Consultation Arrangements

The following are the consultation arrangement options for the Woolooga Solar Project

1. HSE Committee where 5 or more workers request,
2. Health & Safety Representative,
    a. If a worker requests that one or more HSRs be elected for the workplace, PCL must make arrangements to establish one or more work groups as per the requirements of the WHS Act 2011
3. Other Agreed Arrangements
    a. Weekly Toolbox Talks – Open to all workers onsite
    b. Daily PSIs – Open to all workers onsite
    c. Direct reporting to site HSE Supervisor

The current agreed upon method at this time on this project is for *Other Agreed Arrangements*.

The HSE Supervisor will ensure that all workers, prior to commencing work onsite must document their acknowledgement of the consultation arrangements outlined on the orientation checklist. Additional details are contained in Appendix J - WSF Workplace Communication & Consultation Plan outlining specific communication and consultation details.

5.3 Project HSE Committee (Joint Health and Safety Committee)

The project Construction Manager is responsible for ensuring the establishment of a Project HSE Committee at the request of the workers. The Joint Health and Safety Committee (JHSC) develops and promotes the environmental and safe work practices as well as makes recommendations to management that will improve compliance performance as well as the health and safety of the workers on the project. The process for establishment of the HSE Committee is outlined into PCL Standard HSE-04 HSE Communication Systems (Appendix K) and at a project level utilizing the WSF Workplace Communication & Consultation Plan (Appendix J). These processes allow for;

- Agreement on the establishment of consultation arrangements with workers on site;
- Consultation with workers or their representatives when WHS issues arise;
- A program to ensure regular meetings with minutes of the meetings available to all workers;
- Training for health and safety representatives/WHS committee members where requested/required.

The function of the Committee shall be to identify, evaluate and recommend a resolution to matters pertaining to health and safety in the workplace. The JHSC must be established to meet and/or exceed the Work Health and Safety Act 2011.

In accordance with Queensland WHS Act 2011, Project HSE Committee (JHSC) shall be formed, if requested by 5 or more workers or requested by the health and safety representative (HSR).

The Construction Manager is responsible for ensuring all elected HSRs and Safety Committee Members are afforded the opportunity to attend a Queensland WorkSafe training HSR training course.

Project HSE Committee meetings will be held once a month and must be chaired by the Project Construction Manager. The HSR's and Safety Committee Members are responsible for ensuring accurate minutes of meetings are produced and provided to PCL site Management.

Recorded minutes of project HSE meetings will be retained on file at project worksite location. These minutes will be kept in traditional paper format and:

- Posted on site
- Reviewed in weekly HSE field meetings
- Logged on the Safety Management Centre (SMC). Distribution of recorded minutes will be posted on site and reviewed in weekly HSE field meetings (toolbox talks).

HSE Committee meeting format:

- Call to order;
- Roll call;
- Review business arising from minutes of previous meeting;
- Review of project HSE statistics/trend analysis action plans;
- Reading of relevant correspondence (including weekly HSE field meeting summaries);
- Incidents and unsafe acts review;
- Discuss new business;
- Conduct an inspection of the site;
- Set date, time, and location for the next meeting; and
- Adjourn

Site Specific – date, time, minutes posted on the Safety Bulletin board.

5.4 HSE Field Meetings (Toolbox Talks)

The purpose of the HSE Field meeting is to provide timely information on health, safety, and environment items that relate to project activities.

HSE Field meetings are conducted by supervisors and/or lead hands and provide an important communication link to each crew. These meetings must be held on a weekly basis, at a minimum. Topics for discussion should pertain to health, safety, and environment matters only. Minutes of these meetings are recorded on the Weekly HSE Field Meeting form and copies are forwarded to the project Construction Manager and displayed on the Safety Bulletin Board.

All members of the crew shall attend. Each member must legibly print and sign their Christian and Surname on the HSE Field Meeting form. Anyone missing must be informed about important items by their immediate supervisor.

Supervisors and/or lead hands will hold regular HSE Field meetings weekly on company time with their crews. Topics will include:

- Review minutes from last project HSE committee meeting;
- Review of last inspection; any incidents; and SDS
- Discussion on suitable PPE to the work being done on site;
- Review first aid and emergency procedures;
- Discussion on current HSE risks on the job site;
- Information from the HSE Department, such as safety advisory bulletins and monthly trend analysis action plans
- IHSA safety talks

Note: HSE Field Meetings must be completed utilizing the form provided in the corporate PCL HSE manual, Standard HSE-04, and completed copies shall be retained on site.

HSE Field Meeting Form (HSE-04-02)

5.5 Project HSE Trend Analysis and Action Plans

The Project Trend Analysis is designed to consolidate monthly HSE statistical information from project sites and will be a monthly agenda item on the project HSE committee meeting. The Project HSE Trend Analysis shall include information from:

- Inspections
- PSI's
- First aids; medical aids; modified work; near misses; and lost time incidents

Project Action Plans shall be:

- Completed monthly
- Developed from leading and lagging indicators, such as inspection results and incident reports
- A monthly agenda item on the project committee meetings
- Posted on the site-specific safety bulletin board
- Distributed to the trade contractors on site as a discussion item during their weekly HSE field meetings
- Project Manager is to enter the Action Plan into SMC under the monthly action plan section.

5.6 The WHS Issue Resolution Procedure

The PCL Construction Manager is responsible for ensuring that all WHS issues are resolved. The following outlines the WHS Issue Resolution Procedure in the event an WHS issue is reported by any worker or a client representative:

1. Issue is reported directly to the PCL HSE Supervisor or PCL Management Team
    a. Issue comment drop box will be provided onsite for anonymous issue reporting

2. Issue is reviewed with the PCL HSE Supervisor, PCL Construction Manager and PCL Project Manager. During discussion, PCL will determine whether the issue is an immediate risk to the health and wellbeing of stakeholders,
    a. If it is determined that the issue is a threat to workers onsite, then work activity will cease.
3. If the issue is determined to be valid, accurate and relevant, the issue will be discussed at the next weekly HSE Field Meeting (Toolbox Talk)
    a. To ensure the issue has been resolved, follow up discussion will take place at the Project Safety Committee Meeting
4. If the issue remains unresolved, this should again be reported to PCL,
5. PCL will determine appropriate action to take place and if required, refer to a third-party such as the state authorised dispute resolution specialist for advice,
6. Suitable actions are to be implemented in consultation with relevant key stakeholders,
7. If the issue remains unresolved or is hindered, the matter may be referred to the relevant State Regulatory Body.

The HSE Supervisor is responsible for ensuring the WHS issue resolution process is clearly communicated to all workers onsite. This will be communicated through the Site Safety Bulletin Board and the project Site Specific Safety Orientation.

6 Hazard Identification & Control

6.1 Introduction

This section defines the Hazard Identification and Control methods for the prevention of incidents in the workplace. Health hazards, occupational factors or illnesses arising in and from the workplace which may cause impaired health and wellbeing, sickness or significant discomfort and inefficiency must be identified, monitored and controlled.

6.2 HIRAC Process

As per the PCL Standard HSE-05 Hazard Identification and Control (Appendix L), the PCL HSE Supervisor ***MUST*** develop a Construction Hazard Assessment prior to construction commencement. The detailed process to identify and control the potential hazards, assess the level of risk associated with the potential hazards and definition of the controls to manage the hazards are outlined in the PCL Comprehensive Hazard ID & Control Process (Appendix A).

The PCL Toronto District Training Matrix identifies the required training to ensure the project HIRAC process is undertaken by personnel trained in the use of the company's HIRAC methodology and tools. This is evidenced by the completion of HLD 225 Hazard Identification and Control modules located in PCL's online training platform, PCL Learn. Completion of this training module is recorded in the PCL 2021 Individual Training Matrix (Appendix I) and completion of PCL's Australian Hazard ID and Risk Management Presentation training.

The PCL Project Manager is responsible for ensuring that all workers, including senior managers (as identified in the project organizational chart) and subcontractors, participate in the company HIRAC processes. Individual responsibilities are outlined in PCL HSE-02 Leadership and Administration (Appendix B). This is achieved through the following PCL HSE procedures;

1. Development of the Woolooga Construction Hazard Assessment (CHA) (Appendix M)
    a. The HSE Supervisor is responsible for completing the project CHA prior to commencement of construction
    b. The CHA must be reviewed and acknowledged by the project senior management
2. Development of the WSF Operational Risk Register (Appendix N)
    a. The HSE Supervisor is responsible for ensuring the development of WSF Operational Risk Register. The register review is to be included as part of the project Kick-of Meetings and PCL Senior Management is to take part in the review. The record of the review will be documented with a sign off sheet. Access to the register and the identified documents will be made available to all workers on the site through the site HSE Supervisor.
    b. Identification of PCL's acceptable level of risk for the given activity, all hazards identified must be prioritized to identify PCL's acceptable level of risk (A, B or C-Type) (See Figure 1) with appropriate authorization.
3. Development and review of Job Hazard Analyses
4. PSIs & PSI Audits

These procedures take place predominantly in the pre-construction phase of the project, with PSIs and JHA development taking place as required during construction activities. Continual review of all procedures takes place on an ongoing basis through to completion of the project.

6.3 Risk Register Review

Operational risk registers will be re-evaluated as part of continuous improvement when there are changes to site or deficiencies are identified. This will occur:

- When an incident occurs on site; or
- The scope of work changes; or
- When there are changes to the work site; or
- When new Hazards are identified or introduced; and
- After an emergency response drill identifies deficiencies.

The HSE Supervisor will ensure that when changes are made to operating procedures, SWMS or the risk register the amendments are communicated to the relevant parties. The HSE Supervisor is responsible for conducting the updates. The SHE Supervisor will ensure all workers are made aware of the changes through the Safety Bulleting Board and Toolbox talks and any impact on emergency response requirements are communicated to the emergency response team members.

6.4 Hazard Reporting Procedures

6.3.1 Hazard Reporting Procedure for PCL Personnel

- The employee discovering a safety related situation should try to correct the situation themselves or if not possible, should immediately inform their Foreman for action.
- Once the Foreman has been notified, the Foreman should correct the situation. In the event assistance is required the Foreman must advise their Construction Manager.
- If the Construction Manager deems necessary, reports will be written and distributed as required.

6.3.2 Hazard Reporting Procedure for trade contractor Personnel

- The Trade Contractor employee discovering a safety related situation should try to correct the situation themselves or if not possible, should immediately inform their Supervisor for action.
- Once notified, the Supervisor is to take care of the problem or in the event assistance is required, the Supervisor will contact PCL's Construction Manager.
- The PCL Construction Manager will advise the appropriate Trade Supervisor who shall immediately respond and take corrective action for the situation.
- The PCL Construction Manager shall follow up to confirm safety situations are corrected.

6.5 Hazard Assessment Process

Step 1: Identify the hazards - Workers should address known hazards that could reasonably be expected to result in significant harm in their area of work.
Step 2: Determine who could be affected - Consider all workers and people who are outside the construction zone, such as the public.

***Step 3**: **Evaluate the risks** from the hazards and decide whether they are adequately controlled.*

6.6 Hazard Identification and Control

General site hazards and controls have been identified by the Estimating department and documented on the Construction Hazard Assessment, completed prior to the start of the project. On-going hazard(s) and control(s) will be addressed by, but not limited to:

- Job Hazard Analysis;
- Pre-Job Safety Instruction;
- Purchasing Controls;
- Safe Work Practices.

6.7 Types of Hazard Controls

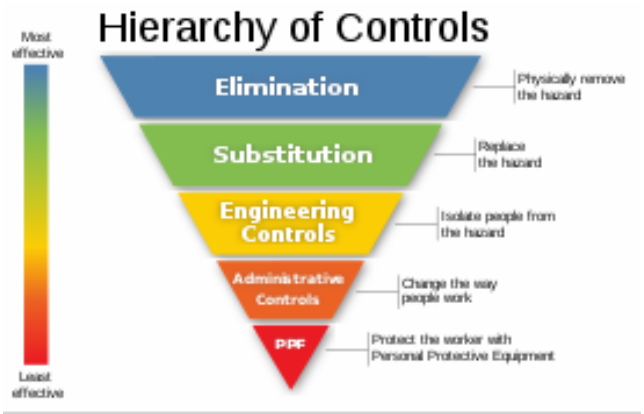
The assessment processes are comprised of the following four basic elements:

i) Recognizing the hazard risk or potential risk;
ii) Identifying the source;
iii) Evaluating the risk of potential loss; and
iv) Controlling risk of potential loss

6.7.1 Hazard Categories and Examples

Chemical Hazards	Physical Hazards	Ergonomic Hazards	Biological Hazards
• Mist • Vapours • Fumes • Gases • Dust • Liquids	• Noise • Vibrations • Lasers • Dust • Weather Conditions • Illumination • Heat/Cold	• Poor Work Posture • Improperly Handling Materials • Seating Support • Work/Rest Cycle • Fatigue • Monotony	• Mould • Bacteria/Viruses • Parasites • Insects • Snakes • Plants • Animals

6.8 Hazard Control Types



Hazard control measures are implemented based on the hierarchy of control characteristics outlined below. The hierarchy of control should utilize the highest level of control that is reasonably practicable given the task at hand in accordance with WHS Act 2011 and WHS Regs 2011 and any applicable codes of practice and Australian Standards.

6.8.1 Elimination

Elimination is the process of removing a hazard from the worksite. For example, elimination occurs when the need to work from heights is eliminated by lowering equipment to the ground.

6.8.2 Substitution
Substitution is the process of removing a hazard from the worksite and using an alternative means to reach the same goal. For example, substitution occurs when a less risky chemical or substance is used instead of an existing riskier chemical or substance.

6.8.3 Engineering Controls
Engineering controls help reduce risk to potential hazards either by isolating the hazard or removing it from the work environment.

6.8.4 Administrative Controls
Administrative controls are documented procedures that direct people and include policies, procedures and training.

6.8.5 Personal Protective Equipment (PPE)
PPE is the final line of defence against hazards in the workplace. It is implemented only after other reasonably practical means of eliminating a hazard have been attempted.

6.9 Safe Work Method Statement (SWMS)
The PCL Construction Manager is responsible for ensuring the completion of a SWMS by the PCL project team and subcontractors for high risk activities to verify that hazards and risks associated with a specific task are identified and appropriate controls are implemented prior to execution of the task. This is completed using the PCL SWMS template or similar document provided by the subcontractor. This includes the identification of PCL's acceptable level of risk for the given activity.

- Using the CHA, identify any task or scope of work which will require a SWMS to be done.
- All hazards identified must be prioritized to identify PCL's acceptable level of risk (A, B or C-Type) (See Figure 1)
- Control methods must be established to significantly reduce or eliminate the hazard.
- The SWMS must be communicated to employees and trade contractors involved with the task prior to the start of the task.
- Copies of the SWMS will be included with the PSI for the individuals performing work.
- The HSE Supervisor will ensure that SWMS reviews are undertaken to assess the suitability of SWMS used on the Project. SWMS reviews will be undertaken when SWMS are submitted by contractors. SWMS reviews will be recorded using BIM360 and a copy of the report will be maintained.
- The HSE Supervisor will ensure that SWMS observation are conducted to ensure work is undertaken in accordance with the SWMS. SWMS observations will be recorded in BIM360 using the SWMS Observation form and a copy of the report will be maintained on file.

6.8.1 Job Hazard Analyses (PCL & Subcontractor) must:
- Developed by team performing the operation.
- Evidence of worker consultation during development.
- Identification of high-risk work activities.
- Reviewed by PCL Site Supervisor or HSE Supervisor for suitability using the JHA checklist
- Identification of worker skills/competencies and licenses required for safe job performance

- Identification of items of plant/equipment/tools required
- Identification of relevant legislation, Codes of Practice and Australian Standards
- Identification of any additional approvals or certificates
- Communicated to all workers involved with the task (prior to start).
- Signed off by all workers involved with the task.
- Turned into PCL Project Management.
- Filed in the project 0H file and/or site binder.
- Addressed as needed during Weekly HSE field meetings.
  The Site Supervisor(s) are responsible for ensuring adherence to the JHA by conducting field inspections and JHA audits during the task using JHA observation form on weekly basis.

- **Note:** JHA's must be completed utilizing the form provided in the corporate PCL HSE manual, Standard HSE-05, and completed copies shall be retained on site.
  - Job Hazard Analysis Form (HSE-05-04)

6.10 Construction Hazard Assessment

The Construction Hazard Assessment (CHA) is essential to identify hazards and risks, as well as ensuring appropriate controls have been implemented prior to mobilization on-site.

- Note: A copy of the CHA for this project shall be attached to this document. In addition, the completed CHA will be provided to all trade contractors and posted on the site safety bulletin board. During the life of project, the CHA will be updated as necessary.
- Estimating department is responsible to initiate the process and hand it off to Project Management for hazard identification, job hazard analysis and control development.

- Project Management is to:

Frequency of Task		
Category	**Term**	**Definition**
4	**Very Frequent**	Possibility of repeated activities (many times in the course of a task)
3	**Frequent**	Possibility of isolated activities (several times in the course of a task)
2	**Occasional**	Likelihood of activity occurring sometime (likely in overall task and/or project)
1	**Infrequent**	Possible it will occur but not likely to

Severity – Consequences					
Consequence Category		**People**	**Property**	**Environment**	**Public Image, Reputation & Disruption**
4	**Major**	Fatality	Impact >$100,000	Reportable Occurrence	Government intervention
3	**Critical**	Permanent, long-term injury or illness	Impact < $100,000 but > $50,000	Client Standards Not Met	Owner Intervention
2	**Serious**	Recordable Injury	Impact < $50,000 but > $ 10,000	Site Conditions Unacceptable	Community Attention
1	**Minor**	On-site/ No Treatment	Impact < $10,000	No Impact	Individual or none

		Frequency of Task			
		4	3	2	1
Severity	4	16	12	8	4
	3	12	9	6	3
	2	8	6	4	2
	1	4	3	2	1

Risk Category		Definition
"A"	High (8-16)	Situation must be corrected immediately. Approval to continue at current level of risk by District Manager, Senior Construction Manager and District HSE Manager.
"B"	Medium (4-6)	Approval to continue at current level of risk by HSE Supervisor and Superintendent.
"C"	Low (1-3)	Managed appropriately at field level.

- Review the CHA form
- Identify additional hazards
- All hazards identified must be prioritized

Note: The Site-Specific CHA must be completed utilizing the form provided in the corporate PCL HSE manual, Standard HSE-05, and the completed copy shall be retained on site.
Construction Hazard Assessment Form (HSE-05-03)

6.11 Pre-Job Safety Instruction

Pre-Job Safety Instruction (PSI) is a documented program designed to assist supervisors and workers to safely accomplish their day-to-day activities and responsibilities through the application of hazard identification and control where the work is conducted.

PSI is used to enhance communication between workers and supervisors resulting in increased awareness between all crew members.

Workers and supervisors will be trained in the proper completion of a PSI by the HSE Supervisor during the mandatory PCL orientation completed by all workers prior to entering the onsite.

PSI will be completed at a minimum:

- At the start of any shift and when tasks or conditions change; and
- Shall be reviewed upon return from a break.

PSI Steps:

- Assemble workers involved in the work;
- Identify the scope of work being performed;
- Identify actual and potential hazards;
- Identify appropriate controls for each hazard;
- Document scope of work, actual hazards and controls;
- Review the PSI with the entire work group;
- Communicate the assessment to all employees; and
- Review with workers after breaks.

6.12 PSI Audit Requirements

- A minimum of 10% of all PSIs completed in the field will be audited.
- Participation shall be tracked and reported to Project Management on a weekly basis.
- All PSI audits are to be entered into the SMC on a weekly basis.
- Audits will be conducted daily to correct and coach proper completion of a PSI by:
  - Project Management;
  - All PCL personnel ordinarily working on site;
  - Senior management team members visiting site.

6.10.1 The PSI audit consists of:

- Review of documentation
- Observation in the field
- Interviews with workers at the task location

6.10.2 Documentation of Field PSI Audit by:

- Circling identified issues
- **Back side of PSI (White Copy):**
  - Answer the 10 questions regarding the PSI under audit
  - Write comments to address identified issues, note positive items, as well
  - Auditor signs, dates and inserts the time at which the PSI audit was conducted

- If there are items to be corrected, a copy of the PSI must be provided back to the trade contractor supervisor so that corrections can be made
- Completed PSI audits will be filed in the project 0H Files

6.13 Safety Data Sheets

All employees must have received Globally Harmonized System of Classification and Labelling of Chemicals (GHS) training. All Supervisors and employees are to monitor products/materials arriving on site for GHS Labels. Products/materials displaying GHS indicate that they are potentially hazardous substances and must be accompanied by a current Safety Data Sheet. These products/materials are not to be used until the "Safety Data Sheet" is available on site. Trade contractors are to submit SDS only for the product/material being brought to site. All SDS must be current to within three years.

Prior to use of the "Controlled Product" the Supervisor will review the label and SDS and advise their employees of the safe work procedures to be followed. Copies of SDS are to be given to the Project Construction Manager prior to the use of the product/material.

6.14 Stakeholder HIRAC Input

Stakeholder input into the Woolooga HIRAC process has been undertaken in the Woolooga Solar Farm pre-development process with the development of the Woolooga Environmental Impact Statement (Appendix O). Consultations with the following stakeholder parties have occurred;

1. Adjacent landholders
2. Woolooga community
3. Gympie Regional Council
4. Government Agencies
5. Neighbouring Industry

Specific consultation processes and details are outlined in the Woolooga Environmental Impact Statement.

The PCL HSE Supervisor has reviewed the EIS for all stakeholder input to ensure that all relevant information have been included in the WSF Operational Risk Register (Appendix N).

6.15 Communication

The PCL Project Manager is responsible for communication and liaison with client, public and other project stakeholders to implement a HIRAC process for any hazards impacting any of the aforementioned parties. This is outlined in Table 1: WHS Stakeholder Liaison and the WSF Community Engagement Plan (Appendix P).

PCL must consult with workers when they are likely to be or are directly affected by a situation involving their health and safety. Workers must have an opportunity to express their views and contribute to any decisions relating to their health and safety. Workers also need to be involved in any conversation about the adequacy of facilities.

PCL must consult when:

- identifying hazards and assessing risks
- making decisions about ways to eliminate or control risks
- changing or updating workplace facilities
- proposing changes that may affect the health and safety of workers
- making decisions about consulting procedures, resolving safety issues, monitoring workers' health and conditions, and providing information and training.

The Construction Manager and Site Supervisor are responsible for ensuring workers, or their health and safety representatives, will be involved in the development of site safety procedures relevant to the work they are undertaking. This process is conducted during the development of task specific JHAs prior to the work taking place in consultation with work force representative. For subcontractors this is evidenced by the acknowledgement of workers involvement in the JHA development with signature on JHA development section. This process is outlined in the PCL HSE Manual Hazard Identification and Control Standard HSE-05 (Appendix L) as well as the PCL Comprehensive Hazard ID & Control Process (Appendix A)

6.16 Stakeholder Identification

The Project Manager is responsible for identification of key stakeholders who are potentially affected by PCL's WHS processes, procedures and site operations. This is completed during the initial planning stages of the project. Key stakeholders are identified through development and review of key project planning documentation.

The specific key stakeholders for the Woolooga Solar Project are outlined in *Table 1: WHS Stakeholder Liaison* including specific contact details, method of communication and communication documents noting outcomes. This table will be updated and reissued as more key contacts are provided. Each trade contractor will receive a copy of this table as it is completed.

The purpose of this process is to put in place clear lines of communication to identify potential hazards and the relevant control measures and ensuring that all parties effected are included and that areas requiring action are tracked.

Considerations for the identification of key stakeholders include;

- Shared emergency response
- Shared site access
- Shared service corridors
- Shared infrastructure networks
- Client permit & development requirements
- Regulator jurisdictional requirements

Table 1:WHS Stakeholder Liaison

Stakeholder	Specific	Contact Details	Method of Liaison	Method of Liaison	Associated Documents
Client	Light Source BP	Arun Vijayakumar Senior Project Manager m +61426763590 e: arun.vijayakumar@lightsourcebp.com	Weekly meetings Monthly meeting	Meeting Minutes Monthly status report	Contract documents Safety in Design Management Plan
Client Subcontractors	Powerlink		Formal Notifications Design interface meetings	Meeting Minutes	Interface management plan
Engineering Consultants	Entura	Entura Andrew Wright, Project Manager 0400 940 589 Andrew.Wright@entura.com.au	Weekly design meeting	Meeting minutes	Contract documents Safety in Design Management Plan
Business/Industry	Fencing Subcontractor – TBD	Ford Brothers Fencing Phil Leard Project Lead M: 0448 842 493 E: phil@fbfencing.com.au	Subcontractor kick-off meeting Daily Pre-Start Daily POD Weekly safety meeting	Subcontractor kick-off meeting minutes SMC reporting Daily POD minutes	Subcontract documents WHS Capability Assessment HSE Plan Orientation & onboarding

Stakeholder	Specific	Contact Details	Method of Liaison	Method of Liaison	Associated Documents
Business/Industry	Civil Subcontractor – Carruthers Contracting	James Carruthers Estimator M: 0403 069 904 E: jc@carruthersscontracting.com	Subcontractor kick-off meeting Daily Pre-Start Daily POD Weekly safety meeting	Subcontractor kick-off meeting minutes SMC reporting Daily POD minutes	Subcontract documents WHS Capability Assessment HSE Plan Orientation & onboarding
Business/Industry	Piling / Tracker / Module Install Subcontractor – Pilecom PTY.LTD	Pilecom Pty Ltd Liam Werndly, Project Manager 0433 322 141 Liam@pilecom.com.au	Subcontractor kick-off meeting Daily Pre-Start Daily POD Weekly safety meeting	Subcontractor kick-off meeting minutes SMC reporting Daily POD minutes	Subcontract documents WHS Capability Assessment HSE Plan Orientation & onboarding
Business/Industry	Electrical Subcontractor – Stralis Energy	Stralis Energy Luke Watson, Project Manager 0490 124 468 Lukewatson@stralisenergy.com.au	Subcontractor kick-off meeting Daily Pre-Start Daily POD Weekly safety meeting	Subcontractor kick-off meeting minutes SMC reporting Daily POD minutes	Subcontract documents WHS Capability Assessment HSE Plan Orientation &

					onboarding
Business/Industry	Concrete Forming Subcontractors – NA	NA	Subcontractor kick-off meeting Daily Pre-Start Daily POD	Subcontractor kick-off meeting minutes SMC reporting Daily POD minutes	Subcontract documents

Stakeholder	Specific	Contact Details	Method of Liaison	Method of Liaison	Associated Documents
			Weekly safety meeting		WHS Capability Assessment HSE Plan Orientation & onboarding
Business/Industry	Electrical Subcontractors – TBD	TBD	Subcontractor kick-off meeting Daily Pre-Start Daily POD Weekly safety meeting	Subcontractor kick-off meeting minutes SMC reporting Daily POD minutes	Subcontract documents WHS Capability Assessment HSE Plan Orientation & onboarding
Gympie Shire Council		Tania Stenholm Manager Development and Compliance Gympie Regional Council T: 07 5481 0421 E: tania.stenholm@gympie.qld.gov.au	Email Ad-hoc meetings Formal project document submissions	Email correspondence Formal documentation approvals	Development Application WSF Traffic Management Plan
QLD Ambulance Service		P: 000 -Emergency only P: (07) 5293 4001 17 Alfred Street Gympie	Email Emergency planning meetings / discussions Ad-hoc meetings	Email correspondence SMC emergency response drills	WSF Emergency Response Plan

Stakeholder	Specific	Contact Details	Method of Liaison	Method of Liaison	Associated Documents
Queensland Fire & Rescue Service		T: (07)5489 4300 6 Bligh St, Gympie, QLD 4570	Email Emergency planning meetings / discussions Ad-hoc meetings	Email correspondence SMC emergency response drills	WSF Emergency Response Plan
Transport and Main Roads Gympie Region		P: 13 23 80 Floor 1, 50 River Road Gympie, QLD 4570	Email Ad-hoc meetings Formal project document submissions	Email correspondence Formal documentation approvals	WSF Traffic Management Plan

7 Safety in Design

7.1 Introduction

As Principal Contractor, PCL has entered into an Engineer Procure Construct contract with Lightsource BP and is involved in the design process, as a result, a documented process has been developed for ensuring risk assessments are undertaken at the design stage to identify, assess and control WHS buildability issues that may arise during construction. This process is outlined in the WSF Safety in Design Plan (Appendix Q).

As part of the design risk management process for Woolooga Solar Farm, a Construction Hazard Assessment & Implication Review (CHAIR) is to be performed. The Focus of the CHAIR workshop was to consider how design features have been incorporated to eliminate potential construction, operation and maintenance hazards Design review were complete at the 30% stages.

7.2 CHAIR Scope – Input to Design

The focus of a CHAIR workshop is to ensure risk assessments are undertaken at the design stage to identify, assess and control WHS buildability issues that may arise during construction. The CHAIR study followed the procedure as outlined in the NSW Work Cover Document "CHAIR: Safety in Design Tool (2001)"(Appendix R) and will be applied to this project in Queensland as there is no Worksafe Queensland equivalent guidance, the NSW procedure is considered to be best practice.

It does not directly address construction safety management issues, as detailed construction, operation and maintenance risk studies and safe work method statements are intended to be prepared at the time of construction. The CHAIR process is focused on using the opportunity to make any design changes to account for the probable construction methods and to ensure operating and maintenance staff received a final product that is safe.

The CHAIR Safety in Design process consists of three milestones at varying stages of the design lifecycle. At each stage a CHAIR will be conducted with all key stakeholders of the project. This process culminates with a final risk review meeting, atypical residual risk will be transferred to the project Operational Risk Register.

The key milestones in the project CHAIR process are as follows;

1. CHAIR 1 – Conducted after the 30% Design Drawings have been developed
2. CHAIR 2 – Conducted after the 60% Design Drawings have been developed
3. CHAIR 3 – Conducted with the Final Design Drawings completed, residual atypical risk will be transferred to the project Operational Risk Register

7.3 No Input to Design

Where the contractor has no input into the design process, the Project Manager is responsible for conducting a risk review of the safety in design report and the project design documents, if available, to identify any potential hazards, risks and buildability issues.

If a safety in design risk report is not available, the Project Manager is responsible for completing an internal CHAIR risk assessment to identify if there are any hazards that have not been previously identified, assessed and controlled at the pre-construction phase. Where new hazards are identified, the Project Manager is responsible for ensuring completion of the Design Change Impact Assessment Form and recording design changes in Design Change Register. The Design Change Impact Assessment Form must be issued to the designer for consideration of the noted changes or included in the Operational Risk Register.

7.4 Changes to Design During Construction

When changes to design take place once construction has commenced, the Construction Manager and HSE Supervisor are responsible for ensuring these changes will follow the procedures outlined below, ensure completion of the Design Change Impact Assessment Form and record design changes in Design Change Register to assess any new hazards and hazard controls. These will be communicated to all workers via Toolbox Talks and reorientation to JHAs / SWMS if required.

1. A change to design has taken place – Initiated by the Principal Contractor, Designer, Principal etc.
2. The change in design will undergo a review process to determine its significance.
3. If the change represents a material change to the current design, the CHAIR process noted above will take place.
4. Any outcomes of the CHAIR process will be added to the project risk register and circulated to all subcontractors.
   *Section 7.4 of the WSF Safety in Design Plan outlines this HIRAC process to be implemented if changes to design occur during construction, with any new hazards or changes to hazard controls communicated to relevant workers.

8 Inspections & Audits

8.1 Weekly & Monthly Inspections

The purpose of an inspection is to identify conditions and hazards in the workplace that can lead to an incident and identify positive conditions, behaviours, and observations.

The PCL Construction Manager is responsible for ensuring that the project site will be formally inspected on a weekly basis and will be informally inspected on a daily basis. Project management is responsible to verify that corrective actions are completed.

Formal health, safety, and environmental inspections will be completed on a monthly basis. These inspections will be completed by the district HSE Manager or project HSE Supervisor accompanied by the project Construction Manager and documented on the HSE Inspection Checklist in PCL's Safety Management Centre (SMC). Project management is responsible to verify that corrective actions are completed.

PCL Standard HSE-06 Inspections and Audit (Appendix S) outlines the overall inspection requirements and this is further reinforced by the Woolooga Safety Inspection Schedule 2021/2022 (Appendix T) has been developed to provide guidance on inspection frequency, focus areas and individuals responsible for participating in each inspection. It is the responsibility of the PCL Construction Manager and HSE Supervisor to ensure the Woolooga Inspection Schedule is adhered to throughout the project.

The PCL Construction Manager is responsible for ensuring that contractors participate in the PCL's HSE Monthly Inspection programs as directed by PCL.

8.2 Formal inspections

Formal inspections are documented visual tours of the workplace, used to identify hazards and hazardous conditions. Formal records are kept; actions will be assigned and follow up inspections planned. PCL Formal inspections must be completed and documented on HSE Inspection Checklist HSE-06-01 (Appendix U) and entered into the Safety Management System (SMC) within a 24-hour period. All formal inspections shall be signed off by the Project Construction Manager and Project Manager and reviewed by one level above the inspector. The completed HSE Inspection Checklist must be filed on site within the project 0H Files or in a binder format.

8.3 Informal inspections

All employees must complete daily informal inspections of their work environment. Informal inspections include the daily visual inspection of workplace conditions. If a Hazard Classification 'A' is observed, help to make the situation safe and then report the 'A' hazard to the HSE Manager or Construction Manager. They will open an informal inspection using form HSE-06-01 to record the 'A' and will enter the hazard into the SMC to make sure corrective action(s) have beentaken.

8.4 Governmental inspections

Inspectors from regulatory agencies will be permitted to inspect company facilities and projects, without obstruction, provided they have the appropriate authorization and identification.

- The Project Construction Manager shall notify the District HSE Manager immediately.

- An opening conference must be held prior to the start of the inspection.
- The opening conference will clarify and confirm the purpose of the inspection.

8.4.1 Inspectors from regulatory agencies must:

- Wear the appropriate PPE for the project.
- Be accompanied by Project Management.
- Provide a close out conference once the inspection has been completed.

8.4.2 Copies of all regulatory inspections must be:

- Forwarded to the District office by close of business on the day of the inspection.
- Retained in the project 0H files for reference and posted where required.

8.4.3 Project Management is responsible for:

- All corrective actions that need to be carried out.
- Posting any regulatory orders as required.

8.5 Audits - Evaluation of Effectiveness

The purpose of an audit is to evaluate the implementation of this HSE Manual against the requirements set out in this manual.

HSE Audits are very detailed inspections of the documentation and focus on the overall HSE process or management system, and provide the objective means for methodical and systematic analysis of the level of implementation of the HSE program. The audit requirements are outlined in the PCL Standard HSE-06 Inspections and Audits (Appendix S).

The scope of the audit criteria covers all PCL HSE Standards and HIRAC processes and is a comprehensive and objective review of the design and effectiveness of the health, safety and environment program. The audits must contain a representative sample of the active work that is being undertaken by PCL Constructors Pacific Rim and the projects. These audits must include an action plan after the audit for internal review and implementation of corrective actions. The HSE Supervisors are responsible for ensuring that these action plans are communicated to project sites, district staff and senior management.

The PCL Project Manager is responsible to ensure, at a minimum, the audits outlined below take place as per the Woolooga Audit Schedule 2021/2022.

8.5.1 Company

PCL Pacific Rim will be audited annually by Quality Management Consultants to ensure the WHS management systems are maintained in accordance with the ISO 45001 – Occupational Health & Safety Management Systems. The PCL HSE Supervisor is responsible for ensuring the evaluation of the effectiveness of the company WHS systems by ensuring an annual audit is conducted;

- PQMC - Annually

8.5.2 Project

The PCL Construction Manager is responsible for the evaluation of the effectiveness of the project HIRAC processes at the project level. This will be completed following the guidelines set out in PCL Hazard Identification and Control Standard HSE-05 using the following PCL HSE tools;

- Bob Tarr Audit Instrument - Annually
  - Complete an audit once per year that is equal to or greater than the standards set in the Bob Tarr audit process outlined in the Bob Tarr Audit Instrument (Appendix V).
- Review of incidents and near misses – As required
- Site WHS Audit Checklist – 1 month into project construction

The results of the HSE evaluation are recorded in PCL's Safety Management Centre (SMC).

8.5.3 Task

The PCL Supervisors are responsible for the evaluation of the effectiveness of the project HIRAC processes at the task level. This will be completed following the guidelines set out in PCL Hazard Identification and Control Standard HSE-05 using the following PCL HSE tools;

- PSI Audits - Weekly
- JHA Checklists & Audits – Weekly
- JHA observations - Weekly
- Special reviews of high-risk activities for example engineered lifts – As required

The HSE Supervisor is responsible for ensuring that the evaluation of the effectiveness of the company, project and task HIRAC processes are undertaken, results are recorded in PCL's SMC and any corrective actions are assigned to the applicable party with set due dates. Where corrective actions result in a change in HSE procedures, policy or workplace documentation this is communicated to all workers onsite via the site Safety Bulletin Board and Toolbox Talks.

The PCL Project Manager is responsible for ensuring that the auditors are appropriately trained. The Bob Tarr health, safety and environment audit is done by PCL employees trained in auditing or by external trained auditors. Approved training qualifications may include; internal auditor training lead auditor training, management systems auditor training delivered by a registered training organization.

8.5.1 Audit Requirement

- Random audits can be conducted without notice on all PCL projects.
- All Project Management and workers shall assist with site audits as needed.

8.6 Inspection & Audit Recording & Corrective Actions

Upon completion of the ISO 45001 Audit and The Bob Tarr Audit, the HSE Supervisor is responsible for ensuring a final report is issued to the PCL Pacific Rim Senior Management and

PCL District HSE Manager, Vice President, Health, Safety, Environment, HSE Directors and Regional HSE Managers.

Upon completion of the PCL WHS Site Audit, the HSE Supervisor will ensure that the final report is issued to the PCL Pacific Rim Senior Management.

Senior management conduct an evaluation of the audit and develop a corrective action plan for both the project and for companywide improvement. Senior management are also responsible for distribution of the corrective action plan company wide. The HSE Supervisor is responsible for ensuring corrective actions are implemented and tracked through SMC.

The PCL HSE Supervisor is responsible for ensuring all WHS inspections and audits are inputted into PCL Safety Management Centre (SMC) at the project level. This includes all corrective actions identified specifically noting the assigned personnel and due dates for implementation of the corrective actions for each item.

9 Health & Exposure Monitoring

PCL has a legal obligation under the WHS Act and the QLD Work Health and Safety Regulation 2011 (WHS Reg) to ensure the health and safety at the workplace of all site personnel. This includes the responsibility to identify hazards, assess risks, manage risks to health and safety and ensure that exposure to hazards at the workplace do not exceed occupational exposure standards and are as low as reasonably practicable. To assist in PCL's obligations, PCL has developed the WSF Occupational Health and Hygiene Management Plan (Appendix W).

All members of the PCL Management Team are competent and trained to monitor the general health and level of exposure of potential health hazards to workers on PCL's sites. Monitoring takes place formally and informally during the PCL Management Team inspections, daily informal inspections and weekly/monthly formal inspections. Through the inspection process the PCL Management Team is trained to diligently observe, take record and correct workplace behavior in all the Occupational Health categories outlined in PCL's Safety Management Centre (SMC).

In addition to the aforementioned worksite characteristics the PCL Management Team is trained to utilize the following PCL Health Safety Environmental Operating Procedures (HSEOPs) to identify worker exposure in the following categories that are applicable to the Woolooga Solar Project;

HSEOP-12 Respiratory Protection
HSEOP-19 Occupational Exposure to Bloodborne Pathogens
HSEOP-21 Silica Protection
HSEOP-28 Heat Stress Prevention
HSEOP-40 Sanitation and Drinking Water

An initial assessment will be completed by the HSE Supervisor, who will have a minimum *Diploma of Work Health & Safety* competency. The initial assessment will be conducted as part of the project risk review. Where identified, health hazards including biological, physical, and atmospheric contaminants in the initial assessment, an occupational hygienist will be engaged to complete a site-specific assessment of potential health hazards and develop a management plan. The following are the potential health hazards specific to the Woolooga Solar Farm construction activities which may require third party testing:

- Physical hazards: Noise
- Airborne contaminants: Dust

10 Project Performance Management

The monitoring of HSE procedures and reporting of HSE data and analysis is critical to maintaining and improving PCL's overall workplace safety. PCL's Standard HSE-04 HSE Communication Systems (Appendix K) outlines, in detail the HSE communication and reporting from the project level to the executive level (See Figure 1).

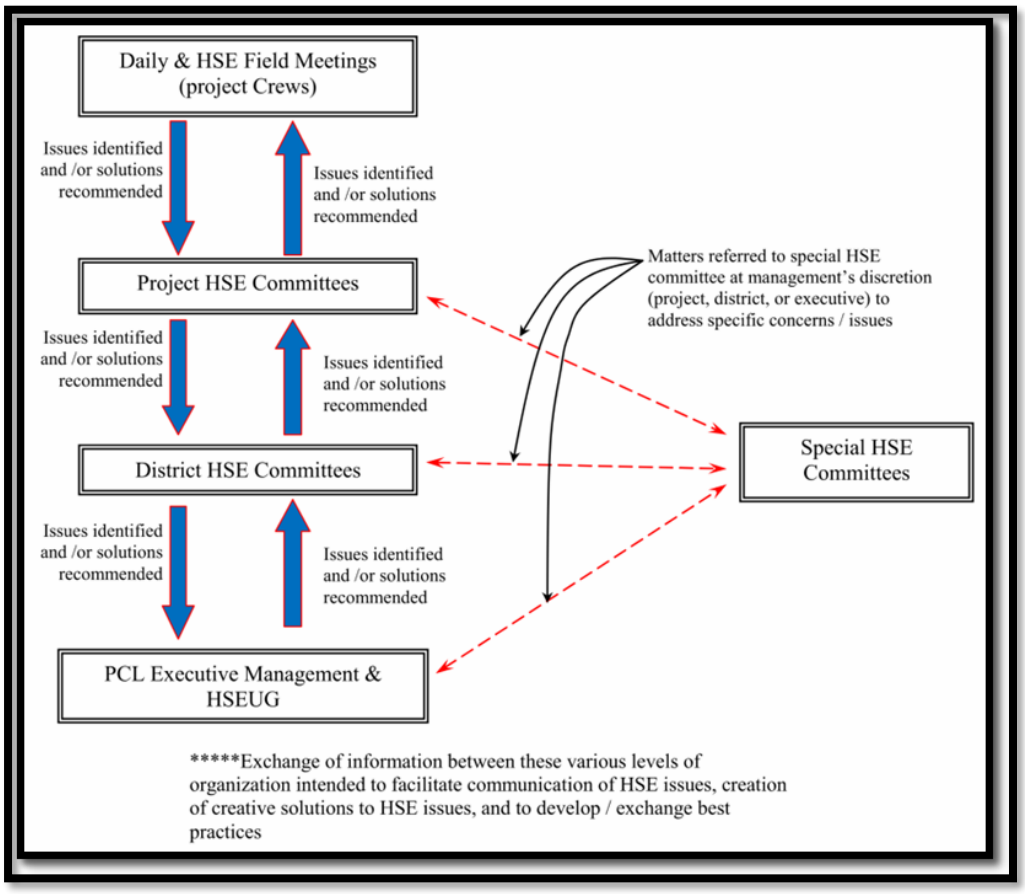


Figure 1: PCL HSE Communication Structure

The PCL Project Manager is responsible for ensuring WHS data is gathered and inputted into PCL Safety Management Centre (SMC) at the project level, this includes weekly and monthly safety submittals and inspection and audit data. Using SMC, the HSE Supervisor and all senior management has the ability to review all raw data and generate safety reports (See Table 1), trend analysis and track safety performance against PCL key performance indicators.

Table 2: SMC Safety Reporting

SMC Safety Reports		
Employee Safety Performance Report	Positive Observation Report	Required Fields to Close Report
Supervisor Inspection Accountability Report	Action Item Report	Body Part Injury Summary Report
District Client Classification Report	District Executive Safety Report	District Safety Summary Report
HSE Action Plan Report	Incident Charts Report	Incident Stats
Incident Summary Report	Injury Analysis Report	Injury Charts Report
Inspection Report	Inspection Use of Other Report	Inspections Hazard Summary Report
Leading Indicator Report	Monthly Trend Analysis Report	Observation and Analysis Report
Project Safety Report	PSI Audit and Behavioural Based Observation Report	Trade Contractor Safety Summary Report
TRIR and LTFR Charts Report	Weekly Safety Report	

Safety data and trends are compiled and reviewed on a monthly basis by the District HSE Committee. District HSE Committee meeting minutes and District HSE Trend Action Plan are distributed for review at the site level. The project HSE Supervisor is responsible for ensuring relevant information is communicated to the workers including the implementation of safety trend corrective actions outlined in the monthly Project and District HSE Trend Action Plan – June 2020 (Appendix X). Communication to onsite workers through site the Safety Bulletin Board and Toolbox Talks.

10.1 Key Performance Indicators

The Project Manager is responsible for ensuring key performance indicators are defined in order to measure the effectiveness of the safety systems.

The following KPIs have been defined for the Woolooga Solar Farm Project:

1. Zero Lost Time Injuries (LTI);
2. Zero Medical Treatment Injury (MTI);
3. One senior management inspection per month;
    a. Project Manager
    b. Construction Manager
4. 100% of corrective actions closed prior to stated due date;
5. Completion of 10 workplace inspections per month; and
6. Completion of 4 JHA/PSI observations per month.

KPI performance will be tracked through PCL's online Safety Management Centre (SMC). The HSE Supervisor will be responsible for the development of monthly reports from the SMC data. These reports will be signed off by Construction Manager and communicated to all site management and discussed at monthly project meetings.

11 Personal Protective Equipment

The purpose of PPE is to provide an effective barrier between a worker and potentially dangerous objects, substances and processes. Each trade contractor is responsible for equipping their workers/employees with any required PPE in accordance with their obligations under the WHS Act and Regulations. Employers must provide PPE that meets the required AS/NZS relating to that particular PPE. Failure to supply PPE will result in contractors being stood down by PCL and prevented from commencing until such time as their PCBU has provided the necessary PPE.

11.1 Mandatory Requirements

Head Protection

Workers shall wear hard hats that are in good condition and meet legislative jurisdictional requirements meeting AS1801:1997. All PCL employees must have the company logo and their name on their hard hats. Bump hats and metal hard hats shall not be worn as head protection.

Alteration of hard hats is prohibited. Hard hats shall be worn in the manner prescribed by the manufacturer. Only head apparel designed to be worn under a hard hat will be allowed.

Eye and Face Protection

Workers must wear properly fitting eye protection at all times. AS/NZS approved face and eye protection shall be kept clean and in good repair. If a worker cannot wear safety glasses, as documented by a physician's note, alternate arrangements must be made to verify the individual's face and eyes are protected.

All components of prescription glasses that are being used for eye protection must meet approved applicable regulatory standards. The prescription glasses will include side shields that must meet the applicable regulatory standards.

Coverall glasses or goggles shall be required for prescription glasses that do not meet the standard.

Foot Protection

All workers on a work site must wear safety footwear complying with AS/NZ Standards. This includes hardened toe protection. Footwear must be adequate to support the ankle, lace up/zip design and laced to the top of the eyelets.

Hand Protection

All workers must have gloves available on their persons. Gloves are to be worn when conducting work activities with hazards that may injure hands and must be suitable for the task being undertaken. Gloves must comply to the relevant Australian Standard.

Clothing
At a minimum a long sleeve shirt and long pants are required suitable for the work being undertaken. Active wear, tracksuit tops or bottoms and leisure type wear is not permitted to be worn whilst at work.

High Visibility Clothing
Workers shall wear high visibility clothing. The long shirts worn by workers in appropriate hi vis style are generally sufficient, however must be replaced when they are faded out. If the worker is wearing a non-hi vis style shirt, they must wear a hi-vis vest over the top of their shirt to be visible on the worksite.

Reflective Safety Vests
When necessary and communicated to all workers, reflective safety vests or shirts with reflective panels (high visibility) must be worn until directed otherwise. As the project hours are limited to 18:30 an evaluation and communication will be done during the winter months to determine the need for reflective panels.

11.2 Specialty PPE
Certain tasks may require the use of additional specialty PPE, these are outlined in the following section.

11.2.1 Hearing Protection
Workers shall receive an overview of hearing protection requirements during the project orientation.

In the absence of any legislative jurisdictional requirements, employees shall not be exposed to noise in excess of the occupational exposure limits (OEL) set by each district's legislative jurisdictional requirements. This may be accomplished by:
- Instituting engineering controls;
- Work practices/administrative control; and/or
- Providing personal hearing protection.

11.2.2 Limb & Body Protection
Where there is risk of injury to an employee's limb and/or body, adequate limb and body protection must be worn and equipment designed to protect employees from injury to their limbs and body must be used. Where there is risk of injury due to congested work area or the movement of heavy equipment in and/or around the work area, all employees must wear high visibility apparel. When work is being done in extreme hot or cold temperatures, the protective clothing being worn must be reviewed to verify that it is adequate. Employees must be informed of any special precautions that need to be taken or special protective clothing that needs to be worn.

11.2.3 Respiratory Protection (HSEOP-12)
- A written Respiratory Protection Plan (RPP) with specific work site procedures shall be in place and approved by Project Management prior to on-site worker use of respirators.
  Note: Written RPP's are not required for the voluntary use of filtering face pieces (dust masks).

- Shall be worn in accordance with regulatory requirements.
- Respirators specified are to be of Australian Standards
- Shall be provided when ventilation does not reduce air contaminants to safe levels.
- All workers required to wear a respirator must complete:
  - Medical questionnaire and a respirator-specific fit test
  - Respirator training prior to on-site use

Note: Disposable particulate respirators that have a NIOSH certification number are considered respirators and must be fit-tested

- Reusable respirators must be cleaned after each day's use and properly stored.
- Respirators must be properly stored any time they are not actively being worn

Respirator shall not be worn by anyone unable to provide proof of current medical certification and fit-test.

11.2.4 Fire Retardant Clothing

Fire retardant clothing (FRC) must be used where there is risk of flash fire or explosion, legislative requirements dictate, or client requirements dictate. Where FRC is required, the outer layer of employee's clothes, including rain gear, must be made of fire-retardant material.

11.2.5 Fall Protection

Fall protection and the risk of falls from heights must be considered and appropriate controls put in place where a worker has the potential to fall from one level to another.

- Personal Fall Arrest Systems (fall restraint, fall arrest) will only be employed after it has been determined that engineering controls (i.e. guardrails) has been ruled out for use. Where possible and applicable, a fall restraint system must be used prior to fall arrest.
- A fall protection plan shall be completed and reviewed by Project Management prior to use of personal fall arrest equipment.
- See Safe Work Practice – 20
- Personal Fall Arrest:
  - Anchor Point
  - Harness
  - Shock Absorbing Lanyards or SRLs
  - Life Lines

Note: Ladders are to be addressed through a hazard analysis process that will be identified in project specific HSE plans.

11.3 PPE Inspection Program

- Workers are to be educated and trained to the specific inspection they are conducting.
- PPE is to be visually inspected before each use.
- Fall arrest equipment is to be inspected by the user on a daily basis in accordance with regulatory requirements.
- Fall arrest equipment will also be inspected in accordance with AS/NZ Standards

11.4 Service and maintenance logs

Project Supervisors on site are responsible for appropriate maintenance logs to be kept for specialty PPE in their area

11.5 PPE Training

- Workers are to be trained to use the PPE issued and/or required.
- Copies of training records must be retained on site.
- PPE requirements and training records are to be reviewed with workers at:
    - Orientation
    - PSIs
    - Weekly HSE Field Meetings

11.6 Damaged or defective PPE

- Any PPE found to be damaged or defective is to be tagged out of service immediately evaluated quarantined and destroyed to prevent inadvertent use.
- Workers shall inspect all PPE prior to use to verify that it is fit for use.
- PPE shall not be altered in any way not in accordance with manufacturer's requirements.

For more information, please refer to PCL HSE Manual HSE-07 Personal Protective Equipment.

12 Emergency Preparedness

The HSE Supervisor is responsible for the development of a project specific emergency response plan. The Woolooga Solar Project has developed the Woolooga Emergency Response Plan (Appendix Y) to provide workers procedures to implement in an emergency situation. The purpose of the emergency response plan is to provide standard responses to emergency situations to minimize the impact on people, the environment and property. This process is completed during the project's pre-construction stage. The Woolooga Emergency Response Plan identifies:

- Potential emergencies
- Emergency response personnel and specific responsibilities
- Training requirements
- Emergency equipment requirements and inspection, testing and maintenance requirements
- Emergency drills

The emergency response plan is to be reviewed by the HSE Supervisor and the Construction Manager at the following prompts;

- Every 3 months or;
- After an emergency incident or;
- After an emergency drill or;
- After change in legislation or;
- After the addition of new activities on site or;
- After site changes

Following any of the changes outlined above, the HSE Supervisor is responsible for ensuring that changes are communicated to all workers onsite, emergency response team members and external emergency services if required. This will be communicated via Safety Bulletin Board, Toolbox Talks and official notification to external agencies.

12.1 Identification of Emergency Situations

To ensure this process is adhered to, PCL has implemented Standard HSE-08 Emergency Response Plan (Appendix Z) which *mandates the development of emergency response plans that provide guidelines for the response required in the event of an injury, fire, or any other emergency at a worksite.* This must be completed prior to any activity onsite and incorporated into the project risk review workshop.

The PCL HSE Supervisor or designate is responsible for the identification of emergency situations utilizing the Woolooga Solar Farm Operational Risk Register (Appendix N). Potential emergency situations can also be identified through the review of past PCL project incident reports, Industry Bodies and Work Safe QLD (And other States) incident notifications.

The emergencies identified will be reviewed by the Senior Management Team as part of the project set-up stages.

12.2 Communication

The HSE Supervisor is to ensure that all workers including visitors are familiar themselves with the site emergency response arrangements. It is the responsibility of Project Managers/Construction Manager to ensure that all employees in their respected areas have been oriented to this plan. All workers and visitors to the site will be familiarized with the site emergency response requirements during the site orientation program. This will be recorded on the relevant site orientation form completed, and then signed by the worker or visitor as well as the facilitator or escort. These records will be maintained in the project filing system.

If any changes are made to the emergency response arrangements on site, the HSE supervisor will ensure that changes are communicated to all personnel onsite using the Site Safety Bulletin Board and Tool Box Talks

All PCL subcontractors are required by contract to review, understand and provide sign off confirming, that all PCL HSE Plans have been reviewed and communicated to all workers prior to entering site. Additionally, all workers ***MUST*** complete a site orientation delivered by the PCL HSE Supervisor, prior to commencing work onsite, which includes a review of the site-specific emergency response requirements.

If an emergency does occur, PCL emergency team will take the lead ensuring that all employees have been evacuated to safety. The contents of the emergency response plan are included in the Site Orientation Process. By providing this information, ensuring it is reviewed by all workers prior to coming onsite and ensuring ongoing reviews take place, it will solidify processes in the event of an emergency.

12.3 Designated Emergency Personnel

Prior to the commencement of the project, the PCL HSE Supervisor is required to designate personnel to specific emergency response roles as per the Woolooga Emergency Response Plan (Appendix Y). Once specific responsibilities have been designated, the HSE Supervisor is required to orientate the emergency personnel to the site-specific emergency procedures. Training requirements and/or qualifications are outlined in the Woolooga Emergency Response Plan.

Emergency response personnel will be required to sign the emergency response acknowledgement form which indicates that they agree and understand their responsibilities outlined in the emergency response plan. The HSE Supervisor will communicate any changes that are made during the course of the project to the emergency response team through site safety meetings and the emergency response team members will be required to acknowledge there understanding by signing the acknowledgement form.

12.4 Emergency Equipment

The HSE Supervisor shall ensure that adequate emergency equipment is available on the site to allow the emergency team to provide initial response to an emergency until the arrival external emergency services. The person undertaking the assessment will have completed training requirements in emergency planning and response including an accredited First Aid Training such as HLDAID003 – Provide First Aid and CPR as a minimum and First Response Firefighting and emergency response for identified emergencies such MSMWHS212 Undertake First Response to Fire Incidents and MSMWHS205 Control Minor Emergencies. First aid requirements are assessed using the First Aid Assessment Form. The HSE supervisor will ensure that consultation occurs with workers on site through Toolbox talks and workplace inspections as part of the process in determining the emergency response equipment required for the site. Further information regarding the project emergency equipment including identification of requirements, servicing and maintenance of equipment is contained in the Woolooga Emergency Response Plan and the Emergency Equipment Selection Chart and Guides.

12.5 Emergency Response Drills

The HSE Supervisor is responsible for ensuring emergency response drills are conducted to test the emergency response procedures and identify any deficiencies and areas for improvement. Emergency drills also provide training to the workers and the emergency response personnel. Emergency response drills will be conducted within 1 month of mobilization onsite then every 3 months thereafter, as outlined in the WSF Emergency Drill Schedule (Appendix AA).

The emergency response drill scenarios must be based on identified potential emergency situations, outlined in the emergency response plan, that are relevant to the activities taking place at that time.

The HSE Supervisor is responsible for evaluating the effectiveness of the emergency response drills using the Emergency Response Evaluation Form (Appendix BB). The record of the emergency response evaluation will be entered into SMC including any corrective actions. The HSE Supervisor will ensure all corrective actions are assigned to appropriate parties with specific due dates for implementation of the corrective actions.

If corrective actions result in changes to PCL's processes, procedures or workplace documentation, including the Emergency Response Plan, the HSE Supervisor is responsible for ensuring these changes are communicated to all workers onsite via the Safety Bulletin Board and Toolbox Talks.

12.6 Major Incidents, Near Misses & Crisis Management

The PCL Response Protocol for Major Incidents and Near Misses (Appendix CC) has been developed to support senior district management in their response to major incidents and near misses involving significant injury potential.

This is further supported by the PCL Crisis Management Plan (Appendix DD). A crisis is any situation or event that seriously threatens the viability, integrity, or reputation of PCL. Unlike standard business challenges, crises involve matters that attract public and client scrutiny, create significant financial, legal, or governmental/regulatory impacts on the business, and seriously threaten the organization's reputation.
Examples of events that may require the establishment of a crisis management response team include the following:

1. Significant Personal Injury Events
    - Any fatality at a PCL place of work or jobsite.
    - The accidental death ofor serious injury to PCL's CEO or any senior executive or board member.
    - Any serious injury at a PCL place of work or jobsite involving multiple persons.
    - The suicide of a PCL executive.

2. Terrorism, Sabotage, or Workplace Violence Events
    - A shooting, bombing, or other attack at a PCL place of work or jobsite.
    - Any sabotage activity at a PCL project or facility.
    - The kidnapping of a PCL employee.
    - Riots or civil unrest resulting in damage to or otherwise involving a PCL facility or jobsite.

3. Significant Property Damage Events
    - Any significant loss or damage to property involving either an active PCL project or a PCL facility that has a potential for media interest, whether resulting from a natural disaster or potentially negligent or intentional conduct.

The Office of the CEO will determine whether any specific event or set of circumstances constitutes a crisis sufficient to trigger the implementation of PCL's Crisis Management Plan.

The PCL Crisis Management Plan was developed to address the following;

- Clearly defined roles in a crisis;
- First Responder Obligations;
- Crisis Communications Flow Chart;
- Crisis Response Team Obligations;
- Steps for Crisis Management.

After a critical incident and investigation has been concluded, the Project Manager and HSE Supervisor will conduct a review of the effectiveness of critical incident response procedures in conjunction with PCL Corporate Managers.

12.7 Return to Work

PCL'S Standard 14 Injury Management (Appendix EE) emphasizes a proactive approach to managing injuries to maintain a safe and healthy working environment and to facilitate compliance with worker's compensation insurer requirements. This is supported at a local level through the WSF Rehabilitation & Return to work Plan (Appendix FF).

The WSF Rehabilitation and Return to work Plan outlines the general procedures for handling work-related injury or illness. It represents PCL's commitment to the health, safety and recovery of workers following an incident. Helping workers to recover at work enables PCL and the worker to:

- maintain the skills and knowledge of an experienced worker;
- reduce the cost of training a replacement worker;
- demonstrate to all workers that they are valued employees;
- maintain good employer-employee relationships;
- reduce the length of time your workers are away from work;
- avoid the cost of hiring new staff;
- help to comply with your legislative obligations;
- Minimize the financial impact on the employee; and
- Contribute to the physical and mental wellbeing of the employee.

The HSE Supervisor is responsible for ensuring that a return to work program is in place for the Project. The project return to work program is to be developed in consultation with workers through site safety meetings. The HSE Supervisor is to ensure that the return to work program is developed to comply with state regulatory requirements. The return to work program is to be communicated to all workers through safety meetings and the Site Safety Bulletin Board.

The HSE Supervisor is responsible for ensuring the return to work process is managed for an employee by fulfilling the role of Return to Work Coordinator. The HSE Supervisor will be required to have completed training on the management of the return to work process through Work Safe QLD accredited training provider in Return to Work Coordination. The Return to Work Coordinator details will be displayed on the project safety Bulletin Board.

If throughout the course of the project there are any changes to the return to work program, then these will be made in consultation with the workforce and communicated to all workers through site safety meetings and the Site Safety Bulletin Board by the HSE supervisor.

12.8 Employee Assistance Program

The Project Manager is responsible for ensuring that suitable employee support services are in place to assist workers on the site.

PCL provides employee assistance to its employees through Access EAP counselling services. AccessEAP provides wide-spread coverage in Australia, this includes telephone, video, email and face to face counselling services and training. AccessEAP's head office is located at 135 Wickham Terrace, Spring Hill, QLD 4000, Australia with services locations across regional QLD including; Gympie, 4570, Caboolture 4510 and numerous other locations around Queensland, a full list of providers is available at https://www.accesseap.com.au/services/our-service-locations The HSE Supervisor is to ensure that the contact details for the Access EAP counselling services are displayed in the workplace on the Safety Bulletin Board. Should any employee require further assistance the local service provider contact details will be provided by the HSE Supervisor on request.

13 Security

The purpose of this section is to establish guidelines, for developing and implementing permanent facility, project site and office security plan, that reduce the risk of losses caused by violence or other criminal activity.

13.1 Workers

All workers shall:

- Secure tools, equipment and materials;
- Report any losses of tools, equipment, materials or other security related incidents to project supervision as soon as they are discovered;
- Report any suspicious behaviours or presence of unauthorized individuals on site; and
- If required cooperate with random searches of personal belongings / tools / tool bags / vehicles when entering/existing the site

13.2 Public access

When planning public access and control, the project location is the major determining factor which may affect the use of fencing, hoarding, gates, signs, lighting, visitor registration, and security patrol.

Project Management shall review the overall site location to identify:

- Possible security breeches
- Site Access requirements
- Fencing
- Gates
- Signage

13.3 Communication and Signage

Signs need to be posted and visible. At a minimum, the following signs will be located around project sites under construction:

- PPE requirements;
- No trespassing;
- Hazard/Danger due to signage;
- Entry identification signs;
- Emergency contact information;
- Visitors to report to job site office; and
- Any additional signage identified by the project management team.

13.4 Parking

Limited parking is available inside the site due to space and vehicle movement restrictions in the Development Consent. Employee parking, if available, will be communicated to workers. When onsite parking is necessary, a controlled entrance/exit must be set up.

Vehicle Access

Only authorized vehicles are allowed on site. Project management shall control vehicle entry. All vehicles entering and exiting site are subject to search. All visitors must report to the PCL Site Office and Sign In/Out.

13.5 Fencing and lighting

Project fencing and lighting will be maintained as per local regulatory requirements. All fencing shall be secured to not pose a threat to workers and/or the public.

13.6 Gates

All gates on this project will be identified as to their purpose and will be numbered. Where possible, access gates will be locked when not in use and will be opened only when required for specific deliveries or other authorized entries.

13.7 Visitor control

All visitors must report to the project site office prior to going on site and must attend a visitor orientation. All visitors must be escorted at all times while on site and not perform physical work. A visitor sign-in log will be established and located at the project site office for visitors to use, and visitors must sign out when leaving the project. Visitors will be subjected to the same conditions of breath and alcohol testing as all other workers

13.8 Tool and equipment control

The project management team is responsible for control of tools and equipment issued to their crews. Inventories of tools and equipment must be conducted on a regular basis by the project management team with the deficiencies reported to the project Construction Manager.

Ignition keys must not be left with the equipment after hours or when a vehicle is parked in a public location.

Components of equipment that can be dismantled will be stored separately. Fuel and maintenance supplies such as gas, oil, and grease must be secured to prevent unauthorized use or pilferage. They must also be stored in a safe manner away from consumable supplies and permanent equipment.

Note: All tools, vehicles, and equipment must be inspected prior to use. Any tools or equipment that is found to be defective must be taken out of service and tagged "do not use". Defective tools and equipment must be repaired by a competent person and in accordance with manufacturer's requirements.

13.9 Shipping, Receiving, and Equipment Control

The receiving and shipping of materials and equipment on this project will be coordinated, approved and accepted by the project Construction Manager Site Construction Manager, or his designate.
Shipper/receiver delegate location will be identified and communicated to delivery personnel. Examination of shipments must be carried out in all cases to immediately detect shortages or damage.

The shipper/receiver must be aware of the company procedure for shipping, receiving, and control of packing slips. Beware of the following inadequacies: Partial shipment; damaged shipment (i.e. mouldy and wet materials); inaccurate packing slip, inadequate shipping document; and/or inaccurate listings of shipments returned to equipment or material suppliers.

Trade contractors who are expecting deliveries and vendor visits to the site shall advise PCL Project Management staff.

13.9.1 All Deliveries and Vendors shall:

- Comply with all requirements of the National Heavy Vehicle Regulator.
- Provide a sample of breath for alcohol analysis;
- Be stopped at the entrance (If and when designated security guard has been employed and assigned to a project);
- Be asked to provide a point of contact on-site;
- Complete a Delivery Driver orientation if online orientation has not been completed
- Remain in the cab of the vehicle while material is being unloaded, unless otherwise directed through the Delivery Driver Orientation.

13.9.2 Trade Contractor supervision will be required to:

- Provide a written delivery report for all material deliveries upon request;
- Meet deliveries and vendors at the entrance;
- Escort deliveries to the material lay down area or designated location.;
- Be responsible to receive their equipment and material deliveries, unload and transport their material to a storage location;

- Provide a competent flagman/traffic control person to direct delivery to the storage location/laydown area;
- Those deliveries that are unable to identify point of contact will not be authorized on-site.
- Comply with NVHR requirements

13.10 Key control

- Project Construction Manager is responsible for all key control.
- Keys are to only be issued to supervisors (see HSE-09 6.2.10 Key Control).
- An inventory and signature system will be set up to control all site keys.
- Keys will be turned in at the end of the workday.
- Failure to do so can result in disciplinary action.
- All spare keys will be locked up in a lock box.
- All lock out/tag out keys issued to supervisor workers will be issued only after approval from the Project Construction Manager.
- A secure lock box shall be identified to secure all keys.
- A key inventory of all keys shall be identified in the lock box
- No copies of any keys will be authorized.

13.11 Site Specific

The Woolooga Solar project may have additional site-specific security requirements that have been developed by the PCL Project Management team and/or the client. If applicable, this requirement will be listed below and will be included and discussed as an additional item during the delivery of the site specific HSE orientation.

On site security and/or security cameras will be on site and chain link and/or temporary construction fencing will secure the site.

13.12 Fire Prevention Plan

The purpose of this Bushfire Management Plan (Appendix GG) and the Fire Prevention Plan (Appendix HH) is to eliminate the causes of fire, prevent loss of life and property by fire, and to comply with the relevant legislation, standards and codes or practice for fire prevention. It provides employees with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards. The Fire Prevention Plan is developed as a separate document.

14 Environmental Action Plan

This Environmental Action Plan is intended to provide information to all project personnel for the purpose of eliminating or minimizing exposures which could have a negative or harmful effect on people property or the environment.

14.1 Roles and responsibilities

District HSE Manager

- Review the Environmental Action Plan prior to distribution; and
- Report serious environmental incidents to the HSE director, NAHQ.

Chief Estimator

- Review the contract and project specifications
- Review shall lead to the development of the:
- Environmental Scope of Work
- Environmental Checklist
- Provide copies of the completed Environmental Scope of Work and Checklist to Project Management for retention on site.

Project Management (Site)

- Develop and approve the site-specific Environmental Action Plan prior to mobilization;
- Complete regular revisions of the Environmental Action Plan as project conditions change.
- Conduct monthly inspections of the work site conditions
- Review, implement and maintain the standards in the Environmental Action Plan; and
- Make workers in his/her area of responsibility aware of the standard in the Environmental Action Plan

Project HSE Staff (Site)

- Coordinate the development, implementation, coordination, distribution, and communication of the standards in the Environmental Action Plan;
- Make certain the Environmental Scope of Work and Environmental Checklist are available on site;
- Make certain the Environmental Action Plan is current.
- Make certain the Environmental Action Plan is communicated to all project personnel in orientation; and
- Coordinate training for line supervision in the content of the Environmental Action Plan.

14.2 Environmental Project Checklist

The completed Environmental Project Checklist has been reviewed and completed by the Environmental Designate and is a quick reference planning document which identifies key elements in the PCL project specific environmental program.

Note: The Environmental Project Checklist must be completed utilizing the following checklist provided in the corporate PCL HSE manual, Standard HSE-10, and the completed copy shall be inserted into this site specific HSE Plan.

Environmental Project Checklist (HSE-10-02 – December 2012, Rev. 04)

14.3 Project Environmental Designate

The Environmental Designate for this project is the project Construction Manager

Responsibilities include:

- Monthly project environmental inspections
- Erosion and Sediment Control inspections
- Implementation of modifications to the Environmental Action Plan as defined by changes in regulations or conditions
- Completion of the project checklist

14.4 Chemical Products Information

- A chemicals inventory list will be maintained and kept current.
- A copy of all Safety Data Sheets (SDS) shall be inserted into the site's SDS binder.
- Trade contractors are to provide a current binder of all SDS sheets.
- SDS Binder will be located:
  - in the site office;
  - At the storage location;
  - With the worker at the site where chemicals are being used.
- Safety Data Sheets (SDSs) are to be available to all workers who must read them before using the chemical. Workers must obtain all spill response equipment and specialized PPE before conducting work with chemicals.

14.5 Storage Areas

Physical areas where items such as hazardous waste, diesel fuel, gasoline, form oils, lubricating oils, propane cylinders, hydraulic fluids, oxygen cylinders, acetylene cylinders, glycol, and other environmentally damaging substances are to be stored will be identified with proper signage.

Refer to project specific site plot plan for location.

14.6 Erosion, Sediment, Runoff and Seepage Control

When applicable to the project, PCL shall strictly enforce Erosion, Sediment, Runoff and Seepage Control with all on-site workers and activities. The following Best Management Practices may be used on site to control storm water erosion and sedimentation:

- HD silt fences
- Hay or straw bales
- Bio rolls or mulch rolls
- Dikes/Bunds/
- Retention basins
- Sandbags/gravel bags

Refer to the Project Execution Plan and Construction Environmental Management Plan.

14.7 Spill Contingency

Hazardous material spills or releases require prompt attention to reduce or eliminate harmful or undesirable affects that may last for extended periods of time. Conditions that could be considered critical in nature may involve the release of toxic vapours or gases, explosion, fire, or a combination of these.

Other contributing factors for consideration include quantities and types of materials, number of responders, personal protection requirements, nature of work involved, and the population that could potentially be affected.

14.7.1 Items listed below shall be stored in a secondary containment facility.

- Diesel fuel
- Gasoline
- Form oils
- Lubricating oils
- Hydraulic fluids

14.7.2 Items listed below shall be stored upright and secured to prevent falling.

- Propane cylinders
- Oxygen cylinders
- Acetylene cylinders

14.8 Management of Demolished Debris and Excavated Material

A waste management section for hazardous and non-hazardous waste has been included in this Environmental Action Plan. The principles of waste recovery, reduction, reuse, and recycling should be applied as part of this section.

14.9 Vehicle Fueling/Oil Changes

Trade contractors with vehicles/equipment that require refueling and/or oil changes must submit their procedures prior to performing these tasks.

Site specific refueling area to be identified on the project site plot plan

14.10 Concrete Waste

- Concrete trucks are to wash out in designated areas only.

- Waste areas will be demarcated and constructed in a manner appropriate for achieving environmental protection and may be lined earthen structures or constructed leak proof structures.
- Concrete waste is not to be buried on site.
- Designated area shall be at least 30 meters / 100 feet from:
  - Storm drains

- Open ditches and streams
- Streets

14.11 Hazardous Materials Management

Workers should be able to conduct their work without a risk to their health and safety. Managers and workers need to take necessary precautions to eliminate so far as reasonably practicable, or otherwise minimize and effectively manage any potential risks related to working with hazardous chemicals. The HSE supervisor is to ensure that a Hazardous Materials Management Plan (Appendix II) is developed prior to the start of the project.

14.12 Site Specific

The Woolooga Solar project may have additional site-specific environmental requirements that have been developed by the PCL Project Management team and/or the client. If applicable, this requirement will be listed below and will be included and discussed as an additional item during the delivery of the site specific HSE orientation.

An evaluation of significance (Geo technical study) was completed according to Australian Standard AS 1726 which included:

1. Identification and assessment of the negative environmental effects of the project on a natural feature, provincial park or conservative area.
2. Identification of mitigation measures in respect of any negative environmental effects during design and construction.

Negative Environmental Effects, Construction

This requires that a Construction Plan Report be prepared to demonstrate how negative environmental effects of construction activities will be mitigated including modifications to construction activities, use of treatment technologies (e.g. Erosion and Sediment Control structures), and scheduling of activities.

14.13 Environmental Project Checklist

PCL HSE MANUAL
Environmental Management
Standard HSE-10-02

Environmental Project Checklist

Name of Project: _____

Job Location: _____ **Date:** DD/MM/YY

Project Superintendent: _____ Print

District/Location: _____

No.	Topic or Item	YES	NO	N/A
1.	Has an on-site environmental designate been selected?	☐	☐	☐
2.	Has a list of the on-site environmentally sensitive products/contaminants been developed?	☐	☐	☐
3.	Has a chemical substitution review been completed, which would provide less hazardous and more environmentally friendly products?	☐	☐	☐
4.	Is current health hazard information on products available?	☐	☐	☐
5.	Have the necessary environmental permits/licenses been arranged for?	☐	☐	☐
6.	Has a procedure for safe storage and handling of products been completed?	☐	☐	☐
7.	Have arrangements for an on-site spill containment kit been established?	☐	☐	☐
8.	Has a spill containment and response plan been developed?	☐	☐	☐
9.	Has a communication system been established with the on-site environmental designate and the district HSE manager pursuant to notification of relevant government regulators such as the Environmental Protection Agency?	☐	☐	☐
10.	In the event of a spill, have retrieval, transportation and disposal of products been addressed?	☐	☐	☐
11.	Is emergency response equipment and personal protective equipment available on-site?	☐	☐	☐
12.	Have contact procedures for preferred environmental consultants or labs for emission analysis or product sampling and testing been established?	☐	☐	☐
13.	Is there a system in place on how to accommodate audits/inspections by government regulators such as the Environmental Protection Agency?	☐	☐	☐

Name of Environmental Designate: _____ Print

Signature of Environmental Designate: _____ Signature

Note: Use reverse side as required.

December, 2012
Rev. 04

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14.14 Environmental Emergency Responsibilities

Woolooga Solar	
Team Leader	
Mark Wintle	Be aware of potential spill hazard substances on-site and methods to handle and contain them. SDS for all substances will be kept in a central location. Verify that all hazardous substances on-site are properly stored and labelled. Assign members to form the response team. Activate spill containment and clean-up measures in case of spill release. Notify District Health, Safety, and Environment Manager. Commence documentation of the spill by response team. Call 000 for support for containment, clean-up and disposal activities as required. David Gooding assumes team leader responsibilities if Site Construction Manager is absent.
Emergency Response Team	
TJ Le'Mon Morgan Dittman Mark Hickey Dan Quee Ethan Hunt	Evacuate personnel from immediate work area. ***Make assessment of the spill:*** location of spill substance spilled quantity spilled total quantity involved (potential for additional spillage) hazard involved (consult SDS) potential to stop the leak criteria for containing spill equipment and/or material ***Spill Clean-Up*** retrieve project spill kit contain spill clean-up spill in an acceptable manner keep team leader informed of clean-up progress

14.15 Waste Management

The goal of effective waste management is to handle the construction waste generated by the Woolooga project in an environmentally responsible manner.

DEFINITIONS:

Reused: The act of putting an item to use and then using it again without significant change to its physical characteristics or state.

Recycled: The act of taking a product and utilizing it, in a whole or in part, as a raw material for the manufacture of another product.

(Source Separated): This classification of waste should cover recyclable items such as non-ferrous metals (i.e. aluminium & copper), glass, plastics, paper, etc.

Based on previous Waste Audits, PCL has found that the breakdown of the types of waste is as follows:

Mixed Waste	10%	Concrete	10%
Wood	15%	Paper etc.	5%
Steel	60%		

To calculate project projections, approximately 1.4 metric tonnes of waste per worker/month is generated. Therefore, multiply the average workforce x length of project x 1.4 tonnes and multiply by percentages for each type of waste.

Note: This Site-Specific Waste Management Plan is to be discussed during Trade Contractor Start-up Meetings and reviewed during HSE Inspections

Project Details:	
	Project Start Date: April 2021
Project Manager: Ethan Kent	Project End Date: June 2022
Project Construction Manager: Jeff Ewert	
Environnemental Designate: TJ Le'Mon/Mark Hickey	

PROJECT WASTE MANAGEMENT OBJECTIVES
The Woolooga Solar project shall generate the least amount of waste possible by planning and ordering carefully, following all proper storage and handling procedures to **REDUCE** broken and damaged materials, and reusing materials wherever possible. Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be salvaged for donation or resale, or separated for recycling.

PROJECT WASTE MANAGEMENT OBJECTIVES	
B	The following chart identifies the waste materials that will be generated on this project, the disposal method for each material, and any handling procedures.
C	Waste prevention and recycling activities will be discussed at the beginning of each trade contractor start up meeting. The trade contractor will be expected to make sure all the crew complies with the PCL Waste Management Plan. All recycling containers will be clearly labelled with signage. Trade contractors are responsible for transporting their own recyclables to the designated area and carefully sorting them into the appropriate bins on a daily basis.
D	In addition to the minimum requirements for salvage/recycling, PCL and all trade contractors will make every effort to dispose of excess materials at one of the local recycling facilities. If applicable, all trades will also provide waste manifests verifying compliance with the requirements established herein. These manifests will be submitted to the Recycling Coordinator on a continual basis (minimum monthly).
E	All trades will be responsible for ensuring that materials are delivered to site in containers or packing that is reusable wherever possible. Trades will be responsible for removing reusable packing from site and back to the supplier – examples of this are glazing frames, block / brick pallets. Where packing is not reusable it shall be recycled in the appropriate bin as provided.

PCL WASTE MANAGEMENT HANDLING	
It is anticipated that approximately (Insert calculations) of waste would be generated. Of this amount, we anticipate being able to divert approximately (Insert calculations) from landfills by means of REDUCTION, RE-USE and RECYCLING.	
On the following pages are tables indicating how different types of waste will be handled. Individual sub-trades will be responsible for source separating their own waste.	
In summary of the following tables, PCL would provide the following collection areas for recycling:	
• MIXED	• CONCRETE
• METALS	• PLASTICS
• WOOD	• CARDBOARD

CLEARING/EXCAVATION PHASE (MINIMUM REQUIREMENTS)			
MATERIALS	**QUANTITY**	**DISPOSAL METHOD**	**HANDLING PROCEDURE**
Select Asphalt/Concrete	50 tonnes	Trade contractor will RECYCLE and submit manifests to recycling coordinator	Break into manageable pieces and haul to RECYCLE facility
Excavated Soils	0 tonnes	Trade contractor will REUSE as fill on-site or store for future recycling use or dispose of in accordance with permit.	Relocate soils to fill areas, or haul off-site to temporary storage area OR dispose in accordance with permit.
Rocks / Boulders	0 tonnes	Re-use in landscaping or dispose of in accordance with permit	Relocate for future use OR dispose in accordance with permit.

NEW CONSTRUCTION PHASE (Minimum Requirements)			
MATERIALS	**QUANTITY**	**DISPOSAL METHOD**	**HANDLING PROCEDURE**
Mixed Materials	50 tonnes	REDUCE, REUSE and RECYCLE	Follow the 3R's before disposing in "Mixed Construction Bin" for recycling.
All Metals	25 tonnes	RECYCLE	Deposit in "Commingled Bin" for recycling "
Wood	6 tonnes	REUSE (e.g. formwork) / RECYCLE remainder	Store portion to be re-used separately. Remainder to be deposited in "Commingled Bin" for recycling "
Concrete/CMU/Asphalt	0 tonnes	REUSE (e.g. pour lock blocks or pavers) / RECYCLE	Store portion to be re-used separately. Remainder to be deposited in "Rock Box" collection container.
Pallets	5 tonnes	REUSE (e.g. return to supplier) / RECYCLE remainder	Return to supplier if possible. Remainder to be deposited in "Commingled Bin" for recycling
Electrical wire Spools	1 tonnes	REUSE / RECYCLE	Return to Supplier if possible. Remainder to be deposited in "Mixed Construction Bin" for recycling

ON-GOING RECYCLING REQUIREMENTS			
MATERIALS	**QUANTITY**	**DISPOSAL METHOD**	**HANDLING PROCEDURE**
Mixed Office Paper	1 tonnes	RECYCLE	Deposit in "Blue Recycle Bin" collection container.

PCL WASTE MANAGEMENT PLAN

ADDITIONAL RECYCLING EFFORTS (GOALS)			
MATERIALS	**QUANTITY**	**DISPOSAL METHOD**	**HANDLING PROCEDURE**
Forming Plywood	0 tonnes	REUSE as many times as possible then RECYCLE	Stack next to supply of new form boards for REUSE Remainder to be deposited in "Commingled Bin" for recycling
Gypsum Drywall	0 tonnes	RECYCLE	Trade contractor to provide collection container for recycling. Trade contractor to submit manifests to recycling coordinator.
Paint	0 tonnes	REUSE (e.g. salvage for owner) / RECYCLE	Salvage and turn over all open paint cans to Owner for future use. Trade contractor provide collection container for recycling. Trade contractor to submit manifests to recycling coordinator
Plastics	10 tonnes	RECYCLE	Trade contractor to provide container for recycling. Trade contractor to submit manifests to recycling coordinator. Remainder to be deposited in "Mixed Construction Bin" for recycling
Carpet	0 tonnes	REUSE (e.g. take to different project) / RECYCLE	Salvage and turn over to Owner all usable pieces. Remainder to be deposited in "Mixed Construction Bin" for recycling
Glass	0 tonnes	RECYCLE	Trade contractor to provide collection container for recycling. Trade contractor to submit manifests to recycling coordinator. Remainder to be deposited in "Mixed Construction Bin" for recycling
Ceramic	0 tonnes	RECYCLE	Trade contractor to provide collection container for recycling. Trade contractor to submit manifests to recycling coordinator. Remainder to be deposited in "Mixed Construction Bin" for recycling

ADDITIONAL RECYCLING EFFORTS cont'd (GOALS)			
MATERIALS	**QUANTITY**	**DISPOSAL METHOD**	**HANDLING PROCEDURE**
Acoustical Ceiling Tiles	0 tonnes	REUSE (e.g. salvage for owner) / RECYCLE	Salvage and turn over all full tiles to Owner for future use. Remainder to be deposited in "Mixed Construction Bin" for recycling

SALVAGE AND RECYCLING VENDORS AND FACILITIES		
VENDOR	**LOCATION**	**PHONE NUMBER**
Clean Away	Northgate QLD	0466387866
Blue Dog	Noosa Rd – Gympie QLD	1300727279

NOTE: when trade contractors RECYCLE any material, they must submit a copy of the recycling manifest to the Environmental Designate.

14.16 Renewable Erosion and Sediment Control Plan

Project Details **Project Manager:**	**Civil Consultant:**
Project Start Date:	**Project End Date:**

Overview

The goal of a Construction Activity Pollution Prevention Plan is to ensure that environmental regulations are met by controlling and monitoring soil erosion, waterway sedimentation and airborne dust generation at the project site.

This goal is met through the implementation of this Erosion and Sedimentation Control (E&SC) Plan. The documentation from this plan will be used to apply for the renewable site

This plan is supplemented with an inspection checklist template from the Sustainable Construction department and a site plan drawing from the civil consultant. Both of these documents are to be modified as required to control sediment and erosion due to reconfiguration of the site and unforeseen circumstances that may arise prior to or during the course of construction.

Plan Outline

1. Civil Consultant is to create site drawings, in consultation with project team, in order to control erosion and sedimentation during each phase of the project.
2. Customize the attached Inspection Checklist Template with risk areas, control measures, inspection instructions and relevant project information.
3. At the PCL Project Start-up meeting inform personnel of the E&SC plan.
4. Conduct weekly documented inspections using the inspection checklist. (example attached)
5. Submit copies of this plan, of all the weekly inspection checklists, and of the phased site plans to HSE Supervisor.

Plan Breakdown

Risk Area and Control Measure Identification

Before the start of each phase of the project:

- A site plan drawing that identifies the areas and features of the site that are at risk and outlines appropriate control measures for the areas must be created by the civil consultant in consultation with the project team for each phase of the project.
- The inspection checklist template must be customized for each phase of construction as per the site drawings for that phase:
    - The identified risk areas and their respective control measures must be entered in the first and second columns of the inspection checklist.
    - Any control measures not on the template must be added with along with their respective inspection guidelines. Any guidelines that do not apply to the current phase of construction must be removed.

14.17 Control Measure Inspection and Maintenance

The following actions must be performed in order to inspect and maintain the installed control measures:

- Weekly visual inspections of all E&SC measures must be conducted. Any problems must be resolved within 24 hours.
- In case of significant weather events (e.g. prolonged precipitation or extreme wind gusts) the E&SC measures must be re-inspected.
- An E&SC Plan Inspection must be documented weekly on an inspection checklist. Each inspected control measure must be photographed. (example of a completed checklist below)

14.18 Control Measures - Best Practices

Air Quality Management

- **Temporary seeding grass** - vegetative cover achieved by seeding disturbed areas which limits wind erosion of open ground
- **Water Sprinkling** – water is to be sprinkled onto potential airborne dust sources to prevent dust formation

Water Runoff Management

- **Filter cloths and Catch basins** - barrier consisting of either a filter fabric around the catch basin inlet with crushed stone over the grate or filter fabric inserted inside the catch basin/perimeter fence which prevents sediment from entering the storm water system/discharge outside the site.
- **Perimeter Swales** - temporary grading of conveyance systems used to slow flow rate of runoff and trap the carried sediment

Sediment Control

- **Silt fencing** - a non-woven synthetic fabric material (geotextile) stretched across and attached to supporting post and wire fence which traps waterborne sediments
- **Hoarding/Coconut logs** - Permeable barriers which consist of a line of organic material, implemented along the contours of mild slopes which trap waterborne sediment
- **Temporary Road/Base coat asphalt** – a single layer road put in place during construction in order to reduce sediment carried on wheels

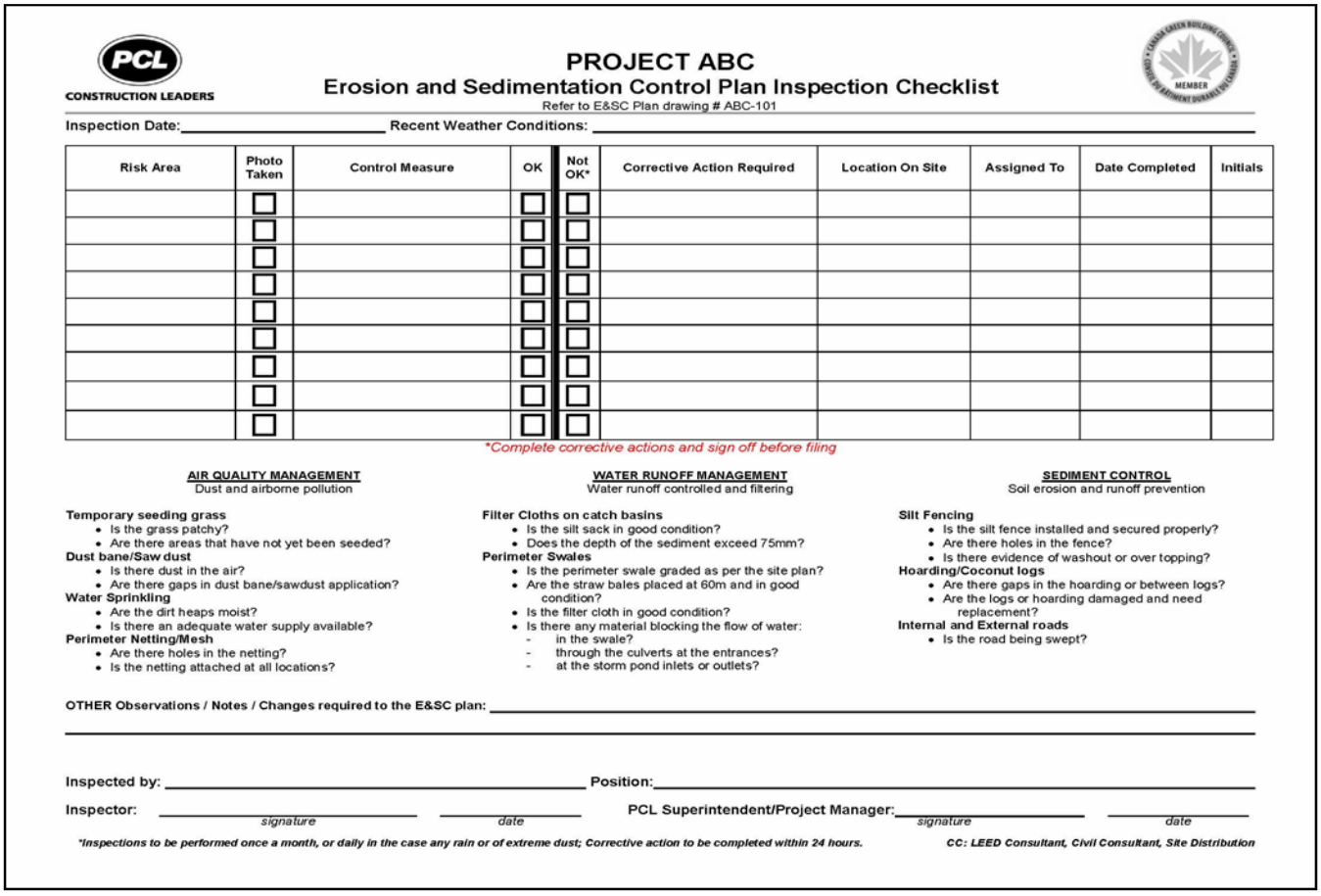
Inspection Documentation

The following records need to be kept:

- Erosion and Sedimentation Control Plan Inspection Checklist
- Site drawings for each phase of construction.

Applicable Environmental Regulations

The team should be aware of the following relevant legislation and codes of practice.



CONSTRUCTION LEADERS

PROJECT ABC

Erosion and Sedimentation Control Plan Inspection Checklist

Refer to E&SC Plan drawing # ABC-101

Inspection Date:_____ Recent Weather Conditions: _____

Risk Area	Photo Taken	Control Measure	OK	Not OK*	Corrective Action Required	Location On Site	Assigned To	Date Completed	Initials
	☐		☐	☐					
	☐		☐	☐					
	☐		☐	☐					
	☐		☐	☐					
	☐		☐	☐					
	☐		☐	☐					
	☐		☐	☐					
	☐		☐	☐					
	☐		☐	☐					

*Complete corrective actions and sign off before filing

AIR QUALITY MANAGEMENT
Dust and airborne pollution

Temporary seeding grass
- Is the grass patchy?
- Are there areas that have not yet been seeded?

Dust bane/Saw dust
- Is there dust in the air?
- Are there gaps in dust bane/sawdust application?

Water Sprinkling
- Are the dirt heaps moist?
- Is there an adequate water supply available?

Perimeter Netting/Mesh
- Are there holes in the netting?
- Is the netting attached at all locations?

WATER RUNOFF MANAGEMENT
Water runoff controlled and filtering

Filter Cloths on catch basins
- Is the silt sack in good condition?
- Does the depth of the sediment exceed 75mm?

Perimeter Swales
- Is the perimeter swale graded as per the site plan?
- Are the straw bales placed at 60m and in good condition?
- Is the filter cloth in good condition?
- Is there any material blocking the flow of water:
  - in the swale?
  - through the culverts at the entrances?
  - at the storm pond inlets or outlets?

SEDIMENT CONTROL
Soil erosion and runoff prevention

Silt Fencing
- Is the silt fence installed and secured properly?
- Are there holes in the fence?
- Is there evidence of washout or over topping?

Hoarding/Coconut logs
- Are there gaps in the hoarding or between logs?
- Are the logs or hoarding damaged and need replacement?

Internal and External roads
- Is the road being swept?

OTHER Observations / Notes / Changes required to the E&SC plan: _____

Inspected by: _____ Position: _____

Inspector: _____ (signature) _____ (date) PCL Superintendent/Project Manager: _____ (signature) _____ (date)

*Inspections to be performed once a month, or daily in the case any rain or of extreme dust; Corrective action to be completed within 24 hours.

CC: LEED Consultant, Civil Consultant, Site Distribution

Associated forms or checklists;

1 Completed Environmental Project Checklist Form
2 Environmental Emergency Responsibilities
3 Waste Management Plan
4 Renewable Erosion and Sediment Control Plan

For more information, please refer to PCL HSE Manual HSE-10 Environmental Management.

15 Traffic Management

PCL has a duty to ensure, so far as is reasonably practicable, workers and others are not exposed to health and safety risks arising from the construction activities related to the Woolooga Solar Farm Project. This duty includes implementing control measures to prevent people being injured by moving vehicles both, onsite and offsite.

In planning and setting up traffic management at PCL work sites the following broad principles, as outlined in the RMS Traffic Control at Worksites Technical Manual V5, shall be complied with:

- **Traffic management plan (TMP)**

- Shall be completed by a person holding a current qualification in Prepare Work Zone Traffic
  Management Plans
- Shall be completed prior to development and implementation of a TCP
- Shall consider the effect the works will have on the road network and traffic flow. This may require
- traffic modelling to be completed for complex or high-risk projects
- Shall consider site-specific conditions
- Shall include the outcomes of the site risk assessment
- Shall explain the identified risks and mitigation measures that will be adopted
- Shall include or refer to the approved TCP(s).

- **Work sites:**
  - Shall be selected so that the minimum length and width of a road is closed at each stage to ensure
  - minimum disruption and inconvenience to road users whilst maintaining working efficiency
  - Shall be staged to ensure minimum disruption to traffic especially at peak times, nights, weekends,
  - holiday periods and during special events
  - Shall be monitored and action taken if excessive lengths of queues or delays occur

15.1 Traffic Management Plan Development

TMPs will be prepared or reviewed and approved by a suitability qualified person who holds an accredited competency *RIICWD503E- Prepare Traffic Management Plans & Traffic Guidance Schemes* and *RIIRIS402E - Carry Out the Risk Management Process* and hold *SafeWork QLD Industry Authority Card* and must be accredited having completed the Transport and Main Roads Traffic Management Design Training course.

PCL has differentiated traffic management into two specific plans;

1. Woolooga Traffic Management Plan (Appendix JJ)

   This plan outlines the mandatory requirements for general traffic control and vehicle movements for the Woolooga Solar Farm Project.

2. Woolooga Site Traffic Management Plan (Appendix KK)

   This plan has been developed to outline in greater detail, the traffic management measures specifically on the construction site.

15.2 Traffic Control Plan Development

TCPs will be prepared by a suitability qualified person who holds an accreditation from the Department of Transport and Main Roads and will comply with the requirements of *Australian*

Standard AS 1742.3 2009 Manual of uniform traffic control devices, Queensland Manual of Uniform Traffic Control Devices, Part 3: Traffic control for Works on Roads, November 2019 (DTMR). These personnel must appear on the TMR list of TMD qualified individuals.

In planning and setting up traffic control at PCL work sites the following broad principles, as outlined in the *Queensland Manual of Uniform Traffic Control Devices, Part 3: Traffic control for Works on Roads*, November 2019 (DTMR) and *Australian Standard AS 1742.3 2009 Manual of Uniform Traffic Control Devices* and relevant legislation and codes of practice shall be complied with:

- **Signs and devices:**
  - Shall be placed before work begins and be removed as soon as they are no longer required
  - Shall be regularly checked to ensure they are still relevant, in good mechanical condition, clean, not
  - faded and have good night-time visibility, if necessary
  - Shall be inspected to ensure they remain clearly visible to road users and are not obscured by
  - vegetation, vehicles, plant or other signs and devices and are displayed in the correct sequence.
  - Traffic controllers:
  - shall be appropriately qualified
  - shall be used if road users are to be directed to disobey a traffic regulation, such as crossing a
  - barrier line (portable traffic signals may also be used to direct road users across barrier lines)
  - Incorporation of shadow vehicles between the workers on foot and approaching traffic

Designers of the Traffic Management Plan will provide the qualifications of the person who developed the plan. Traffic control companies engaged by PCL or sub-contractors will provide copies of the qualifications of their traffic controllers sufficient to meet the minimum requirements as advised by the Queensland Government.

15.3 Traffic Management Implementation

TCPs will be implemented and dismantled by a traffic management contractor, who will ensure the TCP has been implemented as designed. The TCP may only be erected and dismantled by suitably trained personnel who have successfully completed an accredited *Implement Traffic Control Plans* course through an RTO and holds current valid *Queensland DTMR Traffic Control Accreditation* and have *Traffic Management Implementation accreditation*.

Traffic Controllers must be suitably trained personnel who have successfully completed an accredited *Traffic Controller* course through an RTO and holds current valid *Industry Authorization* available through Department of Transport and Main Roads.

Traffic control implementation will be undertaken by a licensed contractor using methodologies as outlined in *Queensland Manual of Uniform Traffic Control Devices, Part 3: Traffic control for Works on Roads*, November 2019 and *Australian Standard AS 1742.3 2009 Manual of Uniform Traffic Control Devices* and relevant legislation and codes of practice. The PCL HSE Supervisor will conduct reviews of workplace documentation, including licensing, training qualifications and JHAs to verify compliance with the requirements outlined herein.

15.4 Traffic Management Monitoring & Review

To ensure the TCPs are maintained and remain as designed, PCL has developed a TCP checklist. The PCL Supervisors are responsible for completing daily inspections of the traffic control measures using the checklist developed in PCL's online quality control system Autodesk BIM360. This checklist includes the requirement to check the condition and adequacy of the traffic control in place and is to be completed daily.

The Construction Manager is responsible for ensuring that traffic management is implemented in accordance with the Woolooga Traffic Management Plan (Appendix JJ). The requirements of the Traffic Management Plan will be assessed on a fortnightly basis using the WSF Traffic Management Plan Fortnightly Checklist which reflects the requirements of the WSF Traffic Management Plan. The record of this check will be entered in the SMC and any corrective actions assigned and tracked.

The Construction Manager is also responsible for ensuring that traffic management is implemented in accordance with the Woolooga Site Traffic Management Plan (Appendix KK). The TMP is reviewed for suitability on a quarterly basis as part of HSE Field Meetings (Toolbox Talks). In addition, the TMP shall be reviewed in light of:

- Changes in the traffic volume due to the project progress,
- Incidents or near-misses,
- Changes in the statutory requirements or applicable Australian standards,
- Feedback from the staff, contractors, visitors or other stakeholders.

16 Mobile Plant

To identify, address and control the hazards and risks associated with mobile plant, PCL has developed the WSF Mobile Plant Management Plan (Appendix LL). The HSE Supervisor is responsible for the development and review of Woolooga Mobile Plant Management Plan, which has been developed to specifically address the following;

- Identification of mobile plant
- Identify, assess and control the risks associated with the use of mobile plant using PCL's HIRAC processes;
- Ensuring all Plant is fit for purpose, through risk assessments, JHAs and inspection and maintenance programs;
- PCL systems are established for the operation of mobile plant;
- PCL procedures ensure ground disturbance activities are managed through a controlled process;
- PCL procedures ensure mobile crane, lifting and rigging activities are managed through a controlled process. Mobile crane, lifting and rigging have also been identified in PCL's Lifesaving Absolutes as critical activities.
- Ensuring movement of plant and vehicles on-site is controlled;
- Ensuring that all workers operating mobile plant are licensed, trained or competent.
- PCL system ensures that there is a process for the ongoing maintenance of mobile plant;
- Ensuring that emergency procedures are established specific to the scope of works.

17 Trade Contractor HSE Program

17.1 Contractor Engagement

The PCL Project Manager is responsible for issuing the HSE Plan and Operational Risk Register to all subcontractors prior to commencement onsite. It is the responsibility of the PCL Construction Manager and/or Superintendent to receive verification of acknowledgement from the subcontractor of the PCL HSE Plan. This is verified by receiving the signed PCL Pre-Mobilization Safety Requirements form and the Project Specific HSE Acknowledgement Form prior to mobilizing onto the project site.

PCL utilizes the HIRAC process and it is applied in subcontractor selection for all high-risk scopes of work. The high-risk scopes of work on the Woolooga project are; civil, electrical, mechanical and crane operations.

17.2 Program Promotion & Awareness

Trade Contractors shall actively participate and promote safe working performance on the part of their employees and their Trade Contractors. Site Supervisors shall participate in such activities as safety meetings, safety inspections and safety incentive programs

17.3 Competent Person/ Competent Worker/Qualified Worker

One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them or as otherwise defined by applicable legislation.

17.4 Compliance with PCL's Project Specific HSE Plan

All trade contractors will be expected to comply with HSE legislation, the PCL Project Specific HSE Plan, work practices and procedures, and any requirements imposed by the client.

17.5 Trade Contractor's Project Specific HSE Plan

Trade contractors must provide their own Project Specific HSE Plan at the worksite while work is conducted. This plan must be in compliance with PCL's Project Specific HSE Plan requirements.

The trade contractor shall designate a representative to be responsible for the administration of the trade contractor HSE program. This person may be a line manager or supervisor. If this person is an HSE professional, they shall integrate their activities into the site HSE team as closely as possible to prevent duplication of effort.

Refer to the site Project Filing Index for copies of site-specific trade contractor HSE Plans

17.6 Subcontractor Requirements

1. HIRAC is integrated into subcontractor selection process and Contractor Engagement Checklist is completed for the main civil, mechanical and electrical subcontractors working on site.

2. All project specific WHS information, including the HSE Plan, and the Risk Register, shall be distributed to subcontractors at the procurement stage. Where PCL is not the principal contractor, Principal Contractor's WHS plan and/or project risk assessment shall be provided to subcontractors.

3. SWMS's must be developed for all high-risk construction work (as outlined in Code of Practice - Construction Work) and submitted to HSE Supervisor. Each SWMS is to be reviewed and accepted by HSE Supervisor using SWMS Review Form. If a SWMS is found to be deficient, an amended SWMS must be submitted. No work shall be undertaken without a SWMS accepted by Project Management.

   High Risk Construction Activities as defined by Worksafe are outlined as follows;

   - Risk of a person falling more than 2 metres (Note: in some jurisdictions this is 3 metres)
   - Work on a telecommunication tower
   - Demolition of load-bearing structure
   - Likely to involve disturbing asbestos
   - Temporary load-bearing support for structural alterations or repairs
   - Work in or near a confined space
   - Work in or near a shaft or trench deeper than 1.5 m or a tunnel
   - Use of explosives
   - Work on or near pressurized gas mains or piping
   - Work on or near chemical, fuel or refrigerant lines
   - Work on or near energized electrical installations or services
   - Work in an area that may have a contaminated or flammable atmosphere
   - Tilt-up or precast concrete elements
   - Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than pedestrians
   - Work in an area with movement of powered mobile plant
   - Work in areas with artificial extremes of temperature
   - Work in or near water or other liquid that involves a risk of drowning
   - Diving work

4. Subcontractors receive a project-specific induction prior to commencing work.

5. Subcontractors must participate in weekly HSE Inspections where requested by PCL management.

6. As a part of the HSE Inspections, one subcontractor is selected and their compliance with approved SWMS is assessed using SWMS Observation Form. Any inconsistencies between the work carried out and the SWMS must be resolved immediately.

17.7 Environmental Requirements

Each trade contractor will be responsible to provide education and training to workers who may be required to use harmful products or substances in accordance with applicable local regulations, the environmental requirements identified in this Project Specific HSE Plan and the on-site specific requirements of their construction related activities. Instruction will include the safe handling and use of these materials.

17.8 Hazard Identification

The PCL Project Manager is responsible for ensuring that all workers, including subcontractors, participate in the company HIRAC processes. This is achieved through the following PCL HSE procedures;

- Development and review of Job Hazard Analyses
- Pre-Job Safety Instructions
- PSI Audits
- Material Data Safety Sheets

These procedures take place predominantly in the pre-construction phase of the project, with PSIs and JHA development taking place as required during construction activities. Continual review of all procedures takes place on an ongoing basis through to completion of the project.

***See Section 6** of this plan for detailed information regarding the above.*

Note: All high-risk activities associated with each trade contractor's scope of work must have a site specific JHA/SWP created and submitted for PCL approval prior to commencement of work.

17.9 Audits and Inspections

Documentation of formal inspections shall be submitted to PCL Project Management.

17.10 Emergency Response

All workers and trade contractor supervision shall become familiar with the site-specific emergency response plan and its contents. Supervision will communicate this plan to their workers and ensure their compliance. **See Section 8** of this plan for detailed information.

17.11 Security

All trade contractors must comply with security requirements of this site and are responsible for secure storage of their tools, materials and all other items left on site. No afterhours work shall be permitted on site without prior approval from PCL Project Management. All trade contractors must ensure that all visitors and deliveries sign-in at the site office. **See Section 9** of this plan for detailed information.

17.12 Preventative Maintenance

All trade contractors shall inspect their tools and equipment prior to use and to ensure that they are in proper working condition. In addition, good housekeeping and material storage must be maintained at all times on this project. **See Section 12** of this plan for detailed information.

17.13 Incident Reporting

All trade contractors shall notify PCL Project Management ***immediately*** regarding any near misses; incidents (***regardless of severity***); vehicle, equipment or property damage; injuries.

Trade contractors shall conduct a formal investigation of all near misses and incidents and submit a copy of the report to PCL's supervision within 24 hours. **See Section 13** of this plan for detailed information.

17.14 HSE Orientation and Training

All trade contractor personnel must be trained and competent to perform the assigned work. Training requirements must meet or exceed requirements outlined in this Project Specific HSE Plan. Training records must be submitted upon request. PCL mandates that all trade contractors' site personnel attend a site-specific HSE orientation. **See Section 3** of this plan for detailed information.

17.15 Worksite monitoring

PCL will periodically monitor the trade contractors work areas for compliance requirements. This may include a review of all records, maintenance logs and attendance at new worker safety orientations, safety committee/tailgate meetings. In addition, the review may include:

- Personal Protective Equipment use
- Pre- Job Safety Instructions and their audits
- Job Hazard Analysis; Safe Work Procedures and HSEOP's
- Incident Reporting and Investigations
- Statistical Reporting
- Audits and Inspections
- HSE Orientation and Training records
- Fall Protection Standards and Training
- Meetings

17.16 Communication Systems

HSE Field Meetings (Tailgate Talk)

HSE Field meetings are to be held a minimum of once per week, at a time agreed to with the PCL project management team. Meeting minutes are to be submitted to the PCL project management team on the day of the meeting in a format that meets or exceeds the requirements as outlined in the PCL Project Specific HSE Plan. **See section 4** of this plan for detailed information.

Project HSE Committee Meetings (JHSC)

Project HSE Committee meetings will include company supervisors, trade contractor supervisors, foremen, and designated workers. The intent of the meetings is for workers and supervisors to discuss any HSE issues that may arise on the project. Project HSE Committee meetings must be held at least once /month. **See section 4** of this plan for detailed information.

17.17 Statistical Reporting

Each trade contractor shall submit, on a weekly basis, a report detailing the following information:

- Workers on-site per day
- Total man-hours per week and to date
- Number of first aids per week and to date
- Number of recordable incidents per week and to date
- Number of work days lost per week and to date
- Number of incidents (Near Misses) per week and to date

These submittals shall be provided no later than 9:30 am on the Monday and relate to the preceding week.

17.18 Disciplinary action

If the trade contractor is found to be in non-compliance with mandatory company and legislated HSE standards, as well as with the requirements outlined within this Project Specific HSE Plan, disciplinary actions will be taken by PCL Project Management. **Refer to section 2** of this plan for detailed information.

For more information, please refer to PCL HSE Manual HSE-11 Trade Contractor HSE Program.

18 Preventative Maintenance

18.1 Overview

The purpose of this section is to verify that the tools and equipment provided to workers are properly maintained.

18.2 Responsibilities

18.2.1 PCL Project Management

- Do not permit the use of any piece of equipment or tools that have been tagged “OUT OF SERVICE” or “DO NOT USE” or otherwise defective.
- Accountable for the safe operation and maintenance of all equipment on the project.

18.2.2 Project Supervision (Construction Manager; Foreman; Lead hand)

- Verify that repairs or corrections of defects are reported to them in a timely manner.
- Remove from service any pieces of equipment or tools that have been tagged “OUT OF SERVICE” or otherwise defective.
- Verify maintenance and/or inspection logs remain with the vehicle or equipment when releasing to another location; and
- Inspect tools and equipment for defects.

18.2.3 Workers

- Inspect all tools and equipment before each use.
- Keep all equipment and tools in good repair.
- Remove and tag out from service any defective tool or piece of equipment.
- Shall report and remove damaged or defective tools and equipment to their immediate supervisor.
- Shall choose the right piece of tool and/or piece of equipment for the operation.
- Shall leave all HSE devices operative on equipment and tools (i.e. Guards);
- Shall be authorized and trained to operate tools and equipment; and
- Shall document required equipment inspections.

18.3 Maintenance schedule

Any repair, adjustment, or parts replacement needed to keep a motor vehicle, roadway, building, facility, or other device or equipment in safe operating condition. Qualified and competent workers will maintain all tools, vehicles, and mobile equipment in accordance with the manufacturer’s maintenance requirements. Records of maintenance will be kept.

18.4 Tool and equipment inspections and requirements

Tools and vehicles/equipment shall be inspected daily and prior to each use by the user to verify that they are in proper working order. Damaged or defective tools must be tagged “OUT OF SERVICE” and returned to the tool room or yard immediately. Under no circumstances may tools or equipment in need of inspection or repair remain in service.

All tools and equipment, company owned or rented, dispatched to the project site shall be sent in good mechanical condition and with required HSE equipment installed.

When provided by PCL resources, all tools and equipment dispatched to a project site shall be accompanied by operation, testing and maintenance instructions. Rental equipment maintenance and inspection records, with the exception of cranes, may be maintained at the rental company's facility but should be spot-checked periodically to verify that the rental company has an effective maintenance program. All crane records are to be kept on the project where the crane is located.

18.5 Manufacturer specifications

Arrange for competent persons to conduct all daily, weekly or other inspections, test, maintenance or repairs as prescribed by the manufacturer's specifications.

18.6 Tools

Tools will be used and maintained in accordance with the manufacturer's specifications.

18.6.1 Tool Maintenance & Inspection

Tools shall be;

- Inspected daily.
- Inspected prior to use.
- Properly selected for the right task.
- Used in the manner in which they were intended to be used.

18.6.2 Damaged or defective tools

Damaged or defective tools shall be;

- Removed from service.
- Tagged with "DO NOT USE."
- Returned to appropriate supervision.
- Under no circumstances may tools marked as "out of service" be utilized.
- Do not use tools that have the following:
- Split/Splintered handle
- Struck tools with mushroomed heads
- Worn/sprung jaws
- Cracked cases on electrical tools
- Missing ground prongs
- Missing or modified guards (< 180° wheel/disc/cup coverage)
- Cords with cuts
- Show signs of overheating –or-
- Any other questionable defects

18.7 Equipment

18.7.1 Inspections

Supervision is to verify periodic inspections are taking place per the operator manual

- **All powered equipment shall**
  - Be inspected prior to use
  - Be inspected daily or at the start ofeach shift:
  - Inspections are to be documented:
    - Documentation is to be submitted to PCL Project Management as requested.
    - Have a (minimum) 1kg / 2 ½ lb. ABC-rated fire extinguisher on board (1kg DCP extinguisher)
    - The fire extinguisher is to be visually inspected daily
- If required by the regulations and/or by the manufacturer's operating manual, shall have an operable back up alarm capable of being heard in the environment in which the vehicle or equipment is intended to be used

In the event backup alarms are not provided or are not operational, a spotter MUST be used for *all* equipment movement

18.7.2 All Equipment in Use

- Operator and passengers are to wear seat belts.
- Equipment shall have an operator in seat while engine is running.
- Passengers must ride in approved seating areas and use seat belts.
- Workers shall not ride on any piece of equipment not equipped for passengers.
- Use a spotter for backing when visibility is limited, or area is crowded with people or equipment
- Yield (give way) to pedestrians and emergency vehicles.
- Keys are not to be left in the ignition of unattended equipment.
- Workers shall not be lifted, hoisted or transported
- Except when approved by manufacturer and federal or state regulatory requirements and using manufacturer approved attachments or devices

18.7.3 All Equipment Refueling

- Turn off the ignition system before refueling.
- Refueling must be attended at all times.
- In case of spill, cease operation until the area is made safe, then report it.

18.8 All Operators

- Certified, authorized operators are the ***only*** workers allowed to operate equipment.
- Operators are to be qualified, trained and certified to operate equipment.
- PCL and trade contractor Project Management are to verify operator's qualifications.
- Operator shall submit a copy of training documentation to Project Management.
- Operators are to inspect all equipment at least daily, prior to use.
- This inspection is to be documented on an operator's checklist
- Report all motor vehicle incidents to supervision.
- Observe all rules of the road.
- Vehicles shall be operated within posted speed limits.

18.9 General Electrical Requirements for Tools and Equipment

All electrical plant, tools and equipment must comply with the relevant Australian Standard. Testing and tagging will be conducted at the frequency identified it the applicable code of practice and will also be in accordance with AS/NZS 3760. Electrical equipment includes personal charging devices for mobile or other devices belonging to individual employees – use of such charging devices on the PCL site is conditional upon a current test and tag. Individuals and their employers will be responsible for ensuring chargers and other like products are tested and tagged every three months at their own expense. Any personal charging devices or other electrical equipment without a current tag will be taken out of service immediately.

18.9.1 Electrical Tools and Equipment

- Electrical tools and equipment must evaluated against the requirements of the Managing Electrical Risks in the Workplace Code of Practice. PCBU's must ensure hazard identification and associated controls have taken place prior using any electrical equipment on site.
- Each sub contractor will maintain a register of electrical equipment including test and tag results.
- Supplied and used electrical tools and equipment must comply with the relevant Australian Standard (no unapproved imported electrical devices from foreign jurisdictions).
- Only round, heavy duty extension cords (conductor types S, ST, SO, STD) are acceptable on this project and shall be visually inspected at the start of each day or shift.
- Inspect all equipment connected by cord and plug.
- All workers shall conduct a roll-up of all extension cords and gather tools on a weekly basis.
- Only qualified workers shall make repairs or perform maintenance on electrical equipment.
- Tools are not to be carried, lifted or lowered by their cord.
- Temporary lighting must have guards over the bulbs.
- Broken or burned out lamps are to be replaced immediately
- Guards, barricades and/or warning signs must be provided to prevent employee contact with un-insulated "live" electrical components or temporary wiring.

- Area around panel boxes and disconnects shall be free and clear of obstructions for a minimum of 1 meter 36” in front of panel.

18.9.2 Inspection Intervals

- Testing identified above is to be performed:
  - Before first use
  - Before tools and/or equipment is returned to service following repairs
  - Where there is reason to believe that damage could have occurred from an incident

18.9.3 Inspection Documentation – Electrical extension cords

- Shall be marked with appropriately coloured tape or by the Teflon tag system:
  - Testing intervals are to not exceed three (3) months using the R-G-B-Y System or the Teflon tag provided by PCL.
  - All extension cords shall be marked at the plug end.
  - This designates the period for which the inspection and test are to be conducted

The following table applies:

QUARTER	MONTH	COLOR CODE
1ST	JANUARY	RED
	FEBRUARY	
	MARCH	
2ND	APRIL	GREEN
	MAY	
	JUNE	
3RD	JULY	BLUE
	AUGUST	
	SEPTEMBER	
4TH	OCTOBER	YELLOW
	NOVEMBER	
	DECEMBER	

19 Incident Investigations & Corrective Action

19.1 Overview

It is PCL's policy and practice to investigate all incidents and near misses to determine fundamental causes and take action so as to avoid reoccurrence.

An incident is defined as an undesired event that results in harm to people, loss of process, environment interference, property damage or liability. The definition of an incident also includes any undesired event that, *under different circumstances*, would have resulted in harm to people, loss of process, environment interference, property damage or liability (near miss).

All incidents must be reported, investigated, and documented in SMC as soon as reasonably practicable. In order to respond the PCL Project Management team must have accurate and timely information.

Incidents must be reported to the site supervisor as soon as reasonably practicable. All incidents that require medical attention or have the potential for medical attention require the immediate notification of the project HSE supervisor/Construction Manager.

The purpose of an accident/incident investigation is to determine root cause(s) and provide ways and means to prevent a recurrence. Field supervisors are responsible for conducting accident/incident investigations. The point is to find fact, not fault. Supervisors are reminded to focus on how and why the event occurred, rather than who should be blamed.

The following PCL operating procedures are to be adhered to in the event of an incident;

1. Standard HSE-13-Incident Investigation (Appendix MM)
2. Conducting Incident and Near Miss Investigations (Manual) (Appendix NN)
3. Woolooga HSE Incident Reporting Action Diagram (Appendix OO)

19.2 Incident Reporting

The Construction Manager is responsible for reporting all identified incidents to external agencies as required. A 'notifiable incident' under the work health and safety legislation relates to:

- the death of a person
- a serious injury or illness of a person
- a potentially dangerous incident
- Confirmed illness in the workplace

Serious Injuries and illnesses are defined as follows;

- Immediate treatment as an in-patient in a hospital
- Immediate treatment for the amputation of any part of the body
- Immediate treatment for a serious head injury

- Immediate treatment for a serious eye injury
- Immediate treatment for a serious burn
- Immediate treatment for the separation of skin from an underlying tissue (such as de-gloving or scalping)
- Immediate treatment for a spinal injury
- Immediate treatment for the loss of a bodily function
- Immediate treatment for serious lacerations
- Medical treatment within 48 hours of exposure to a substance

Notification is also required for the following serious illnesses:

- Any infection where the work is a significant contributing factor. This includes any infection related to carrying out work:
  (i) with micro-organisms
  (ii) that involves providing treatment or care to a person
  (iii) that involves contact with human blood or body substances
  (iv) that involves handling or contact with animals, animal hides, skins, wool or hair, animal carcasses or animal waste products.
  (v) exposure to silica resulting in silicosis

- The following occupational zoonoses contracted in the course of work involving handling or contact with animals, animal hides, skins, wool or hair, animal carcasses or animal waste products:
  (i) Q fever
  (ii) Anthrax
  (iii) Leptospirosis
  (iv) Brucellosis
  (v) Hendra Virus
  (vi) Avian Influenza
  (vii) Psittacosis.

Potentially dangerous incidents are defined as follows;

- an uncontrolled escape, spillage or leakage of a substance
- an uncontrolled implosion, explosion or fire
- an uncontrolled escape of gas or steam
- an uncontrolled escape of a pressurized substance
- electric shock
- the fall or release from a height of any plant, substance or thing
- the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be authorized for use in accordance with the regulations
- the collapse or partial collapse of a structure

- the collapse or failure of an excavation or of any shoring supporting an excavation
- the inrush of water, mud or gas in workings, in an underground excavation or tunnel
- the interruption of the main system of ventilation in an underground excavation or tunnel
- any other event prescribed under a regulation; but does not include an incident of a prescribed kind.

The Construction Manager is responsible for reporting the incident to Work Safe QLD immediately after becoming aware it has happened. The Construction Manager is also required, by law, to report any *electrical accident where medical treatment is required* to Safe work and where a Serious Electrical Incident (SEI) or Dangerous Electrical Event (DEE) the Electrical Safety Office of Queensland.

Notification of any incident should include notification to the Office of the Federal Safety Commissioner.

OFSC incident reporting criteria are;

Fatality
All fatalities on any projects where the accredited contractor is the head contractor, regardless of value or type, must be reported to the OFSC on 1800 652 500 immediately, and an Incident Report form must be submitted through FSC Online within 48 hours.

Lost Time Injury (LTI)
All work-related incidents on a Scheme or Non-Scheme Project where the accredited contractor is the head contractor resulting in a LTI where the project value is $4 million or more must be submitted through FSC Online:

Notifiable* LTI reports must be submitted within 48 hours;
Non-Notifiable LTI reports must be submitted within three weeks.

Medically Treated Injury (MTI)
All work-related incidents on Scheme Projects where the accredited contractor is the head contractor resulting in a MTI must be submitted through FSC Online:

Notifiable* MTI reports must be submitted within 48 hours;
Non-Notifiable MTI reports must be submitted within three weeks.

Dangerous Occurrence
All work-related incidents on Scheme Projects where the accredited contractor is the head contractor resulting in a Dangerous Occurrence must be submitted through FSC Online:

Notifiable* Dangerous Occurrence reports must be submitted within 48 hours. Only notifiable Dangerous Occurrences must be submitted to the OFSC

*A notifiable incident is an incident that is required to be notified under the WHS legislation covering notifiable incidents in the jurisdiction in which the project is being undertaken.

19.3 Investigation Process

Following the immediate response to an incident, for example, medical treatment or rescue, the incident shall be fully investigated. The Construction Manager is responsible for assigning an Incident Investigator to complete the incident investigation utilizing the aforementioned investigation procedures as soon as practicable. The incident investigator ***MUST*** be appropriately trained having completed the HLD 236 – Incident Investigations training module via PCL Learn.

An investigation is a systematic process of examination, observation, and inquiry comprising of the following parts:

- **Description of Incident**
  The description identifies in detail how, when, and where the incident occurred including all related factors (i.e. weights, heights, distances, time of day, weather conditions).

- **Cause** (Why did the incident occur?)
  What acts, failures to act, and conditions contributed to the incident.

- **Recommendations**
  After the cause of the incident has been determined, recommendations to prevent recurrence will now be prepared.

- **Documentation/Reporting**
  The investigation will be fully reported to the district HSE manager using the PCL Incident Investigation Standard form provided in the attachments of this section.

- **Review & Verification of Senior Management**
  The outcome of incident investigations will prompt the relevant review of process and procedures. Any changes to existing documents or procedures shall be documented in the correct manor. Review, update and communication to applicable HSE documentation following an incident investigation is the responsibility of the HSE Supervisor, with support from senior management.

Incident reports should be completed using the PCL the HSE-13-01 Incident Investigation Report Form ABC (Appendix PP). This information should then be transferred to the online reporting System SMC by the incident investigator.

Reports shall be sent no later than the next working day to the PCL Construction Manager, and the PCL HSE Manager who will forward them, as necessary, to appropriate agencies or

departments. The Worksafe QLD shall be notified immediately of any accident resulting in critical injury or death or an accident resulting from a major structure failure.

19.4 Incident Classifications

19.4.1 Incident Classification A (Class A Incident)

- Is an event that results from a condition or practice that has the potential to cause permanent disability, loss of life or body part, or extensive loss of structure, equipment or material. Based upon the risk assessment set out on HSE-13-01, the district HSE manager and district management (off-site) are required to oversee the investigation and may include the HSE director/Regional manager.

19.4.2 Incident Classification B (Class B Incident)

- Is an event that results from a condition or practice that has the potential to cause serious injury or illness, resulting in temporary disability or property damage that is disruptive but not extensive. Based upon the risk assessment set out on HSE-13-01, on-site project management is required to oversee the investigation, but district management (off-site) may also participate

19.4.3 Incident Classification C (Class C Incident)

- Is an event that results from a condition or practice that has the potential to cause minor (non-disabling) injury or illness or non-disruptive property damage. Based upon the risk assessment set out on HSE-13-01, the investigation team is established at the discretion of the project Construction Manager and project supervision, but project management and district management may also participate.

19.5 Property Damage

The district HSE manager and the district administration manager must be promptly notified of equipment or property damage. The HSE-13-01 Incident Investigation Report Form ABC (Appendix PP) must be completed for all incidents and forwarded to the district office for administrative processing.

19.6 Corrective Actions

It is the responsibility of the Construction Manager to ensure the HSE-13-01 Incident Investigation Report Form ABC outlines the root cause behaviour of the incident as well as the following incident corrective action characteristics through PCL's SMC;

- Specified target completion dates
- Allocate responsibility for addressing corrective actions;
- Closure of corrective actions by the specified completion date

19.7 Lessons Learned Reports

It is essential to the incident investigation process that action be implemented to prevent reoccurrence. In order to achieve this goal a lesson learned report should be completed outlining actions to be taken as a method of documenting and measuring corrective actions. Actions can be categorized as either short term (temporary) and long term (permanent) to prevent the immediate or long-term reoccurrence of similar incidents.

The HSE Supervisor is responsible for communication of lessons learned to all workers via the safety bulletin board and Toolbox Talks. Lessons learned will also be communicated throughout the organization via safety alert bulletin.

Associated forms or checklists;

1. Incident Investigation Form ABC;
2. Injury Incident Facts; Environmental Spill Facts;
3. Loss Incidents Facts; Near Miss Report Form;
4. Witness Statement Form

20 Safe Work Practices

20.1 Introduction

All work shall conform to the Occupational Health and Safety Act and Regulations for Construction Projects and/or standards which have been identified by PCL's HSE Manual and PCL's HSE Operating Procedures (HSEOP'S) (all can be reviewed in the PCL site office at any time in order to assist supervisors and workers in the preparation of safe working procedures).

20.2 Mobile Personnel Baskets & Rigging (HSEOP-3)

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- Mobile cranes are to be tested and inspected daily by the crane operator.
- Cranes are to be operated only by a qualified operator.
- All loads must be safely landed and supported before being unhooked.
- Workers are not permitted to:
  - Stay in the range of a swing hazard
  - Stand, work or pass beneath a suspended load
  - To ride on a load, sling, ball, hook or any other rigging equipment

For additional information see PCL's HSEOP Sections 3.

20.3 Hoisting & Moving Equipment and Material

Proper procedures and lift capabilities for complicated and critical lifts must be adhered to and may also require special clearance from the PCL Head Office The actual lifting must be performed by qualified personnel and with the proper equipment. PCL must be assured that proper rigging equipment is used for unique lifts.

The use of man cages with cranes is not allowed without prior approval from PCL Head Office.

A **critical lift** with a mobile crane is defined as a lift requiring:

1. 80% or more of the machines rated capacity at the maximum radius required
2. Any lift requiring a boom height in excess of 37 meters / 120 feet
3. Any lift where the mobile crane will be mounted on a floating platform
4. Any lift in excess of 45359 kilograms, 43.35 tonnes /100,000 pounds
5. Any lift which required unusual rigging or procedures
6. Multiple crane lifts
7. Crane moving with load

Crane booms and load lines must not be operated close to any overhead line or electric transmissions circuit. The Minimum Distance Table Guide in the WHS Act shall be used.
For more information and guidelines on Tower Cranes and Mobile Cranes you should refer to sections 2 and 3 of PCL's HSEOP.

20.4 Trenching & Excavation (HSEOP-05)

- Prior starting any major excavations, the Contractor will provide written safe working procedures regarding the work to be done, and review these with the Project Construction Manager.
- All excavations must be adequately shored where necessary and must be properly covered, or guarded, when left before the work has been completed.

- The Contractor shall adhere to proper soil placement principles of 1m minimum from the edge of the excavation. This is providing that there is an undisturbed soil condition. When in doubt, the soil should be tested.
- Shall have a safe means of access/egress:
  - Within eight meters (8m) / twenty-five (25) linear ft. of workers working in the excavation or trench
  - The access/egress point (ladder) shall be properly secured and extend a minimum of one meter (1m) / thirty-six (36) inches above the landing platform
- Excavation/Trench Inspection:
  - Shall be completed prior to access
  - Daily by a competent person
  - Documented using the Daily Trench and Excavation Checklist

For additional information see PCL HSEOP-05

20.5 Underground piping, Electrical and Other Utility Services

- In certain circumstances, it may not be possible to identify the location of underground services.
- Special caution must be exercised when excavating in the area of underground services.
- Where underground services are unable to be located, precautions as outlined in the Excavation Code of Practice 2021 will be utilised.
- Their location must be thoroughly reviewed with PCL prior to excavation.
  - that underground services are located and not affected.
  - Develop emergency procedures for an excavation collapse.
- Copies of Locate drawings must be reviewed and in the cab of the excavator at all times.

20.6 Control of Hazardous Energy (HSEOP-07)

- Isolation refers to the securing a system to a source of energy such that the isolation system will prevent an inadvertent release of energy that could cause or lead to a major injury or damage to equipment or loss of production.
- Isolation verifies that electrical, mechanical, hydraulic, pneumatic, gravitational, or any other form of energy will not cause an unintended motion, start-up, release, or energization of machinery, equipment, or process systems.
- Prior to any maintenance, servicing, construction, or any other work undertaken on equipment or machinery, all associated sources of energy must be identified, and measures taken to de-energize and isolate those sources of energy from being inadvertently activated.

For additional information see PCL HSEOP-07

20.7 Confined Space Entry (HSEOP-13)

The definition of “confined space” is consistent across all regulations. “Confined Space” means a fully or partially enclosed space,

a) That is not both designed and constructed for continuous human occupancy, and
b) In which atmospheric hazards may occur because of its construction, location or contents or because of work that is done in it.

If you have a space that is fully or partially enclosed, the two conditions above must both apply before the space can be considered a “confined space”.

Workers who enter confined space must have the appropriate training for the hazards they may encounter, and companies must provide the proper confined space policies, procedures and equipment to protect the worker.
For additional information see PCL HSEOP-13

20.8 Scaffolding (HSEOP-15)

Red or green scaffold tags must be attached to all multiple person use scaffolds. A red **"STOP"** warning tag will be attached to the scaffold while being erected, dismantled or modified. Scaffolding shall be installed, inspected, maintained, and repaired in accordance with the manufacturer's specifications and the applicable legislative jurisdictional requirements. Suspended, cantilevered, supr or hung scaffold or scaffolds where a person or thing could fall more than 4 meters must have a method of preventing unauthorised access.

Prior to use, the scaffold must be inspected by a competent person from the erecting company. This process is to be documented, dated, and signed by the competent person on the back of the green tag.

For this project the following types of scaffold tag will be used with their function described below:

- Red – Red scaffolding tags are usually marked STOP. They mark a piece of scaffolding or a scaffolding structure as unsafe. Workers should not, under any circumstances, attempt to climb this scaffold and use it as a support structure, because there is a serious structural flaw, safety issue, or some other problem that means that it should not be used by anyone, for any reason.
- Yellow – Yellow scaffolding tags are usually marked CAUTION. These tags identify a piece of scaffolding or a scaffolding structure as not meeting every safety requirement – or requiring special equipment to use. It may also mean that a worker should seek approval from a supervisor or foreman before using the scaffolding. Yellow tags may indicate that a scaffold is safe to use, but only for those who have the proper safety equipment – such as a fall arrest system, or some other piece of equipment that is required to use the scaffolding in question safely.
- Green – Green scaffolding tags indicate that a section of scaffolding has been inspected and certified as completely safe to use – with proper bracing, platform support, guardrails, anti-slip devices, and all other precautionary measures that are required by Work Safe Australia.

The project Construction Manager is responsible to verify that all scaffolding is installed, tagged, used, and dismantled by competent and trained personnel following all applicable standards regarding scaffolding.

For additional information see PCL HSEOP-15

20.9 Fall Protection (HSEOP-24)

- Shall be utilized where workers are exposed to falls at and above 1.8 meters / 6' in height.
- Where there is a risk of a fall by a person from one level to another that is reasonably likely to cause injury.

- Personal Fall Arrest equipment will only be employed after an evaluation of engineering and fall restraints have been ruled out of use.

20.9.1 Fall Protection Plan

- A written fall protection plan with specific work site procedures shall be in place prior to on-site worker use of fall protection and approved by Project Management.
- Plans must meet the minimum requirements as outlined in the Managing Falls in the Workplace Code of Practice.

Fall Protection Plan must include, but is not limited to:

- Fall hazards expected in each work area.
- Fall protection system or systems to be used in each area.
- Procedures to assemble, maintain, inspect, use and disassemble.
- Procedures for the rescue of a worker.
- Methods of providing overhead protection.

20.9.2 Working from Scaffolds

- Must have been trained in accordance with standards.
- Competent person must be present, on-site, during use.
- All workers are required to visually inspect scaffolding prior to use.
- No material or tools shall be thrown or dropped from scaffolding.
- Exclusion zones must be established prior to ascending any scaffolding.
- Use methods of fall restraint or fall protection where necessary.

20.9.3 Working from Swing Stages

- Swing stages must be built to hold a minimum of their own weight and the intended loads.
- All structural components must be securely fastened together according to specs.
- The floorboards may be metal or wood and must be securely attached to the stage.
- Structural steel or its equivalent in strength will be used for the outrigger beam.
- Prior to use, all connections should be inspected by a competent person.
- All wire rope will be inspected periodically to ensure good condition.
- The swing stage platform must be equipped with a top rail, mid rail and toe board.
- The rated capacity must not be exceeded.

20.9.4 Harness and shock absorbing lanyards

- Personal fall arrest equipment is used to reduce the risk of injury that can occur when a worker falls from one level to another.
- Critical components of personal fall protection equipment/systems are:
  - Anchor points rated for 15kN.
  - Full body harness with a rear connecting point, at or above shoulder height
  - Shock absorbing lanyards (fall arrest only), positioning lanyards or SRLs
  - Double-locking snap hooks and connection hardware, with gates rated for 1630 kilograms / 3600 lbs.
- Each component of fall protection should be inspected visually prior to each use

20.9.5 Anchor point requirements

- Anchor points are the most critical component for workers
  - Installed by an authorised installer, be identifiable and accompanied by an engineering certificate.
  - Load rating shall be, at a minimum, 15kN.
  - Swing fall and impact prevention shall be considered.
  - Structure/anchor must be easily accessible to avoid fall hazards during hook up
  - Chafing pads or abrasion resistant straps must be used around sharp edge
  - Worker attachment point shall be at the worker's shoulder level or higher (whenever possible) to limit free fall to 1.8 meters / 6 feet.
  - Must be compatible with worker's fall arrest equipment.
  - Shall be removed from service immediately and disposed of if subjected to fall arrest forces.
  - Subject to annual NDT inspection

20.9.6 Lifelines

- Horizontal fall protection systems must be engineered
- Must be installed by qualified workers

20.9.7 Rope grabbing devices (w/fall arrest indicator)

- A rope grab for protecting a worker at an elevated position from a fall
- The rope grab is only positioned on a vertical safety line
- Is connected to the worker by a lanyard.
- The actuator is connected to the lanyard to secure the worker to the rope grab and is operable upon a downward pull.
- When it is in the locked position due to a fall, it tightly engages the safety line to preclude the device being slid along safety line, and causes the automatic rupturing of a chamber, whereupon the indicator liquid flows onto a portion of the rope grab and a portion of the safety line.
- These devices are intended to stop a worker from falling within the shortest distance possible.
- This device can also be used as fall restraint which physically keeps the worker away from the exposed edge

For additional information see PCL HSEOP-24

20.10 Grinders (HSEOP-25)

- Grinding wheels/cones/cups/discs shall be guarded for a *minimum* of 120° of their circumference.
- Shall not be used if wheel guard in missing or modified.
- Tool auxiliary side handle shall be attached at all times.
- Work or tool rest shall not be adjusted while grinding wheel is in motion.
- Cracked or damaged grinding wheels or cutting discs shall not be used.
- Wheel or disc is suitable for the task being performed;
- Only wheels/cones/cups/discs of the correct speed rating are to be used

- Turn off, unplug and wait for tool to stop completely before attempting to adjust or change wheels or placing the tool on the ground or working surface
- The use of a cutting disc requires that an HSEOP-25-01 Cutting Disc Approval Form be completed by the worker using the cutting disc and signed by the project Construction Manager and/or the project HSE representative. See attachment
- PCL workers will not be allowed to use a grinder of any kind until they have completed viewing the grinder training video: “The Grind”.

For additional information see PCL HSEOP-25

20.11 Aerial Work Platforms (HSEOP-26)

- Only an authorized, trained operator is permitted to operate aerial lifts.
- **Aerial lifts/ work platforms include:**
  - Extended boom platforms **(100% Tie Off Is Required)**
  - Aerial ladders **(100% Tie Off is Required)**
  - Scissors lifts/EWP’s **(100% Tie Off is Required)**
  - Articulating boom platforms **(100% Tie Off is Required)**
  - Vertical towers **(100% Tie Off is Required)**
- Lifts shall be inspected prior to use, at least daily, and the inspection documented.
- Any lift found to be damaged or defective shall be immediately removed from service.
- Workers shall not stand on toe-boards, mid-rails or top rails.
- Workers lift must wear and secure a full body harness to designated manufacturer’s points.
- Exiting the lift in an elevated position without 100% tie-off is prohibited. A written procedure **must** be is in place when exiting/entering the Aerial Work Platform.
- A request for Permit for Entering/Exiting Aerial Work Platforms **must** be completed and submitted to PCL Project Management for approval, using the form HSEOP-26-02.
- Lifts are to be operated on a surface within manufacturer’s recommended limits.
- Do not operate aerial lifts close (<10’ up to 50 kV) to overhead power lines.
- Lifts **shall not** be used as cranes or lifting devices, unless designed for such use by manufacturer.
- Lift’s maximum load capacity shall not be exceeded.
- Lifts shall be moved only in low gear at low speeds.
- Tools, materials, or equipment that is on the platform shall be secured to prevent possible shifting and injury to workers on the platform.
- A copy of the Operating Instructions must be kept with the unit.

For additional information see PCL HSEOP-26.

20.12 Back Up Alarms, Signal Person

Sub contractors must plan to minimize the backing up of vehicles on site.

The following vehicles shall be equipped with back up alarms:

- Dump trucks;
- Concrete trucks;
- Trucks equipped with an auxiliary crane moving materials;
- Service trucks having a nominal capacity of 2350kg or more and used for the maintenance of equipment or supplying a construction site with equipment;
- Skid-steer loaders (bob-cats);

- Trucks used on electric distribution and transportation line equipped with an auger arm, a basket, and any other similar equipment.

On equipment that has an obstructed view or “blind spot”, the operator shall use a spotter or signalman, or do circle check of the equipment before reversing.

20.13 Traffic Protection Plan

If workers on a project are exposed to hazards from vehicular traffic, the employer must develop and implement a written traffic protection plan. The plan must specify the hazards and the protective measures to be followed.

20.14 Housekeeping

PCL required a high standard of housekeeping on the job. The Project Construction Manager will insist on a general “clean-up after yourself” attitude, at all times. Access and emergency routes must be maintained. Should any trade contractor repeatedly fail or refuse to perform their own daily clean-up, PCL shall perform this work and access the costs to the trade contractor.

20.15 Ramp, Runways and Platforms

- A ramp, runaway and platform shall be designed, constructed and maintained to support or resist, without exceeding the allowed unit stresses for the materials of which it is made:
- All loads and forces to which it is likely to be subjected; and
- At least 2.4 kilonewtons per square meter (50 psf).
- No ramp, runaway or platform shall be loaded in excess of the load that it is designed and constructed to bear.
- A ramp, runaway or platform shall be at least 460 millimetres wide and shall be securely fastened in place.
- A ramp shall have, a slope not exceeding a gradient of 1 in 3; and if its slope exceeds a gradient of 1 in 8, cross cleats made from nineteen millimetres by thirty-eight millimetres boards that are securely nailed to the ramp and spaced at regular intervals not exceeding 500 millimetres.

20.16 Noise

Measured sound pressure levels above 85 decibels, weighted to the A scale (85dBA), are considered dangerous and are the OSHA Action Level for inclusion in a hearing protection program.

20.16.1 Warning Signs of Hazardous Noise

- You must raise your voice to be heard at three feet.
- Speech around you sounds muffled or dull after leaving a noisy area.

20.16.2 Noise Protection

- Workers are to wear the appropriate hearing protection for task activities:
  - Earmuffs
  - Ear plugs
  - Canal caps
- Administrative Controls

- Limit periods of exposure

20.16.3 Noise Identification

- Identifying noise activities will allow Project Management to implement proper controls.
- Noise created during construction may have adverse effects.
- Activities that generate excessive noise shall be:
  - Reduced
  - Eliminated
  - Scheduled to limit the exposure

20.17 Flammable & Combustible Liquid Storage & Handling (HSEOP-32)

- When Liquified Petroleum Gas (LPG) / propane tanks are in use, a fire extinguisher shall be within 3 meters / 10' of the operation requiring the propane.
- Cylinders will only be filled by trained workers.
- Propane storage will not be in, under or near stairways and exits used for egress.
- Storage of tanks will be done to minimize tipping and stored upright.
- All tanks will be secured upright.
- All tanks will have protective collars around the valve assembly.
- Any hazardous chemicals will be stored according to local legislation.
- No smoking/flammable signage shall be placed and maintained around storage areas.
- Fire resistant cabinets will be used to hold flammable chemicals.
- Fire extinguishers will be located near the storage areas.

For additional information see PCL HSEOP-32

20.18 Flagging & Barricades (HSEOP-33)

- Barricades shall be erected any time the work being performed within an area represents a hazard to those personnel not actively involved in the hazardous work.
- A barricade is erected to present a visual and physical barrier to prevent people from entering the work area in which a serious potential hazard is present.
- Barricades shall be erected that protect an area large enough to ensure that no person outside the barricade is exposed to the hazard within the barricade.
- Barricades shall be complete, i.e., there shall be no open areas in the perimeter of the barricade.
- Avoid barricading excessively large areas or for long periods of time, whenever possible.

20.18.1 Barricade colors

"Soft" tape barricades shall be colour coded appropriate to the level of hazard within the barricaded area.

- A yellow barricade indicates that the hazard level with the barricade requires an increased level of awareness, e.g., overhead work or welding.
- A red barricade indicates an "immediate danger to life or health" hazard, e.g., crane lift, counterweight swing radius or confined space.

20.18.2 Barricade tags

Barricade tags shall be placed so that there is a tag visible from all sides of the barricaded area and in no case more than 10 meters / 30' apart.
All barricades are to be tagged with PCL barricade tags, or equivalent, that indicates:

- Reason for barricade
- Date of barricade erection
- Level of hazard inside the area
- Person responsible for the barricade and their contact info

20.18.3 Entering a barricaded area

To enter a yellow barricaded area:

Read the tag to understand the hazard present within the barricaded area.
Cross under or over the barricade.
Locate and read the PSI for the area and sign in on it before beginning work.

To enter a red barricaded area:

Read the tag and contact the person responsible for the barricade
Obtain permission to enter the area.

If permission is denied, respect the barricade and DO NOT enter the area.

Read the PSI for the area and sign in before entering the barricaded area and before beginning work within the area.

20.18.4 Removal of barricades

All barricades shall be completely removed when no longer required for hazard control. The person responsible for the barricade shall ensure that it is taken down and properly disposed of or stored.

For additional information see PCL HSEOP-33

20.19 Lighting & Electrical Gear

It is everyone's responsibility to see that no area is without adequate lighting. Workers shall not move temporary stringers or bulbs thus leaving an area darkened. If a higher level of temporary lighting is required, each trade contractor is required to supply their own task lighting. Energized electrical gear must have adequate covers. Electrical panels or equipment must not be used for work benches or storage areas. Workers are responsible for ensuring that all extension cords are in good condition.

20.20 Ladders

All ladders must be designed, constructed and maintained so as not to endanger a worker and shall be capable of withstanding all loads to which it may be subjected.

Ladders, either straight or folding, may not be stored in an upright position, leaning against a wall or other vertical surface, in a heavily trafficked area unless restrained by a chain or wire. They must be laid down flat or on edge.

20.20.1 Extension Ladders

- Used per manufacturer's recommendations
- Tied off at the top and bottom
- Always extend ladders 1 meter / 3 feet above the edge
- No more than one person is allowed on a ladder at one time
- Do not splice short ladders together
- Secured at higher elevations as not to be blown off structures
- Inspect ladders before use
- Removed from service if defects or damage is identified
- Have clear access/egress to and from ladder
- Metal ladders shall not be used where a risk of electrical hazard exists

20.20.2 Step Ladders

Because portable ladders are intently hazardous, they should only be used where safer means of access such as stairs, scaffolds, man-lifts, or ramps are not suitable or practical. Supervisors must consider the number of workers requiring access to elevated work locations as well as the extent and duration of the work before deciding on the safest and most economical means of access.

- Step ladders must be fully opened with spreader arms locked
- The top two rungs of a ladder are not to be used as a step
- In locations where electrical hazards are present, use fiberglass ladders
- Workers working on ladders near an opening must be protected from openings below
- Ground shall be clear of debris at the base of the ladder

20.21.1 Hand tools and power tools

All workers using hand tools/power tools shall inspect these tools prior to each shift to determine if they are in a safe operating condition.

- All tools requiring repair shall be immediately reported to the supervisor. Such tools shall be taken out of service, tagged and repaired before making them available to any other worker.
- Workers will use power tools which are double insulated or properly grounded.
- Guarding devices will not be removed from power tools and equipment.

20.21 Floor Openings

- All openings shall be protected in order to prevent injury.
- Prior to cutting floor openings on-site, proper protection shall be identified.
- All openings greater than 300 by 300 mm / 12 by 12 inches will have a perimeter guarding or covering.
- Perimeter guarding or covers shall not be removed without approval of supervision.

20.21.1 Barriers

- Flagging may be used around holes and openings
- Establish at least 6' back from the leading edge

- Guardrails may be used to protect openings

20.21.2 Covers

- Floor openings may be covered rather than guarded with rails
- All 100 by 100 mm / 4 inch by 4 inch holes or larger shall be protected by covers
- Covers can be used where applicable and typically are for smaller openings
  - Shall be capable of safely supporting the greater of:
    - 182 kg / 400 pounds or
    - twice the intended load on covers
  - Shall be secured to prevent accidental dislodgement
  - Covers shall be marked stating **"Opening—Do Not Remove"** or **"Hole"**
  - Covers shall have a brightly coloured contrasting coloured paint applied forming a circle with an "X" inside the circle
  - Covers which are temporarily removed shall:
    - Have a temporary railing installed or
    - An attendant in place to warn workers.

20.22 Forklifts

Operator using forklifts shall:

- Be trained
- Use safety belts
- Conduct documented daily inspections and remove defective equipment from service
- Report all defects to Project Management
- Observe maximum load limits at all times
- Remain in control of the forklift at all times
- Remain in the seat when there is a load on the forks
- Make sure there is no excess lint, oil and grease
- Allow no riders or unauthorized people on the forklift
- Operate at a safe distance away from leading edges or steep changes in grade
- Operator shall yield right of way to all workers, pedestrians or emergency vehicles

20.22.1 Additional Requirements

- No modifications will be made without written consent from the manufacturer.
- Name plates, tags, stencils, and marks identifying stability shall be in place and readable.
- Forklift will not be permitted to lift other workers.
- When in motion, forks shall always be carried as low as possible.
- Vehicle is to be shut off and brake is to be set, the mast is to be brought to the vertical position and forks are left in the down position with the tips on the ground

20.22.2 Procedure HSEOP-31 – Electrical Safety

The requirements for the prevention of injuries that could result from working on or near energized electrical systems, electrical equipment, testing or any other electrical installation or associated equipment are outlined in HSEOP31 – Electrical safety This procedure applies to all PCL worksites, including subcontractor operations.

Documents relevant to work on or near energized systems include

- SWPROC 02 Working on or Near Energized Systems and The Safe Limits of Approach
- Isolation and Lockout Procedure
- Energized Work Permit
- Energized Work Checklist

21 Code of Conduct Standards

21.1 Drugs and Alcohol

The bringing of, or the consumption of alcohol or non-prescribed drugs on the job or working while under the influence of such will not be tolerated. Any worker found to be under the influence of alcohol or non-prescription drugs will be removed from the site.

21.2 Sexual Harassment

PCL will not tolerate the unlawful harassment of workers or employees, including implied or expressed forms of sexual harassment or violence. Sexual harassment means any verbal, written, visual or physical acts that are offensive in nature, intimidating, unwelcome or that could reasonably be taken as objectionable. Should any worker or employee who feels that he or she has been subjected to harassment of any type, whether by a worker, supervisor or officer of PCL, they should promptly report the incident to their supervisor. Workers uncomfortable reporting harassment to their direct supervisor should report incidents to another person within their company / organization whom they are comfortable.

21.3 Workplace Violence and Harassment

PCL will not tolerate the unlawful harassment and discrimination of workers or employees, including implied or expressed forms of harassment or violence. PCL promotes a violence-free workplace and any act of violence committed by or against any worker or member of the public is unacceptable conduct and will not be tolerated (refer to Workplace Violence Policy in section 1). Harassment means any verbal, written, visual or physical acts that are offensive in nature, intimidating, unwelcome or that could reasonably be taken as objectionable. Any worker or employee who feels that he or she has been subjected to harassment of any type, whether by a worker, supervisor or officer should promptly report the incident to their supervisor. Workers uncomfortable reporting harassment to their direct supervisor should report incidents to another person within their company / organization whom they are comfortable.

Please see HSEOP Manual section 23 "Preventing Violence in the Workplace" for additional information.

22 Health, Safety and Environment Operating Procedures

Refer to PCL manual titled "Health, Safety and Environment Operating Procedures (HSEOP's)". Trade contractors may be required to provide JHA's; job specific safe work practices and/or safe operating procedures or codes of practice. If required, they will be reviewed by PCL prior to implementation.

Not all sections included in this publication apply to the work to be performed on this project.

Section # 1	Introduction to HSE Operating Procedures
Section # 2	Tower Cranes

Section # 3	Mobile Cranes
Section # 4	Personnel and Material Hoists
Section # 5	Trenching and Excavation
Section # 6	Hazard Communication & WHMIS
Section # 7	Control of Hazardous Energy
Section # 8	Propane
Section # 9	Swing & Non-Swing Type Earthwork Equipment
Section # 12	Respiratory Protection
Section # 13	Confined Space Entry
Section # 14	Diving
Section # 15	Scaffolding
Section # 16	Asbestos Abatement
Section # 17	Lead Abatement
Section # 18	Waste Management
Section # 19	Blood borne Pathogens
Section # 20	Demolition
Section # 21	Silica Protection
Section # 22	Mould Guidelines
Section # 23	Preventing Violence in the Workplace
Section # 24	Fall Protection
Section # 26	Aerial Work Platform
Section # 27	Hydro testing
Section # 28	Heat Stress Prevention
Section # 29	Working in Cold Environments
Section # 30	First Line Breaks
Section # 31	Electrical Safety
Section # 32	Flammable & Combustible Liquid Storage and Handling
Section # 33	Flagging and Barricades

23 PCL Sign-off

The Site Specific HSE Plan for Woolooga Solar Project No. 9110003 has been prepared and reviewed by the PCL Project Construction Manager; HSE Project Supervisor; and Project Director.

PCL Company Director: William Parker

Signature: _____

Date: 14 June 2021

PCL Project Manager: Ethan Kent

Signature: Ethan Kent Location: Coolum Beach, Queensland Reason: I have reviewed this document Contact Info: 0499494346 Date: 2021.03.09 07:27:13+10'00'

Date: June 9th,2021

HSE Project Supervisor: TJ Le'Mon

Signature: _____

Date: 01 October 2021

PCL Senior Construction Manager: Jeff Ewert

Signature: _____

Date: June 9th,2021

24 Project Specific HSE Plan Trade Contractor's Acknowledgement Form

Project Name: Woolooga Solar, 9110003

After reviewing the policies and practices as outlined in the plan, the company owner, site Construction Manager, on-site foreman, lead hands, and all trade contractors are to sign off this sheet. The sign-off sheet must be returned to the PCL Project Manager, before commencement of work-related activities on the jobsite.

I have read and understand this Project Specific Health, Safety and Environment Plan and will carry out my work within these guidelines.

Company Name:_____

Company Owner

Name:_____ Date: _____

Signature:_____ Title: _____

Company Construction Manager

Name:_____ Date: _____

Signature:_____ Title: _____

On Site Foreman

Name:_____ Date: _____

Signature:_____ Date: _____

NOTE: This page, once signed by the Company Owner; Company Construction Manager and On-Site Foreman shall be placed on file in the PCL site 0H files.

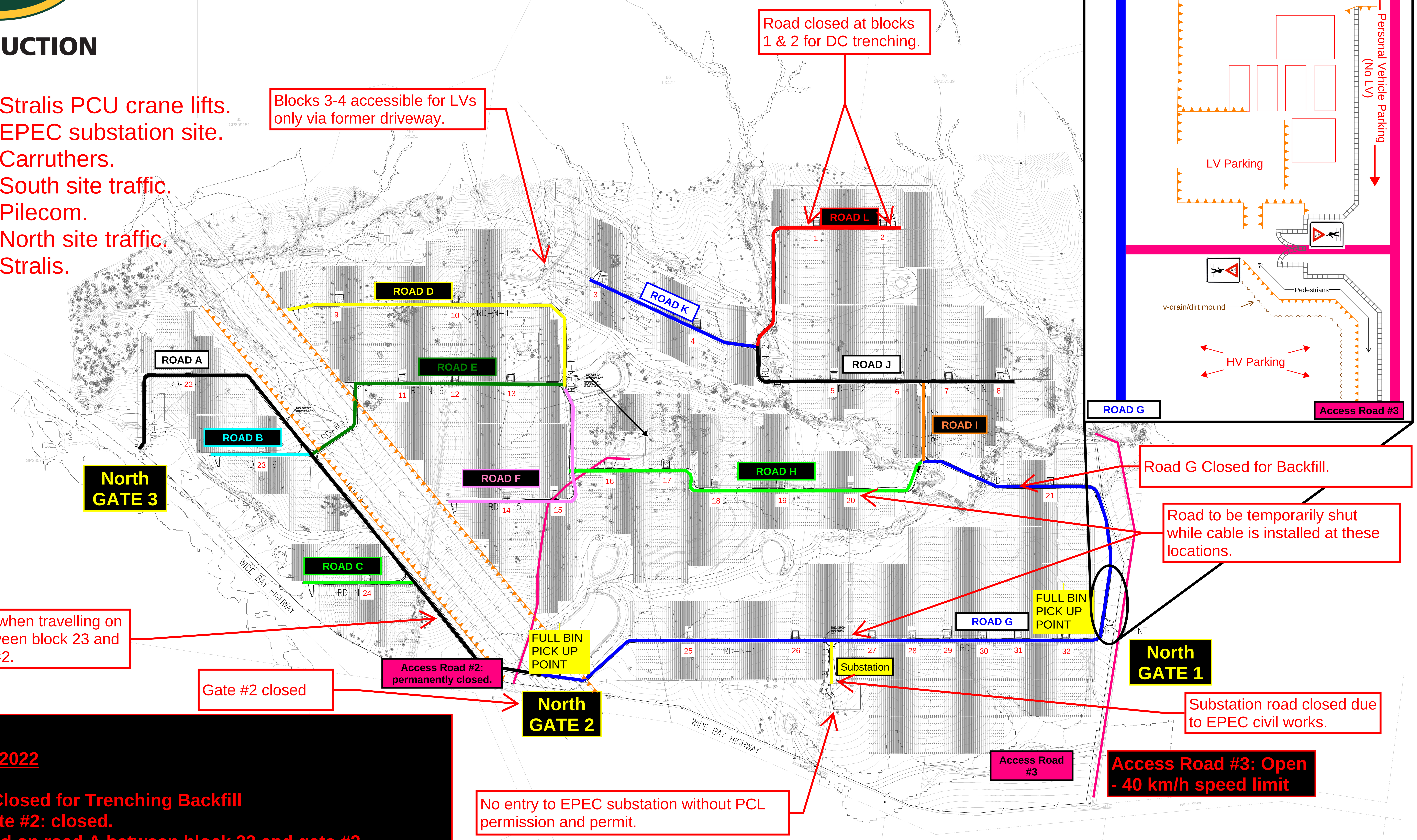
Appendix 10–

Traffic Plan

PCL CONSTRUCTION

Woolooga Solar Farm: Traffic Plan (NORTH)

UHF 20 - Stralis PCU crane lifts.
UHF 25 - EPEC substation site.
UHF 26 - Carruthers.
UHF 27 - South site traffic.
UHF 28 - Pilecom.
UHF 29 - North site traffic.
UHF 30 - Stralis.


Blocks 3-4 accessible for LVs only via former driveway.
Road closed at blocks 1 & 2 for DC trenching.
ROAD A
ROAD B
ROAD C
ROAD D
ROAD E
ROAD F
ROAD G
ROAD H
ROAD I
ROAD J
ROAD K
ROAD L
North GATE 3
North GATE 2
North GATE 1
Road G Closed for Backfill.
Road to be temporarily shut while cable is installed at these locations.
Call ahead when travelling on road A between block 23 and north gate #2.
Gate #2 closed
Access Road #2: permanently closed.
FULL BIN PICK UP POINT
FULL BIN PICK UP POINT
Substation
Substation road closed due to EPEC civil works.
No entry to EPEC substation without PCL permission and permit.
Access Road #3
Access Road #3: Open - 40 km/h speed limit
WIDE BAY HIGHWAY
LV Parking
LV Parking
HV Parking
Personal Vehicle Parking (No LV)
Pedestrians
v-drain/dirt mound
Access Road #3

<u>April 12th 2022</u>

- **Road G Closed for Trenching Backfill**
- **North Gate #2: closed.**
- **Call ahead on road A between block 23 and gate #2..**
- **20km/h speed limit to be observed at all times within site.**
- **Call up UHF 29 to pass civil HVs in work areas.**
- **Call up on UHF 29 when entering or exiting north site gates.**

TO BE UPDATED AS CONSTRUCTION PROGRESSES