Plan

Health & Safety

Basslink Bushfire Mitigation Plan

Document No		HS.PL.001 / OP426		Next Review Date	23/08/2023
Owner		Shane Matthews - Manager Operations and Maintenance VIC			
Rev	Date	Status	Originated	Checked	Approved
4	23-Aug-23	Draft	Mark Bostedt Site Manager - Basslink	Paul Pendlebury Easement Maintenance Officer - Basslink	Shane Matthews Manager Operations and Maintenance VIC

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1 Purpose

This procedure outlines Basslink Pty Ltd.'s Bushfire Mitigation Plan.

2 Scope and Audience

This Bushfire Mitigation Plan applies to all persons working on or near a Basslink Pty Ltd asset.

3 Roles and Responsibilities

Role	Responsibilities
Site Manager and site operational staff	Responsible for the content, review, and implementation of this Bushfire Mitigation Plan.
Manager Operations and Maintenance VIC	Responsible for the approval of this Bushfire Mitigation Plan.

4 Introduction

This Bushfire Mitigation Plan relates to the electrical overhead transmission assets owned and operated by:

Basslink Pty Ltd
APA Group
Lvl 25
580 George Street
Sydney, NSW, 2000

This plan is produced in compliance with the requirements of the Electricity Safety (Bushfire Mitigation) Regulations 2013.

This report supplements, and is submitted in conjunction with, the Basslink Vegetation Management Plan (VMP) within the Operation Environmental Management Plan (OEMP) – VM Version 4. The VMP fulfils the requirements of the transmission license issued to Basslink Pty Ltd (Basslink) under the Electricity Industry Act 2000 (Vic) and the requirements for a management plan under Section 5 of the Electricity Safety (Bushfire Mitigation) Regulations 2013.

A copy of this plan can be found at www.basslink.com.au.

5 Contacts

5.1 Emergency Contact

Loy Yang Converter Station on Call Engineer
Tel: 1800 008 767 (24 hour)
Tel: 03 9607 4741 (24 hour)

5.2 Officers Responsible for the Implementation of the Basslink Bushfire Mitigation Plan

Mark Bostedt
Site Manager
Loy Yang Converter
Loy Yang
Tel: 03 8416 2875

Colin Uhe
Site Engineer
Loy Yang Converter
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Paul Pendlebury
Easement Maintenance Officer
Loy Yang Converter Station
Loy Yang
Tel: 03 8416 2883

Daniel Ralph
Site Engineer
Loy Yang Converter Station
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Tel: 03 8416 2846

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Site Engineer
Loy Yang Convertor Station
Loy Yang
Tel: 03 8416 2885

5.3 Bushfire Mitigation Preparation

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Site Manager
Loy Yang Converter Station
Loy Yang
Tel: 03 8416 2875

Paul Pendlebury
Easement Maintenance Officer
Loy Yang Converter Station
Loy Yang
Tel: 03 8416 2883

6 Commitment and Policy

Basslink undertakes its business activities within its corporate Environment Management Scheme (EMS) and the corporate Health, Safety, Security and Environment Policy. The environmental performance of Basslink is ultimately measured and reported against its corporate Environment Policy which can be found at www.basslink.com.au.

Basslink looks to comply with all relevant legislation and industry standards, which includes any conditions of approval relevant to the operations phase.

It is Basslink's intent to take appropriate actions to ensure it minimises the risk of fire ignition from its electrical lines by mitigating the bushfire danger on the Basslink easements.

7 Plan Objectives

The objective of this Bushfire Mitigation Plan is to:

- Provide a framework to ensure that safe clearances are maintained between vegetation and electrical lines.
- Demonstrate Basslink Pty Ltd.'s compliance with the Electricity Safety (Bushfire Mitigation) Regulations 2013.
- Demonstrate compliance with Basslink Pty Ltd.'s Operations Environmental Management Plan.

8 Land to Which This Report and Management Plan Applies

The land affected by the overhead line easement is described in Figure 1 of Appendix A. This figure defines the location of the electric lines to be kept clear of trees or parts of trees.

The predominant categories of trees and other vegetation along the easement are described in Figure 2 and Figure 3 of Appendix A.

9 Public Awareness

Basslink ensures the members of the public who own land over which the overhead transmission line traverses are informed on what can and can't be done around its electricity easements by giving the landowners a copy of the 'Living with Electricity Easements' brochure and also having an available copy of the document on its website: www.basslink.com.au.

As all Basslink assets are owned and operated by Basslink, and Basslink does not need to supply electricity to the public via private electric overhead lines, there are no requirements to enhance public awareness of responsibilities or obligations in relation to mitigation of bushfire danger.

10 Strategies

Strategies are in place to minimize:

- the risk of electric lines starting fires and causing electrocution; and,
- the adverse effects of electric lines on surrounding trees or parts of trees.

These strategies are described in Appendix A, 'Vegetation Management Plan' Section 9, and Appendix B, Basslink Procedure "HS.PR.003 "Maintenance of Clearance Space between Transmission Lines Towers and Vegetation".

10.1 Transmission Line Operation

The Basslink transmission line operates 365 days a year, this includes days of total fire ban. During days of total fire ban Basslink will not engage in any maintenance activities that could increase the chances of ignition resulting in possible bushfire, this may include but not be limited to easement slashing, vegetation removal and tower or line works. If emergency works are needed on days such as a total fire ban day, Basslink would comply with its Hot Works Management Plan, Appendix D.

10.2 Land Management

Land management strategies are described in Appendix A and Appendix B of this document.

Appendix A – The Vegetation Management Plan specifies the requirements for Annual inspection and reporting including:

- Preparation and planning
- Vegetation management
- Disposal of clearing residue by burning

Appendix B – Basslink Procedure HS.PR.003 Maintenance of Clearance Space between Transmission Lines Towers and Vegetation specifies:

- Easement and Tower Inspections requirements

- Clearance Space Distances
- Vegetation Clearance Priorities
- Hazard Space Vegetation treatment

10.3 Asset Condition Monitoring

Basslink has various preventative maintenance strategies to monitor the condition of its easement and overhead assets. The condition of the electrical network assets will be assessed and monitored over various intervals so that preventative maintenance can be carried out in a timely manner. This includes emergency maintenance where high priority defects are reported.

Asset inspections are undertaken, and findings recorded in the Basslink Computerised Maintenance Management System (CMMS).

11 Methods and Frequency of Inspection

11.1 Easement Inspections

The easement will be inspected every 6 months with an additional annual inspection conducted in late August/early September. This allows planning and completion of clearing activities prior to the declaration of the Fire Danger period.

11.2 Tower Inspections

Tower Inspections are conducted as follows:

- General Inspections
    - General tower inspections are carried out at six (6) monthly intervals.
- Detailed Inspections
    - Detailed tower inspections are carried out every three (3) years.
- Thermographic Surveys
    - As part of Basslink's on-going asset management of the overhead lines, an independent thermographic survey is carried out bi-annually. The thermographic survey non-intrusively measures heat generated by high resistance joints. Areas of concern are highlighted, recorded, and attended to as required.

12 Qualification, Training and Experience

Basslink employees carrying out 6 monthly tower inspections and annual bushfire mitigation reporting are required to have at minimum:

- Be trained in and demonstrate competence of the Code of Practice on Electrical Safety for work on or near high voltage electrical apparatus "(Blue Book)."
- Previous experience of the type of works to be undertaken.
- Induction and demonstration of competence in the requirements of the Basslink Operations Environment Management Plan.
- Understanding of the requirements of the Code of Practice for Electric Line Clearance.

- Basic Wildfire Awareness training.

Training requirements for individual tasks required to implement this Bushfire Mitigation plan will be identified in the Basslink training matrix and provided to employees as required. Examples include but are not limited to chainsaw operation and safe use of herbicide.

Basslink will engage a suitable company with a qualified linesman group to carry out 3 yearly detailed tower inspections or thermographic surveys. The contract personnel shall be suitably trained and experienced having completed an Energy Safe Victoria approved Transmission apprenticeship which, as a minimum, includes Federation Training units or equivalent.

- UETTDREL12A – Operate plant and equipment near live electrical conductors/apparatus.
- UETTDREL14A – Working safely near live electrical apparatus as – non-electrical worker.
- UETTDRTP30A – Inspect overhead structures and electrical apparatus (towers).
- UEENEEE101A – Apply OHS practices in the workplace.

More experienced linesmen who have not completed the units above should have completed an Energy Safe Victoria approved Transmission Apprenticeship and have the experience and competency as a minimum equivalent to the Federation Training units.

The contractor should also have reporting procedures in place to advise Basslink with regards to the severity and priority of any defects.

Any contractor engaged by Basslink for easement works or inspection and reporting (this excludes inspection of overhead assets) is required to satisfy the following elements depending on if it is supervised or unsupervised:

- Sound occupational health and safety management plan.
- Previous experience of the type of works to be undertaken.
- Induction and demonstration of competence in those aspects of the Basslink safety management system appropriate to the works.
- Induction and demonstration of competence in the requirements of the Basslink Operations Environmental Management Plan.
- Understanding of the requirements of the Code of Practice for Electric Line Clearance.
- Trained in tree clearing for non-electrical personnel. Contractors have completed at a minimum UET20312 ‘Certificate II in ESI Powerline Vegetation Control’ and hold current ‘refresher training’ provided by a registered training organisation.

Contractors are also required to comply with the requirements of the Vegetation Management Plan and provide Basslink with a copy of any licenses or qualifications needed to carry out the work.

Contractor training and accreditation records will be inspected prior to undertaking work and are kept on record.

13 Procedures for Pruning and Determining the Requirement to Prune

The process for determining what pruning is required and how pruning is to be undertaken is described in Appendix A, 'Vegetation Management Plan'.

Any trees that are identified as Hazard Trees on Basslink's easement will be assessed by a suitably qualified arborist as defined by Electrical Safety (Electrical Line Clearance) Regs. 2015 or equivalent to confirm the likelihood of contact with the transmission line and will be appropriately managed in line with the conclusion or recommendations of the assessment and in line with the requirements of AS 4373-2007 as far as practicable as defined in Electrical Safety Act 1998. The processes for identifying Hazard Trees are detailed in Appendix B Basslink Procedure HS.PR.003 Maintenance of Clearance Space between Transmission Lines Towers and Vegetation.

The pruning work will be audited by Basslink Operations Staff to ensure compliance against:

- Code of practice
- AS4373
- Work Health and Safety compliance
- Customer Satisfaction via Basslink complaints/incident register

14 Fire Management

The prevention and response to a bushfire in the surrounding district or within Basslink's assets is described in Appendix C, Fire Suppression Management Plan.

On days of Total Fire Ban, Basslink will not undertake any maintenance activity's that might lead to the ignition and spread of fire. If Hot Work is to be done on these days, a permit must be issued by the relevant fire authorities. These procedures can be found in Appendix D, Hot Work Management Plan.

The prevention and response to a bushfire in the surrounding district or within Basslink's easement is described in Appendix C, Fire Suppression Management Plan.

15 Audit Processes and Review

Basslink continue to monitor and audit the maintenance activities carried out in order to implement this Bushfire Mitigation Plan. The audits/inspections are carried out by auditors that are not directly involved in the activity that is being undertaken. The inspections are described in Appendix A, 'Vegetation Management Plan'.

Inspections are scheduled and recorded by Basslink's CMMS system (Computerized maintenance management system), When inspections are due, they will be generated by the system and all results are recorded, these results are then reviewed by the Site Manager. Any areas of concern are reported by exception. The total number of scheduled maintenance activities that are generated and completed are.

reported to the Senior Management Team on a monthly basis at the Basslink Monthly Management Meeting. These results are randomly checked by trained auditors within Basslink by conducting field audits.

Annual inspection as described in 9.1 of Appendix A "Vegetation Management Plan" will be used to assess regrowth for the upcoming fire season and to Audit Basslink's compliance with its OEMP and compliance against the Code of Practice for Electrical Line Clearance & Bushfire Mitigation Regulations. A post fire season inspection will also be carried out in succession with the pre-fire

season inspection to ensure the implementation of the Bushfire Mitigation Plan was carried out successfully and that any corrective actions can be identified.

In accordance with the Transmission License, Basslink annually reports on the compliance components of the Operational Management Plan, these are independently audited and reported to the regulator in accordance with the license requirements which at present is every two years.

Any areas of the Bush Fire Mitigation Plan or its implementation that are identified as requiring improvement will be reported to Basslink senior management. Any improvements would be identified and Basslink would provide, where reasonably practicable, the resources' required ensuring its implementation.

16 Co-Operation with External Organisations

Basslink will co-ordinate with external organisations in the event of a fire caused by the supply network. These organisations include but are not limited to:

- Country Fire Authority (CFA)
- Department of Environment, Land, Water and Planning (DELWP)
- Energy Safe Victoria (ESV)
- Victorian Police
- State Emergency Service (SES)

In the event of bush fire, the Basslink's Crisis Management plan would be enacted and if required, an incident investigator would be appointed with the appropriate skills and experience for the investigation requirements.

Appendix A – Vegetation Management Plan

Vegetation Management Plan

Document No		OEMP-VM		Next Review Date	01/05/2027
Owner		Shane Matthews - Manager Operations and Maintenance VIC			
Rev	Date	Status	Originated	Checked	Approved
4	1-May-22	Issued For Use	Mark Bostedt Site Manager - Basslink	Paul Pendlebury Easement Maintenance Officer - Basslink	Joska Ferencz Operations & Maintenance Manager - Basslink

1 Purpose

This document sets out the procedures to manage the clearance of vegetation and disposal of cleared residue on and adjacent to the Basslink easement.

Vegetation clearance is required to control hazardous trees and re-growth on and adjacent to the easement, to maintain safe and secure operation of the Basslink infrastructure and to ensure the infrastructure does not pose a fire hazard.

2 Responsibilities

The Basslink Pty Ltd (Basslink) manager responsible for operations is accountable for this document and its implementation. All Basslink employees and contractors are responsible for compliance with this document and ensuring others do likewise.

3 Residual Risk Rating

The likelihood of fire, or an impact on Basslink infrastructure as a result of uncontrolled re-growth and inattention to the hazards posed by ageing, diseased or damaged trees is unlikely with implementation of the procedures in this plan but the potential consequence of such an impact is severe, as fire could damage property and affect ecological values on the easement. Therefore, the residual risk of environmental harm from this activity is high.

		Consequence				
		Minor	Moderate	Major	Severe	Catastrophic
Likeliho	Almost certain	M	H	VH	E	E
	Likely	M	M	H	VH	E
	Possible	L	M	H	VH	E

	Unlikely	L	L	M	H	VH
	Rare	L	L	L	M	H

4 Objectives

In native vegetation, the Basslink easement has been cleared such that all understorey vegetation up to 1.8 m in height or one-sixth the minimum ground clearance in riparian corridors is retained. This has been done to preserve ecological biodiversity on the easement and to fulfil the conditions of approval of the project. This allowance for understorey and midstorey vegetation complies with legislated electrical safety clearances.

Vegetation management on the Basslink easement aims to preserve ecological biodiversity whilst maintaining safe and secure operation of the infrastructure. Figures 1–5 show the vegetation types, ecological vegetation communities and species of conservation significance on or adjacent to the Basslink easement. The management methods described in this plan are designed to minimise impact on retained vegetation and in some instances, promote species diversity.

The objectives of vegetation management are:

- To mitigate the potential for Basslink infrastructure to cause a fire.
- To protect the Basslink infrastructure.
- To provide a safe working environment.
- In native vegetation, to protect the ecological values of the vegetation to be retained on the easement.
- To ensure compliance with applicable legislation, guidelines and codes.

5 Definitions

Title	Description
Access track	An access route formed by use (e.g., wheel tracks) or a formed earthen track with or without a gravel surface. The nominal width of an access track, which may include a formation, table drains, batters and embankments, is 6 m. The width of the access track will vary with the terrain.
Easement	The land over which Basslink has the right to construct, maintain and operate the Basslink infrastructure. The nominal width of the easement is 65 m for 500-kV HVAC overhead line, 55 m for 400-kV HVDC overhead line, 40 m for 220-kV HVAC overhead line and 11.5 m for underground cables, i.e., 400-kV HVDC, metallic return and fibre- optic cables. The nominal width of a carriageway easement is 6m, however this will vary with the terrain.
Fine fuel	Grasses, twigs and brush typically with stems less than 6 mm in diameter. Sometimes referred to as light fuel or flash fuel due to its volatility.

Fire authority	The authority referred to by legislation responsible for fire management. For example, in Victoria the Country Fire Authority (CFA), in Tasmania Fire Service (TFS), and the relevant government department in each state.
Fire danger period	Commonly known as a fire season this is the period declared by a fire authority in which it is an offence to light a fire without a permit and cause a fire to spread i.e., not attempt to suppress a fire. A fire danger period typically extends from 1 November to 30 April in southern Australia. However, it can be proclaimed earlier and continue after this period. Fire restrictions can also apply outside the fire danger period, as declared by the fire authority.
Heavy fuel	Stumps, logs and large branches that substantially increase the amount of heat generated by a fire.
Inspection	The visual checking of components of the Basslink infrastructure, including but not limited to access tracks, easement and buildings and structures—converter station, transition station and overhead transmission line. Inspection may be carried out on foot, from a vehicle or from a helicopter or fixed wing aircraft.
Mechanised clearance	Crushing, cutting or mulching of brush or thicket regrowth using a heavy chopper-roller (a large drum with cutting/crushing blades), a mulcher or other similar equipment towed by a tractor or equivalent.
Sensitive native vegetation	Native vegetation in the Stradbroke Flora and Fauna Reserve (Figure 1 of this plan), riparian corridors, wetlands and significant flora (Figures 3 and 5 of this plan).
Transmission line	Metallic conductors and an optic-fibre ground wire suspended above ground by insulators attached to galvanised steel-lattice towers and/or folded-plate steel poles at approximately 400 m intervals.

6 References

The legislation, guidelines and codes listed in this section may be subject to revision during the life of Basslink. Where this occurs, the reference is relevant to the latest version of the document.

6.1 Applicable Legislation

Commonwealth

- Environment Protection and Biodiversity Conservation Act 1999.

Victoria

- Catchment and Land Protection Act 1994.
- Conservation, Forests and Lands Act 1987.
- Electricity Industry Act 2000.
- Electricity Safety Act 1998.

- Electricity Safety (Bushfire Mitigation) Regulations 2013.
- Electricity Safety (Electric Line Clearance) Regulations 2015.
- Environment Protection Act 2017.
- Flora and Fauna Guarantee Act 1988.
- Forests Act 1958.
- Victorian Plantations Corporation Act 1993.
- Wildlife Act 1975.

Tasmania

- Electricity Supply Industry Act 1995.
- Environmental Management and Pollution Control Act 1994.
- Forest Management Act 2013.
- Land Use Planning and Approvals Act 1993.
- National Parks and Reserves Management Act 2002.
- Nature Conservation Act 2002.
- Threatened Species Protection Act 1995.
- Weed Management Act 1999.

6.2 Applicable Guidelines and Codes

Commonwealth

- Gippsland Regional Forest Agreement (March 2000).

Tasmania

- Threatened Tasmanian Eagles Recovery Plan 2006-2010.
- Threatened Species Strategy for Tasmania (2000).
- Natural Heritage Strategy for Tasmania (2013-2030).
- Tasmania's Forest Practices Code (2020).

Victoria

- Electricity Safety (Electric Line Clearance) Regulations 2020
- Code of Practice for Bushfire Management on Public Land (DSE, 2012).
- Fire Operations Plan - Gippsland Region 2016/17-2018/19.
- Victoria’s Biodiversity Strategy (1997).
- West Gippsland Native Vegetation Plan (2003).

- Regional fire plans.

6.3 Associated Plans and Procedures

- Land Access Plan (OEMP-LA).
- Incident Reporting Procedure (OEMP-IR).
- Weed, Pathogen and Pest Management Plan (OEMP-WP).
- Victorian Design Report (, June 2003).
- Tasmanian Design Report (Enesar, July 2003).

7 Standards

The Victorian Code of Practice for Electric Line Clearance sets out the minimum clearances surrounding a transmission line. Table 7.1 and Figure 6 illustrate the minimum clearances of Basslink infrastructure against those required by the code of practice. Figures 7 and 8 show the nominal minimum clearances of the 400 kV HVDC overhead transmission line supported on steel lattice towers.

Table 7.1 Minimum clearances of Basslink transmission line infrastructure

Nominal Voltage and Support Type	Minimum Ground Clearance at Maximum Sag	Maximum Height of Vegetation [1]	Minimum Vertical Clearance Space [2]	Applicable Vertical Distance [3]	Minimum Horizontal Clearance Space [4]	Applicable Horizontal Distance [5]
400 kV steel lattice tower						
Conductor (400 kV)	10.7 m	1.8 m	6.4 m	8.9 m	6.4 m	24.3-25.1m[6]
Metallic return (24kV)	10.7 m	1.8 m	3.0 m	8.9 m	3.0 m	18.5 m
400 kV folded-plate steel pole						
Conductor (400 kV)	10.7 m	1.8 m	6.4 m	8.9 m	6.4 m	27.3 m
Metallic return (24kV)	10.7 m	1.8 m	3.0 m	8.9 m	3.0 m	16.3 m
220 kV double-circuit steel lattice tower	9.9 m	1.7 m	3.7 m	8.2 m	4.6 m	14.5 m
500 kV single-circuit steel lattice tower	15.0 m	2.5 m	6.4 m	12.5 m	6.4 m	21.6 m

Notes:

1. Maximum height of vegetation retained on Basslink easement is one-sixth of minimum ground clearance. Exceptions are riparian vegetation where higher vegetation was retained for biodiversity conservation purposes and permitted as the generally wet conditions pose a lower fire risk. The Victorian Design Report (Enesar, June 2005) and Tasmanian Design Report (Enesar, July 2003) detail where riparian vegetation has been retained and the maximum permissible height.

2. Column 3 of table in Section 30 Schedule 1 - Code of Practice for Electric Line Clearance (Victoria, 2015).
3. Applicable vertical distance from conductor bundle in still conditions to maximum height vegetation on easement. See Figure 8 of this plan for 400 kV HVDC transmission line.
4. Vegetation Management Plan No. OEMP-VM
5. Basslink Pty Ltd Issue: Version 4
6. Column 2 of Table in Section 30 Schedule 1 - Code of Practice for Electric Line Clearance (Victoria, 2015).
7. Applicable horizontal distance from conductor bundle in still conditions to edge of easement and vegetation. See Figure 7 of this plan for 400 kV HVDC transmission line.
8. Clearance varies depending on type of insulator used. Higher pollution insulators require longer cross-arms.

8 Attachments

- Figure 1: Location of Basslink infrastructure in Victoria and vegetation types.
- Figure 2: Ecological vegetation communities along the Basslink easement in Victoria.
- Figure 3: Flora and fauna sites of conservation significance on and adjacent to Basslink easement in Victoria.
- Figure 4: Vegetation communities on and adjacent to Basslink easement in Tasmania.
- Figure 5: Flora and fauna sites of conservation significance on and adjacent to Basslink easement in Tasmania.
- Figure 6: Basslink transmission line towers and pole.
- Figure 7: Nominal clearances of 400 kV HVDC overhead line – steel lattice tower.
- Figure 8: Nominal clearances of 400 kV HVDC overhead line – typical span.

9 Procedures

9.1 Annual Inspection and Reporting

(a) Undertake an annual inspection of the easement (see Figures 1 and 4) in late August/early September or at least one month prior to the declaration of a fire danger period:

- To assess regrowth on the easement and whether abutting trees are hazardous. Where there is doubt about the health or stability of a tree, an arborist will be engaged to independently assess the tree before removal or lopping. Where the height of regrowth is in doubt, a surveyor will be engaged to check the height of vegetation and clearance to transmission line conductors.
- To evaluate the effectiveness of any vegetation management activities carried out since the last inspection and the adequacy of the most recent risk assessment of regrowth.
- To ensure compliance with the Code of Practice for Electric Line Clearance.

(b) Prepare and submit an Electric Line Clearance Plan detailing the results of the assessment of regrowth and hazardous trees and vegetation management activities undertaken and planned to Energy Safe Victoria in accordance with submission dates in relevant legislation.

This report is to take into account the requirements of the Bushfire Mitigation Plan prepared in accordance with the Electricity Safety (Bushfire Mitigation) Regulations 2013.

(c) The statement of vegetation management activities is to include:

- Location and extent of vegetation clearance required and undertaken.
- Method of vegetation clearance and residue disposal.
- Contractor and brief statement of qualifications and experience in vegetation management on electricity transmission line easements.
- Schedule of proposed work and residue disposal activities.

9.2 Tower Maintenance

(a) Vegetation may be cleared to ground level in the previously disturbed area of transmission towers (i.e., 10 m radius of the centreline of the tower) for safe access. Clearance must be in accordance with the procedures in this plan.

(b) Where an existing access track does not exist and if required, an access track may be cleared through the easement to the tower to allow for safe access for tower maintenance. Clearance must be in accordance with the procedures in this plan.

9.3 Preparation and Planning

9.3.1 Training

(a) Engage a suitably qualified person skilled in the assessment of native vegetation or arrange for a suitably qualified person to train personnel in the assessment of native vegetation, in particular regrowth rates and tree health.

(b) Engage a suitably qualified and licensed native wildlife handler, to train personnel in how to inspect hazardous trees for fauna.

9.3.2 Prior to Entry to Easement

(a) Implement the procedures of the Land Access Plan (OEMP-LA) that includes notification requirements.

(b) Implement the procedures of the Weed, Pathogen and Pest Management Plan (OEMP-WP).

9.3.3 Prior to Clearing Vegetation or Removing Trees

(a) Notify and consult with Parks Victoria prior to clearing vegetation or removing trees in the Stradbroke Flora and Fauna Reserve and Ninety Mile Beach Coastal Reserve.

(b) Clearly identify any regrowth to be cleared by reference to the adjacent towers.

(c) Clearly identify and mark hazardous trees to be removed or lopped with pink flagging tape and annotate the flagging tape with the words “authorised for removal” using a permanent ink marker.

(d) Clearly identify the location and extent of any threatened species and mark with blue flagging tape. If in doubt, engage a suitably qualified botanist to assist in the identification of the threatened species. The location of known threatened species is shown in Figures 3 and 5 of this plan and detailed in the reports Spring Pre- Clearance Survey (Brett Lane & Associates, 2003) for Tasmania and Victoria.

(e) Engage a suitably qualified and licensed native wildlife handler to remove and release—to the side of the easement—any fauna resident in hazardous trees before removal or lopping.

(f) Do not store or park vehicles and equipment on or over native vegetation.

9.4 Vegetation Management

Vegetation management methods for the different vegetation types are set out below. Procedures that apply to all vegetation types are:

(a) Do not traverse, clear or damage native vegetation in or along watercourses other than as prescribed in Clearing native riparian or wetland vegetation regrowth.

(b) Do not disturb threatened species or significant fauna habitat.

(c) Comply with the requirements for vegetation management as part of the Bushfire Mitigation Plan prepared in accordance with the Electricity Safety (Bushfire Mitigation) Regulations 2013.

9.4.1 Clearing and Disposal of Native Vegetation Regrowth

Aim: To clear and dispose of vegetation in a way that minimises disturbance of soils and the understorey, promotes the recovery of disturbed vegetation, provides habitat for ground dwelling species, discourages access along the easement and provides a safe working environment. To achieve an average post-disposal heavy fuel load of 20 tonnes/ha or less for the area of easement in each property to minimise the intensity of wildfire.

(a) Clear all vegetation higher than 1.8 m above ground level. Clear all tree regrowth above 1.8 m to ground level. Clear all shrub regrowth to a height that preserves ground cover and maintains species composition, habitat features (i.e., logs) and protects significant flora in sensitive native vegetation.

(b) Use the most appropriate and safe method for management of the regrowth including by hand using chainsaws or clearing saws with appropriate cutting blade (e.g., chisel tooth blade) or mechanised clearance. Clearing shall be done in a manner that minimises soil disturbance and damage to retained vegetation and habitat features by limiting screwing of machinery and equipment.

(c) Clear native riparian or wetland vegetation in accordance with the requirements set out in Section 9.4.2.

(d) Where safe, fall hazardous trees into the easement to minimise potential impacts to vegetation outside the easement.

(e) Distribute residue evenly across the easement and at least 4 m from the edge of the easement.

(f) All felled material is to remain on the easement.

(g) Distribute residue to achieve an average post-disposal heavy fuel load of 20 tonnes/ha or less for the area of easement in each property.

(h) Cut all branches and foliage such that no felled vegetation is higher than 1.5 m above ground level. Where trunks are to be left in-situ and are off the ground, cut the trunk into sections, as required, to ensure that at least 80% of the trunk is in contact with the ground.

(i) Do not windrow the residue.

9.4.2 Clearing and Disposal of Native Riparian or Wetland Vegetation Regrowth

Aim: To clear vegetation in a way that preserves the structure and composition of the understorey and disposes of the residue in a way that minimises impacts on the ecological function of the retained vegetation by emulating, where possible, natural processes.

(a) Clear all overstorey vegetation (trees and large shrubs) exceeding the height restriction (one-sixth of minimum ground clearance as shown on the overhead line drawings held by Basslink) for the watercourse/wetland within and adjacent (within 10 m of the edge of the riparian/wetland vegetation) to riparian vegetation by hand using chainsaws or clearing saws with appropriate cutting blade (e.g., chisel tooth blade).

(b) Clear all overstorey vegetation to ground level (< 0.30 m high) and treat stumps with a suitable basal poison to inhibit regrowth.

(c) Fall trees away from watercourse/wetland and leave felled trees in-situ. Do not snig or move felled trees.

(d) Cut all branches and foliage such that no felled vegetation is higher than 1.5 m above ground level.

(e) Clear all felled vegetation from watercourse channels so that water flow is not impeded.

9.4.3 Clearing and Disposal of Regrowth in Plantations

Aim: To limit natural regeneration and maintain the easement by slashing.

(a) Clear all vegetation including natural and wind-blown regeneration, scrubs and grasses by slashing or mulching.

9.4.4 Clearing and Disposal of Vegetation in Farmland

Aim: To remove any vegetation (trees and large shrubs) that has been planted on or has regenerated on the easement.

(a) Use appropriate equipment to clear vegetation in accordance with the requirements of the landowner. For example, use slashing or mulching to control immature regrowth on the underground cable easement.

(b) Minimise damage to crops, pasture and soils by using, where appropriate, tracked equipment or chainsaws. Limit screwing equipment around to minimise soil disturbance.

(c) Minimise damage to adjacent vegetation by falling trees into the easement, where possible.

(d) Minimise damage to fences and farm infrastructure by falling trees away from these assets. Where this is not possible, temporarily remove asset (e.g., fence) or progressively fall tree with the assistance of a ‘cherry-picker’ to avoid damage to property.

(e) Dispose of clearing residue in accordance with landowner requirements.

9.5 Disposal of Clearing Residue by Burning

Basslink traverses state forests in which forest fuel loads (fine fuel and heavy fuel) are managed by fuel-reduction burning programs. In Victoria, the Fire Operations Plan – Gippsland Region sets out the burning program for the Mullungdung State Forest. Forestry Tasmania plan and undertake fuel reduction burns in the State Forest to the east of Mt George.

Fuel management zones in which prescribed burning is carried out, encompass those parts of the Basslink easement. The following procedures apply to the management of fuel reduction burns on or adjacent to this part of the Basslink easement and to any request by Basslink for the responsible landowners to carry out fuel reduction burning on its behalf.

(a) Basslink will consult with the responsible landowners and appropriate government agencies on the nature, extent and timing of prescribed burning as detailed in the relevant fire operations plan.

(b) Basslink will co-operate with the responsible landowners and relevant fire authority in the management of prescribed burning on or adjacent to the easement including measures to ensure the safety of personnel working in close proximity to the transmission line.

(c) Basslink will not undertake the disposal of clearing residue on public land without the prior written approval of the responsible landowners and relevant fire authority.

10 Performance Measures

(a) All vegetation management work carried out in accordance with relevant guidelines.

Attachments of Vegetation Management Plan – Figures 1 to 8

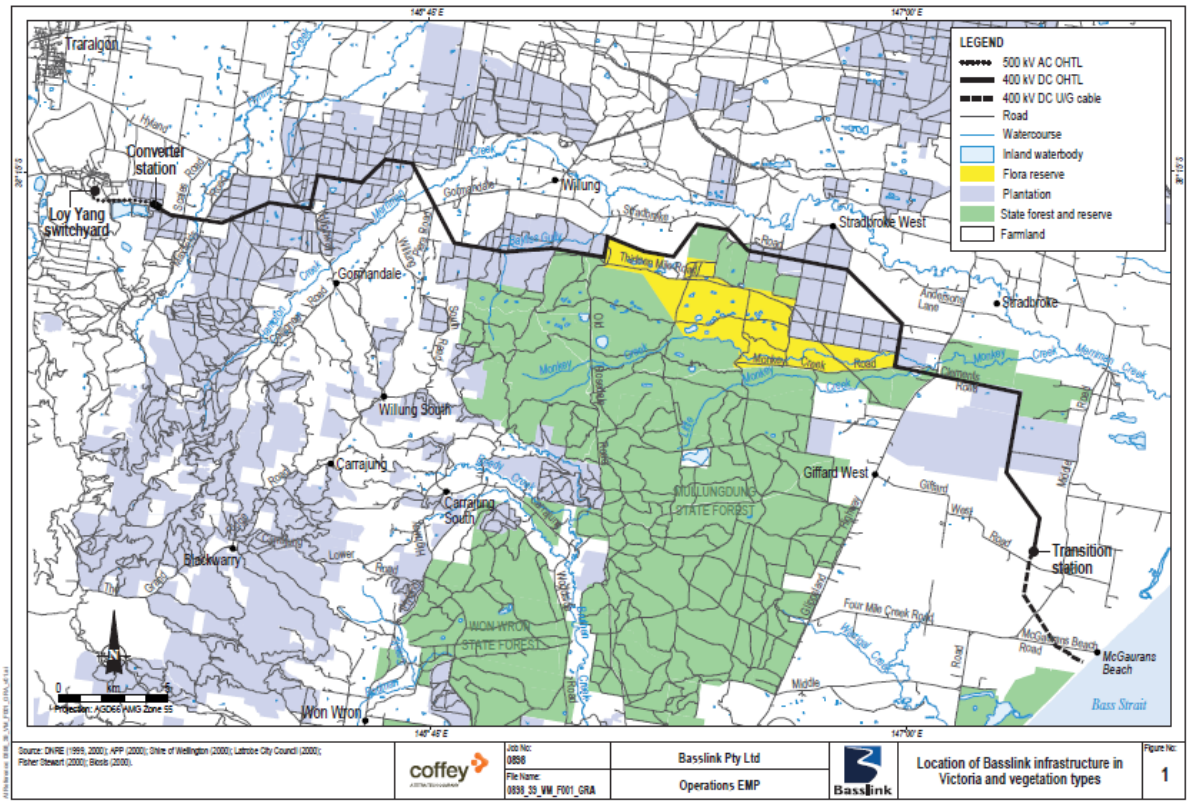

Figure 1: Location of Basslink infrastructure in Victoria and vegetation types

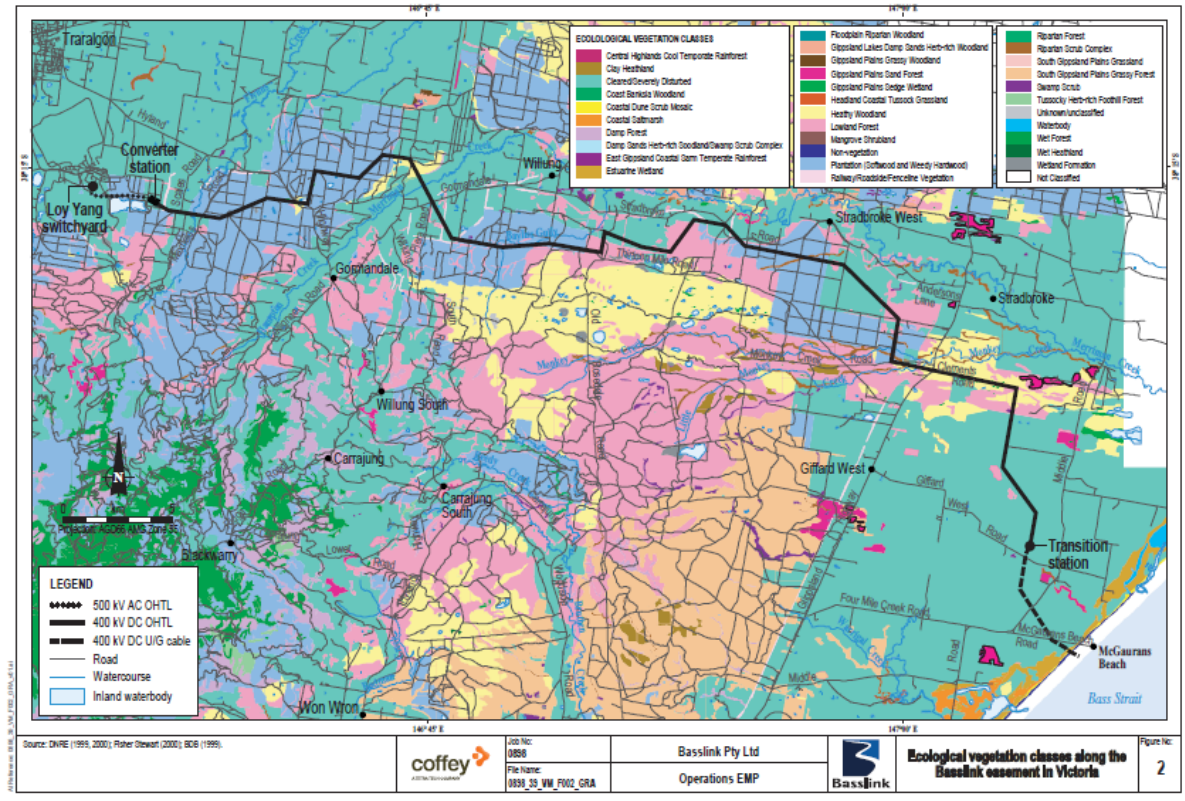

Figure 2: Ecological vegetation communities along the Basslink easement in Victoria

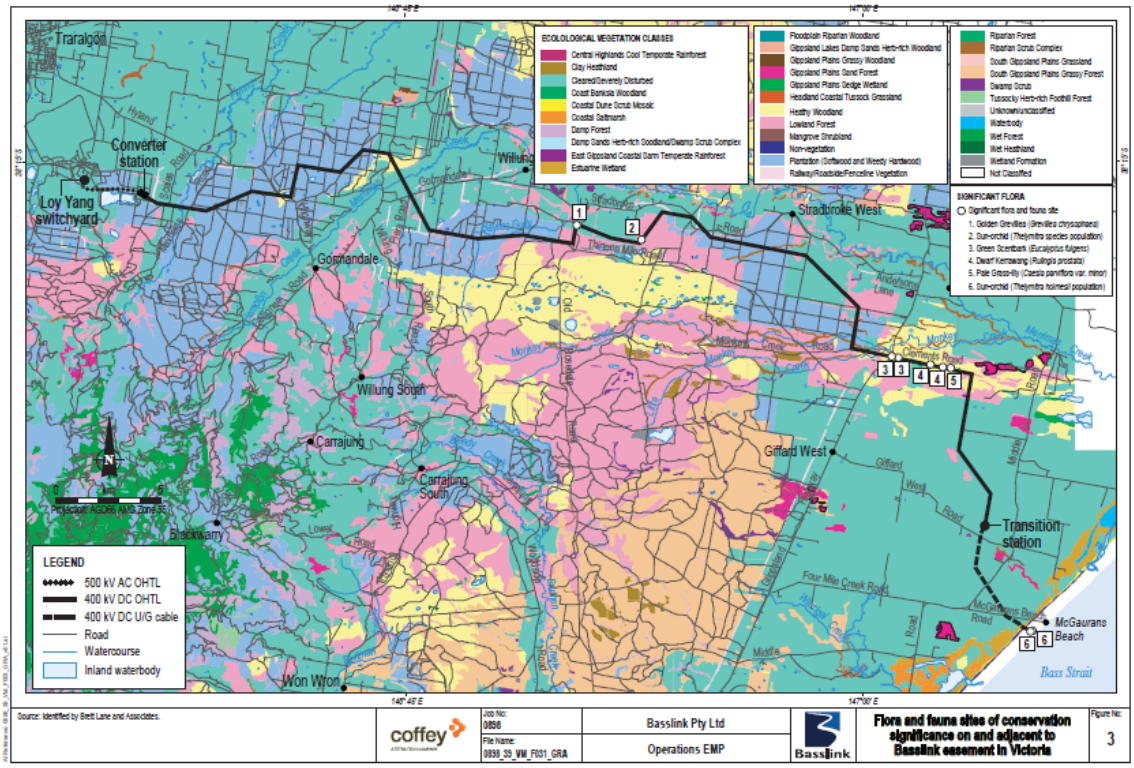

Figure 3: Flora and fauna sites of conservation significance on and adjacent to Basslink easement in Victoria

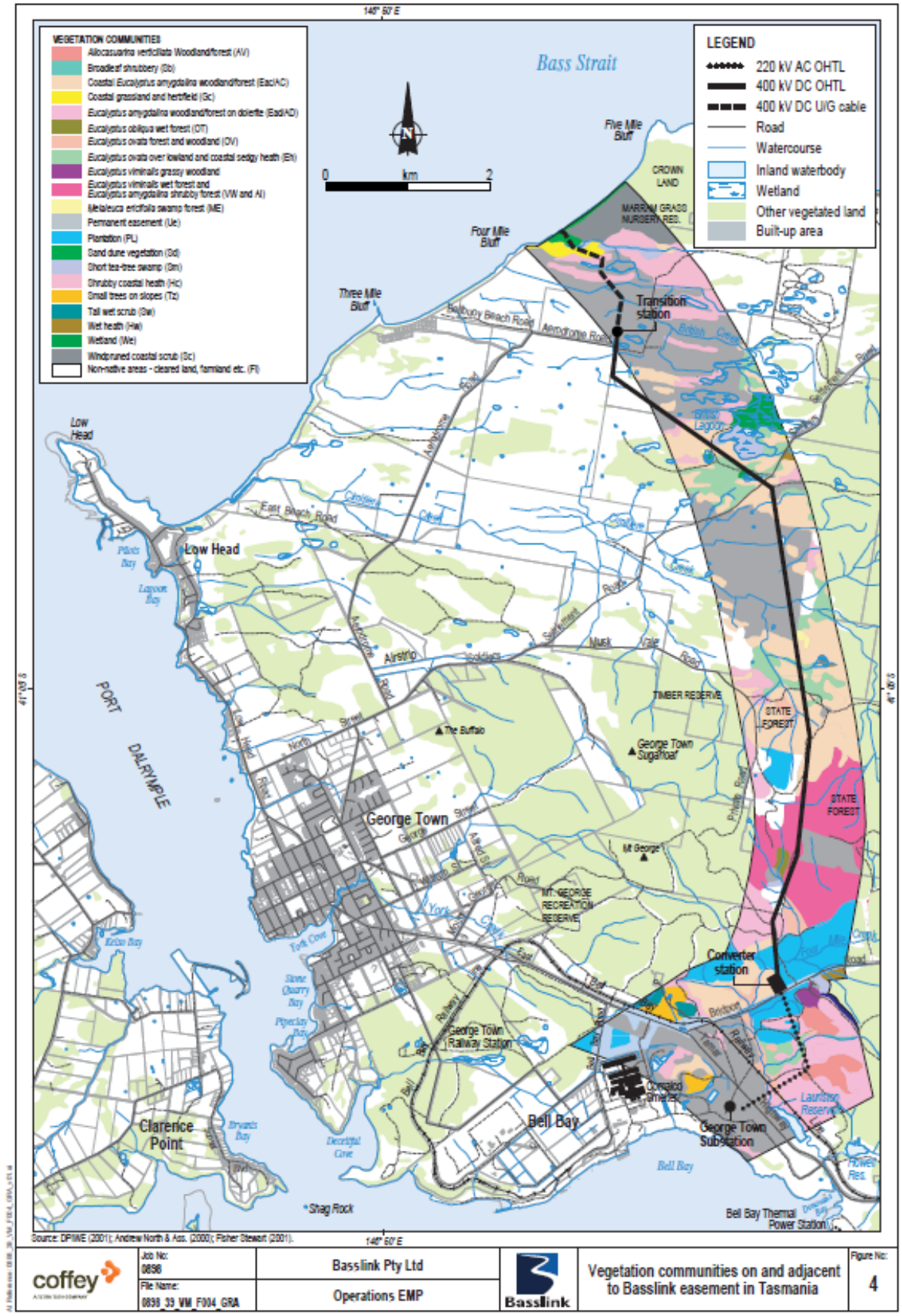

Figure 4: Vegetation communities on and adjacent to Basslink easement in Tasmania.

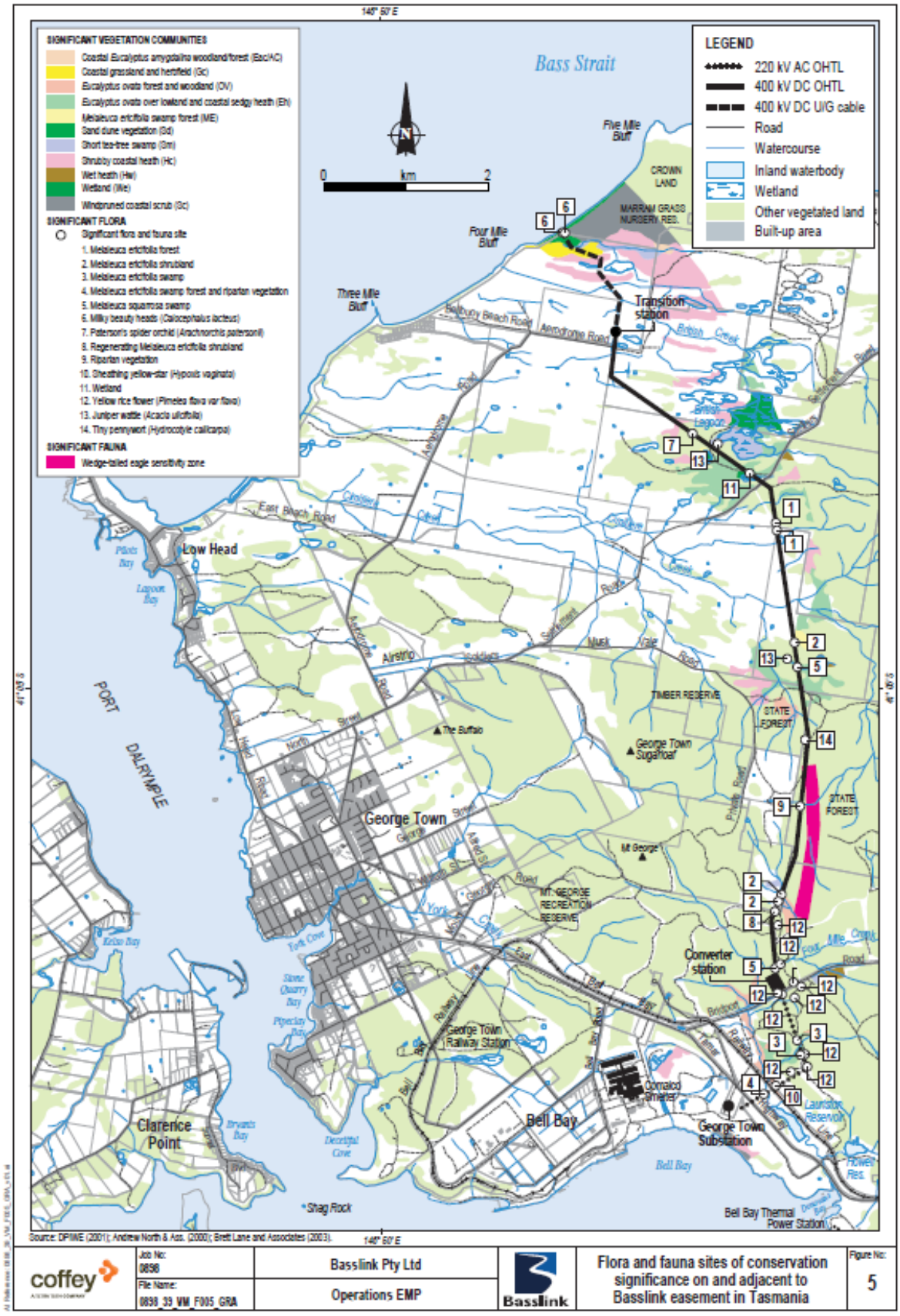

Figure 5: Flora and fauna sites of conservation significance on and adjacent to Basslink easement in Tasmania

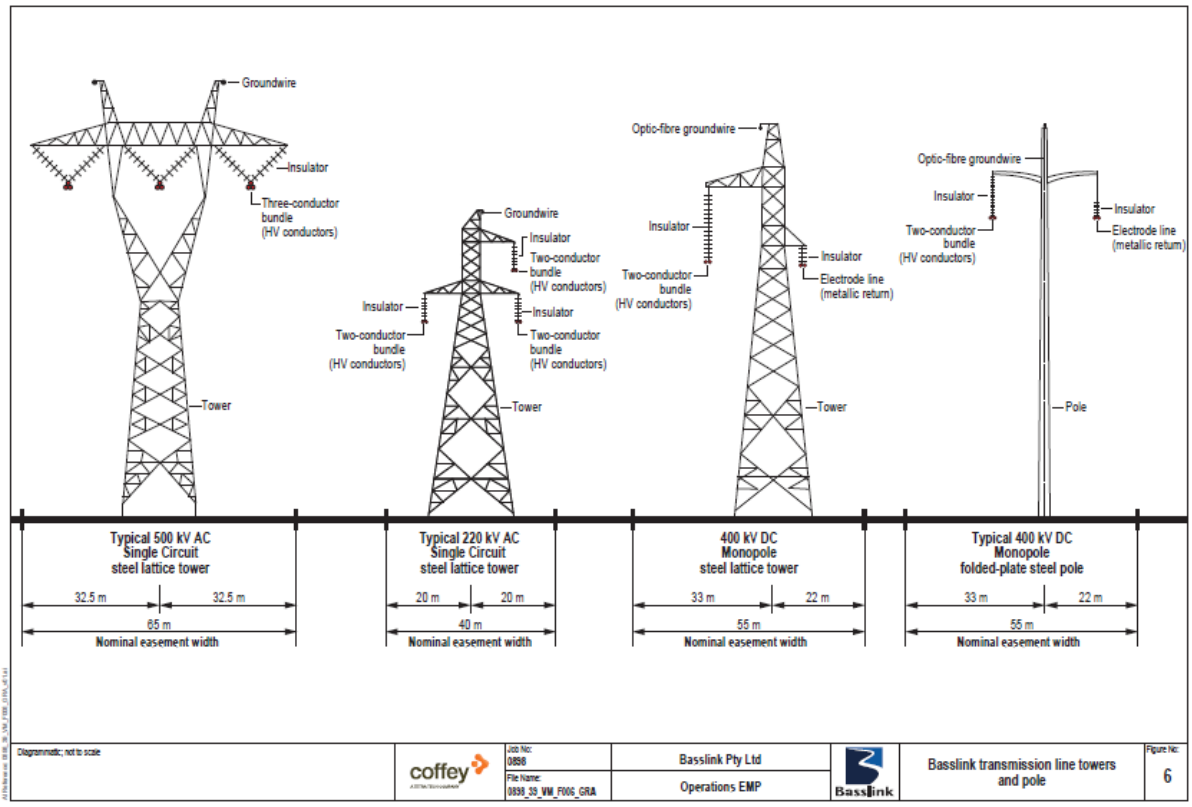

Figure 6: Basslink transmission line towers and pole

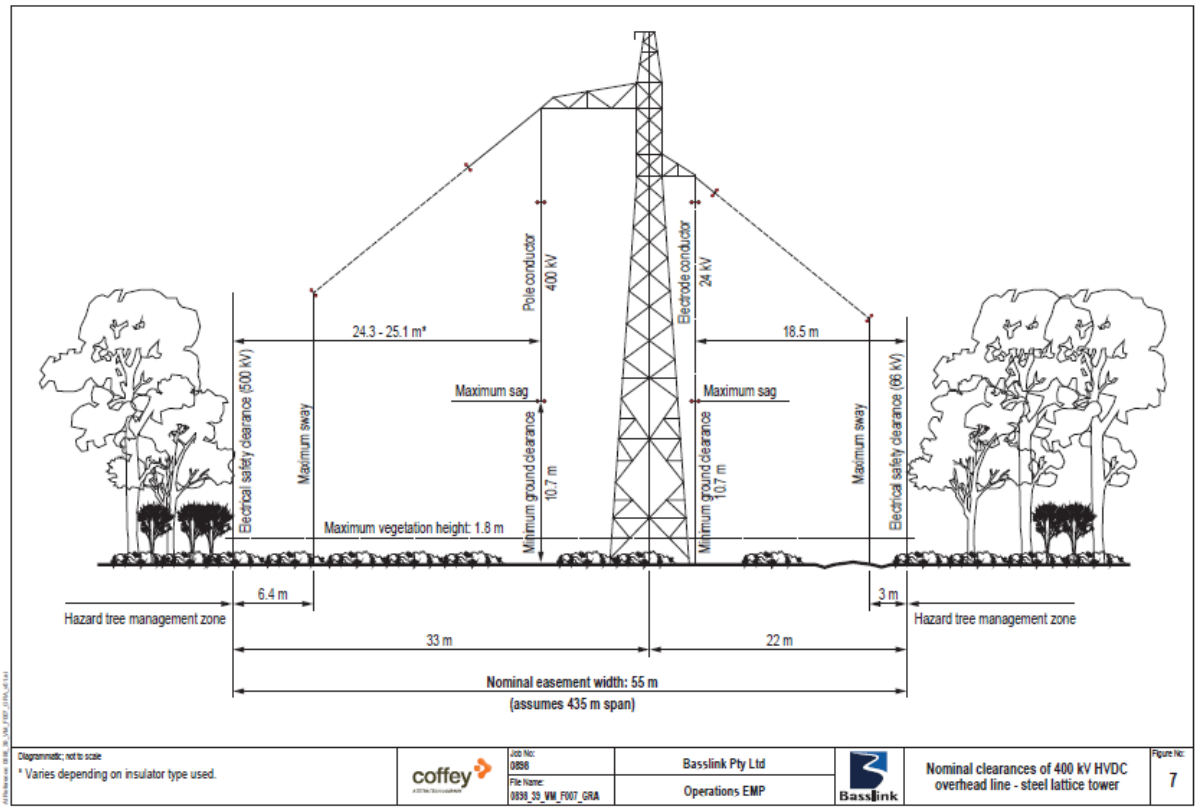

Figure 7: Nominal clearances of 400 kV HVDC overhead line – steel lattice tower

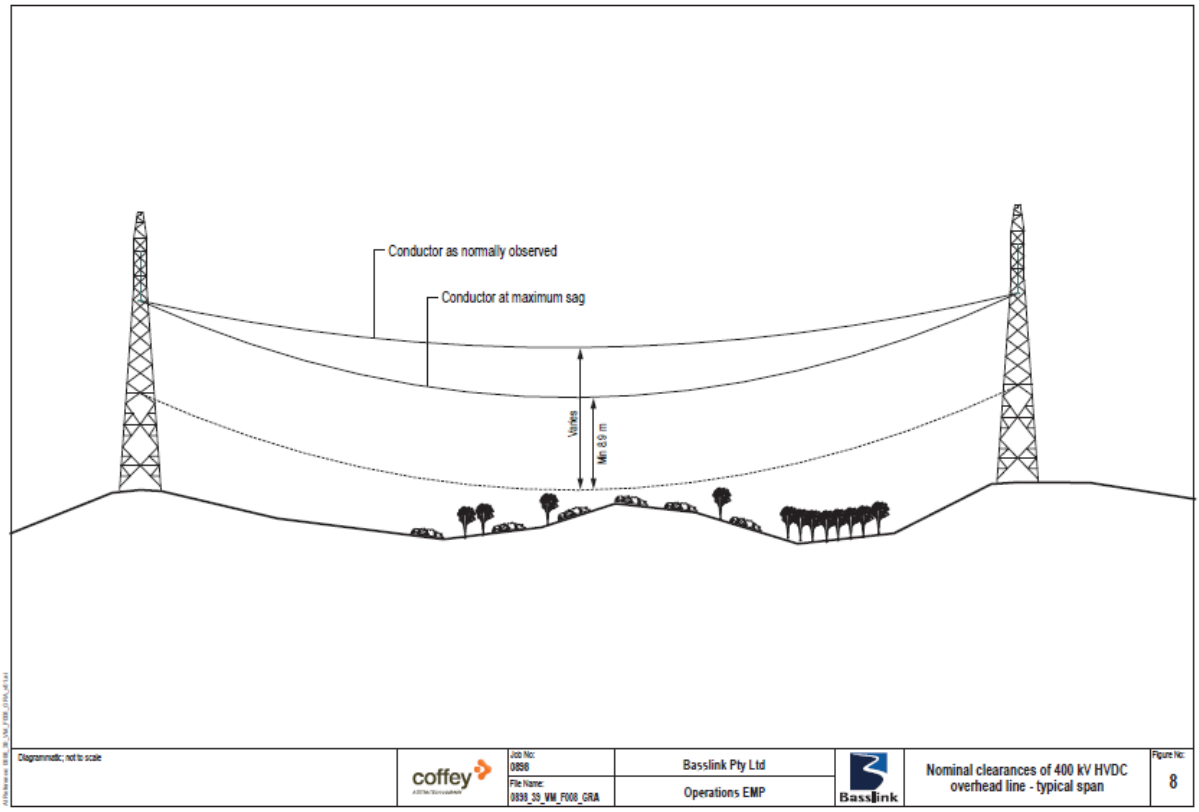

Figure 8: Nominal clearances of 400 kV HVDC overhead line – typical span

Appendix B – Basslink Procedure HS.PR.003 Maintenance of Clearance Space between Transmission Lines, Towers, and Vegetation

Maintenance of Clearance Space between Transmission Lines, Towers and Vegetation

Document No		HS.PR.003 / ES0027		Next Review Date	17/03/2023
Owner		Shane Matthews - Manager Operations and Maintenance VIC			
Rev	Date	Status	Originated	Checked	Approved
8	17-Mar-20	Issued For Use	Mark Bostedt Site Manager - Basslink	Paul Pendlebury Easement Maintenance Officer - Basslink	Joska Ferencz Operations & Maintenance Manager - Basslink

1 Introduction HS.PR.003 / ES0027

This procedure specifies the process which shall be implemented to minimise the:

- Risk of electric lines starting fires:
- possibility of causing electrocution:
- adverse effects of electric lines on adjacent vegetation.

This document forms part of the Basslink Electrical Safety Management System.

2 Scope

This procedure applies to all Basslink Operational staff including the Vegetation Maintenance Officer.

3 Responsibilities

3.1 Compliance, Monitoring and Review

The Asset & Operations Manager is responsible for ensuring the implementation of this procedure. Implementation of the requirements of this procedure is the responsibility of Operations and Maintenance personnel.

3.2 Records Management

The Document Management Record is located at the end of this document.

4 Definitions

Title	Description
CMMS	Computerised Maintenance Management System.
OEMP	Operations Environmental Management Plan
OPGW	Optical Ground Wire
Hazard Space	The space abutting the managed vegetation zone from which vegetation could fall into the space created by the safety clearances for transmission line or towers.
Managed Vegetation Zone	Land in the vicinity of transmission lines where vegetation growth must be controlled for safety reasons and normally coincides with easements and the clearance space distance shown in Table 1.
Responsible Person	Means a person responsible under Section 84 of the Electricity Safety Act 1998 for the keeping of the whole or any part of a tree clear of a transmission line.
Vegetation	Means the whole or any part of a tree or plant.
Hazard Tree	Is defined in clause 8 – Code of Practice for Electric Line Clearance 2015.
Danger Tree	Means a tree that has been identified by Basslink as a possible “Hazard Tree”.

5 Procedure

5.1 Vegetation Management Guidance

Vegetation management on Basslink’ easements will be conducted in accordance with the OEMP. The specific details are contained within Vegetation Management Plan portion of the OEMP.

5.2 Easement / Tower Inspections

Routine easement inspections shall be conducted to:

- enable vegetation infringing or approaching the statutory clearance space to be identified and recorded,
- identify danger trees,
- ensure that the towers, fitting, insulators, conductors, anti-climb, signs & OPGW are intact and in operating condition as per design,
- ensure that the towers, fittings and conductors are maintained in a serviceable condition,
- ensure earth connections are intact,
- ensure foundation integrity,

- ensure that the easement & tower tracks are maintained in a passable condition by 4WD vehicle and free from vegetation blocking access, and
- check for unauthorised works on the easements.

5.2.1 Easement Inspections

Easement inspections shall be carried out at six (6) monthly intervals. These inspections may be carried out on foot, from a vehicle or from the air.

5.2.2 Danger / Hazard Tree Inspections

Danger tree inspections will be carried out annually by Basslink, these inspections will identify tree health, distance from the easement and distances from the conductor if felled towards the line. If a tree is calculated to infringe on safety clearance distances if felled, a suitably qualified arborist will be engaged to assess the tree.

5.2.3 General Tower Inspections

A general tower inspection shall be carried out at six (6) monthly intervals. These inspections may be carried out on foot, from a vehicle or from the air and may coincide with the easement inspections.

5.2.4 Detailed Tower Inspections

Each tower shall be inspected in detail at intervals not exceeding 37 months from the previous inspection. This inspection shall be carried out by climbing the tower and closely examining the tower members and the associated line fittings.

5.2.5 Recording of Issues

Issues identified shall be recorded in the CMMS.

5.2.6 Rectification of Vegetation Issues

The rectification of vegetation issues shall be carried out in accordance with the requirements of the OEMP Vegetation Management Plan.

5.3 Clearance Space Distances

The clearance space for a transmission line is as follows:

- there shall be no vegetation vertically above the transmission line,
- the horizontal dimension of the clearance space is that marked ‘h’ in Figure 1 and is specified for the spans and nominal voltages given in Table 1. as measured when the conductor is at its still position, and
- the vertical dimension of the clearance space is that marked ‘v’ in Figure 1 and Figure 1a and specified for the spans and nominal voltages given in Table 1 as measured from the ground vertically below the transmission line at the lowest point that the conductor may assume because of sag of the conductor under the highest temperature for which the line was designed.

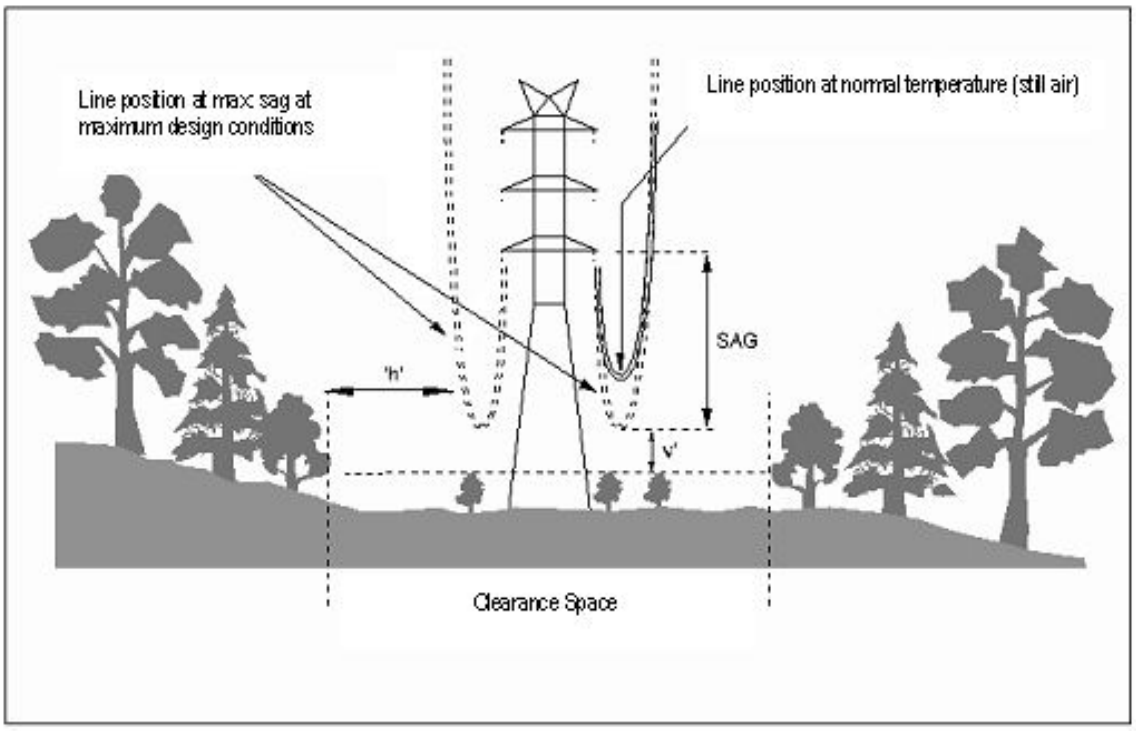

Figure 1

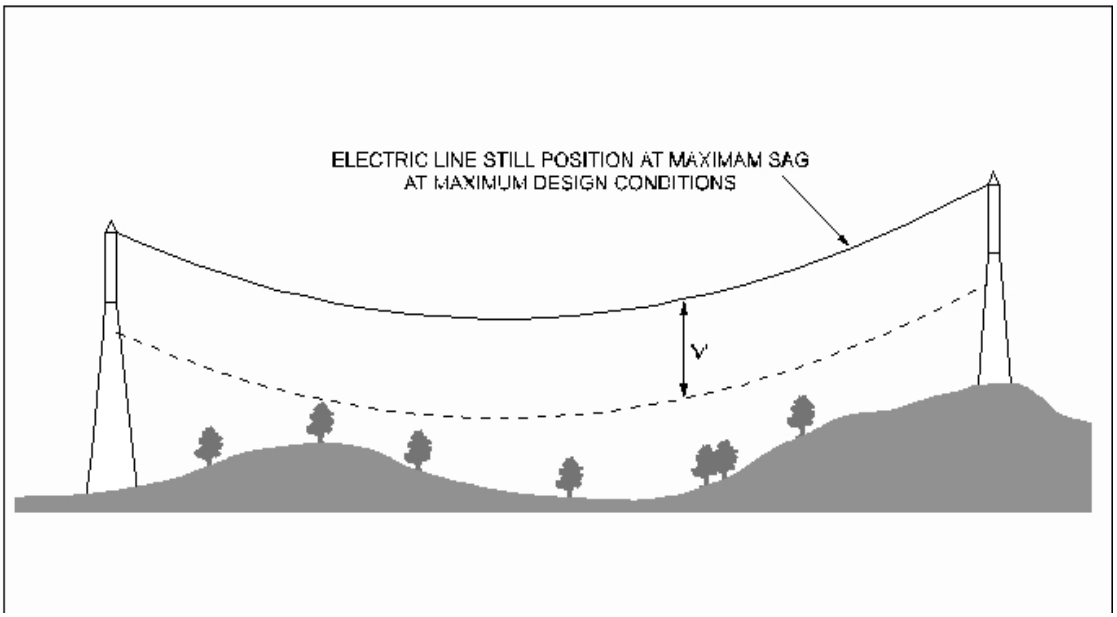

Figure 1a

Nominal Voltage	Clearance spaces after allowance for full sag		Clearance spaces	
	Spans up to and including 400 metres	Spans exceeding 400 metres	Spans up to and including 400 metres	Spans exceeding 400 metres
	1 Dimension 'v' (mm)	2 Dimension (mm) 'v' (mm)	3 Dimension (mm) 'h'(mm)	4 Dimension (mm) 'h' (mm)
Metallic Return	3000	3000	3000	3000
220kV AC	3700	4500	13000	15000
400kV DC	6400	6750	15000	17000
500kV AC	6400	6750	15000	17000

5.4 Vegetation Clearance – Priorities

The following priorities shall be allocated to vegetation clearance requirements:

Note: The maximum height of vegetation retained on the 400kV DC and 500kV easements is specified in the OEMP Vegetation Management Plan - Table 7.1 'Minimum Clearances of Basslink Transmission Line Infrastructure"

- PT1 - to be cleared as soon as possible (Within 24 Hrs.)

- Vegetation which is measured to be inside the clearance space.
- Hazard trees where failure of the tree is likely to occur at any moment.

- PT30 - to be cleared within a 30-day period

- Vegetation which is within the managed vegetation zone and has a height greater than 3 metres.
- Hazard trees identified as being potentially unsound. (An Arborist or suitably qualified person may be engaged to assess the trees health and make recommendations regarding its removal).
- Note: PT30 vegetation that is observed during the fire danger period shall be removed as soon as practicable.

- PT90 - to be cleared within a 90-day period

- Vegetation growing within the managed vegetation zone that may exceed 3 metres during the fire danger period, or
- Vegetation that may grow into the managed vegetation zone during the fire danger period and has a height greater than 3 metres.

- PT180 – to be cleared within a 180-day period

- Vegetation within the managed vegetation zone that is higher than specified within the Vegetation Management Plan, or
- Vegetation adjacent to the easement which will require clearing / treating prior to the following fire danger period to ensure that the managed vegetation zone remains clear throughout that period, or
- Sound hazard trees are managed.

- **PT365 - to be cleared / treated within a 365-day period**
  - Areas of the Easement that require slashing or weed control at some time in the future, or
  - Any vegetation that will require treatment at some time to ensure that:
    - Fuel loads are kept low to reduce the risk of line damage or operational incidents due to a fire on the easement,
    - Inappropriate species (e.g., Pines, Wattles, Weeds) are progressively removed or treated.

- **PT900 - To be monitored through cyclic periods**
- Significant areas of the Easement that contain Native Vegetation or Riparian Zones that require specific methods of Management as outlined in the OEMP to ensure that:
  - The clearance space remains clear.
  - All vegetation that could threaten the security of the line other than by intruding into the clearance space, e.g., dense scrub or high fuel loads.
  - Adequacy of clearances is readily observable in the course of a patrol, inspection or audit.

5.5 Vegetation in the Hazard Space

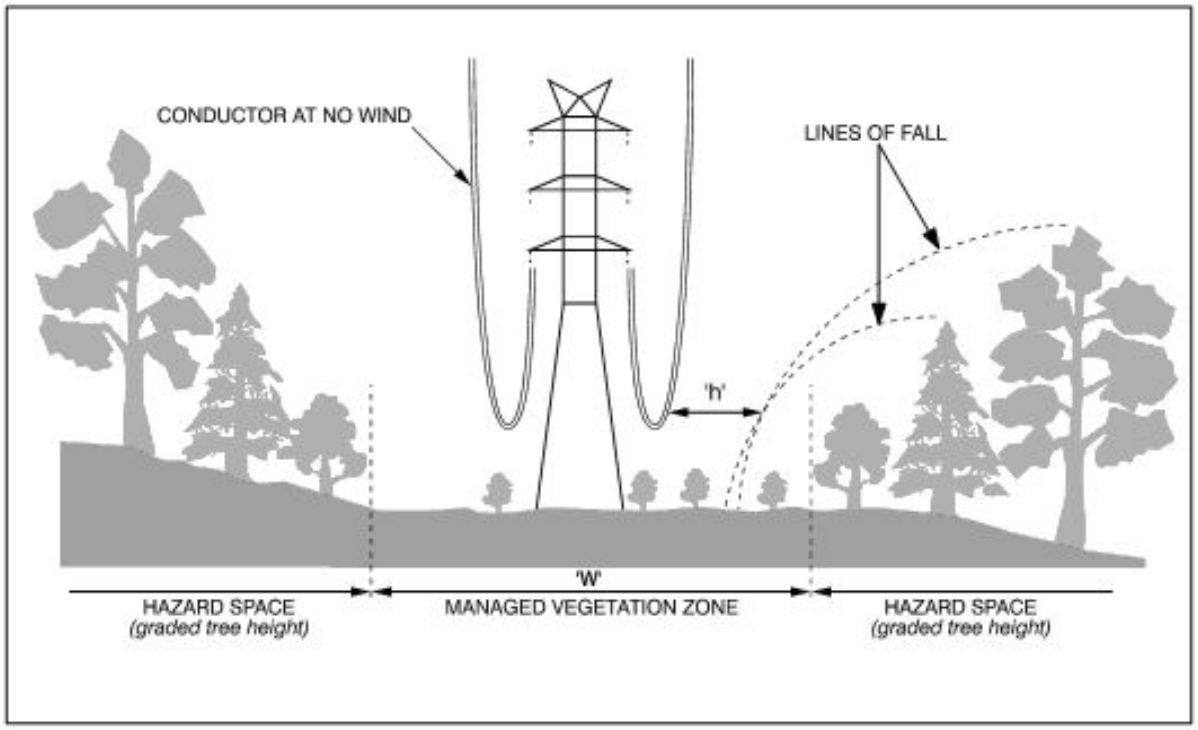

Figure 2

Vegetation in the hazard space shall be managed to reduce the risk of falling trees or parts of trees entering the clearance space. The hazard space adjacent to easements shall be assessed to identify hazard trees.

Figure 2 shows the grading of vegetation height in the hazard space where the trees are tall enough to infringe the safety clearance if these were to fall towards the line. Consideration of vegetation in the hazard space shall include the potential height of the tree, its distance from the line, and the height of the transmission line and the slope of the ground. Assessment is made with reference to the still air position of the conductor.

5.6 400Kv DC Line Clearance Space

The 400kV DC line has been constructed with clearance space in excess of the minimum clearance distances specified in Section 5.3. The nominal clearance distances for the HVDC line are shown in Figure 3.

Figure 3 The nominal easement widths for the Basslink Pty Ltd transmission lines are shown in Figure 4.

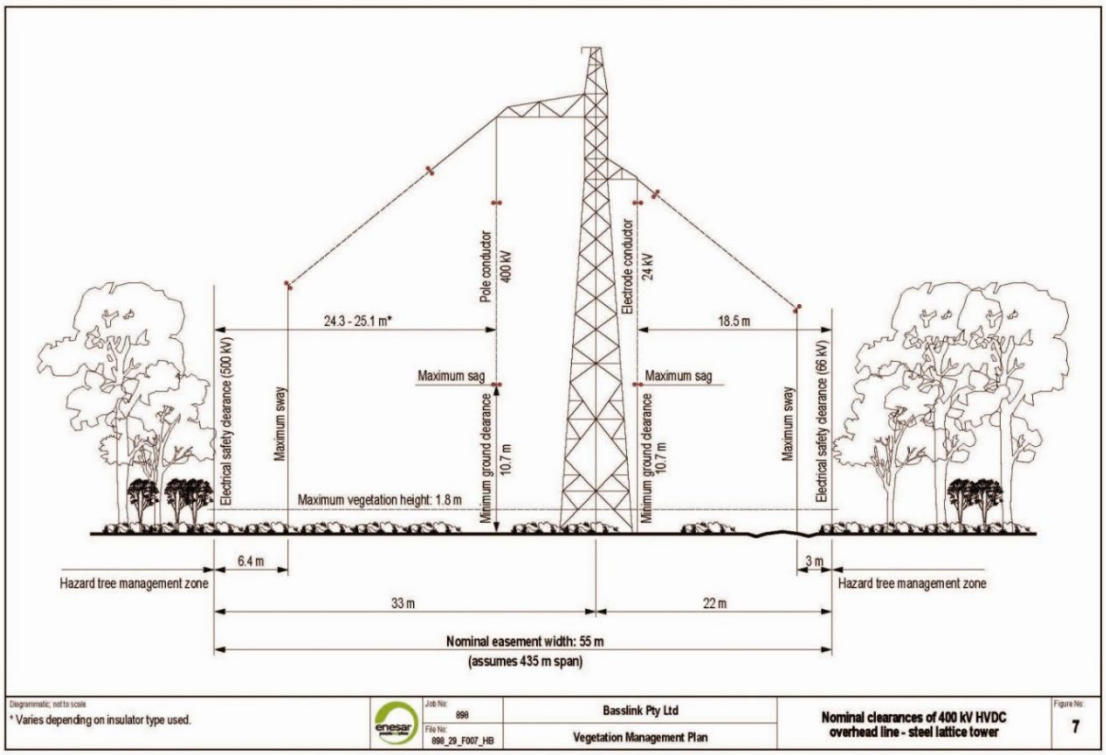

Figure 3

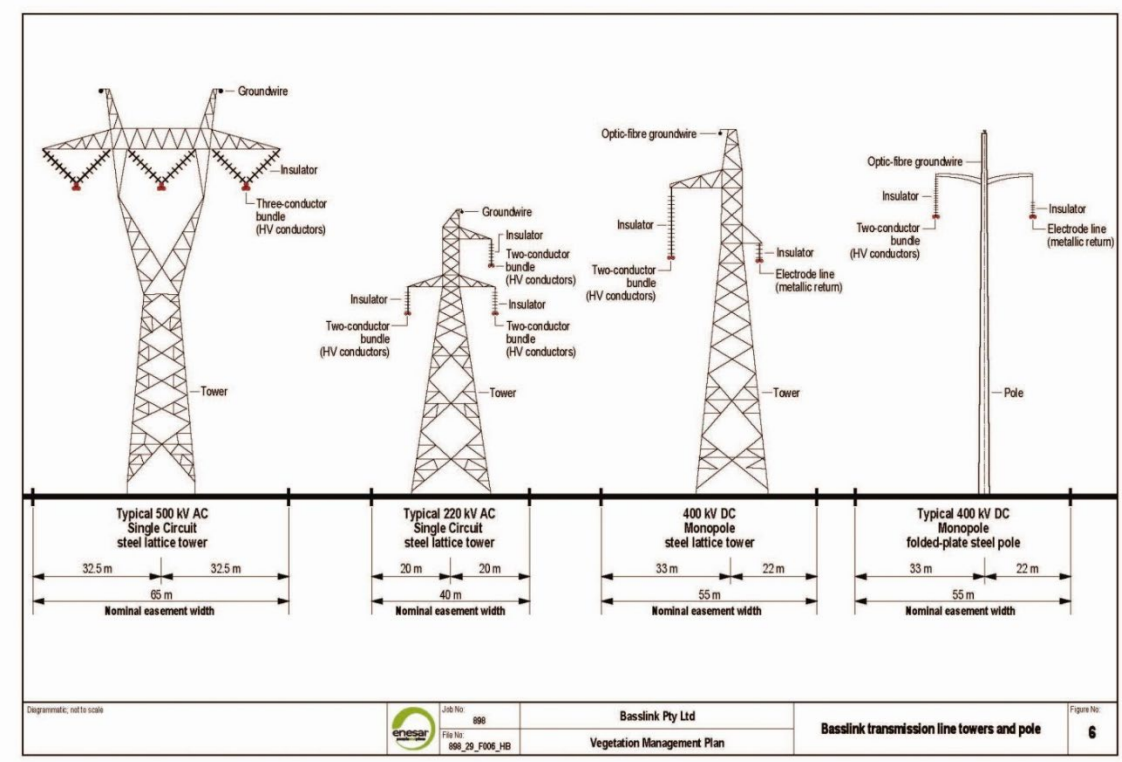

Figure 4

6 Related Legislation and Documents

- Electricity Safety (Bushfire Mitigation) Regulations 2013
- Electricity Safety (Network Assets) Regulations 1999
- Electricity Safety (Electric Line Clearance) Regulations 2015
- Electricity Safety Act 1998
- Code of Practice on Electrical Safety for Work on or Near High Voltage Electrical Apparatus '(The Blue Book 2017)'
- Basslink OEMP

7 Summary of Changes for HS.PR.003 / ES0027

Rev	Description	Date	Author
1.0	First Issue	01/02/2007	K. Brogan
2.0	Organisational Change and Document Review	01/02/2008	K. Brogan
3.0	Document review	01/09/2009	M. Shilliday
4.0	Document review	01/08/2010	M. Shilliday
5.0	Update to reference and definitions	01/08/2011	M. Shilliday
6.0	Update to reference and definitions	01/03/2014	M. Shilliday
7.0	Update to reference and definitions	01/02/2017	M. Shilliday
8.0	Update to reference and definitions	17/03/2020	P. Pendlebury

Appendix C – Fire Suppression Management Plan

Fire Suppression Management Plan

Document No		OEMP-FS		Next Review Date	01/05/2027
Owner		Shane Matthews – Manager Operations & Maintenance VIC			
Rev	Date	Status	Originated	Checked	Approved
4	1-May-22	Issued For Use	Mark Bostedt Site Manager - Basslink	Paul Pendlebury Easement Maintenance Officer - Basslink	Joska Ferencz Operations & Maintenance Manager - Basslink

1 Purpose

This document sets appropriate measures in place to coordinate fire suppression activities on and adjacent to the Basslink easement to minimise the potential fire risk to Basslink infrastructure.

Fire suppression activities need to be coordinated with relevant fire authorities to ensure the safety of all people and infrastructure on site.

2 Responsibilities

The Basslink Pty Ltd (Basslink) manager for operations is accountable for this document and its implementation. All Basslink employees and contractors are responsible for compliance with this document, and for ensuring others do likewise.

3 Residual Risk Rating

The management of fuel loads on the Basslink easement in accordance with the Bushfire Mitigation Plan and Vegetation Management Plan (OEMP-VM) will minimise the fire risk to Basslink infrastructure. The likelihood of fire on or adjacent to the Basslink easement is possible. The potential consequence of fire on Basslink infrastructure is minor and the potential consequence of fire on biodiversity values on the easement is minor with implementation of the measures in this plan. Therefore, the residual risk rating of environmental harm from fire on Basslink infrastructure is low.

		Consequence				
		Minor	Moderate	Major	Severe	Catastrophic
Likelih	Almost certain	M	H	VH	E	E
	Likely	M	M	H	VH	E
	Possible	L	M	H	VH	E

	Unlikely	L	L	M	H	VH
	Rare	L	L	L	M	H

4 Objectives

Fire authorities have primary fire suppression responsibility. In Victoria, Country Fire Authority (CFA) is responsible for fire suppression on private land and Department of Energy, Environment and Climate Action (DEECA) and Parks Victoria are responsible for fire suppression on public or Crown land. In Tasmania, Tasmania Fire Service (TFS) is responsible for fire suppression on private land and the Natural Resources and Environment (NRE) is responsible for fire suppression on public or Crown land.

Effective communication between fire authorities and Basslink will ensure electricity safety requirements are considered in fire suppression planning and execution.

The objectives of fire suppression are:

- To ensure the safety of personnel carrying out fire suppression activities in the vicinity of Basslink infrastructure.
- To establish effective communication between fire authorities and Basslink engineers.
- To mitigate the potential for damage to Basslink infrastructure from fire.

5 Definitions

Title	Description
Easement	The land over which Basslink has the right to construct, maintain and operate the Basslink infrastructure. The nominal width of the easement is 65 m for 500- kV high-voltage alternating current (HVAC) overhead line, 55 m for 400-kV high-voltage direct current (HVDC) overhead line, 40m for 220-kV HVAC overhead line and 11.5 m for underground cables (i.e., 400-kV HVDC, metallic return and fibre-optic cables). The nominal width of a carriageway easement is 6 m, however this will vary with the terrain.
Fire authority	The authority referred to by legislation responsible for fire management. For example, in Victoria the Country Fire Authority (CFA), in Tasmania, the Tasmanian Fire Service (TFS), and the relevant government department of each state.
Incident Controller	The fire authority employee authorised in accordance with relevant legislation to take control of and coordinate fire suppression activities.
Fire danger period	Commonly known as a fire season, this is the period declared by a fire authority in which it is an offence to light a fire without a permit and cause a fire to spread (i.e., not attempt to suppress a fire). A fire danger period typically extends from 1 November to 30 April in southern Australia. However, it can be proclaimed earlier and

	continue after this period. Fire restrictions can also apply outside the fire danger period, as declared by the fire authority.
Fire blanket	A blanket made of fire-resistant material that is endorsed by relevant fire authorities.
Fire extinguisher	A portable apparatus containing chemicals that can be discharged in a rapid stream to extinguish a small fire. A Class A, Class B or Class AB(E) dry chemical powder extinguisher.
Transmission line	Metallic conductors and an optic-fibre ground wire suspended above ground by insulators attached to galvanised steel-lattice towers and/or folded- plate steel poles at approximately 400 m intervals.

6 References

The legislation, guidelines and codes listed in this section may be subject to revision during the life of Basslink operations. Where this occurs, the reference is relevant to the latest version of the document.

6.1 Applicable Legislation

Victoria

- Conservation Forests and Lands Act 1987.
- Country Fire Authority Act 1958.
- Country Fire Authority Regulations 2014.
- Electricity Safety Act 1998.
- Electricity Safety (Network Assets) Regulations 1999.
- Electricity Safety (Network Assets) (Amendment) Regulation 2005.
- Electricity Safety (Bushfire Mitigation) Regulations 2013.
- Emergency Management Act 1986.
- Emergency Management Act 2013.
- Forests Act 1958.
- Forests (Fire Protection) Regulations 2014.

Tasmania

- Fire Service Act 1979.
- Emergency Management Act 2006.

6.2 Applicable Guidelines and Codes

Victoria

- Emergency Management Manual Victoria.

- Fire Operations Plan - Gippsland Region.
- Regional fire plans.
- Code of Practice for Bushfire Management on Public Land (DSE, 2012).
- Code of Practice of Electrical Safety for Work on or Near High Voltage Electrical Apparatus 2017 (the 'Blue Book').

6.3 Associated Plans and Procedures

- Hot Work Management Plan (OEMP-HW).
- Incident Reporting Procedure (OEMP-IR).
- Standard Procedures (OEMP-StdProc).
- Vegetation Management Plan (OEMP-VM).

7 Attachments

None.

8 Procedures

8.1 Preparation and Planning

(a) Prepare a Bushfire Mitigation Plan in accordance with Section 5 of the Electricity Safety (Bushfire Mitigation) Regulations 2013 (Vic.).

(b) Ensure fuel loads on the Basslink easement are managed through implementation of the Vegetation Management Plan (OEMP-VM) and in accordance with the Bushfire Mitigation Plan.

(c) Ensure all vehicles used to inspect or perform maintenance on the transmission line or easement are equipped with fire extinguishers 5 L water container, a spade, an axe and fire blanket during the fire danger period.

(d) Ensure all engines of vehicles used to inspect the transmission line are fitted with a spark arrestor and a turbo charger or an exhaust aspirated air cleaner.

(e) Provide appropriate fire-fighting equipment at designated work sites including appropriate type and quantity of fire extinguishers for work being undertaken.

(f) Train personnel in Incident Reporting Procedure (OEMP-IR), fire safety (including emergency evacuation procedure) and the use of fire-fighting equipment.

(g) Arrange for all new Basslink operation and maintenance staff to undergo accredited Basic Wildfire Awareness training run by a registered training provider.

(h) Maintenance activities which are undertaken on the Basslink easement within 5 km of forested areas immediately before, during or immediately after a fire danger period will utilise Basslink employees and contractors who have current accredited Basic Wildfire Awareness training.

(i) During the fire danger period, monitor fire danger ratings issued by fire authorities.

(j) Liaise with fire authorities on fire risk, danger ratings and preparedness.

(k) Prior to the commencement of the fire danger period, undertake an annual review of fire safety preparations and fire suppression protocols in consultation with fire authorities.

(l) Prepare and submit a Bushfire Index Report to Energy Safe Victoria prior to each fire danger period, and monthly within the fire danger period.

(m) Arrange for Basslink personnel to undergo Emergency Management Liaison Officer training through the Victorian Department of Human Services or an accredited training provider.

8.2 Fire Suppression

8.2.1 Preventing Ignition during Maintenance

(a) All maintenance activities are to be conducted in a manner that minimises potential fire ignition including adherence to the requirements of the Bushfire Mitigation Plan and Standard Procedures (OEMP-StdProc).

(b) All hot work is to be conducted in accordance with the requirements of the Hot Work Management Plan (OEMP-HW).

8.2.2 Initial Response and Reporting a Fire

(a) If safe, use available fire-fighting equipment to try to bring the fire under control. The safety of personnel and equipment will be a priority.

(b) If the fire on or adjacent to the Basslink overhead transmission line cannot be controlled, immediately report the fire to the relevant fire authority and Basslink Control Room in accordance with the Incident Reporting Procedure (OEMP-IR).

8.2.3 Support to Fire Authorities conducting Fire Suppression Activities

(a) Basslink will nominate an engineer to act as the Emergency Management Liaison Officer (EMLO) for the event and notify the fire authority of the officer's name and contact details.

(b) When requested, the Basslink EMLO will provide advice to the Incident Controller on safe working practices on the Basslink overhead transmission line easement including safety clearances for work under or near live lines in accordance with the 'Blue Book'.

(c) The Basslink EMLO will co-ordinate communications with the Basslink Control Room, which will notify the high voltage network coordinators if Basslink is required to be taken out of service. The network coordinators may refuse such a request.

8.2.4 Fallen Conductors

(a) Fallen or damaged overhead transmission line conductors (that are sagging significantly below their normal operating position) will be immediately reported to the Incident Controller and Basslink EMLO.

(b) Ensure all personnel, vehicles, plant and equipment maintain at least 20 m separation from the broken or damaged conductors until the Basslink EMLO confirms that the overhead transmission line has been de-energised, isolated and earthed and the fallen or damaged conductors are safe to approach.

9 Performance Measures

(a) All fire suppression activities carried out in accordance with relevant guidelines and procedures.

Appendix D – Hot Work Management Plan

Hot Work Management Plan

Document No		OEMP-HW		Next Review Date	01/05/2027
Owner		Shane Matthews – Manager Operations & Maintenance VIC			
Rev	Date	Status	Originated	Checked	Approved
4	1-May-22	Issued For Use	Mark Bostedt Site Manager - Basslink	Paul Pendlebury Easement Maintenance Officer - Basslink	Joska Ferencz Operations & Maintenance Manager - Basslink

1 Purpose

This document sets out the procedures to manage any potential fire ignition caused by sparks from 'hot work' (e.g., metal grinding or welding).

2 Responsibilities

The Basslink Pty Ltd (Basslink) manager responsible for operations is accountable for this document and its implementation. All Basslink employees and contractors are responsible for compliance with this document, and for ensuring others do likewise.

3 Risk Rating

When undertaking hot work the likelihood of fire ignition is unlikely if the procedures in this plan are implemented but the potential consequence of fire is severe (particularly if work is being undertaken in an easement close to native vegetation). Therefore the residual risk rating for this issue is high.

		Consequence				
		Minor	Moderate	Major	Severe	Catastrophic
Likelihood	Almost certain	M	H	VH	E	E
	Likely	M	M	H	VH	E
	Possible	L	M	H	VH	E
	Unlikely	L	L	M	H	VH
	Rare	L	L	L	M	H

4 Objectives

The objectives to be achieved in undertaking hot work are:

- To minimise risk of fire ignition.
- To prevent the spread of fire in the event of ignition.

5 Definitions

Title	Description
Fire authority	The authority referred to by legislation responsible for fire management. For example, in Victoria the Country Fire Authority (CFA), in Tasmania, the Tasmanian Fire Service (TFS), and the relevant government department of each state.
Fire danger period	Commonly known as fire season, this is the period declared by a fire authority in which it is an offence to light a fire without a permit or cause a fire to spread, i.e., not attempt to suppress a fire. A fire danger period typically extends from 1 November to 30 April in southern Australia. However, it can be proclaimed earlier and continue after this period. Fire restrictions can also apply outside the fire danger period, as declared by the fire authority.
Fire blanket	A blanket made of fire resistant material that is endorsed by relevant fire authorities.
Fire extinguisher	A portable apparatus containing chemicals that can be discharged in a rapid stream to extinguish a small fire. A Class A, Class B or Class AB(E) dry chemical powder extinguisher.
Hot work	Activities involving the use of heat or spark producing equipment (e.g., welding, grinding, soldering, gas cutting).
Total fire ban day	A day declared by a fire authority as a day on which no fires may be lit in the open and on which activities that might lead to the ignition and spread of fire are not permissible (e.g., hot work). A total fire ban day extends from 12 am to 12 am on the day it is declared, i.e., for a period of 24 hours. Total fire ban days are declared when there is an extremely high danger of fire occurring and when a fire is likely to spread rapidly and become extremely difficult to manage.

6 References

The legislation, guidelines and codes listed in this section may be subject to revision during the life of Basslink operations. Where this occurs, the reference is relevant to the latest version of the document.

6.1 Applicable Legislation

Victoria

- Conservation, Forests and Lands Act 1987.
- Country Fire Authority Act 1958.
- Country Fire Authority Regulations 2014.
- Emergency Management Act 1986.
- Emergency Management Act 2013.
- Forests (Fire Protection) Regulations 2014.
- Forests Act 1958.

Tasmania

- Fire Service Act 1979.
- Emergency Management Act 2006.

6.2 Applicable Guidelines and Codes

- Code of Practice for Bushfire Management on Public Land (DSE, 2012).
- Emergency Management Manual Victoria.
- Regional fire plans as applicable.

6.3 Associated Plans and Procedures

- Incident Reporting Procedure (OEMP-IR).
- Fire Suppression Management Plan (OEMP-FS).

7 Attachments

None.

8 Procedures

8.1 Planning and Preparation

(a) Train personnel in fire prevention and response.

(b) Provide appropriate fire-fighting equipment at designated work sites including appropriate type and quantity of fire extinguishers for work being undertaken.

8.2 Undertaking Hot Work

(a) Monitor fire danger ratings issued by state agencies and comply with all relevant statutory requirements and permits.

(b) Ensure no naked flames or hot work are permitted on days of Total Fire Ban without a permit being issued by the appropriate state fire authority.

(c) Before undertaking any hot work, ensure that:

- A Basslink Job Safety and Environment Analysis is complete and issued to all work parties for the relevant task.
- A Basslink Hot Work Permit is complete and issued to all work parties for the relevant task.
- A fire-resistant shield is used to stop sparks or hot material from leaving the work area.
- A fireproof container is used for cut-offs and butts.
- The work area (1.5 m from hot work source) is kept clear of all flammable material or is kept wetted down.
- Appropriate fire extinguishers or water supply (with tap and hose) are on hand.

9 Performance Measures

(a) All hot work carried out in accordance with relevant guidelines and procedures.

10 Summary of Changes

Below is a brief summary of the changes made to the document since the previous issued version.

Rev	Description	Date	Author
1.0	Initial Issue – 2013- 2014.	28/06/2013	M. Shilliday
2.0	Updated Issue – 2014-2015.	28/07/2014	M. Shilliday
3.0	Minor Update – 2014-2019.	18/08/2014	M. Shilliday
4.0	Minor Update – 2019-2024 1.21 Draft Issue/Change control 26/8/2019 Submit to ESV.	26/08/2019	P.Pendlebury M. Bostedt
5.0	Updated document to APA template and update appendices to match with V4 of the OEMP.	23/08/2023	C. Harrison