

# VEGETATION MANAGEMENT (BUSHFIRE AND ENVIRONMENTAL) WORKS PLAN

---

FY2024-26

# CONTENTS

<b>VEGETATION MANAGEMENT (BUSHFIRE AND ENVIRONMENTAL) WORKS PLAN.....</b>	<b>1</b>
1. PURPOSE .....	3
2. LEGISLATIVE OBLIGATIONS .....	3
3. WORKS PROGRAM .....	4
3.1 IDENTIFICATION AND COLLECTION.....	4
3.2 ANALYSIS AND QUARANTINE.....	4
3.3 ORGANISING AND COLLATING.....	5
3.4 EXECUTION .....	5
3.5 STRATEGIC REVIEW .....	5
3.6 KEY DATES FOR PROGRAM SCHEDULE.....	5
3.7 INDUCTION INTO WORK PROGRAM.....	5
3.8 CORRIDORS AND EASEMENTS .....	6
4. APPROVALS AND LICENCES .....	6
4.1 WORKS IN RESERVE AREAS .....	6
4.2 HERITAGE OBJECTS AND PLACES.....	8
4.3 REGISTERED TREES .....	8
4.4 NATIONAL CAPITAL AUTHORITY (NCA) DESIGNATED AREAS.....	8
5. CUTTING STANDARDS .....	8
5.1 PRUNING REQUIREMENTS .....	8
5.2 VEGETATION CLEARANCES .....	8
5.3 TREES TO RETAIN NATURAL FORM .....	9
5.4 REGROWTH CALCULATION .....	9
5.5 NSW CUTTING STANDARDS.....	10
6. CONTRACTOR ACCREDITATION .....	10
7. ALTERNATIVE TECHNOLOGY PROPOSALS .....	10
7.1 ENGINEERING OPTIONS .....	10
7.2 NON-ENGINEERING OPTIONS - TREE REMOVAL.....	11
7.3 DATA GOVERNANCE AND BUSHFIRE RISK MODELLING .....	11
8. CONSULTATION .....	11

## 1. PURPOSE

Evoenergy is obligated under the ***Utilities (Technical Regulation) Electricity Powerline Vegetation Management Code 2018*** to:

1. Establish a Vegetation Management (Bushfire and Environmental) Works Plan (Works Plan) to protect the environment and the public from fires originating from their electricity assets through contact with vegetation, or faults that cause vegetation to ignite; and
2. To outline how the responsible utility will consider the environmental impact of any clearance work they intend to undertake.

The purpose of this Works Plan is to describe how Evoenergy:

- manages vegetation clearance work to be undertaken on unleased Territory land, rural leased land, national land and land within NSW for which Evoenergy is responsible and to identify the key decision and review points;
- plans to prevent harm to the environment, public and property from fires originating from Evoenergy's assets through contact with vegetation, or faults that cause vegetation to ignite, and how Evoenergy will mitigate the environmental impact of any work carried out.
- will mitigate the immediate risks to and from its infrastructure and activities by applying industry best practices and standards in addition to long-term measures to reducing risk of ignition.
- provides bushfire safety for its staff, customers, contractors and community;
- minimise the severity and extent of bushfire impacts on electricity supply, especially to essential and critical business activities;
- complies with related legal and regulatory requirements;
- raise awareness of best practice bushfire mitigation and works with bushfire agencies and local communities to improve bushfire safety;
- reduce potential occurrences that may result in electrocution, electric shock or fire as a consequence of vegetation contacting network assets.

## 2. LEGISLATIVE OBLIGATIONS

This Works Plan has been developed and approved in accordance with Clause 4.2 of the ***Utilities (Technical Regulation) Electricity Powerline Vegetation Management Code 2018*** (*the Code*), a Technical Code under the ***Utilities (Technical Regulation) Act 2014*** (*the Act*).

Section 41D of the ***Utilities (Technical Regulation) Amendment Bill 2017*** determines that Evoenergy, as the responsible electricity utility in the ACT, is responsible for the clearance of vegetation near an aerial line on unleased Territory land, rural leased land and national land.

The ***Utilities (Technical Regulation) Amendment Bill 2017***, Division 5A.2 Vegetation Management Clause 41D, Table 41D details the specific obligations for vegetation management.

These clearance distances are also specified in the ***Utility Networks (Public Safety) Regulation 2001***, Part 3, Table 25.

The Works Plan has been developed to comply and integrate with the following legislative requirements and standards:

### **Emergencies Act 2004**

Under section 72 of the ***Emergencies Act 2004***, The Commissioner of the Emergency Services Agency (ESA) must develop and implement a Strategic Bushfire Management Plan for the ACT, defines the elements this strategic plan must cover (s74) and the make-up of the committee responsible for

developing the plan (s73). The Act requires that all owners and managers of land ensure that their land is managed in accordance with the Plan (s77), unless the Strategic Bushfire Management Plan is inconsistent with an existing Plan of Management developed under the Planning and Development Act 2007 (s73). The ACT Strategic Bushfire Management Plan requires utilities and land managers with assets located within the Bushfire Abatement Zone to develop and implement a **Bushfire Operations Plan**.

### **Nature Conservation Act 2014**

This Act provides that vegetation clearance works may be undertaken in accordance with an approved strategic bushfire management plan under the Emergencies Act 2004, in conjunction with a licence under Chapter 11 of the Nature Conservation Act 2014 which provides an exemption for activities that would otherwise be considered an offence under the Act.

### **AS4373 Pruning of Amenity Trees**

This Standard specifies methods for pruning of amenity trees and gives guidance on correct and uniform practices.

### **ENA Doc 038-2018 Vegetation Risk Management for Overhead Electricity Networks - Guideline**

This guideline is to assist electricity network service providers in developing appropriate and fit for purpose risk management solutions to be applied to vegetation management

### **ISSC3 (2016) – Guide for the management of vegetation in the vicinity of electrical assets.**

This guide is to provide a minimum standard for the management of vegetation in the vicinity of electricity supply infrastructure in NSW. It also provides detailed guidance in addition to what is provided in the ACT Code for vegetation management and will be used to guide the management of vegetation in the ACT where appropriate and where it is not inconsistent with ACT requirements.

As per the Clause 4.2.6 of the Code, Evoenergy will publish the approved Works Plan on the Evoenergy website, <https://www.evoenergy.com.au/>, as soon as practicable after approval by the Technical Regulator.

## **3. WORKS PROGRAM**

An overview of the vegetation program can be found in Appendix A, B, & C of this document. Evoenergy's strategy is to manage all vegetation encroachments on unleased land, rural land and national land in the bushfire abatement zone, along with targeted inspections of high-risk assets within urban bushfire prone areas annually. These works are to be completed prior to the official start of the bushfire season. A detailed area map is located in Appendix A and on the ACT Government mapping portal at [www.actmapi.act.gov.au](http://www.actmapi.act.gov.au) under the bushfire prone area and bushfire abatement zone map. All other unleased Territory land and national land will be managed on a yearly cycle according to risk and operational effectiveness.

The works program is broken down into five stages.

### **3.1 Identification and Collection**

For vegetation in the bushfire abatement zone, urban unleased land and national land, aerial and ground survey of the electricity network commences after 1 February and is planned for completion by 1 May each year. The intent behind the survey is to identify any vegetation and overhead asset defects that may be a safety or network reliability risk. This yearly cyclic process is aligned in accordance with vegetation growth cycles and other factors pertinent to the management of Evoenergy's assets.

### **3.2 Analysis and Quarantine**

Identified encroachments will be cross referenced with areas containing constraints such as nature reserves (requiring licences), heritage objects or places (requiring heritage advice), NCA designated areas (requiring works approval), potentially contaminated land, and other sensitive locations. Identified

intersecting defects will be quarantined and the relevant approvals sought prior to the commencement of works at these locations.

### 3.3 Organising and Collating

All vegetation encroachments will be further evaluated by a defect triage process to evaluate the encroachment's hazard rating, potential safety risk and the recommended corrective action timeframe.

### 3.4 Execution

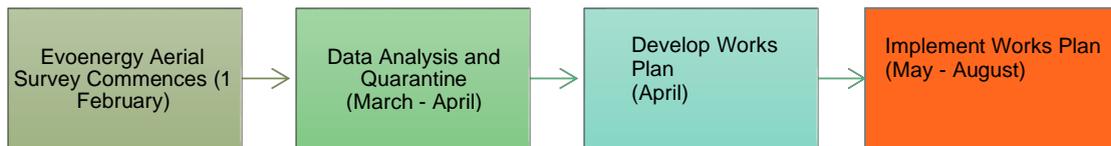
Once the defects have been evaluated and scheduled, suitably trained and qualified personnel will be dispatched to action the works.

### 3.5 Strategic Review

After each annual survey has been completed detailed analysis is performed to identify high risk problem areas. These areas may include recurring high growth vegetation problems and environmental issues. Once identified, research will commence into potential remedies to reduce further risk. Some of these remedies have been proposed in section 8 (alternative technology proposals) of this document.

### 3.6 Key Dates for Program Schedule

Evoenergy's annual aerial photographic and LiDAR survey of its network located in the Bushfire Abatement Zone and overhead high voltage feeders commences no earlier than the 1 February and is planned to be completed by the 1 May of each year. Once this survey is completed the survey data is available to be superimposed onto network maps to facilitate works planning, scoping and scheduling of vegetation encroachments and in conjunction with Evoenergy's bushfire mitigation program (BFM). Following defect identification and data processing, clearing works for BFM and high-risk urban defects commence in May with a view to maintaining the remainder of the HV network post BFM clearing work completion. The below table details the proposed summary overview of the process.



The LiDAR survey captures detail that will measure vegetation proximity to Evoenergy Assets such as:

- Evoenergy asset and network information;
- Vegetation location and linear, vertical and horizontal distance from the Evoenergy Asset and the priority of the vegetation defect based on risk;
- The geographical information of the site such as block, section and address.
- The current aerial inspection program schedule can be found in the appendices.

### 3.7 Induction into work program

A toolbox talk has been developed and deployed to entity staff that details Evoenergy's obligations for pruning vegetation on unleased and rural land. The toolbox talk details what actions entity staff can take in emergency and planned situations if vegetation pruning is required. Generally, Evoenergy staff will only be involved with emergency situations where vegetation has damaged the network and minimal pruning is required to restore the network or make a situation safe.

Planned vegetation pruning is conducted by specialist vegetation contractors. All contractors are required to attend and complete an induction process. During this induction process contractors will be inducted into the works plan, site requirements and set clear direction on expectations.

In addition to undertaking formal reviews of the vegetation contractor, Evoenergy also undertakes

periodic inspection of all contractor activity. Regular workplace inspections play a significant prevention role in identifying work practice issues and contract non-compliance. Inspections concentrate on elements of work (people, work practices and equipment) based on risk. This also includes assessing pruning to ensure compliance with the Technical Code requirements and contract deliverables. These reviews are recorded in ARIA with all corrective actions implemented as required.

### **3.8 Corridors and Easements**

Annual aerial surveys are conducted to inspect power lines situated in rural zones for vegetation encroachments, ensuring that clearances between overhead infrastructure and vegetation consistently adhere to acceptable limits.

Light Detection and Ranging (LiDAR) is the preferred method for inspections as it has been shown to provide a faster, more effective, and more accurate way to identify dangerous vegetation along power line corridors. The images and LiDAR data can be overlain with data collected from a previous survey, which would allow detection of the change that has occurred in the vegetation over time. Vegetation growth rates could be projected better as a result, which helps prioritise work.

## **4. APPROVALS AND LICENCES**

Prior to any notification under this works plan, standard due diligence assessment activities of public databases are undertaken. The primary source of environmental and planning data is via ACTMapi, the ACT Government's publicly available geospatial information system. Other specific sources of data, available to Evoenergy through a discrete data sharing agreement with the ACT Government include EPA Contaminated Sites information and threatened species information via the Conservator. It is noted that there are some limitations with geospatial data with regards to the specific location of significant environment and heritage assets. Evoenergy will continue to work with regulators to ensure access to accurate information to support due diligence assessment.

This due diligence assessment may indicate that licences, approvals or other forms of advice will be required to undertake specific works in accordance with regulatory obligations, such as a licence from Parks and Conservation Service (PCS) to work in a nature reserve or National Capital Authority (NCA) Works Approval. Where vegetation trimming, tree removal, pad or track construction are proposed in areas which require a licence or approval, agreement and approval will be sought from regulators and stakeholders. This will be facilitated through the provision of data identifying the work area, methodology and may also include a site visit with the relevant regulators and stakeholders.

Evoenergy and its contractors will share GIS shape files as part of seeking approvals before works commence in any areas identified as protected or containing protected matters under the Nature Conservation Act to assist in identifying the presence of any sensitive species & communities within the area of works. GIS shape files will also be provided to the Conservator of Flora and Fauna as part of consultation on Evoenergy's program as requested.

### **4.1 Works in Reserve Areas**

Works detailed in this works plan may periodically be conducted in nature reserves, special purpose reserves, or other conservation areas managed by the ACT PCS. A licence under Chapter 11 of the Nature Conservation Act 2014 in relation to land will be required for any activities that would otherwise be considered an offence under the Act, such as vegetation cutting. Tree removal will not occur unless specifically requested and approved.

Works covered under this work plan is limited to vegetation management activities, and any additional network asset maintenance, replacement and augmentation activities will have licence applications submitted separately.

Key considerations that will be incorporated into works planning and execution include:

- Total fire bans and fire danger – works will be cancelled on declared total fire ban days, or where reserves are closed due to high fire danger where they are not emergency works.

Emergency work will be completed after notification and approval from the ACT Emergency Services Agency (ESA) and performed in accordance with the Fire Risk Work and Entry into Bushfire Effected Areas Procedure;

- Impacts to significant species, vegetation communities, rare or threatened flora or fauna identified within 50m of the work area, and controls required to mitigate risks specific to the site (sites should be identified by referencing ACTmapi and by assessing vegetation/tree condition in the field). This could relate to timing of the activity, the staggering of clearance in certain areas and/or particular weed hygiene measures;
  - If works are to occur in areas observed as having 'high quality' habitat values in nature reserve areas, work will be completed in line with consultation from the area PCS Rangers or ecologists, as required.
  - If unexpected ecological values are identified on site, work is to stop with the Evoenergy Environment, Sustainability and Planning Approvals Team notified for action.
- Impacts to known heritage objects or places, and controls required to mitigate risks specific to the site. This could include exclusion areas and dedicated vehicle entry and exit paths.
  - If works are in progress and potential heritage objects are identified, works will stop and the Evoenergy Unexpected Finds Procedure will be followed.
- In the event of heavy rain, inclement weather, a total fire ban, or operational requirements, works may need to be postponed to ensure safety and prevent significant environmental damage.
- Any impact to natural or man-made drainage lines will be discussed and approval sought from TCCS, and, where required, remediated at the completion of works;
- All vehicles will be free of loose dirt and weeds prior to entering a nature reserve area. Wash down facilities are located at depots across the ACT and will be used when moving between reserves. Portable wash down facilities are also able to be mobilised to site if required;
- All vehicles will remain on existing tracks and only depart from tracks when approaching the vicinity of works, as required. Ground and vegetation conditions will be closely monitored to minimise impact;
- All cutting implements and tools are washed and disinfected. The tree contractor keeps a register of where and when the implements were disinfected.
- Temporary traffic management plans are available to staff should they be required to reduce risks to recreationists during work;
- Sediment and erosion controls will be implemented during excavation works, such as sediment fencing, careful spoil placement and dust mitigation. Hay or straw bales will not be used;
- Impacts to ground cover will be minimised as far as possible (outside of clearance widths of electrical infrastructure);
- Vehicles are able to mobilise and clear the tracks and reserve promptly if required in the event of an emergency;
- No topsoil will be imported into nature reserves;
  - Soil may be reused on site. Any soil wastes will be removed from the site and disposed of in accordance with ACT Environment Protection Authority guidelines;
- Appropriate spill kits will be carried by relevant vehicles;
- Any cut or trimmed vegetation will be either chipped and removed from site, or dragged beyond the inner asset protection and mowing zone as coarse woody debris in a manner that minimises fire risk to assets or existing trees.
  - Branches or trunks felled within a reserve area which have a diameter of 10cm or

more may be either left within the easement or dragged into the adjoining reserve as potential habitat for native species;

- No vegetation will be cut where it is likely to impact a nesting bird;
- On completion of works, any land area affected by the works will be rehabilitated to the prior condition unless approval is received to retain a track or pad for future use. Evoenergy will consult with PCS to identify ideal plant species and numbers to be revegetated and instructions on removal/treatment for any significant weeds present in the works area;
- Gates used for access to work sites must be locked immediately after gaining access.
- Other considerations or conditions required by the ACT Government.

## 4.2 Heritage Objects and Places

As part of the due diligence assessment, each work site will be analysed to determine whether there are potential risks of impact to known heritage objects or places that must be considered during works. Where work sites intersect with known heritage areas advice and approval will be sought from ACT Heritage. If potential heritage objects are located during proposed works, the works will stop, and the Evoenergy Unexpected Finds Procedure followed.

## 4.3 Registered Trees

An analysis has been conducted on the intersection of registered trees and overhead conductors with very few instances across the ACT where intersections occur. Contact will be made with the ACT Tree Protection Unit (via [treeprotection@act.gov.au](mailto:treeprotection@act.gov.au)) to confirm the addition of any new registered trees being added to the register, annually or as required.

Separate approval requests will be lodged with the Conservator and TCCS for any potential impacts to registered trees as required.

## 4.4 National Capital Authority (NCA) Designated Areas

Works on Commonwealth land or land otherwise managed by the National Capital Authority may require NCA Works Approval and must be conducted with the consent of the relevant land custodian or lessee.

Where works are being undertaken in a nature reserve area which is also NCA designated land, both a nature reserve licence and NCA works approval are required. The licence received from PCS will constitute lessee consent for the purposes of the NCA Works Approval.

This Works Plan is provided to the NCA for endorsement to satisfy requirements of section 41B of the Utilities (Technical Regulation) Act 2014 to have an agreement in place with Commonwealth landholders of national land in order to undertake vegetation clearance work.

# 5. CUTTING STANDARDS

Evoenergy Staff and Contractors will ensure all works within the ACT and NSW align and comply with the following requirements set out in the **Utilities (Technical Regulation) Electricity Powerline Vegetation Management Code 2018** and **ISSC3 - Guide for the Management of Vegetation in the Vicinity of Electricity Assets (2016)** respectively.

## 5.1 Pruning requirements

All pruning must comply with the AS4373 Pruning of Amenity Trees Standard and the Utilities (Technical Regulation) Electricity Powerline Vegetation Management Code.

No more than 30% of the total canopy volume is to be removed in any individual pruning event, without the specific approval from the tree owner. Trees are not to be destabilised from pruning activities.

## 5.2 Vegetation clearances

The vegetation clearances applied in performing duties under this plan will be the minimum clearances as per the *Utilities Networks (Public Safety) Regulation 2001*. Additional clearance may be applied to allow for regrowth, where regrowth allowances and the determination of appropriate methods for achieving minimal potential for regrowth for individual vegetation species will be determined by a minimum of a CERT III Arborist and be accredited as a tree surgeon.

For more information about clearance distances see drawings one to four below in Appendix D of this document.

### **5.3 Trees to retain natural form**

The natural form and branching habit of individual tree species must be considered and retained wherever possible. If pruning a tree to achieve minimum clearance distances and cater for regrowth will result in the tree losing its distinctive appearance or appearing disfigured, Evoenergy will prune as close as reasonably possible to the minimum clearance distance only, without allowing the tree to be too close to an aerial line as worked out in the table at section 41D of the Act, and Evoenergy will return at more frequent intervals to maintain adequate clearance distances (i.e. some trees may require less pruning, more frequently).

### **5.4 Regrowth calculation**

In Evoenergy's consideration of the regrowth allowance due to predicted environmental factors, the time required between return visits to areas to cut vegetation that enables maintenance of the Minimum Vegetation Clearance without trimming vegetation beyond that which is acceptable to the community. The objective of the regrowth calculation is to avoid any encroachment into the Minimum Vegetation Clearance between cuttings as far as is reasonably practicable.

- Regrowth allowances and determination of appropriate methods for achieving minimal potential for regrowth for individual vegetation species will be determined by a minimum of a CERT III Arborist and be accredited as a tree surgeon; or
- The vegetation contractor must determine the expected growth rates for each area in which vegetation management will be conducted. The vegetation contractor must consider the historical rate of defects, tree type and local environmental conditions when estimating the rate of growth; and
- Vegetation is to be cut in a manner that minimises the potential for regrowth into the clearance zone before the next cutting event. Branches may be cut back to a point outside of the determined regrowth allowance where:
  - both future cutting will be reduced, the aesthetics of the vegetation will be maintained or enhanced (this is particularly important for vegetation directly under overhead mains), or;
  - for vegetation health and structural integrity.
- Although the Minimum Vegetation Clearance is to be kept clear of all vegetation as far as reasonably practicable, only vegetation that is actually expected to grow into the minimum vegetation clearance during the cutting cycle should be removed from the regrowth allowance;

For more information about clearance distances and allowances for regrowth see drawings one to four in Appendix D of this document.

Contractually, the vegetation contractor has the above guidelines built into the vegetation statement of requirement which forms part of Evoenergy's vegetation contract. These guidelines underpin our pruning methodology.

If the vegetation contractor is unable to meet any of these requirements pruning works are not to commence and work will be directed back to the Vegetation and Asset Inspections Manager for further evaluation. This transaction will occur and be recorded within Evoenergy's core works management application.

## 5.5 NSW cutting standards

For vegetation management activities in the small areas of the network in NSW, the standard applied is outlined in ISSC3 - Guide for the Management of Vegetation in the Vicinity of Electricity Assets (2016).

## 6. CONTRACTOR ACCREDITATION

Evoenergy will ensure all vegetation management works will comply with the following classification as stipulated in the Code (section 3.2):

1. Trees must be pruned by:
  - A vegetation management contractor qualified at Certificate III in Arboriculture or higher; or
  - An employee of the responsible utility qualified at Certificate III in Arboriculture or higher; or
  - An employee of the responsible utility who has successfully completed the following units (or equivalent) through a registered training organisation:
    - UETTDRVC30A – Coordinate vegetation control operations
    - UETTDRVC29A – Control vegetation whilst performing line work under the direct supervision of an employee qualified at Certificate III in Arboriculture or higher.
  - in the case of emergency rectification work, employees with other minimum accreditation requirements as required by the responsible utility regarding working in the vicinity of electrical assets.
2. Reduction pruning must be undertaken in accordance with AS4373. Reduction pruning does not include lopping or topping.
3. The contractor will have an Environment Management Plan for all vegetation works;
4. The contractor will have an authorisation under the Environment Protection Act 1997 to use chemicals during vegetation management.
5. The contractor will have their accredited tree surgeon identification card with them when they are carrying out work in accordance with Section 41D of the Act. This card must be produced and shown to anyone (including members of the public) upon request.

## 7. ALTERNATIVE TECHNOLOGY PROPOSALS

There are multiple methods of maintaining safe clearances between power lines and vegetation. Alternative methods are considered where economically feasible or where the vegetation concerned is of significant cultural, heritage, or environmental value.

### 7.1 Engineering Options

The following engineering options may be considered as alternatives to pruning or removal, where appropriate with funding, network and technical requirements:

- **Insulated Aerial Bundled Cable (ABC)** to reduce the need for frequent trimming.
- **Underground cabling** on new development installations and replacements.
- **Covered Conductor Thick (CCT)** as a protective measure.
- **Feeder relocations** to reduce opportunities for vegetation interaction.
- **Earth Fault Current Detection (EFCD)** for improved fault detection and prevention.

Current LV ABC installations are programmed at 30 spans per year with other options dependent on regulatory funding.

## 7.2 Non-Engineering Options - tree removal

While engineering solutions are preferred, non-engineering alternatives such as removal may be considered when other options are not feasible.

Evoenergy may issue a notice to the landowner, occupier or ACT Government to remove a tree if the tree is or may be a continual threat to the safety and the integrity of the power line or is an unacceptable maintenance cost burden.

Evoenergy will seek the removal of trees where:

- Other options, such as undergrounding powerlines or replacing with ABC, are not economically feasible.
- The tree poses a threat to the safety and integrity of the power line that cannot be managed through pruning.
- The tree species is inappropriate and imposes considerable ongoing maintenance costs.
- The tree does not respond well to directional pruning away from power lines.
- The tree's growth rate is such that it cannot be maintained within the defined maintenance cycles.
- The tree's health is compromised, posing a safety risk to the power line and the community.
- The tree's aesthetic or structural condition after pruning would render it unsuitable to remain.

## 7.3 Data Governance and Bushfire Risk Modelling

In addition to these strategies, Evoenergy is actively working on data governance initiatives aimed at improving the management of tree growth across the ACT over time. By capturing data on tree growth and vegetation encroachment, Evoenergy is equipped to make informed decisions on maintenance cycles and tree management practices.

Evoenergy has partnered with the University of Melbourne's FLARE team to conduct Bushfire Risk Modelling for the ACT. This modelling identifies the locations of overhead poles as potential ignition sources and simulates fire spread scenarios. The data collected from these simulations will be used to:

- Predict vegetation encroachment on overhead lines.
- Quantify the risk of bushfire ignitions caused by vegetation near power lines.
- Perform a Cost-Benefit Analysis (CBA) to evaluate whether it is more cost-effective to replace overhead lines with underground cabling or to upgrade to insulated conductors, such as ABC or CCT, to reduce both bushfire risk and the likelihood of outages.

This proactive approach enables Evoenergy to prioritize high-risk areas of the network and take appropriate actions to mitigate bushfire risks while balancing economic feasibility and environmental sustainability.

## 8. CONSULTATION

Consultation on the Works Plan will occur each year with:

- ACT Conservator of Flora and Fauna;
- Transport Canberra City Services (TCCS);
- ACT Parks and Conservation Service (PCS);
- National Capital Authority (NCA).

## VERSION CONTROL

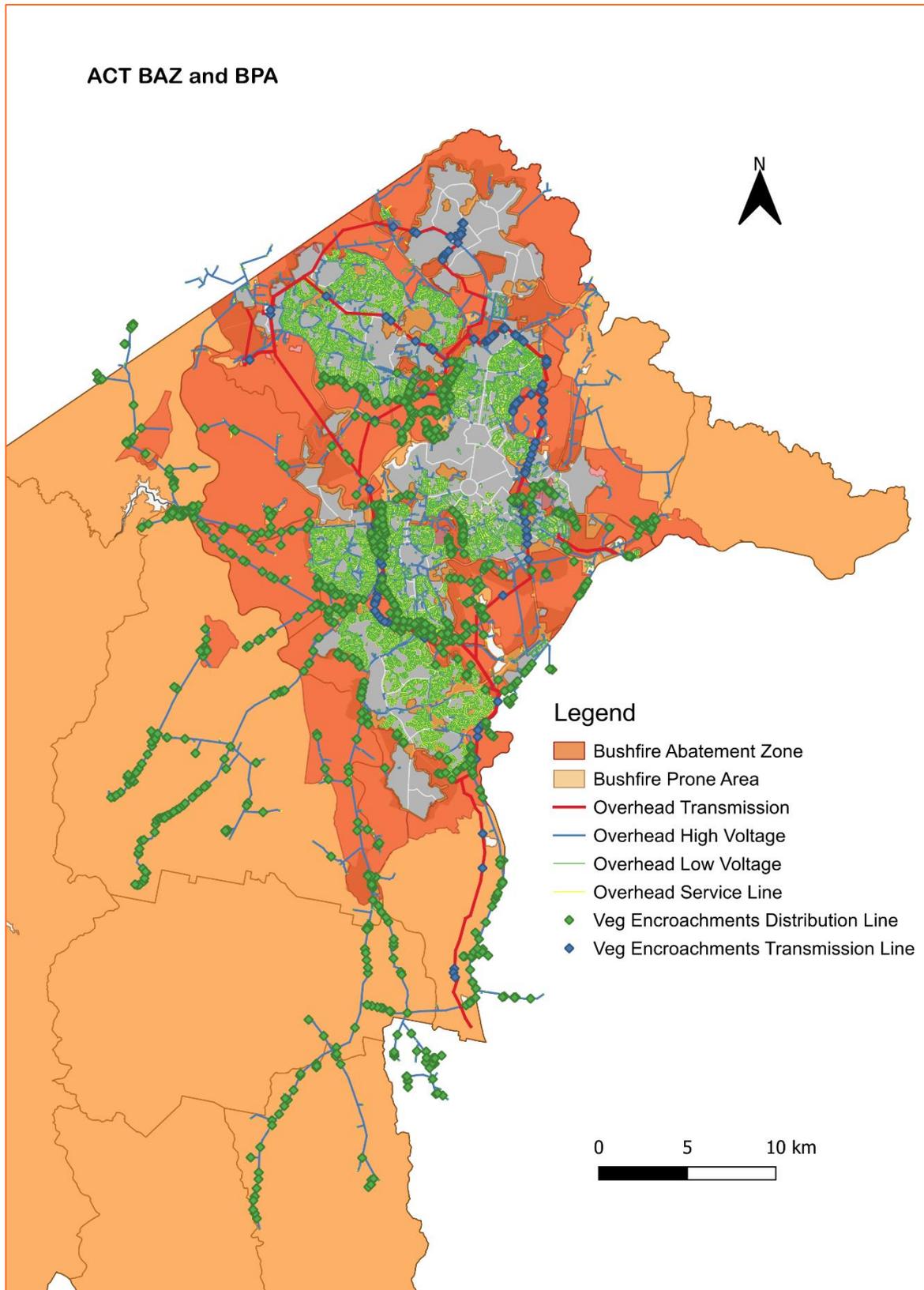
VERSION	DESCRIPTION	APPROVED
0.1	Initial draft 15/3/2018	Peter Cunningham
1.0	Published 18/12/2018	Peter Cunningham, Michael Lees
2.0	Document review and updated for 2018/19 program 21/12/2018	Mark Trainor
2.1	Final document for release 2018/19 program 25/02/2019	Mark Trainor
2.2	Updated to make current for 2019/20 – final draft circulated for consultation 26/06/2019	Chris Kelly
2.3	Updated content in section 4 following consultation with the Conservator of Flora and Fauna 27/8/2019	Bronwen Butterfield Clinton McAlister
3.0	Updated to provide currency for 2020/21 program 12/05/2020	Peter Froome
3.1	Updated legislative requirements 1/07/2020	Bronwen Butterfield
3.2	Address regulatory stakeholder comments 22/09/2020	Bronwen Butterfield
3.3	Updated for 2021/22 program 24/09/2021	Joe Craddy
3.4	Updated for Conservator comments 07/02/2022	Tom Atkins
3.5	Updated Maps 08/09/2022	Suchir Patil
3.6	Updated - Map in Appendix A, dictionary 20/09/2022	Suchir Patil
3.7	Updated for 2022/23 Program 30/09/2022	Suchir Patil
3.8	Updated Section 4,7 and Appendix links 16/11/2022	Suchir Patil
3.9	Annual review and update	Suchir Patil
4.0	Updated Maps 04/10/2023	Suchir Patil
4.1	Updated Maps and section 7 19/09/2024	Suchir Patil

4.2	Added additional maps in appendices & updated refs	Suchir Patil
-----	--	--------------

## DOCUMENT CONTROL

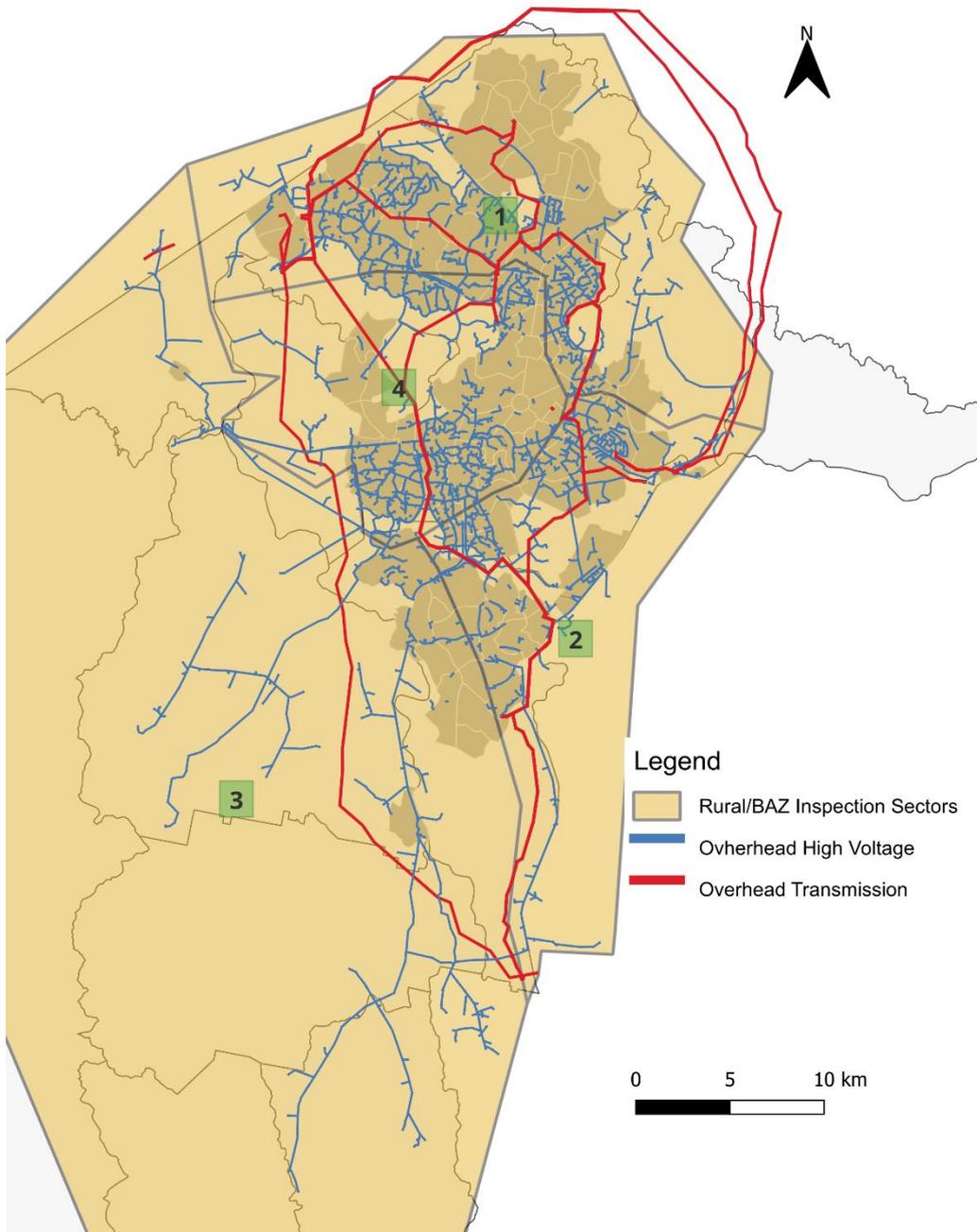
DOCUMENT OWNER	DOCUMENT CUSTODIAN	PUBLISH DATE	REVIEW DATE
Group Manager Network Services	Vegetation and Inspection Manager	13/11/2024	13/11/2026

# APPENDIX A – BUSHFIRE ABATEMENT ZONE AND BUSHFIRE PRONE AREAS WITH EVOENERGY NETWORK SHOWING VEGETATION ENCROACHMENTS



# APPENDIX B – ANNUAL RURAL PLANNED AERIAL INSPECTION SECTORS

BFM/Rural Inspection Sectors



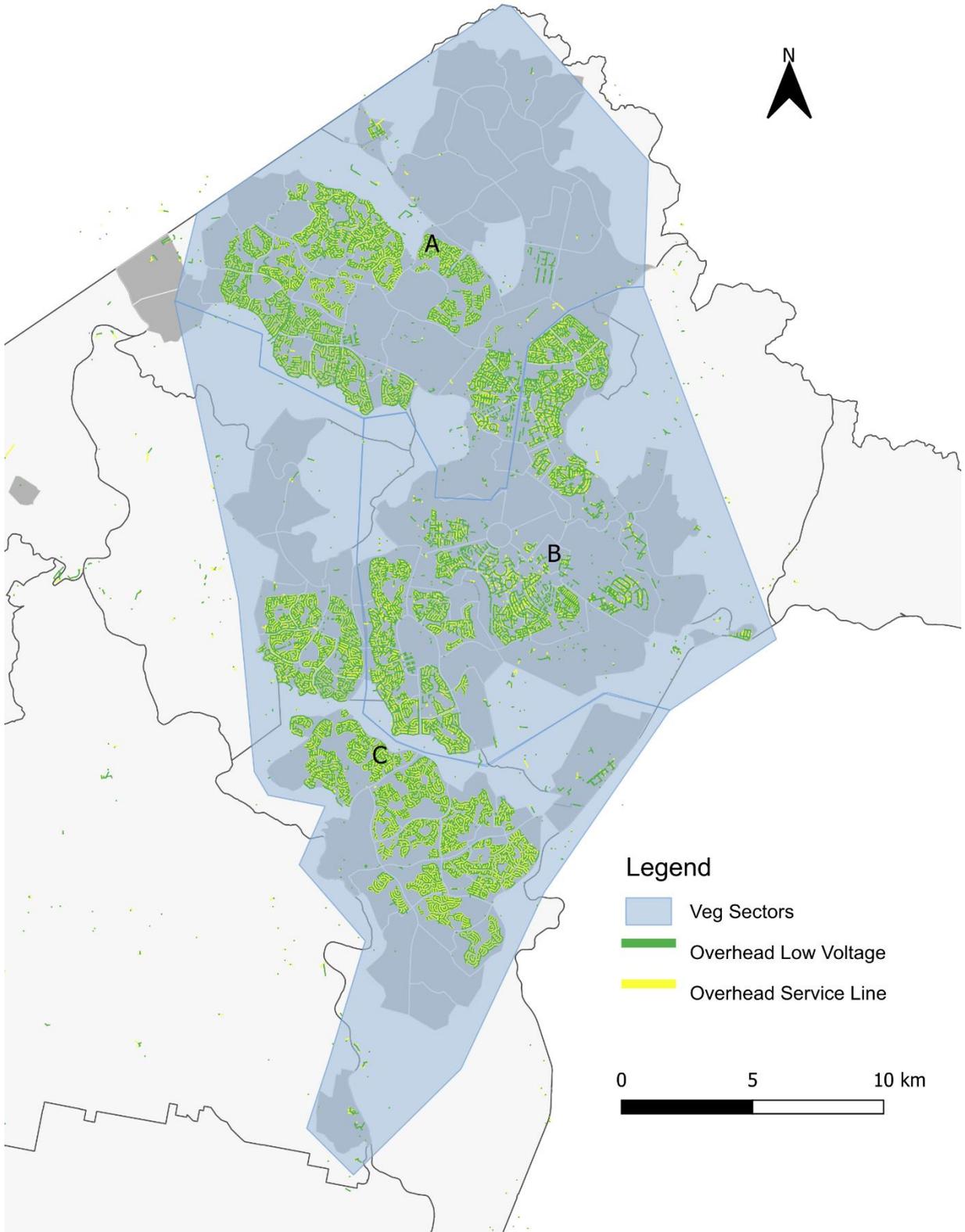
These are the anticipated flying sectors, however please refer to the Evoenergy website for updated flying times and schedule: <https://www.evoenergy.com.au/residents/safety-advice/aerial-inspection-program>

Evoenergy will be using LIDAR-enabled Aircraft to fly multiple sections of power lines capturing data on vegetation, conductors, poles and structures.

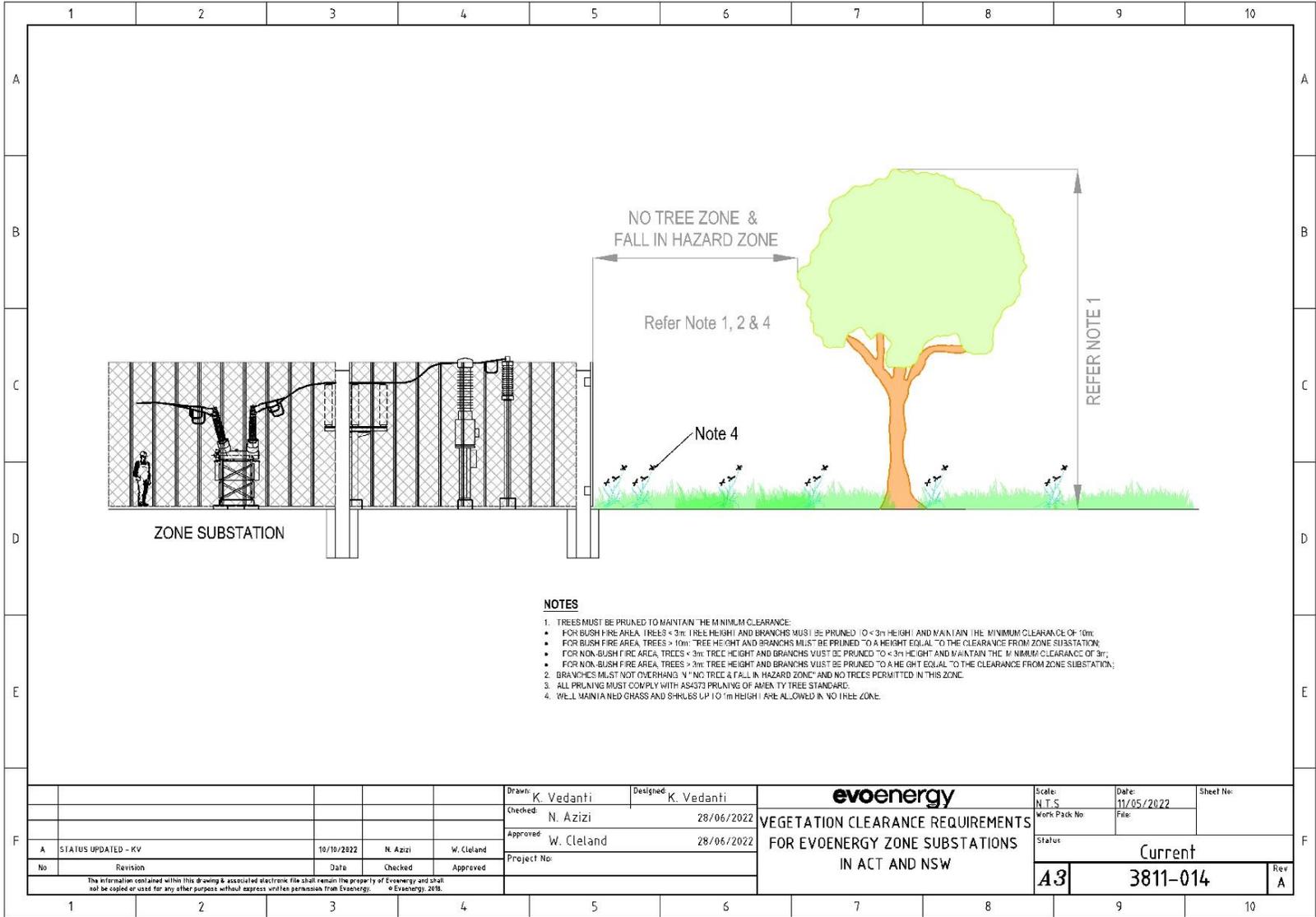
Once the aerial inspection survey is completed a vegetation pruning schedule will be available on the Evoenergy website which will be updated regularly once vegetation defects are evaluated and allocated for pruning.

# APPENDIX C – ANNUAL URBAN INSPECTION SECTORS

## Urban Inspection Sectors



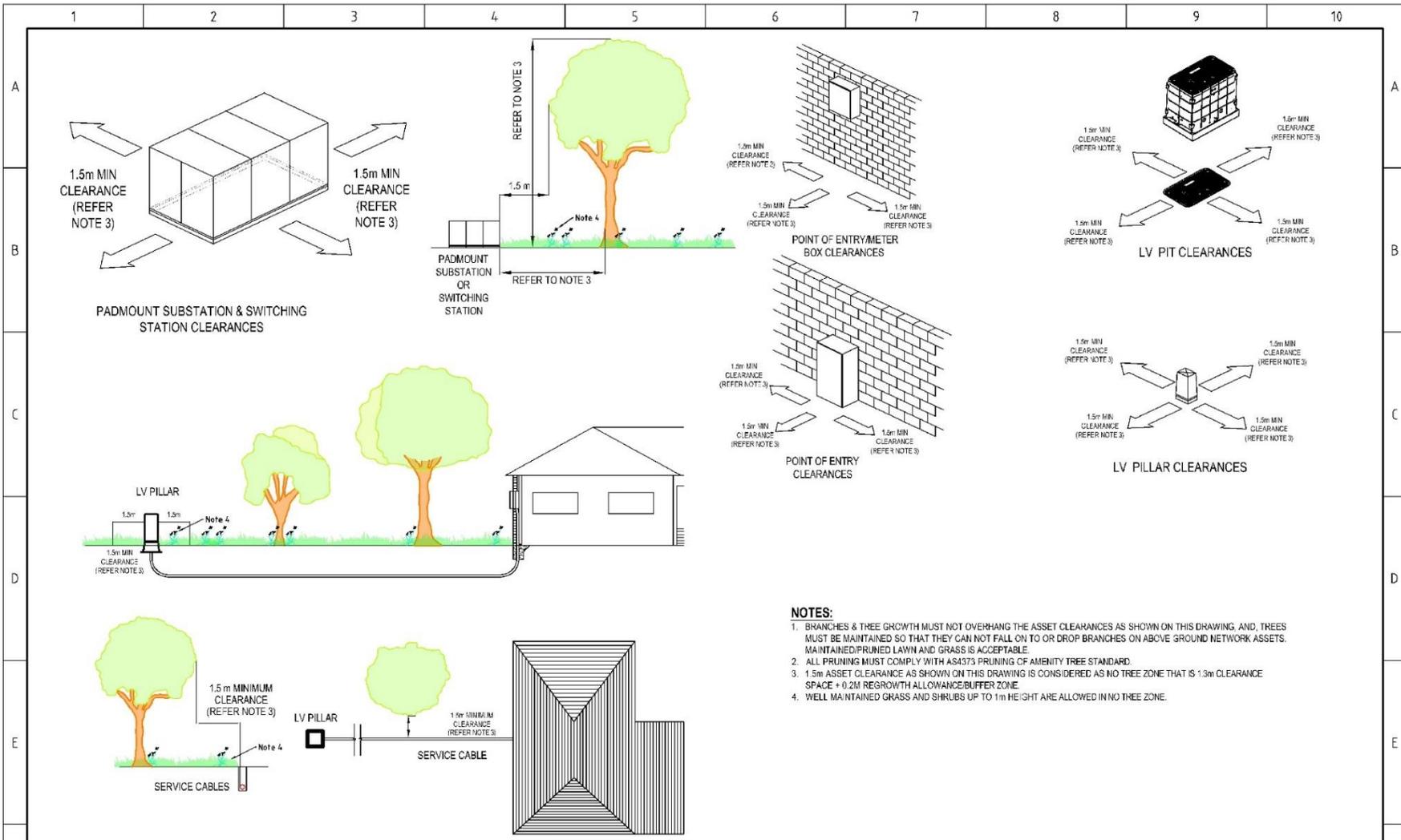
# APPENDIX D – CLEARANCE DRAWINGS



					Drawn: K. Vedanti	Designed: K. Vedanti			Scale: N.T.S.	Date: 11/05/2022	Sheet No:
					Checked: N. Azizi	28/06/2022			VEGETATION CLEARANCE REQUIREMENTS FOR EVOENERGY ZONE SUBSTATIONS IN ACT AND NSW		Work Pack No:
					Approved: W. Cleland	28/06/2022	Status: <b>Current</b>				
					Project No:		A3		3811-014		Rev A

The information contained within this drawing & associated electronic file shall remain the property of Evoenergy and shall not be copied or used for any other purpose without express written permission from Evoenergy. © Evoenergy, 2018.

Date Plotted: 12/10/2022 | Plot Style: Electrical.ctb | Plotted by: Ryan, Jason | File Name: D:\Temp\2022\Work\2022\RYANM-P\proj\34-D-3rd\Electrical\Work Area\Pro\2022\2022\Design\2022\08\3811\_014.dwg



				Drawn: K. Vedanti	Designed: K. Vedanti	<b>evoenergy</b>	Scale: N.T.S.	Date: 28/06/2022	Sheet No:
				Checked: N. Azizi	28/06/2022		VEGETATION CLEARANCE REQUIREMENTS FOR EVOENERGY GROUND ASSETS IN ACT AND NSW	Work Pack No:	File:
				Approved: W. Cleland	28/06/2022		Status: Current		
				Project No:					
				The information contained within this drawing & associated electronic file shall remain the property of Evoenergy and shall not be copied or used for any other purpose without express written permission from Evoenergy.		ACT Cadastral information supplied by the ACT Environment & Sustainable Development Directorate.			
A		STATUS UPDATED - KV	10/10/2022	N. Azizi	W. Cleland				
No	Revision	Date	Checked	Approved			A3	3811-015	Rev A

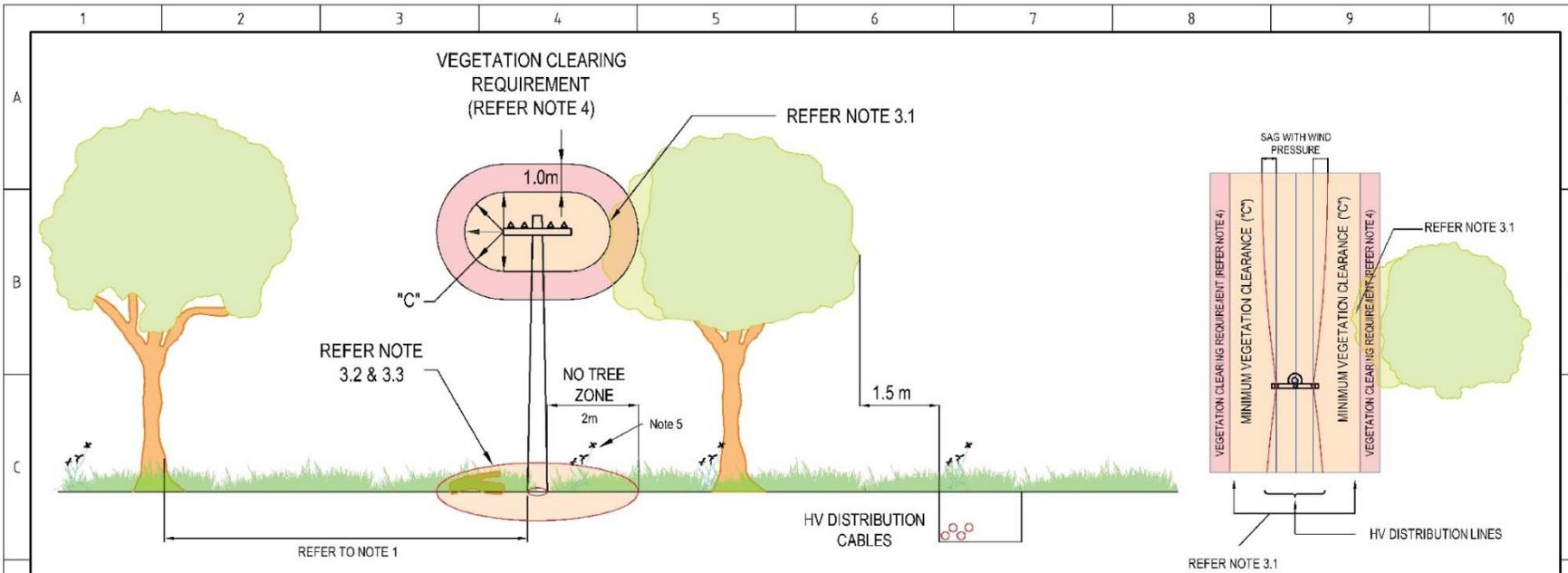


TABLE : VEGETATION CLEARANCE REFERENCE TABLE ("C")

AREA	INFRASTRUCTURE TYPE	MINIMUM CLEARANCE FROM AERIAL LINES	SPECIAL REQUIREMENTS	VEGETATION PERMITTED TO OVERHANG AERIAL LINES
URBAN OR RURAL	HV DISTRIBUTION NETWORK 11kV AND 22kV	2.0 m*	THE MINIMUM DISTANCE FROM ANY PART OF AN AERIAL LINE IS TO BE MEASURED FROM THE NEAREST POINT TO WHICH THE LINE SAGS OR SWINGS. * ADDITIONAL 0.5m CLEARANCE TO BE ADDED TO ALL BARE CONDUCTOR CLEARANCES FOR BUSH FIRE PRONE AREAS.	"YES" FOR URBAN & "NO" FOR RURAL

- NOTES:**
- TREES MUST BE PRUNED TO MAINTAIN THE MINIMUM CLEARANCE; FOR TREES > 3m: TREE HEIGHT AND BRANCHES MUST BE PRUNED TO A HEIGHT EQUAL TO THE CLEARANCE FROM THE POLE.
  - SAG MUST BE CHECKED WHEN LINE IS OPERATING AT ITS DESIGN TEMPERATURE RATING.
  - OVERHEAD LINES LOCATED IN BUSHFIRE PRONE AREAS OR BUSHFIRE ABATEMENT ZONES:
    - BRANCHES MUST NOT OVERHANG IN "NO TREE ZONE" AND THE AERIAL LINES MUST BE CLEAR TO SKY.
    - VEGETATION AND HEAVY FUEL MATERIALS MUST BE SUFFICIENTLY CLEAR OF POLES TO PERMIT INSPECTION AND LIMIT DAMAGE DURING BUSHFIRE.
    - MINIMUM CLEARANCE OF 2m MUST BE MAINTAINED AROUND THE POLE IN ALL DIRECTIONS AND TO BE CONSIDERED AS NO TREE ZONE.
  - ALL PRUNING MUST COMPLY WITH AS4373 PRUNING OF AMENITY TREE STANDARD.
  - WELL MAINTAINED GRASS AND SHRUBS UP TO 1m HEIGHT ARE ALLOWED IN NO TREE ZONE.

				Drawn: K. Vedanti	Designed: K. Vedanti	<b>evoenergy</b>	Scale: N.T.S	Date: 17/03/2022	Sheet No.
				Checked: N. Azizi	28/06/2022		Work Pack No.	File:	
A				Approved: W. Cleland	28/06/2022	VEGETATION CLEARANCE REQUIREMENTS FOR EVOENERGY HIGH VOLTAGE UNDERGROUND AND OVERHEAD NETWORK ASSETS IN ACT	Status:	Current	
B				Project No:			A3	3811-016	Rev B
No				Revision					
<small>The information contained within this drawing &amp; associated electronic file shall remain the property of Evoenergy and shall not be copied or used for any other purpose without express written permission from Evoenergy. © Evoenergy, 2018.</small>									

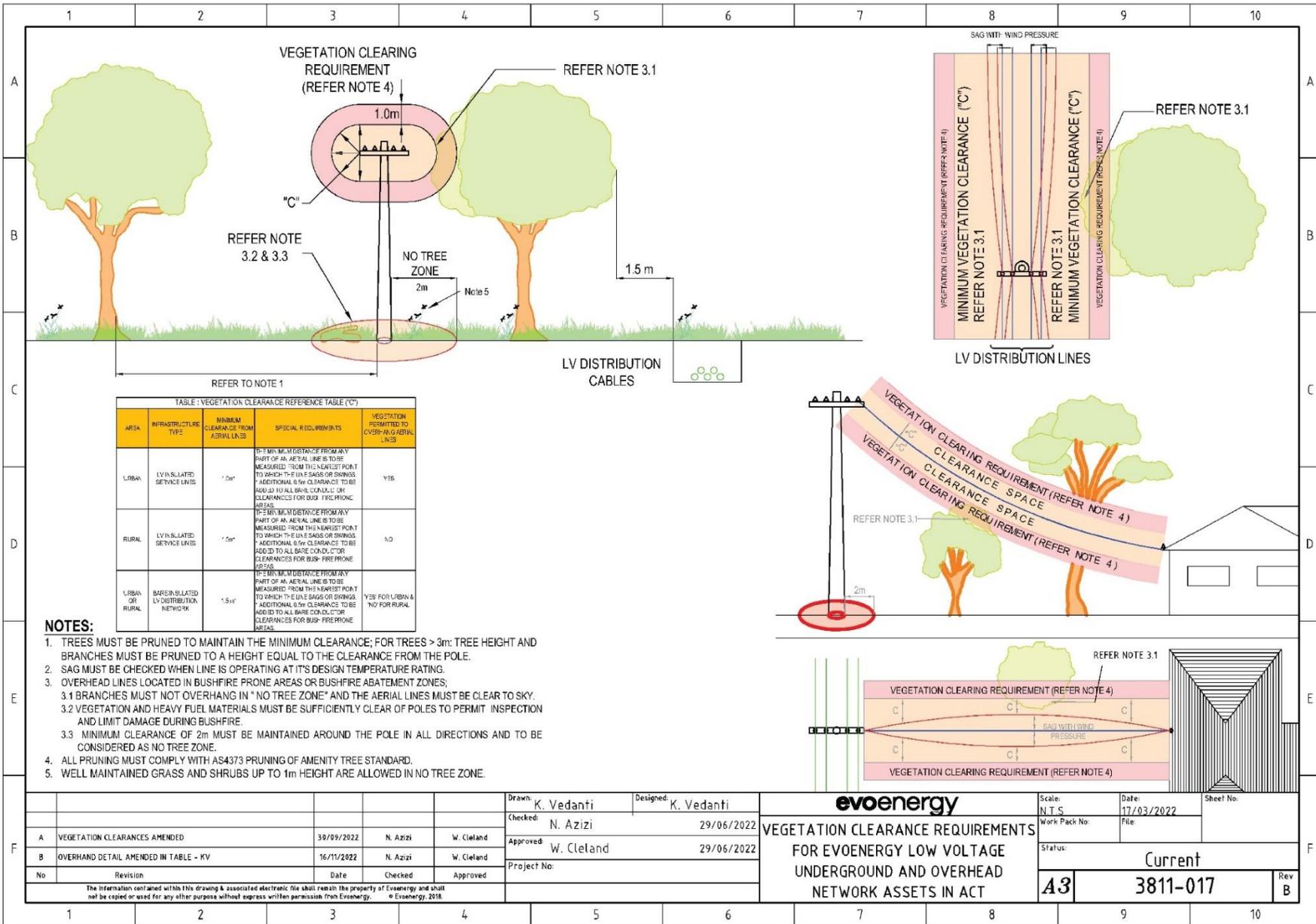


TABLE 1: VEGETATION CLEARANCE REFERENCE TABLE (°C)

AREA	INFRASTRUCTURE TYPE	MINIMUM CLEARANCE FROM AERIAL LINES	SPECIAL REQUIREMENTS	VEGETATION PERMITTED TO OVERHANG AERIAL LINES
URBAN	LV INSULATED SERVICE LINES	1.7m*	THE MINIMUM DISTANCE FROM ANY PART OF AN AERIAL LINE IS TO BE MEASURED FROM THE NEAREST POINT TO WHICH THE LINE SAGS OR SWINGS. * ADDITIONAL 0.5m CLEARANCE TO BE ADDED TO ALL BARE CONDUCTOR CLEARANCES FOR BUSH-FIRE PRONE AREAS	YES
RURAL	LV INSULATED SERVICE LINES	1.5m*	THE MINIMUM DISTANCE FROM ANY PART OF AN AERIAL LINE IS TO BE MEASURED FROM THE NEAREST POINT TO WHICH THE LINE SAGS OR SWINGS. * ADDITIONAL 0.5m CLEARANCE TO BE ADDED TO ALL BARE CONDUCTOR CLEARANCES FOR BUSH-FIRE PRONE AREAS	NO
URBAN OR RURAL	BARE INSULATED LV DISTRIBUTION NETWORK	1.5m*	THE MINIMUM DISTANCE FROM ANY PART OF AN AERIAL LINE IS TO BE MEASURED FROM THE NEAREST POINT TO WHICH THE LINE SAGS OR SWINGS. * ADDITIONAL 0.5m CLEARANCE TO BE ADDED TO ALL BARE CONDUCTOR CLEARANCES FOR BUSH-FIRE PRONE AREAS	YES FOR URBAN & NO FOR RURAL

**NOTES:**

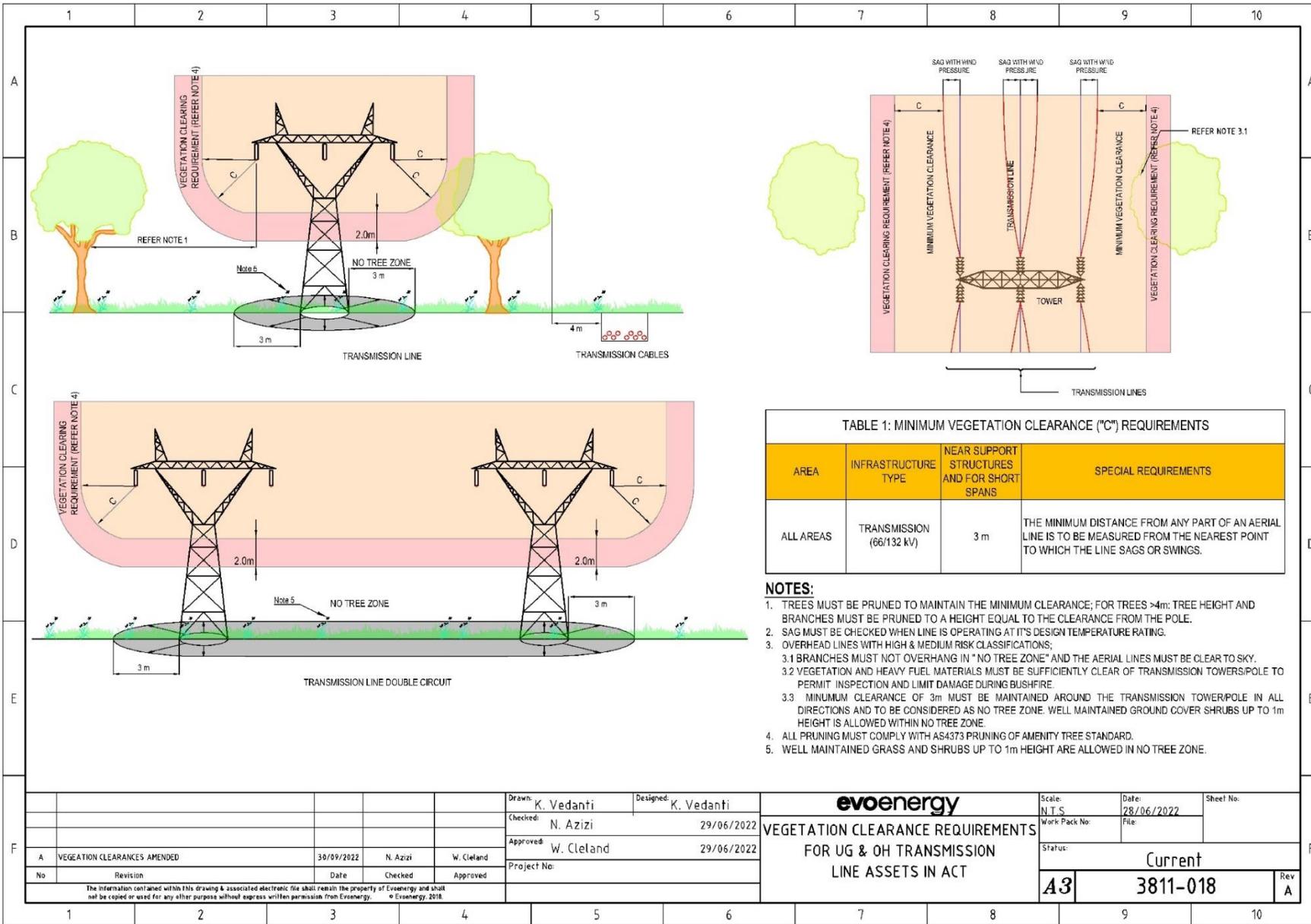
- TREES MUST BE PRUNED TO MAINTAIN THE MINIMUM CLEARANCE; FOR TREES > 3m: TREE HEIGHT AND BRANCHES MUST BE PRUNED TO A HEIGHT EQUAL TO THE CLEARANCE FROM THE POLE.
- SAG MUST BE CHECKED WHEN LINE IS OPERATING AT ITS DESIGN TEMPERATURE RATING.
- OVERHEAD LINES LOCATED IN BUSHFIRE PRONE AREAS OR BUSHFIRE ABATEMENT ZONES:
  - BRANCHES MUST NOT OVERHANG IN "NO TREE ZONE" AND THE AERIAL LINES MUST BE CLEAR TO SKY.
  - VEGETATION AND HEAVY FUEL MATERIALS MUST BE SUFFICIENTLY CLEAR OF POLES TO PERMIT INSPECTION AND LIMIT DAMAGE DURING BUSHFIRE.
  - MINIMUM CLEARANCE OF 2m MUST BE MAINTAINED AROUND THE POLE IN ALL DIRECTIONS AND TO BE CONSIDERED AS NO TREE ZONE.
- ALL PRUNING MUST COMPLY WITH AS4373 PRUNING OF AMENITY TREE STANDARD.
- WELL MAINTAINED GRASS AND SHRUBS UP TO 1m HEIGHT ARE ALLOWED IN NO TREE ZONE.

Drawn: K. Vedanti		Designed: K. Vedanti	
Checked: N. Azizi		29/06/2022	
Approved: W. Cleland		29/06/2022	
Project No:			
A VEGETATION CLEARANCES AMENDED		30/09/2022	N. Azizi
B OVERHAND DETAIL AMENDED IN TABLE - KV		16/11/2022	N. Azizi
No	Revision	Date	Checked
The information contained within this drawing and associated electronic file shall remain the property of Evoenergy and shall not be copied or used for any other purpose without express written permission from Evoenergy. © Evoenergy, 2018			

**evoenergy**

**VEGETATION CLEARANCE REQUIREMENTS FOR EVOENERGY LOW VOLTAGE UNDERGROUND AND OVERHEAD NETWORK ASSETS IN ACT**

Scale: N.T.S	Date: 17/03/2022	Sheet No:
Work Pack No:	File:	
Status:	Current	
<b>A3</b>	<b>3811-017</b>	Rev B



**TABLE 1: MINIMUM VEGETATION CLEARANCE ("C") REQUIREMENTS**

AREA	INFRASTRUCTURE TYPE	NEAR SUPPORT STRUCTURES AND FOR SHORT SPANS	SPECIAL REQUIREMENTS
ALL AREAS	TRANSMISSION (66/132 kV)	3 m	THE MINIMUM DISTANCE FROM ANY PART OF AN AERIAL LINE IS TO BE MEASURED FROM THE NEAREST POINT TO WHICH THE LINE SAGS OR SWINGS.

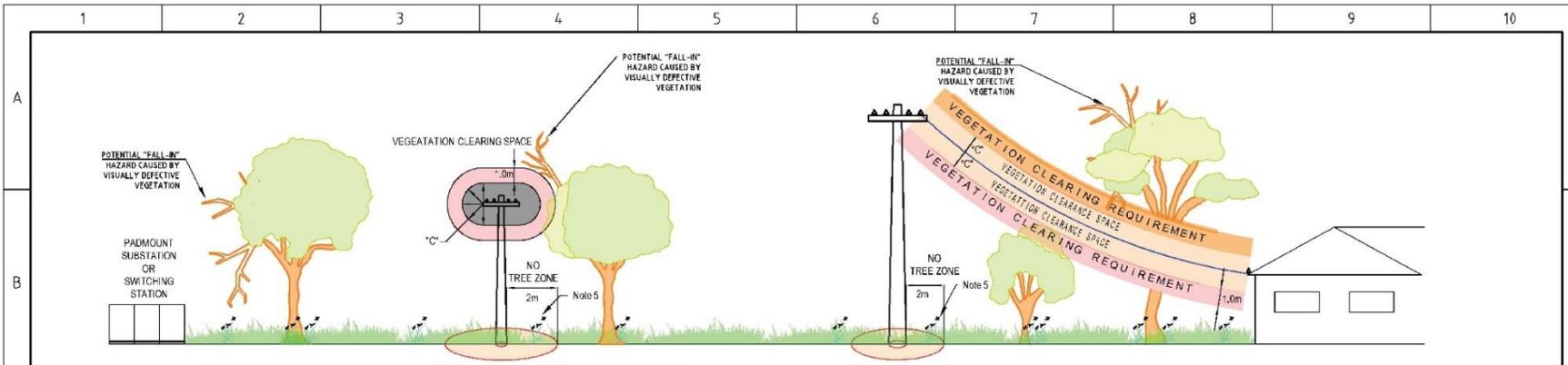
- NOTES:**
- TREES MUST BE PRUNED TO MAINTAIN THE MINIMUM CLEARANCE; FOR TREES >4m: TREE HEIGHT AND BRANCHES MUST BE PRUNED TO A HEIGHT EQUAL TO THE CLEARANCE FROM THE POLE.
  - SAG MUST BE CHECKED WHEN LINE IS OPERATING AT ITS DESIGN TEMPERATURE RATING.
  - OVERHEAD LINES WITH HIGH & MEDIUM RISK CLASSIFICATIONS:
    - BRANCHES MUST NOT OVERHANG IN "NO TREE ZONE" AND THE AERIAL LINES MUST BE CLEAR TO SKY.
    - VEGETATION AND HEAVY FUEL MATERIALS MUST BE SUFFICIENTLY CLEAR OF TRANSMISSION TOWERS/POLE TO PERMIT INSPECTION AND LIMIT DAMAGE DURING BUSHFIRE.
    - MINIMUM CLEARANCE OF 3m MUST BE MAINTAINED AROUND THE TRANSMISSION TOWER/POLE IN ALL DIRECTIONS AND TO BE CONSIDERED AS NO TREE ZONE. WELL MAINTAINED GROUND COVER SHRUBS UP TO 1m HEIGHT IS ALLOWED WITHIN NO TREE ZONE.
  - ALL PRUNING MUST COMPLY WITH AS4373 PRUNING OF AMENITY TREE STANDARD.
  - WELL MAINTAINED GRASS AND SHRUBS UP TO 1m HEIGHT ARE ALLOWED IN NO TREE ZONE.

Drawn:	K. Vedanti	Designed:	K. Vedanti
Checked:	N. Azizi	29/06/2022	
Approved:	W. Cleland	29/06/2022	
Project No:			

**evoenergy**

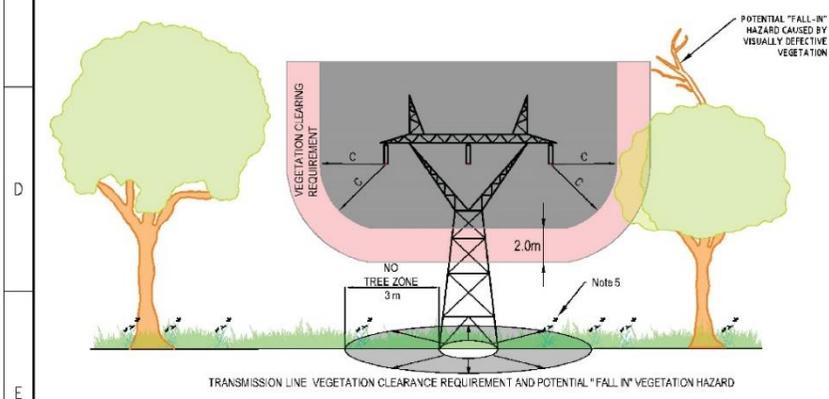
**VEGETATION CLEARANCE REQUIREMENTS FOR UG & OH TRANSMISSION LINE ASSETS IN ACT**

Scale:	N.T.S.	Date:	28/06/2022	Sheet No:	
Work Pack No:		File:			
Status:	Current				
<b>43</b>	<b>3811-018</b>			Rev	<b>A</b>



LUG & OH NETWORK VEGETATION CLEARANCE REQUIREMENT AND POTENTIAL "FALL IN" VEGETATION HAZARD

OH SERVICE VEGETATION CLEARANCE REQUIREMENT AND POTENTIAL "FALL IN" VEGETATION HAZARD



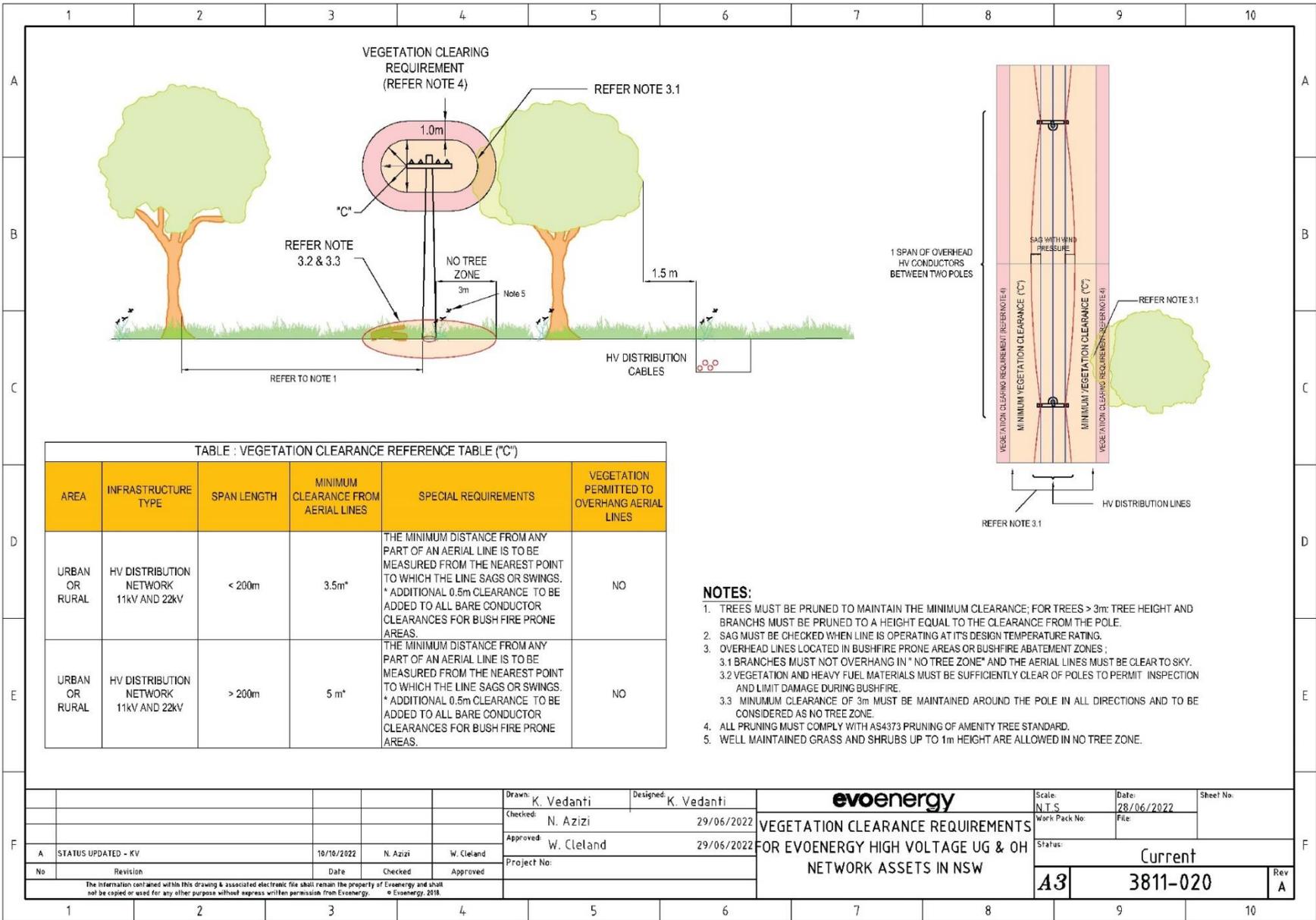
TRANSMISSION LINE VEGETATION CLEARANCE REQUIREMENT AND POTENTIAL "FALL IN" VEGETATION HAZARD

**NOTES**

1. SAG SHOULD BE CHECKED WHEN LINE IS OPERATING AT ITS DESIGN TEMPERATURE RATING.
2. FALL IN VEGETATION THAT IS OUT SIDE THE MINIMUM CLEARANING REQUIREMENT DISTANCES FROM ELECTRICITY ASSETS MUST BE CLEARED AS FAR AS IT IS REASONABLY PRACTICABLE TO DO SO. FALL IN VEGETATION CAN BE A VISUALLY DEFECTIVE VEGETATION WHICH IS DEAD, DYING AND APPEARS STRUCTURALLY UNSOUND AS IDENTIFIED FROM THE PERSPECTIVE OF THE NETWORK ASSET, AND WHICH MAY REQUIRE PRUNING, CUTTING, OR REMOVAL TO OBLVIATE THE RISK OF IT FALLING, DROPPING, AND CONTACTING THE ASSET.
3. BRANCHES AND TREE GROWTH MUST NOT OVERHANG WITHIN THE VEGETATION CLEARANCE SPACE, AND TREES MUST BE MAINTAINED SO THAT THEY CANNOT FALL ON TO OR DROP BRANCHES ON EVOENERGY ASSETS.
4. ALL PRUNING MUST COMPLY WITH AS 4373 "PRUNING OF AMENITY TREES".
5. WELL MAINTAINED GRASS AND SHRUBS UP TO 1m HEIGHT ARE ALLOWED IN NO TREE ZONE.

				Drawn: K. Vedanti	Designed: K. Vedanti	Scale: N.T.S.		Date: 24/03/2022	Sheet No:
				Checked: N. Azizi	29/06/2022	Work Pack No:		File:	
				Approved: W. Cleland	29/06/2022	Status:		Current	
				Project No:		A3		3811-019	
								Rev A	

Date Plotted: 12/10/2022		Plot Style: Electrical.ctb		Plotted by: Ryan, Jason		File Name: C:\TampBC\WorkSpace\JIRYANM-Pdapps34.D-DwElecB\PIWork Area\Progress\Wm\Design_Data\DH3811_019.dwg			
--------------------------	--	----------------------------	--	-------------------------	--	--	--	--	--



				Drawn: K. Vedanti	Designed: K. Vedanti	<b>evoenergy</b>		Scale: N.T.S	Date: 28/06/2022	Sheet No:
				Checked: N. Azizi	29/06/2022	<b>VEGETATION CLEARANCE REQUIREMENTS FOR EVOENERGY HIGH VOLTAGE UG &amp; OH NETWORK ASSETS IN NSW</b>		Work Pack No:	File:	
				Approved: W. Cleland	29/06/2022			Status:	<b>Current</b>	
				Project No:				<b>A3</b>	<b>3811-020</b>	Rev <b>A</b>

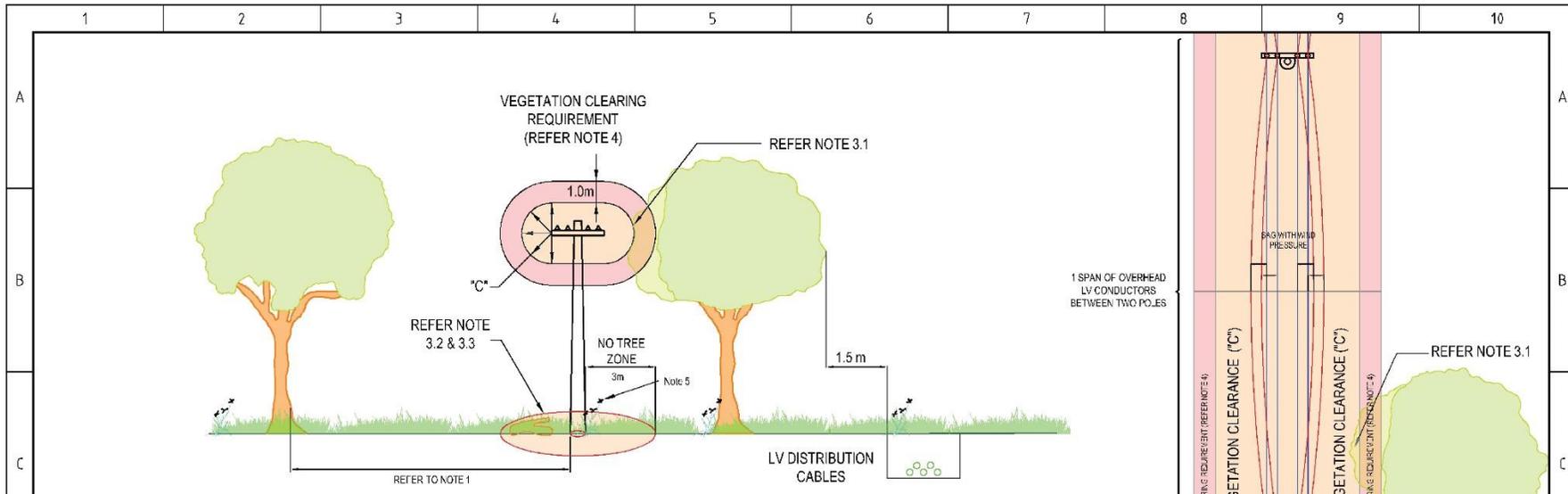


TABLE : VEGETATION CLEARANCE REFERENCE TABLE ("C")

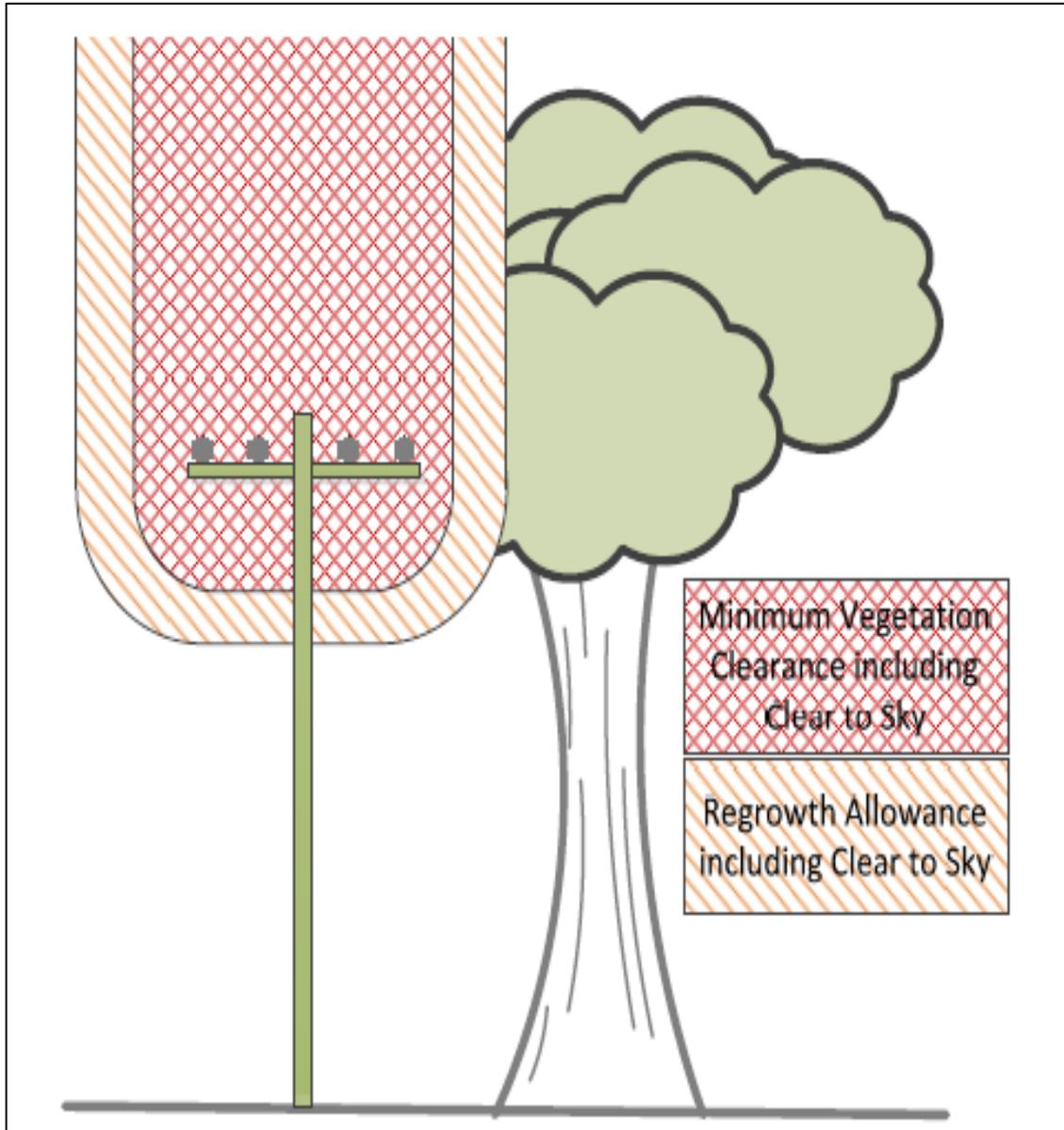
AREA	INFRASTRUCTURE TYPE	SPAN LENGTH	MINIMUM CLEARANCE FROM AERIAL LINES	SPECIAL REQUIREMENTS	VEGETATION PERMITTED TO OVERHANG AERIAL LINES
URBAN OR RURAL	BARE/INSULATED LV DISTRIBUTION NETWORK	<100m	2.5 m*	THE MINIMUM DISTANCE FROM ANY PART OF AN AERIAL LINE IS TO BE MEASURED FROM THE NEAREST POINT TO WHICH THE LINE SAGS OR SWINGS. * ADDITIONAL 0.5m CLEARANCE TO BE ADDED TO ALL BARE CONDUCTOR CLEARANCES FOR BUSH FIRE PRONE AREAS.	'YES' FOR URBAN & 'NO' FOR RURAL
URBAN OR RURAL	BARE/INSULATED LV DISTRIBUTION NETWORK	>100m	3.5m*	THE MINIMUM DISTANCE FROM ANY PART OF AN AERIAL LINE IS TO BE MEASURED FROM THE NEAREST POINT TO WHICH THE LINE SAGS OR SWINGS. * ADDITIONAL 0.5m CLEARANCE TO BE ADDED TO ALL BARE CONDUCTOR CLEARANCES FOR BUSH FIRE PRONE AREAS.	'YES' FOR URBAN & 'NO' FOR RURAL

**NOTES:**

- TREES MUST BE PRUNED TO MAINTAIN THE MINIMUM CLEARANCE; FOR TREES > 3m: TREE HEIGHT AND BRANCHES MUST BE PRUNED TO A HEIGHT EQUAL TO THE CLEARANCE FROM THE POLE.
- SAG MUST BE CHECKED WHEN LINE IS OPERATING AT ITS DESIGN TEMPERATURE RATING.
- OVERHEAD LINES LOCATED IN BUSHFIRE PRONE AREAS OR BUSHFIRE ABATEMENT ZONES:
  - BRANCHES MUST NOT OVERHANG IN "NO TREE ZONE" AND THE AERIAL LINES MUST BE CLEAR TO SKY.
  - VEGETATION AND HEAVY FUEL MATERIALS MUST BE SUFFICIENTLY CLEAR OF POLES TO PERMIT INSPECTION AND LIMIT DAMAGE DURING BUSHFIRE.
  - MINIMUM CLEARANCE OF 3m MUST BE MAINTAINED AROUND THE POLE IN ALL DIRECTIONS AND TO BE CONSIDERED AS NO TREE ZONE.
- ALL PRUNING MUST COMPLY WITH AS4373 PRUNING OF AMENITY TREE STANDARD.
- WELL MAINTAINED GRASS AND SHRUBS UP TO 1m HEIGHT ARE ALLOWED IN NO TREE ZONE.

Drawn: K. Vedanti		Designed: K. Vedanti				Scale: N.T.S	Date: 28/06/2022	Sheet No:
Checked: N. Azizi		29/06/2022				Work Pack No:	File:	
Approved: W. Cleland		29/06/2022		<b>VEGETATION CLEARANCE REQUIREMENTS FOR EVOENERGY LOW VOLTAGE UG &amp; OH NETWORK ASSETS IN NSW</b>		Status: <b>Current</b>		
Project No:						<b>43</b>		<b>3811-021</b>

NSW – ISSC3 Clear to sky



Drawing 4

## DICTIONARY

1. aerial line means an aerial cable, aerial conductor or aerial service line
2. built-up urban area has the same meaning as the built-up urban area for the purposes of the Tree Protection Act 2005 section 7: Territory land excluding broad acre, hills, ridges and buffers, forestry, river corridors, rural and water features
3. lopping – see AS4373 Pruning of Amenity Trees, means the practice of cutting branches or stems between branch unions or internodes
4. non-urban land means land outside the built-up area of the ACT to which the Non-Urban Zones of the Territory Plan apply. It includes those areas which are designated nature reserves, national parks as well as rural leased land
5. reduction pruning – see AS4373 Pruning of Amenity Trees, means the removal of the ends of branches to lower internal lateral branches or stems in order to reduce the height and/or spread of the tree
6. relevant legislation for this code includes the Nature Conservation Act 2005
7. and the Planning and Development Act 2007
8. rural lease - see the Planning and Development Act 2007, s 234, means a lease granted for rural purposes or purposes including rural purposes
9. rural leased land means land over which a rural lease has been granted
10. topping – see AS4373 Pruning of Amenity Trees, means reducing the height of a tree through the process of lopping
11. unleased territory land means land managed by Transport Canberra and City Services (TCCS) or another ACT Government directorate
12. urban land means land within the built-up urban area
13. utility – see the Utilities Act 2000, Dictionary, means a person licensed to provide a utility service
14. OTL – Overhead Transmission Line
15. OHVEL – Overhead High Voltage Electric Line
16. OLVEL – Overhead Low Voltage Electric Line
17. SL – Service Line