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# **Cardinia Shire Council Electric Line Clearance Management Plan**

**2024 – 2025**

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## Document Control

Title: Cardinia Shire Council Electric Line Clearance Management Plan 2024–2025

Authorised by: Peter Benazic, General Manager Infrastructure & Environment

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Version	Date	Author	Reason/Description
1.0	27 March 2024	Darren Bennett	Original document

Plan approved by	Date approved	Signed by	Signature
Peter Benazic	<b>6<sup>th</sup> May 2024</b>	Peter Benazic	

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## Regulation 9(2) Preparation and submission of management plans

Before 31 March in each year, a responsible person must ensure that a management plan relating to compliance with the Code for the next financial year is prepared.

The new document will be submitted to the General Manager Infrastructure & Environment for review and authorisation prior to the 31st March each year. When the new annual Plan is approved, Council will upload the Plan to the website and at the same time, remove the superseded Plan, not later than July 1 each year.

To ensure that the Plan is prepared by 31 March every year, the task of plan preparation is included in Council's Operations department annual Calendar of Events program and assigned to the Open Space Arborist for the month of March every year.

The following sections are as per Regulation 9(4) of the Electricity Safety (Electric Line Clearance) Regulations 2020

### 9(4)(a) Name, address and telephone number of the responsible person

Name:	Cardinia Shire Council
Address:	20 Siding Avenue, Officer 3809
Telephone No:	1300 787 624
Name of Chief Executive Officer:	Carol Jeffs

### 9(4)(b) Name, position, address and telephone number of the individual who was responsible for the preparation of the management plan

Name:	Peter Benazic
Position:	General Manager Infrastructure & Environment
Address:	20 Siding Avenue, Officer 3809
Telephone No:	1300 787 624

### 9(4)(c) Name, position, address and telephone number of the persons who are responsible for carrying out the management plan

Name:	Darren Bennett
Position:	Open Space Arborist
Address:	18a Purton Road, Pakenham 3810
Telephone No:	1300 787 624

### 9(4)(d) The telephone number of a person who can be contacted in an emergency that requires clearance of an electric line that the responsible person is required to keep clear of trees

Cardinia Shire Council After Hours	
Emergency Telephone No:	1300 787 624

#### **9(4)(e) The objectives of the management plan**

The objectives of the management plan are to document details required under the Electricity Safety (Electric Line Clearance) Regulations 2020, including the policies and processes to be used by Council to:

- Ensure Electrical Safety
- Provide public and workplace safety
- Comply with Code of Practice for Electric Line Clearance 2020
- Protection of areas of important vegetation
- Provide vegetation management to maximise environmental and environmental values
- Provide community satisfaction
- Ensure reliability of supply
- Minimise fire starts
- Ensure that regular consultation with the CFA is undertaken to check that HBRA and LBRA boundaries are correct.

#### **9(4)(f) The land to which the management plan applies (as indicated on a map)**

This plan covers all Council managed trees located within road reserves, parks, gardens, facilities surrounds, and other public open spaces managed by Council in the declared areas of Beaconsfield, Emerald, and Pakenham. See Appendix 5 for plans of the relevant areas.

The Bushfire Risk Area Boundary information is reviewed in consultation with the CFA. This process occurs every 12 months with the preparation of the Plan.

#### **9(4)(g) Any hazardous bushfire risk areas and low bushfire risk areas in the land referred to in paragraph (f) (as indicated on the map);**

The most recent version of the High Bushfire Risk Areas (HBRA) and Low Bushfire Risk Areas (LBRA) areas are provided in Appendix 5 as obtained and updated from the Country Fire Authority (CFA). The Bushfire Risk Area maps are developed by the CFA through consultation with representatives from local government, fire services, public land managers, utilities, and community groups. The maps identify those assets at risk from bushfire and the level of associated risks. Both High and Low Bushfire Risk Areas have been identified within the declared area.

#### **9(4)(h) each area that the responsible person knows contains a tree that the responsible person may need to cut or remove to ensure compliance with the Code and that is;**

##### **i. Indigenous to Victoria**

Council define Indigenous Vegetation, for the purpose of the Electricity Safety (Electric Line Clearance) Regulations 2020, as Vegetation that is indigenous to the Area. Our list of trees that are indigenous to the Cardinia region are listed in the table in Appendix 1.

##### **ii. Listed in a planning scheme to be of ecological, historical or aesthetic significance:**

The Cardinia Shire Council has an Environmental Significance Overlay (ESO 42.01), a Vegetation Protection Overlay (VPO 42.02) and a Significant Landscape Overlay (SLO 42.03) within the declared areas that requires a permit to remove, destroy or lop vegetation.

A permit exemption for ESO 42.01, VPO 42.02 and SLO 42.03 is listed for any action which is necessary to keeping vegetation clear of, or minimising risk of bushfire ignition from, an electric line in accordance with a code of practice prepared under Part 8 of the Electricity Safety Act 1998

Information on these planning schemes can be found at;

<https://www.planning.vic.gov.au/schemes-and-amendments/browse-planning-scheme/planning-scheme?f.Scheme%7CplanningSchemeName=Cardinia>

**iii. A tree of cultural or environmental significance:**

At present Cardinia Shire Council is not aware of any trees in the shire being listed on the Victorian Aboriginal Heritage Register, or any threatened flora or fauna which may be affected by the implementation of this Plan. If any such situations are identified, they will be reviewed and listed in future issues of the plan.

**9(4)(i) The means which the responsible person will use to identify a tree of a kind specified in paragraph (h)(i), (ii) or (iii);**

Tress can be identified by the following resources:

**Table 1: Contacts for consultation**

Location of:	Organisation	Method
Indigenous trees	Cardinia Shire Council	Refer to tree list: Appendix 1 – Indigenous Trees
Planning scheme	DELWP	<a href="https://planning-schemes.delwp.vic.gov.au/schemes/cardinia">https://planning-schemes.delwp.vic.gov.au/schemes/cardinia</a>
Cultural	The Victorian Heritage Database	<a href="http://vhd.heritage.vic.gov.au/vhd/heritagevic">http://vhd.heritage.vic.gov.au/vhd/heritagevic</a>
Cultural	Victorian Aboriginal Heritage Register	<a href="https://www.aboriginalvictoria.vic.gov.au/victorian-aboriginal-heritage-register">https://www.aboriginalvictoria.vic.gov.au/victorian-aboriginal-heritage-register</a>
Environmental	Flora or fauna as listed as threatened with a status of 'vulnerable,' 'endangered' or 'critically endangered'	<a href="http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora">http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora</a>  <a href="http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl">http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl</a>
Environmental	DELWP - Threatened Invertebrate Fauna List	<a href="http://www.depi.vic.gov.au/__data/assets/pdf_file/0018/210438/Advisory_List_of_Threatened_Invertebrate_Fauna_2009_FINAL_Sept_2009.pdf">http://www.depi.vic.gov.au/__data/assets/pdf_file/0018/210438/Advisory_List_of_Threatened_Invertebrate_Fauna_2009_FINAL_Sept_2009.pdf</a>  <a href="http://www.depi.vic.gov.au/__data/assets/pdf_file/0019/210439/Advisory-List-of-Threatened-Vertebrate-Fauna_FINAL-2013.pdf">http://www.depi.vic.gov.au/__data/assets/pdf_file/0019/210439/Advisory-List-of-Threatened-Vertebrate-Fauna_FINAL-2013.pdf</a>

Cardinia Shire Council will also seek specialist advice (where necessary) to determine if any species (or habitat thereof) or communities on the threatened flora or fauna advisory lists or listed under the Flora and Fauna Guarantee Act 1998 are endangered by works to prune or remove trees.

Cardinia Shire Council will inform employees, contractors, and other agencies involved in electrical line clearance works, of the location of trees within the municipality that are known to have ecological, historic, aesthetic, cultural or environmental significance. A copy of the Plan and this information will be provided annually.

Cardinia Shire Council will also continue to work with relevant agencies to ensure the aesthetics and viability of significant trees are not compromised by line clearance works.

As part of the preparation for the Plan, Cardinia Shire Council will consult with all relevant bodies and standards to ensure all organisational procedures are current.

**9(4)(j) The management procedures that the responsible person is required to adopt to ensure compliance with the Code, which must:**

- I. Include details of the methods to be adopted for managing trees and maintaining a minimum clearance space as required by the Code:**

**Table 1: Number of trees near or above powerlines**

<b>Asset Type:</b>	<b>No.</b>
ABC	14
HV	29
LV & HV	262
LV	225
Service Wire	78
<b>Total:</b>	<b>608</b>

The contract explicitly states that line clearance distances must be maintained at all times. This will be audited throughout the contract and any non-compliance, reported from any source, including the general public, Cardinia Shire Council staff or electricity distribution business staff will be emailed to the contractor and actioned immediately. Confirmation that the work has been completed will be recorded by email and stored on Council's computer systems. The current pruning cycle is an annual cycle. This means all trees in Cardinia Shire declared area that require pruning will be pruned every year. Some trees may be pruned more frequently by request from residents, other authorities or if growth is exceptional and re-enters the clearance space.

Cardinia Shire Council manages the trees through a combination of a proactive program, reactive maintenance works and proactive tree removals.

**Proactive Program**

Is a triennial program and inspects all trees in the Cardinia Shire Council's declared areas. Cardinia Shire Council is divided into 3 zones, with each zone being completed within twelve months. In addition, all trees in or around powerlines are assessed annually for a proactive annual prune.

As Cardinia Shire Council declared areas contain HBRA areas, the proactive inspections in HBRA areas are completed by 30 April of each year, with works completed prior to 30 October or the declaration of Bushfire season of each year.

- All trees under or adjacent to power lines are to be inspected as part of the proactive annual pruning cycle.
- All inspections are to be completed by a suitably qualified arborist.



- Where pruning is required, the extent of pruning will maintain minimum clearances and provide additional clearance as necessary to prevent regrowth from entering the clearance space between pruning cycles and manage the sag and sway of electrical conductors for spans greater than 45 meters in length.
- Works are initially focussed on achieving High Voltage clearances and additional contractor resources will be engaged to undertake live line pruning where required.
- A quality audit of all trees is undertaken by a Council officer for each completed zone to ensure compliance with the Electric Safety (Electric Line Clearance) Regulations 2020 and AS 4373-2007.
- The completed audit includes assessing an allowance for regrowth for the annual pruning cycle.
- Non-compliant trees in HBRA non-declared areas will be identified and forwarded to the Network Operator's vegetation management contractor to be completed within 30 days.

Council discusses the declared fire season dates with the CFA and Spencer Few, ORP Liaison Officer Ausnet Solutions, (03 9238 6353, [spencer.few@ausnetservices.com.au](mailto:spencer.few@ausnetservices.com.au)). As the program above indicates, the contractor prioritises completing HBRA before the declared fire season.

### **Reactive maintenance**

Works occur where trees are identified as being non-compliant outside the normal maintenance regime, these trees can be reported to Council customer service 1300 787 624, and then referred to the Arborist or delegated officer for assessment of work requirements and allocation to Councils current contractor.

- Non-urgent reactive works are to be completed within thirty (30) business days of the works being allocated, unless another timeframe is determined by the Council Arborist at the time of allocation.
- In situations of high priority, the primary aim is to respond within one (1) hour and make the site safe within one hour or twenty-four (24) hours of notification depending on the situation. Additional works will be scheduled as required.
- All works are recorded in the Cardinia Shire Council's document management system.
- Trees will be pruned to the minimum clearances outlined in the Electric Safety (Electric Line Clearance) Regulations 2020. All pruning should conform to AS 4373-2007 – Pruning of Amenity Trees as far as practicable. If this is not possible the tree shall be referred to the Council Arborist for alternative management solutions as per Section 9(3)(j) of the Plan.

### **Tree removal**

Tree removal may occur if the tree is of immediate risk in terms of the tree or branches falling, or if the growth rate of an individual tree will impact on the clearance space in less than one year. Small sapling trees may also be removed that have grown since the last pruning cycle to assist with long-term vegetation management under the electric lines. Trees may also be removed if the proposed pruning works will cause major disfigurement, instability, decline or death of the tree. Removal will only take place after inspection and recommendation by a qualified arborist.

Unsuitable species are identified and replaced, a long-term strategy encourages appropriate planting under and surrounding electric lines so that the vegetation does not encroach into the clearance space. In many cases, residents can plant on roadside reservations and plantations but must contact Council prior to undertaking works to ensure that it is appropriate and will not cause any future problems. Council will regularly review its pruning cycles based on vegetation significance categories and tree data gathered from the inspection, works and audit records.

All decisions made will be made with regard to the Council's Significant Roadside Vegetation Strategy, Cardinia Shire Council's Significant Tree Study and Council's Streetscape Policy.

**(ii) for the purposes of determining a minimum clearance space in accordance with Division 1 of Part 3 of the Code -**

**(A) must specify the method for determining an additional distance that allows for conductor sag and sway;**

Council will maintain minimum clearances in compliance with the clearance graphs in Schedule 2 of the Code (graphs 1, 2, 3 & 4 (LBRA) and 5 & 6 (HBRA)).

In the Declared Area uninsulated spans over 100m in LBRA or 45m in HBRA in length will require additional allowance for sag and sway. The number of spans affected is likely to be minimal. These spans will be mapped in Council's GIS system. Where a span requiring additional allowance for sag and sway is identified the sag and sway allowances provided by Ausnet Solutions will be applied.

Contractors are responsible for pruning to achieve the clearance space, where the contractor is uncertain about the span distance, they contact Council's Open Space Arborist who will consult with AusNet Services in determining the span distance and minimum clearance.

Cardinia Shire Council Open Space Arborist, will regularly contact Spencer Few, ORP Liaison Officer Ausnet Solutions, (03 9238 6353, [spencer.few@ausnetservices.com.au](mailto:spencer.few@ausnetservices.com.au)) distribution business personnel to determine additional sag and sway allowances. Council provides the additional distance information to the contractor who then performs the works. Council records these sag and sway calculations in Council's document management system where they will be maintained for at least five years.

Cardinia Shire Council Open Space Arborist is responsible for implementing the above processes. The Coordinator Open Space is responsible for verifying that processes are implemented. A random audit of the works will be undertaken by Council Arborist and a full audit once programmed works are complete to ensure that the required works are occurring as a result of the above process. The process will be reviewed annually.

**(B) may provide for different additional distances to be determined for different parts of an electric line span;**

Council refers to Schedule 2 of the Code to determine additional distances required for different parts of an electric line span.

Where it has been determined that additional clearance is required for individual trees, this information will be recorded against the tree asset in GIS records for future reference. This will ensure any Contractor completing works is aware of the additional requirements.

**9(4)(k) The procedures to be adopted if it is not practicable to comply with the requirements of AS 4373 while cutting a tree in accordance with the Code.**

Cardinia Shire Council requires all staff and contractors pruning trees within the shire to comply with AS4373 Pruning of Amenity Trees (AS4373) as far as is reasonably practicable.

Reasonably practicably in relation to AS4373 means that which is, or was at a particular time, reasonably able to be done in relation to ensuring continued tree health and future tree safety, taking into account and weighing up all relevant matters including:

- Will the action create a defect, hazard, loss of tree health, canopy cover or aesthetic value in the present or future,
- What will the impact be on the tree or future safety of the public,
- What the person concerned knows, or ought reasonably to know about:
  - The hazard or the risk – must have adequate knowledge to determine the hazards risks,

- Ways of eliminating or minimising the risk – must have adequate knowledge in relation to alternative measures,
- Are other resources or techniques available to complete works to the standard, and
- does the cost required to complete works to the standard grossly outweigh the value of the tree.

Where pruning to AS4373 is not practicable the site or trees are to be referred to the Council Arborist Officer or a nominated Council Officer who holds a Certificate Level V or above in Arboriculture to make an assessment on whether it is reasonably practicable to deviate from AS4373.

Cardinia Shire Council ensures contractors are appropriately trained and aware of the principles of AS4373 by:

- Referencing the standard in its internal procedures,
- Referencing the standard in tender documents for contractors, ensuring contractors undertaking electric line clearance work have, at a minimum;
  - Certificate Level III in Horticulture and Arboriculture,
  - Certificate Level II in ESI – Power line Vegetation Control, and
  - 3 years industry experience that demonstrates understanding of AS 4373.

Where pruning to achieve clearance will not allow compliance with AS4373, Cardinia Shire Council may elect to:

- Increase the pruning frequency to minimise the required pruning,
- Remove scaffold/ parent limbs initially to minimise future required pruning,
- Investigate the potential for engineering solutions to facilitate compliance or an exemption, or
- Remove trees where the resulting pruning would leave trees unsuitable for retention.

Where trees are to be removed residents in the affected area are to be contacted in person or by a written notification card.

The process for selection of appropriate plant and equipment involves the following considerations:

- Access to site,
- Voltage of overhead conductors - equipment suitably insulated and tested,
- Configuration of equipment,
- Reach/ height of equipment, and
- Cutting tools proportional to material to be cut.

Once each of these points has been considered, the best fit for the task should be selected. Availability may also be a defining factor, where the best fit is not available other options may be considered, however must still be able to achieve acceptable pruning standards in a safe manner.

Cardinia Shire Council conducts zone audits throughout the programmed maintenance schedule to ensure compliance with AS4373 - 2007 and electric line clearance regulations.

- Audits are conducted within 30 days of zone completion
- Quality of cuts, appropriateness of pruning, clearance requirements and post site clean-up are reviewed,
- Feedback via the audit results is provided to teams,
- Any non-compliance identified through the post work audit process is reported to the Tree Contract Officer within 3 days of identification,

- Remedial pruning will be required within 14 days of identification to achieve conformance.

**9(4)(l) A description of each alternative compliance mechanism in respect of which the responsible person has applied, or proposed to apply, for approval under clause 31 of the Code.**

Cardinia Shire Council has not applied for and currently does not plan to apply for any alternative compliance mechanism under clause 31 of the Code.

**9(4)(m) The details of each approval for an alternative compliance mechanism that:**

**I. The responsible person holds.**

Not applicable

**II. Is in effect.**

Not applicable

**9(4)(n) A description of the measures that must be used to assess the performance of the responsible person under the management plan.**

To ensure that the aims and standards contained within this plan are achieved the following Key Performance Indicators (KPI) will be utilised to measure compliance with the ELCMP.

KPI	Measurement	%	Responsible Officer
Prepare plan by 31 March of 2024	ELCMP prepared by Due Date	100%	Coordinator Open space Maintenance
Submit the ELCMP to ESV within 14 Days when asked too	Upon receipt of a request from ESV- Coordinator Open space Maintenance informs General Manager Infrastructure and Environment of the request and a copy of the plan is forwarded within 14 Days of the request by ESV	100%	Coordinator Open space Maintenance and General Manager Infrastructure and Environment
Display a Copy of ELCMP on the website and have 'hardcopies' available for the Public	July 2024 have the current copy of the ELCMP displayed on the website and copies available at Civic Centre customer service	100%	Coordinator Open space Maintenance
All tree pruning staff (including contractors) must have the appropriate current qualifications before working within the No Go Zone near powerlines	Check pruning staff accreditation and maintain a copy of the training matrix no older than 6 months	100%	Coordinator Open space Maintenance
Pruning works must comply with A.S. 4373 Pruning of Amenity Trees	All pruning works must be pruned to the standard described in AS4373	100%	Coordinator Open space Maintenance
Programs are delivered within the prescribed timeframes	Pruning programs identified in the ELCMP must be delivered prior to 30 June 2025 Program pruning dates are monitored through contract meetings on a monthly basis	100%	Coordinator Open space Maintenance
OH&S audits are undertaken to ensure crews are working in a safe manner	During times when the pruning program is active, monthly OH&S audits are undertaken to ensure crews are working in a safe manner	100%	Coordinator Open space Maintenance
Quality Audits are undertaken to ensure pruning works are to the	During times when the pruning program is active, monthly quality audits are to be undertaken on the completed works	100%*	Coordinator Open space Maintenance

standards required in this ELCMP			
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\* Of all branches required to be cut within the clear zone, noting that large branches may qualify for an ESV exception.

**9(4)(o) Details of the audit processes that must be used to determine the responsible person's compliance with the Code**

Cardinia Shire Council undertake a number of various audits to verify compliance with the Code. As specified by council, it is a requirement that electric line clearance be audited by a suitably qualified inspector monthly with an expected compliance rate of 90% or greater, this is then communicated to the Responsible Person. Additionally, council performs in-house audits to monitor progress and compliance of its electric line clearance program.

Performance and expectation of the program is communicated through meetings with electric line clearance personnel on a case-by-case basis.

**9(4)(p) The qualifications and experience that the responsible person must require of the persons who are to carry out the inspection, cutting or removal of trees in accordance with the Code and the Electricity Safety (General) Regulations 2019.**

The Electrical Safety Rules for Vegetation Management work near overhead powerlines by non-electrical workers (Energy Safe Victoria) establishes the minimum standards to be used in addition to other occupational safety and health requirements, to enable safe vegetation management when in the vicinity of powerlines by persons not working for the asset owner but another responsible person. Training relevance for each electric line clearance personnel is managed via monthly reporting of training matrixes and kept records of licenses and lapse dates.

Table 2 Minimum qualifications for qualified persons undertaking ELC works at the Cardinia Shire Council

<b>Required Training and qualifications</b>	<b>Role</b>			
	<b>Assessor</b>	<b>EWP Cutter</b>	<b>EWP Observer</b>	<b>Ground Crew (chipper)</b>
Certificate II in ESI Powerline Vegetation Control – UET20319, including up to date refresher training (as per <a href="https://training.gov.au/Training/Details/UET20319">https://training.gov.au/Training/Details/UET20319</a> )	✓	✓	✓	
UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	✓	✓	✓	
UETTDREL13A Comply with sustainability, environmental and incidental response policies and procedures	✓	✓	✓	
UETTDREL14A Working safely near live electrical apparatus as a non-electrical worker	✓	✓	✓	
UETTDRCV23A Plan the removal of vegetation up to vegetation exclusion zone near live electrical apparatus	✓	✓	✓	
UETTDRCV27A Monitor safety compliance of vegetation control work in an ESI environment	✓	✓	✓	
AHCPCM201 Recognise plants	✓			
UETTDRCV33A Apply pruning techniques to vegetation control near live electrical apparatus		✓		
UETTDRCV24A Assess vegetation and recommend control measures in an ESI environment	✓			
Understand and adhere to AS 4373-2007 "Pruning of Amenity Trees"		✓		
AHCARB205A Operate and maintain chainsaw	✓	✓		
Understand and adhere to the 'Code of Practice on Electrical Safety for work on or near high voltage apparatus' or the Blue Book	✓	✓	✓	✓
Certificate III in Arboriculture AHC30816 or equivalent. Or be able to demonstrate suitable experience and be enrolled in the above qualification		✓		
UETTDRCV25A Use elevated platform to cut vegetation above ground level near live electrical apparatus		✓		
UETTDRRF03B EWP Rescue		✓	✓	
UETTDRRF08B EWP controlled descent and escape			✓	
FPIHAR2206B Operate a mobile chipper/ mulcher		✓	✓	✓
TLILIC0005 Licence to operate a boom-type elevating work platform & High Risk Work Licence (WP)		✓	✓	
Qualification in First Aid Level -1 (including CPR)		✓	✓	
RIIWHS302D - Implement traffic management plan; and RIIWHS205D - Control traffic with stop-slow bat				✓
Cardinia Shire Council - Electrical Line Clearance Induction	✓	✓	✓	✓

#### Training and experience expectations for a Suitably Experienced Arborist

	Work safely in the construction industry CPCCOHS1001A
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Suitably qualified arborist	Diploma of Arboriculture AHC50516 or higher with a minimum of three years of qualified experience including assessing trees
	Have completed Working safely near live electrical apparatus as a non-electrical worker - UETTDREL14A
	Cardinia Shire Council Electrical Line Clearance Induction

**9(4)(q) Notification and consultation procedures, including the form of the notice to be given in accordance with Division 3 of Part 2 of the Code;**

Council will notify the public of upcoming programmed works pertaining to electric line clearance 14 days prior to works commencing and no later than 60 days after publication, programmed works will be notified via the Council's website.

Notification of cutting or removal is performed as required in schedules 16,17 and 19 of the code

**9(4)(r) A procedure for the independent resolution of disputes relating to electric line clearance**

If a dispute arises during the process of consultation/negotiation between affected land owners and the Council, regarding proposed clearing/pruning/alternative construction activities the complaint shall be resolved at the lowest management level possible. If resolution is not possible the complaint shall be escalated to the next level of management. The preferred process of escalation is:

- Open Space Arborist
- Open Space Coordinator
- Manager Operations
- General Manager Infrastructure & Environment
- Chief Executive Officer, then
- Energy and Water Ombudsman Victoria

**(s) If Energy Safe Victoria has granted an exemption under regulation 11 relating to a requirement of the Code, details of the exemption or a copy of the exemption.**

No exemptions have been granted by Energy Safe Victoria.

## **Regulation 10 – Obligations relating to Management Plan**

10(1) This regulation applies in relation to the management plan that a responsible person is required to prepare under regulation 9.

10(2) The responsible person must provide a copy of the management plan to Energy Safe Victoria within 14 days after a written request from Energy Safe Victoria or such longer period as specified by Energy Safe Victoria in the written request.

10 (3) The responsible person, if requested in writing to do so by Energy Safe Victoria, must provide further information or material in respect of the management plan within 14 days after the written request or such longer period as specified by Energy Safe Victoria in the written request.

10(4) The responsible person must amend the management plan if instructed to do so in writing by Energy Safe Victoria within 14 days after the written instruction or such longer period as specified by Energy Safe Victoria in the written instruction.

10(5) The responsible person must not contravene a requirement of the management plan if the management plan is approved by Energy Safe Victoria.

10(6) The responsible person must ensure that a copy of the current management plan is published on the responsible person's Internet site.

A copy of Council's Electric Line Clearance Plan is available on the Cardinia Shire Council website

## **Regulation 11 – Exemptions**

Cardinia Shire Council has not applied for or been granted any exemptions under regulation 11.

## **Schedule 1 Part 2 Division 1 – Roles of Responsible persons**

### **3. Responsible person must keep minimum clearance space clear of trees**

A responsible person must ensure that, at all times, no part of a tree for which the person has clearance responsibilities is within the minimum clearance space for an electric line span.

### **4, 5, 6 & 7. Exceptions to minimum clearance**

No exception is requested or proposed by Cardinia Shire Council for period of this ELCM operation for clause 4, 5, 6 or 7.

### **8. Responsible person may cut or remove hazard tree**

Cardinia Shire Council ensures that all trees are assessed by a suitably qualified Arborist holding a minimum Certificate IV in Arboriculture, including the 'Assess Trees' module, or equivalent and 5 years of field experience in hazard tree assessment. Each assessment takes into consideration all foreseeable environmental and weather conditions and anticipated vegetation regrowth. If that assessment confirms the likelihood of contact with electric lines the tree will be pruned or removed or the threatening parts secured.

Cardinia Shire Council meets its obligations under Section 86B of the Electricity Safety Act 1998 (Vic) by undertaking an annual rural roadside audit. Works identified as high risk are GIS logged and maybe immediately secured or the task passed on to the responsible owner authority or distribution company.

Council Contractors are suitably qualified for assessment and pruning of tree limbs under power lines. After undertaking the urgent work the contractor is responsible for notifying all affected persons. The contractor will record the details of the work undertaken, including why, when, and where the cutting or removal was undertaken. A responsible person that undertakes urgent work must not remove or prune trees further than one meter from the minimum clearance space around electricity lines.

### **9. Clearance space for Electric lines See 9(4)(j)**

See Regulation 9(4)(j) above.

## **Division 2 – Manner of cutting and removing trees**

### **10 Cutting of tree to comply with Standard**

A responsible person cutting a tree under Division 1 must, as far as practicable, cut the tree in accordance with AS 4373 as published or amended from time to time. This is covered in regulation 9(4)(j).

### **11 Cutting or removal of indigenous or significant trees must be minimised**

Cardinia aims to reduce impacts on all vegetation by electric line clearance regardless of its status. Cutting or removal of significant or indigenous trees that the Shire is responsible for will only be performed when a suitably qualified arborist deems works are required to either maintain public safety or to make clear any portion of the tree that does not conform with the Code.

### **12 Cutting or removal of habitat for threatened fauna**

Council does not currently have records of any threatened fauna which may be affected by the implementation of this plan. Should threatened fauna be identified, all works on the tree/habitat are halted and Council's Arborist will arrange for Council's Environmental Sustainability Officer to inspect the site and provide advice. Council will consider options such as undertaking clearance works outside of the breeding season, delaying works until the fledglings have flown or, if not practical, translocating the fauna to a new environment.



**13 Restriction on timing of cutting or removal if notification is required**

This clause is not required for Cardinia Shire Council.

**14 Restriction on urgent cutting of trees**

This clause is not required for Cardinia Shire Council.

**15 Restriction on urgent cutting of trees**

This clause is not required for Cardinia Shire Council.

## **Division 3—Notification, consultation and dispute resolution**

**16 Responsible person must provide notification before cutting or removing certain trees**

Covered in Regulation 9(2) (q) of this management plan.

**17 Responsible person must publish notice before cutting or removing certain trees**

Covered in Regulation 9(2) (q) of this management plan.

**18 Responsible person must consult with occupier or owner of private property before cutting or removing certain trees**

Not applicable to Council

**19 Notification and record keeping for urgent cutting or removal**

Council maintains records of electric line clearance notifications and maintenance related work on its in-house systems.

## **Schedule 1 Part 2 Division 4 – Additional Duties of responsible persons**

**20 Duty relating to the safety of cutting or removal of trees close to an electric line.**

If staff or contractors have concerns about the safety of cutting or removal of a tree for which the Council has clearance responsibilities, the Council will consult:

<b>Business</b>	<b>Contact</b>	<b>Pone</b>	<b>Email</b>
AusNet Services	Spencer Few	03 9238 6353	spencer.few@ausnetservices.com.au

**21 Duty relating to assisting to determine the allowance for conductor sag and sway.**

Covered in regulation 9(3)(i)(ii) – Not applicable to Council

**22 Duties relating to management procedures to minimise danger**

Not applicable to Council

## Appendices

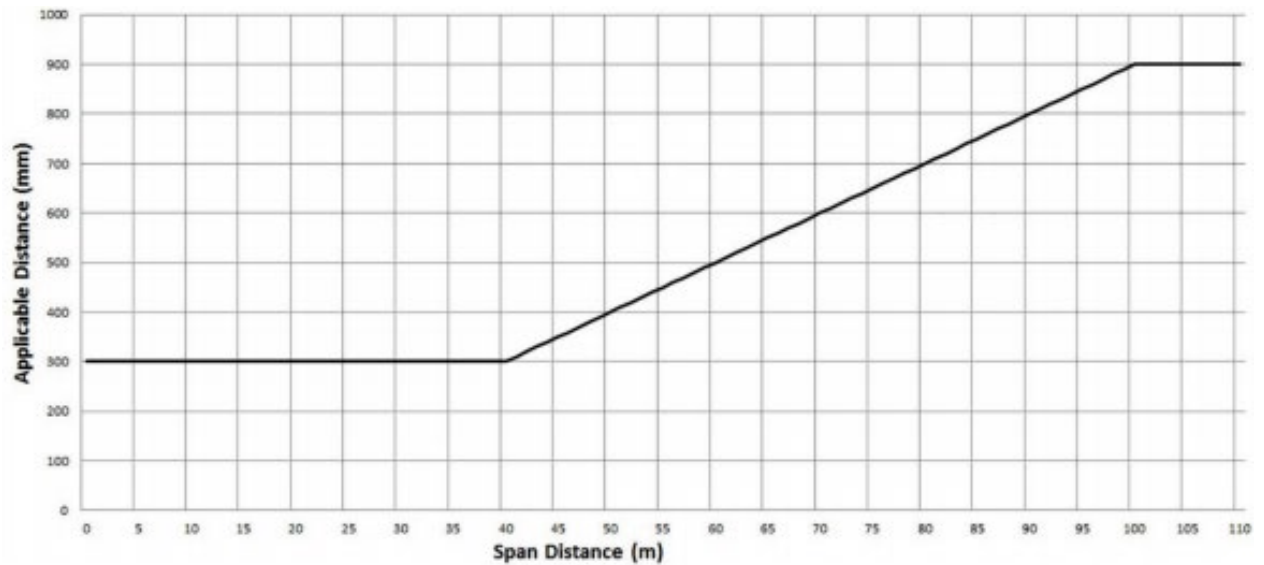
### Appendix 1 - Indigenous Trees

<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia implexa</i>	Lightwood, Hickory Wattle
<i>Acacia mearnsii</i>	Black Wattle
<i>Acacia melanoxylon</i>	Blackwood
<i>Allocasuarina littoralis</i>	Black Sheoak
<i>Banksia integrifolia</i> subsp. <i>Integrifolia</i>	Coast Banksia
<i>Eucalyptus baxteri</i>	Brown Stringybark
<i>Eucalyptus camaldulensis</i>	River Red Gum
<i>Eucalyptus cephalocarpa</i>	Silver-leaf or Mealy Stringybark
<i>Eucalyptus cypellocarpa</i>	Mountain Grey Gum
<i>Eucalyptus dives</i>	Broad-leaf Peppermint
<i>Eucalyptus fulgens</i>	Green Scentbark
<i>Eucalyptus goniocalyx</i>	Long-leaf Box, Bundy
<i>Eucalyptus obliqua</i>	Messmate
<i>Eucalyptus ovata</i> var. <i>ovata</i>	Swamp Gum
<i>Eucalyptus pauciflora</i> ssp. <i>pauciflora</i>	Snow Gum, White Sallee
<i>Eucalyptus radiata</i> ssp. <i>radiata</i>	Narrow-leaf Peppermint
<i>Eucalyptus regnans</i>	Mountain Ash
<i>Eucalyptus sieberi</i>	Silver Top
<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna or Ribbon Gum
<i>Eucalyptus viminalis</i> subsp. <i>Pryoriana</i>	Gippsland Manna Gum
<i>Hedycarya angustifolia</i>	Austral or Native Mulberry, Djelwuck
<i>Pittosporum bicolor</i>	Banyalla
<i>Pomaderris aspera</i>	Hazel Pomaderris
<i>Prostanthera lasianthos</i> var. <i>lasianthos</i>	Victorian Christmas Bush
<i>Rapanea howittiana</i>	Muttonwood

## Appendix 2 – Applicable distance for middle two thirds of a span of an electric line

Graph 1: Insulated Electric Lines in all Areas

Clause 3 and 24



### Graph 1 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 24 applies is calculated is as follows:

For  $0 < SD \leq 40$ ,  $AD = 300$  mm

For  $40 < SD \leq 100$ ,  $AD = 300 + ((SD - 40) \times 10)$

For  $100 < SD$ ,  $AD = 900$  mm

Where:

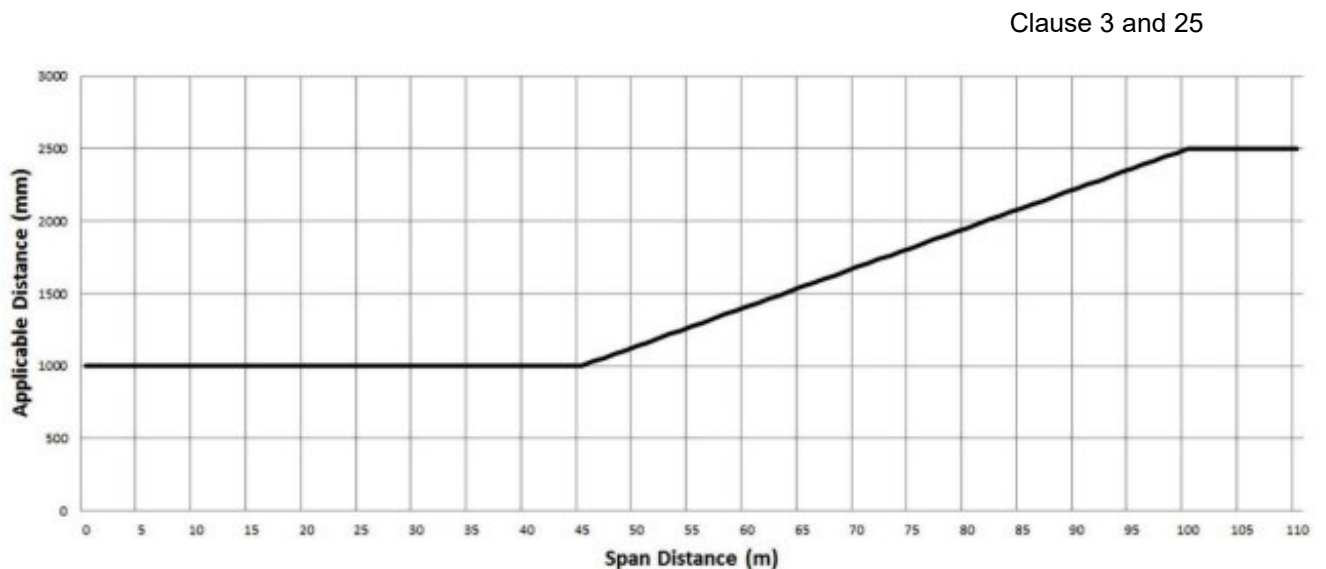
SD = Span Distance

AD = Applicable Distance

### Notes to Graph 1

- (1) The applicable distance includes allowances for sag and sway of the cable.
- (2) The minimum clearance space for a span of an electric line to which this Graph and clause 24 apply is partially illustrated in Figures 1, 2 and 3.
- (3) The applicable distance for the first and last sixths of a span of an electric line to which clause 24 applies is 300 millimetres.

### Graph 2: Uninsulated Low Voltage Electric Line in Low Bushfire Risk Area



### Graph 2 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 25 applies is calculated is as follows:

For  $0 < SD \leq 45$ ,  $AD = 1000$  mm

For  $45 < SD \leq 100$ ,  $AD = 1000 + ((SD - 45) \times (1500 \div 55))$

For  $100 < SD$ ,  $AD = 2500$  mm

Where:

SD = Span Distance

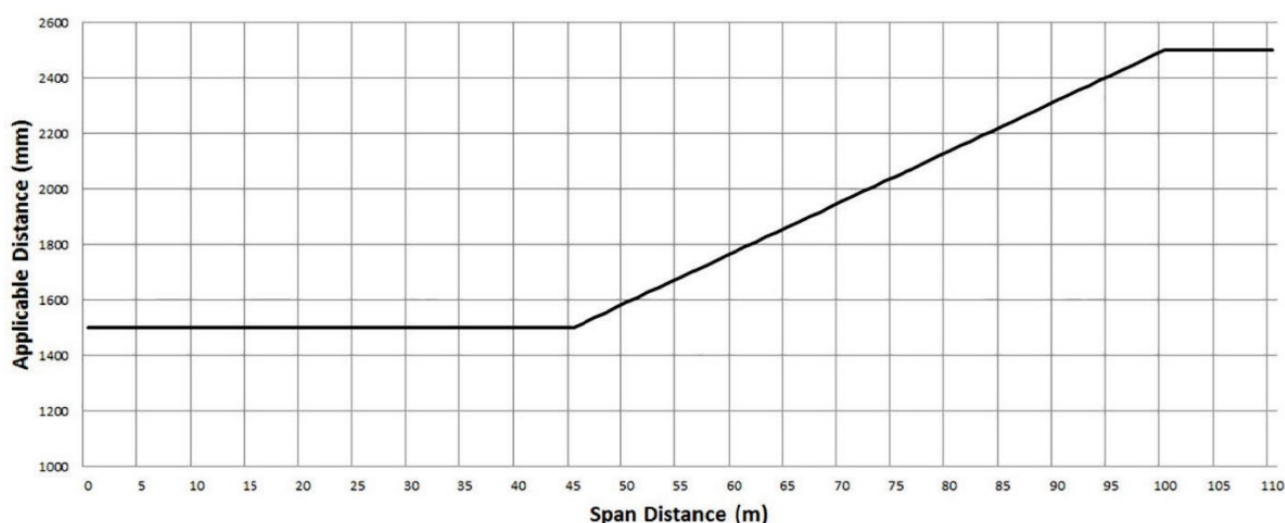
AD = Applicable Distance

### **Notes to Graph 2**

- (1) The applicable distance includes allowances for sag and sway of the cable for a span up to and including 100 metres in length.
- (2) For a span longer than 100 metres, the applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 25(2)(b)).
- (3) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance that allows for sag and sway of the cable (see clause 21(2)).
- (4) The minimum clearance space for a span of an electric line to which this Graph and clause 25 apply is partially illustrated in Figures 1 and 4.
- (5) The applicable distance for the first and last sixths of a span of an electric line to which clause 25 applies is 1000 millimetres.

### Graph 3: Uninsulated High Voltage Electric Line (other than a 66,000 volt electric line) in Low Bushfire Risk Area

Clause 3 and 26



#### Graph 3 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 26 applies is calculated is as follows:

For  $0 < SD \leq 45$ ,  $AD = 1500$  mm

For  $45 < SD \leq 100$ ,  $AD = 1500 + ((SD - 45) \times (1000 \div 55))$

For  $100 < SD$ ,  $AD = 2500$  mm

Where:

SD = Span Distance

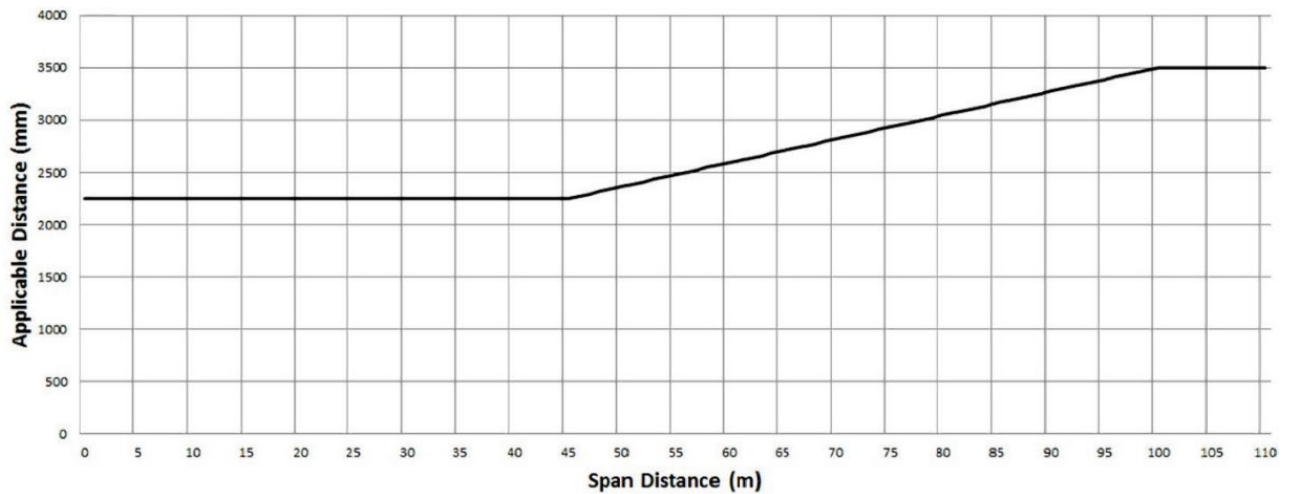
AD = Applicable Distance

#### Notes to Graph 3

- (1) The applicable distance includes allowances for sag and sway of the cable for a span up to and including 100 metres in length.
- (2) For a span longer than 100 metres, the applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 26(2)(b)).
- (3) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).
- (4) The minimum clearance space for a span of an electric line to which this Graph and clause 26 apply is partially illustrated in Figures 1 and 3.
- (5) The applicable distance for the first and last sixths of a span of an electric line to which clause 26 applies is 1500 millimetres.

#### Graph 4: Uninsulated 66,000 Volt Electric Line in Low Bushfire Risk Area

Clause 3 and 27



#### Graph 4 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 27 applies is calculated is as follows:

For  $0 < SD \leq 45$ ,  $AD = 2250$  mm

For  $45 < SD \leq 100$ ,  $AD = 2250 + ((SD - 45) \times (1250 \div 55))$

For  $100 < SD$ ,  $AD = 3500$  mm

Where:

SD = Span Distance

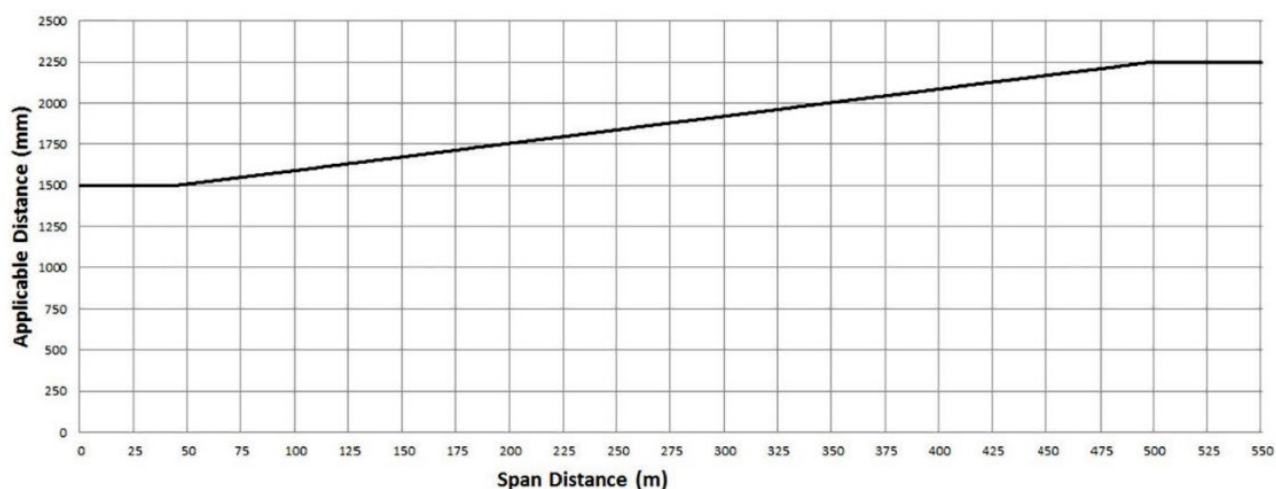
AD = Applicable Distance

#### Notes to Graph 4

- (1) The applicable distance includes allowances for sag and sway of the cable for a span up to and including 100 metres in length.
- (2) For a span longer than 100 metres, the applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 27(2)(a)(ii)).
- (3) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).
- (4) The minimum clearance space for a span of an electric line to which this Graph and clause 27 apply is partially illustrated in Figures 1 and 5.
- (5) The applicable distance for the first and last sixths of a span of an electric line to which clause 27 applies is 2250 millimetres.

**Graph 5: Uninsulated Low Voltage and High Voltage Electric Line (other than a 66,000 volt electric line) in Hazardous Bushfire Risk Area**

Clause 3 and 28



**Graph 5 Formula**

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 28 applies is calculated is as follows:

For  $0 < SD \leq 45$ ,  $AD = 1500$  mm

For  $45 < SD \leq 500$ ,  $AD = 1500 + ((SD - 45) \times (500 \div 303))$

For  $500 < SD$ ,  $AD = 2250$  mm

Where:

SD = Span Distance

AD = Applicable Distance

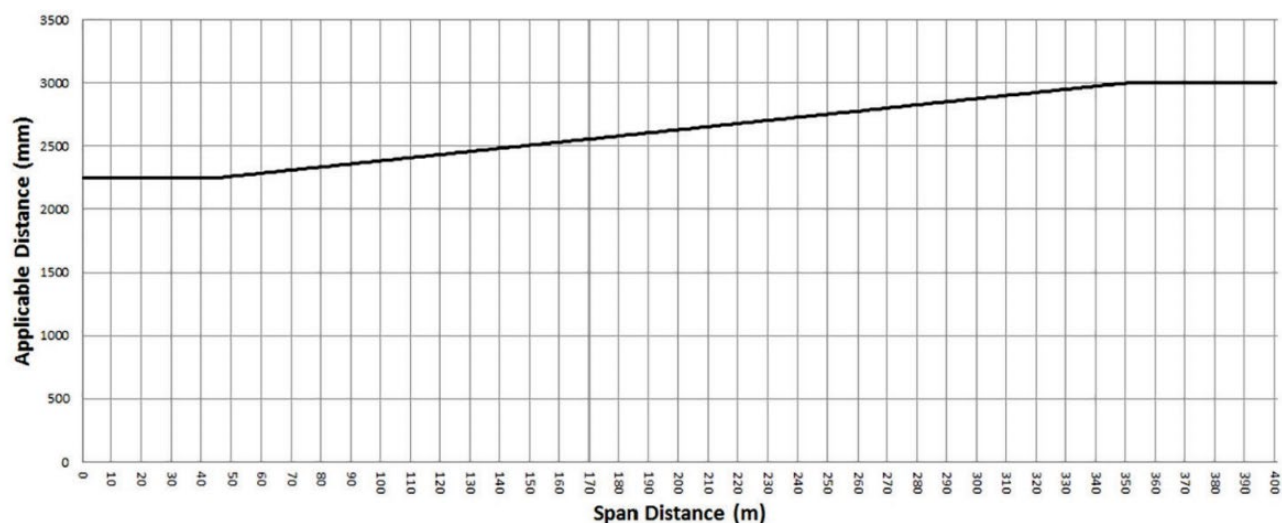
**Notes to Graph 5**

- (1) The applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance (see clause 28(2)(a)).
- (2) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).
- (3) The minimum clearance space for a span of an electric line to which this Graph and clause 28 apply is partially illustrated in Figures 1 and 5.
- (4) The applicable distance for the first and last sixths of a span of an electric line to which clause 28 applies is 1500 millimetres.



## Graph 6: Uninsulated 66 000 Volt Electric Line in Hazardous Bushfire Risk Area

Clause 3 and 29



### Graph 6 Formula

The formula by which the applicable distance for the middle two thirds of a span of an electric line to which clause 29 applies is calculated is as follows:

For  $0 < SD \leq 45$ ,  $AD = 2250$  mm

For  $45 < SD \leq 350$ ,  $AD = 2250 + ((SD - 45) \times (750 \div 305))$

For  $350 < SD$ ,  $AD = 3000$  mm

Where:

SD = Span Distance

AD = Applicable Distance

### Notes to Graph 6

- (1) The applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that
- (2) A distribution company, or an owner or operator of a railway supply network or a tramway supply network, must assist a Council, if requested, by determining the additional distance (see clause 21(2)).
- (3) The minimum clearance space for a span of an electric line to which this Graph and clause 29 apply is partially illustrated in Figures 1 and 5.
- (4) The applicable distance for the first and last sixths of a span of an electric line to which clause 29 applies is 2250 millimetres.

### Appendix 3 – Example of an internal post-pruning and compliance audit

Key Performance Indicator	Measurement Tool	Target Measurement	Rating	Category 1
Adherence to programme timing and delivery	Contractor reporting; Internal and/or external audit results	All within target adverse weather permitting ☒ 5% not complete ☒ 10% not complete ☒ 10% not complete	10 7.5 5 0	5.00
Timely advice to Contract Supervisor of programme / project / works slippage	Contractor reporting; Internal and/or external audit results Communications	Advice at time known Advice within 24 hours Advice within 1 working day Advice ☒ 1 working day	10 7.5 5 0	10.00
Works quality	Audit Complaints Feedback	Zero defects ☒ 4 defects ☒ 6 defects ☒ 6 defects	10 7.5 5 0	10.00
Staff training, qualifications and licensing (where applicable) up to date	Qualification certification Training certification Licenses Refreshers	Zero failures ☒ 4 failures ☒ 6 failures ☒ 6 failures	10 7.5 5 0	10.00
Reporting timeliness and quality	Report receipt  Corrections required	On time and zero corrections On time and <3 corrections Late and <3 corrections Late and >3 corrections	10 7.5 5 0	10.00
Complaints (upheld)	Complaints investigation outcome	Zero complaints 1 complaint 2 complaints >2 complaints	10 7.5 5 0	10.00
Safety (Works) related injuries (Incident Reporting)	Safety incidents and near misses recorded during period	Zero Incidents 1- 2 same / near miss repeated ☒ 3 near misses repeated or ☒ 1 incident	10 5 0	10.00
Completion of Risk Inspection / SWMS & OH&S documentation prior to commencement of works	Audit of compliance, reports submitted as per contract requirements	Compliant ☒ 1 Incomplete documentation  ☒ 1 incident of no documentation a works job	10 5 0	10.00
TOTAL MONTHLY SCORE				95.00



## **Tree pruning for power line clearance**

Cardinia Shire Council has contracted Citywide Service Solutions to inspect and prune street trees growing around power lines to ensure branches do not impact power supply.

All vegetation clearance work must be carried out in compliance with the *Electrical Safety Act 1998* which stipulate minimum safe clearance between tree and power lines to keep re-growth clear.

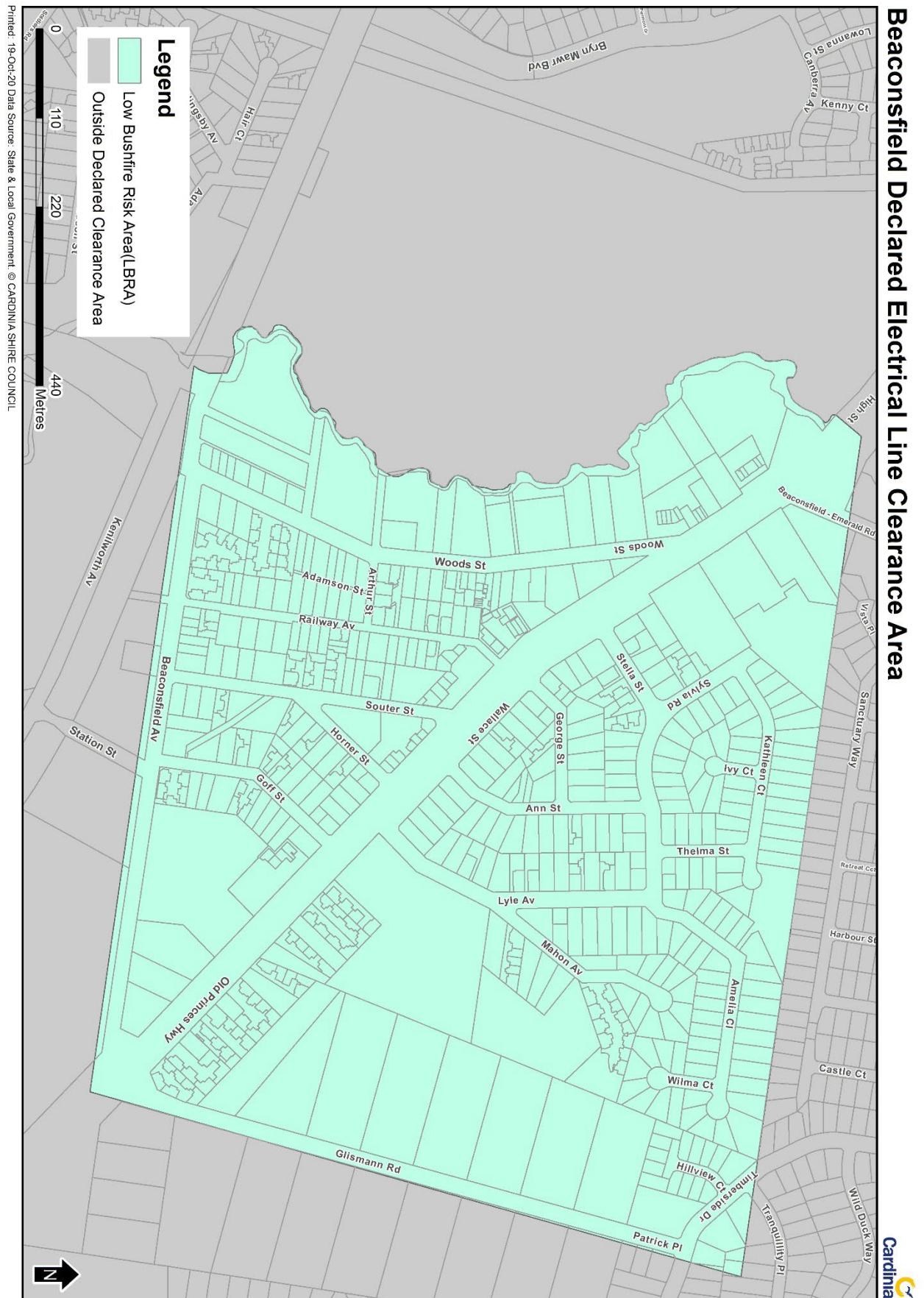
Council is responsible for managing power line clearance in its declared areas of Pakenham, Beaconsfield and Emerald. Information and maps showing Council's declared areas can be found in Council's *Electric Line Clearance Management Plan* (ELCMP) on Council's website [www.cardinia.vic.gov.au](http://www.cardinia.vic.gov.au)

Tree clearance will commence no sooner than 14 days from the date of this notice.

Works will be audited and will be compliant with Council's ELCMP.

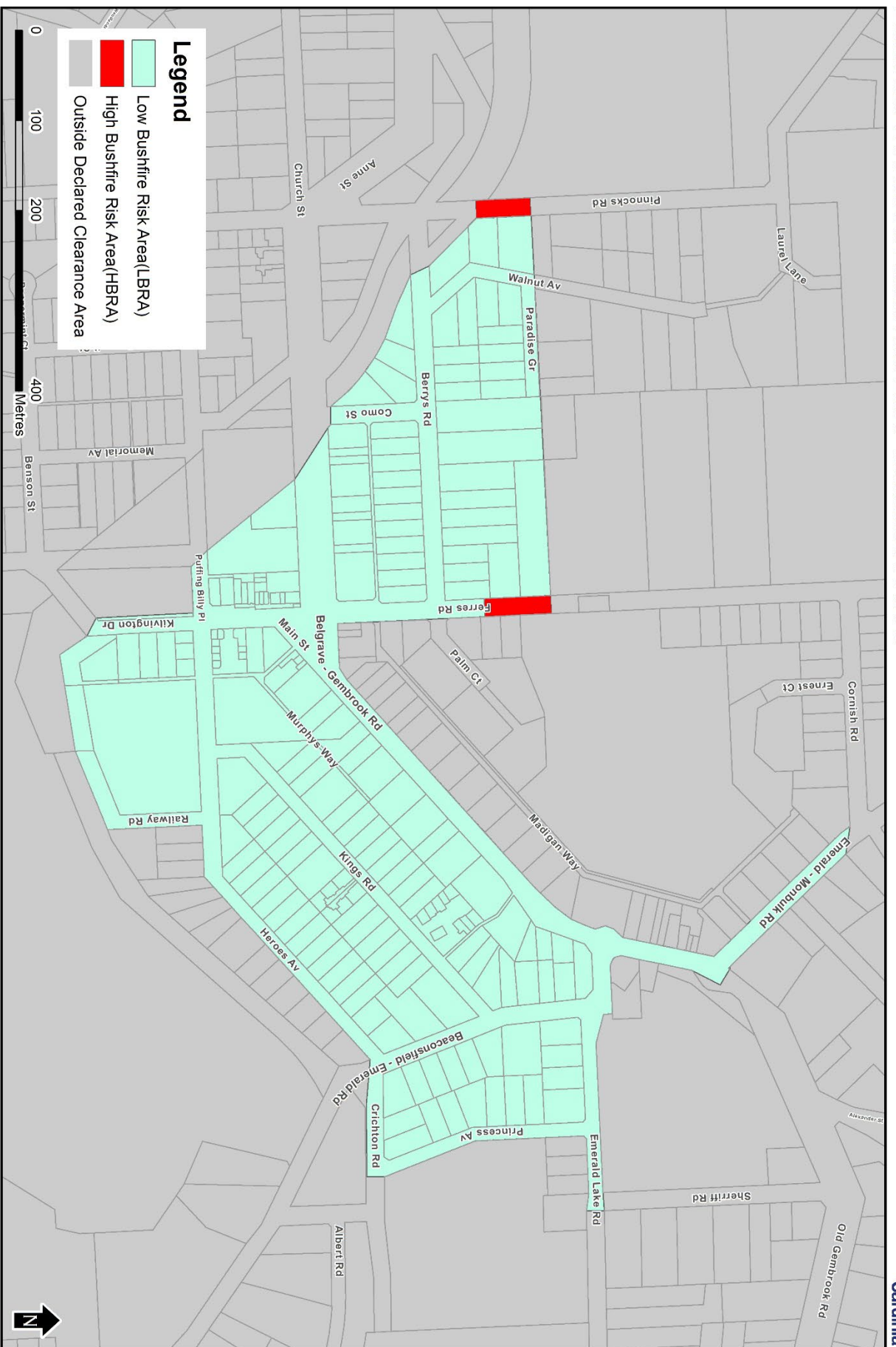
For more information contact Cardinia Shire Council on 1300 787 624

## Appendix 5 – Maps of Declared Areas



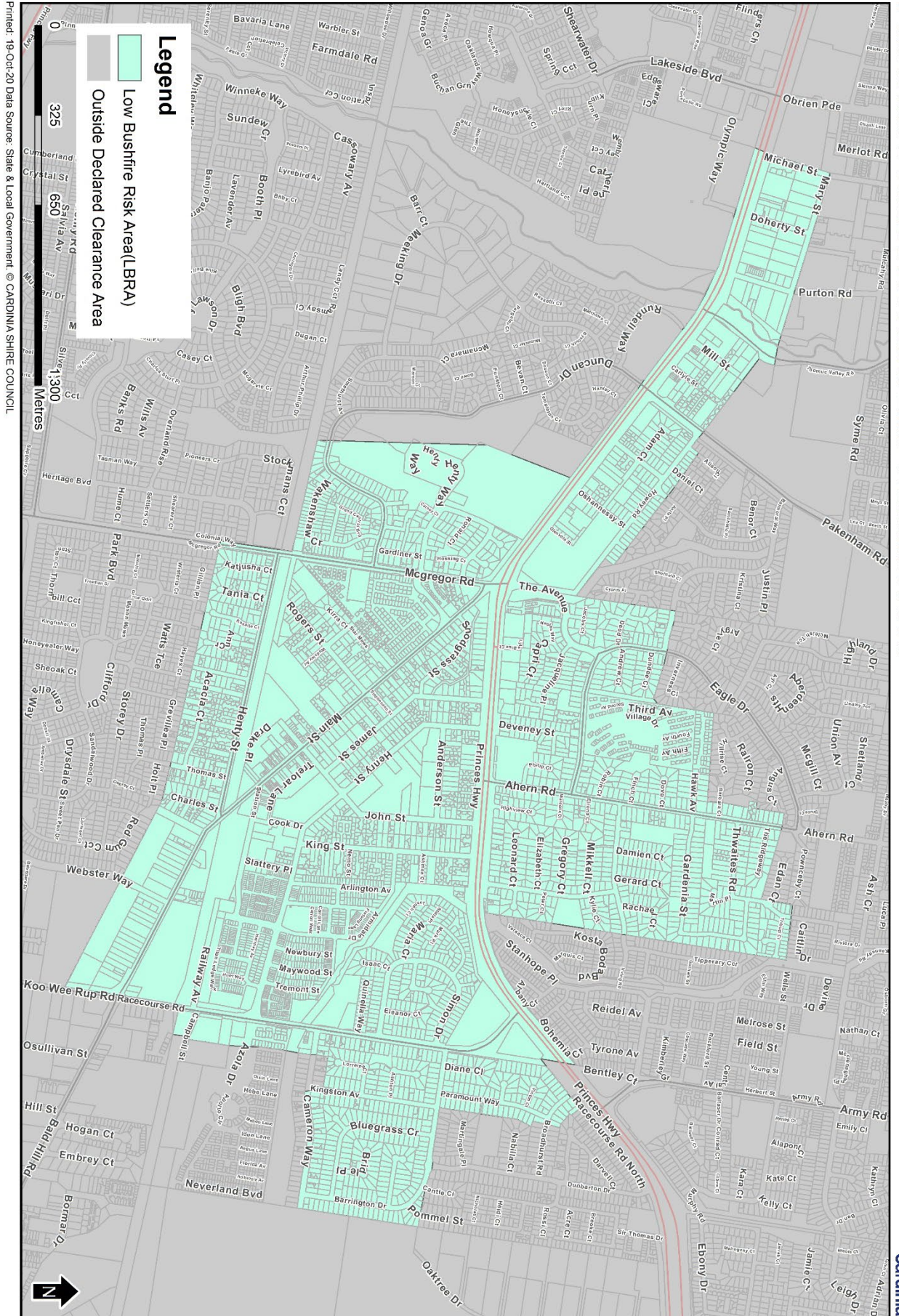


# Emerald Declared Electrical Line Clearance Area





# Pakenham Declared Electrical Line Clearance Area



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