

WHITEHORSE CITY COUNCIL
ELECTRIC LINE CLEARANCE
MANAGEMENT PLAN
July 2023 – June 2024

Submitted by:

Whitehorse City Council

Locked Bag 2

Nunawading, Victoria 3131

Authorised by:

Steven White

**Director Infrastructure** 

Signed Mha

Date: 3/4/2023

# Contents

1.0	PURPO	OSE	8
1.1	Obj	ective	8
2.0	Plan P	reparation	8
2.1	Ider	ntified Roles and Contact Information	8
2	.1.1	Whitehorse City Council – Responsible Person	9
2	.1.2	Responsibility for plan preparation	9
2	.1.3	Responsibility for plan implementation	9
2	.1.4	Emergency contact details	9
3.0	ELectr	ic line Clearance Management	9
3.1	Acc	uracy of management area	10
4.0	Tree p	rotection and Electric Line Clearance	10
4.1	Nat	ve Trees	11
4	.1.1	Protected fauna	11
4.2	Plar	ning Schemes for Trees of Ecological, Historical or Aesthetic Significance	11
4.3	Ider	ntification of Protected Trees	13
5.0	Achiev	ring ElectriC line Clearance compliance	14
5.1	Mai	nagement of the Urban Forest	14
5.2	Mai	ntaining ELC	15
5	.2.1	Cyclic Pruning	15
5	.2.2	Reactive ELC Works	18
5	.2.3	Hazardous Trees and Urgent Works	18
5	.2.4	Proactive Tree Management for ELC Compliance	19
5	.2.5	Procedure for works that cannot meet ELC Compliance and AS4373-2007	19
5.3	Exce	eptions and Alternative Compliance Mechanisms	20
5	.3.1	Current Exceptions and Alternative Compliance Mechanisms	21
5.4	Not	ification and Consultation	21
5	.4.1	Notification	21
5	.4.2	Consultation	22
5	.4.3	Dispute Resolution	22
6.0	Trainir	ng and qualifications	22
7.0	Monit	oring ELC Performance	24
7.1	Aud	iting Procedures	25
8.0	Attach	ment 1 – Determination of minimum Clearance space	27
8.1	Clau	ses 3 and 24 Graph 1— Insulated electric lines in all areas	27

	8.2	Clauses 3 and 25 Graph 2: Uninsulated Low Voltage Electric Line in Low Bushfire Risk Area 28	a
	8.3 electric	Clauses 3 and 26 Graph 3: Uninsulated High Voltage Electric Line (other than a 66,000 vol	
	8.4	Clauses 3 and 27 Graph 4: Uninsulated 66,000 Volt Electric Line in Low Bushfire Risk Area	30
	8.5 Than A	Clauses 3 and 28 Graph 5: Uninsulated Low Voltage and High Voltage Electric Line (Other 66 000 Volt Electric Line) in Hazardous Bushfire Risk Area	
	8.6	EXAMPLE IMAGES OF CLEARANCE SPACE	32
	8.7	Determination of Safe Approach Distances	35
9.	0 At	tachment 2 – Dispute resolution flowchart	37
10	).0 At	tachment 3 – Arbor Management Procedure 1.0	38
	10.1	Management Procedure	38
	10.1	.1 Exceptions provided within the Code of Practice	39
	10.1 insu		
	10.1 insu	.3 Clause 5 – Exception to minimum clearance space for small branches around lated low voltage electric lines	39
	10.1 unin	.4 Clause 6 – Exception to minimum clearance space for small branches growing under sulated low voltage electric lines in low bushfire risk areas	
	10.1 unin	.5 Clause 7 – Exception to minimum clearance space for structural branches around sulated low voltage electric lines in low bushfire risk areas	40
	10.1	.6 Half year review of performance measures for the responsible person	41
	10.1	.7 Closeout of identified non-compliances	41
11	0 At	tachment 4 – Fauna management Procedure	42
	11.1	Identifying Potential Habitat	42
	11.2	Communication	42
	11.3	Procedure Once Threatened Fauna is Identified	42
12	2.0 At	tachment 5 – ELC Audit & reworks via ForestREE	43
13	3.0 At	tachment 6 – OHS Compliance Audit template	44
14	I.O At	tachment 7 – Known native trees in ELC areas	45
15	5.0 At	tachment 8 – Example of ELC Notifications	46
16	5.0 At	tachment 9 – Overlay Maps	47
	16.1	Vegetation Protection Overlay (VPO)	47
	16.2	Significant Landscape Overlay (SLO)	48
	16.3	Heritage Overlay (HO)	49
	16.4	Environmental Significance Overlay (ESO)	50
17	'.0 El	ectric line overlay of Whitehorse City Council	51

17.1	Low Voltage power lines	51
17.2	High Voltage power lines (22 Kv)	52
17.3	Sub transmission 66Kv Power lines	53
18.0	Attachment 10 – National Trust Trees	54

# **List of Tables**

Table 1 Document cross reference with Regulations and Code	5
Table 2 Tree protection information	
Table 3: Management structure for ELCMP Delivery	14
Table 4: Streets on an Annual Cyclic Pruning Program	16
Table 5 Contact for Asset Owners within Whitehorse	22
Table 6 Minimum qualifications for qualified persons undertaking ELC works at Whitehorse City	
Council	23
Table 7 Electric Line Clearing KPI's	25
Table 8 Summary of internal audits	26
List of Figures	
Figure 1 Municipality map of Whitehorse City Council	10
Figure 2: Pre works investigation process.	
Figure 3: Cyclic Pruning Schedule for the life of this document.	17
Figure 4 Street tree in conflict with electric lines	

# **VERSION CONTROL**

Date	Role	Name	Title	Version	Comment
06/03/2023	Author	C. Walker	Arbor Coordinator	Draft	Update content with asset
					management system and
					exemptions list.
22/03/2023	Reviewer	S. White	Director –	Draft	Draft review and minor
			Infrastructure		amendments
03/04/2023	Author	C. Walker	Arbor Coordinator	Draft	Amendments completed
03/04/2023	Reviewer	S. White	Director –	Final	
			Infrastructure		

Table 1 Document cross reference with Regulations and Code

ELECTRICITY SAFETY (ELECTRIC LINE CLEARANCE) REGULATIONS 2020					
Sub Regulation/Sch	Description	Section and title			
reg. 9(2)	A responsible person that is not a major electricity company, before 31 March each year, must prepare a management plan relating to compliance with the Code for the next financial year.	2.1.1 Whitehorse City Council – Responsible Person			
reg. 9(4)	A responsible person must ensure that a management plan prepared under sub-regulation (2) or (3) specifies the following;	2.1.1 Whitehorse City Council – Responsible Person			
reg. 9(4)(a)	the name, address and telephone number of the responsible person;	2.1.1 Whitehorse City Council – Responsible Person			
reg. 9(4)(b)	the name, position, address and telephone number of the individual who was responsible for the preparation of the management plan;	2.1.2 Responsibility for plan preparation			
reg. 9(4)(c)	the name, position, address and telephone number of the persons who are responsible for carrying out the management plan	2.1.3 Responsibility for plan implementation			
reg. 9(4)(d)	the telephone number of a person who can be contacted in an emergency that requires clearance of a tree from an electric line that the responsible person is required to keep clear of trees;	2.1.4 Emergency contact details			
reg. 9(4)(e)	the objectives of the management plan;	1.1 Objective			
reg. 9(4)(f)	the land to which the management plan applies (as indicated on a map);	3.0 ELECTRIC LINE CLEARANCE MANAGEMENT; 3.1 Accuracy of management area			
reg. 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);	3.1 Accuracy of management area			
reg. 9(4)(h)(i)	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; or	4.1 Native Trees Attachment 6 – Native Trees			
reg. 9(4)(h)(ii)	(ii) listed in a planning scheme to be of ecological, historical or aesthetic significance; or	4.2 Planning Schemes for Trees of Ecological, Historical or Aesthetic Significance. Maps provided in Attachment 8			
reg. 9(4)(h)(iii)	(iii) a tree of cultural or environmental significance;	4.2 Planning Schemes for Trees of Ecological, Historical or Aesthetic Significance. Table 2			
reg. 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);	4.3 Identification of Protected Trees			
reg. 9(4)(j)	the management procedures that the responsible person will adopt to ensure compliance with the Code, which –	5.0 ACHIEVING ELECTRIC LINE CLEARANCE COMPLIANCE			
reg. 9(4)(j)(i)	(i) must include details of the methods to be adopted for managing trees and maintaining a	5.2 Maintaining Electric Line Clearance;			

	minimum clearance space as required by the Code; and	
reg. 9(4)(j)(ii)	for the purposes of determining a minimum clearance space in accordance with Division 1 of Part 3 of the Code –	5.2 Maintaining Electrical Line Clearance; Attachment 1; and Attachment 3
reg. 9(4)(j)(ii)(A)	(A) must specify the method for determining an additional distance that allows for conductor sag and sway; and	5.2 Maintaining Electrical Line Clearance; and Attachment 1
reg. 9(4)(j)(ii)(B)	(B) may provide for different additional distances to be determined for different parts of an electric line span;	5.2 Maintaining Electrical Line Clearance; and Attachment 1
reg. 9(4)(k)	the procedures to be adopted if it is not practicable to comply with the requirements of AS4373-2007 while cutting a tree in accordance with the Code;	5.2.5 Procedure for works that cannot meet electrical line clearance and AS 4373-2007
reg. 9(4)(I)	a description of each alternative compliance mechanism in respect of which the responsible person has applied, or proposes to apply, for approval under clause 31 of the Code;	5.3 Exemptions and Alternative Compliance Mechanisms
reg. 9(4)(m)(i)	the details of each approval for an alternative compliance mechanism that —  (i) the responsible person holds; and	5.3.1 Current Exemptions and Alternative Compliance Mechanisms
reg. 9(4)(m)(ii)	(ii) is in effect;	5.3.1 Current Exemptions and Alternative Compliance Mechanisms
reg. 9(4)(n)	a description of the measures that must be used to assess the performance of the responsible person under the management plan;	7.0 MONITORING ELECTRIC LINE CLEARANCE PERFORMANCE
reg. 9(4)(o)	details of the audit processes that must be used to determine the responsible person's compliance with the Code;	7.1 Auditing Procedures
reg. 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;	6.0 TRAINING AND QUALIFICATIONS
reg. 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;	5.4 Notification and Consultation
reg. 9(4)(r)	a procedure for the independent resolution of disputes relating to electric line clearance;	5.4.3 Dispute Resolution; and Attachment 2
reg. 9(4)(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	5.3.1 Current Exemptions and Alternative Compliance Mechanisms
sch.1,pt.2, divs. 1 (4)(5)(6)(7)	Exception clause 4, 5, 6, 7.	11.3 Exceptions provided in the Code of Practice

Document Reference: 23/33155

#### **DEFINITIONS**

Act - refers to the Electricity Safety Act 1998

CFA - Country Fire Authority

Code – Code of Practice for Electric Line Clearance as defined in the Schedule of the Electricity Safety (Electric Line Clearance) Regulations 2020

Competent Person - for the purposes of this document a Competent Person has the same meaning as the *Electricity Safety (General) Regulations 2019 r. 106* "a person is competent to perform a specified task if that person has acquired, whether through training, qualifications or experience (or a combination of these), the skills necessary to perform that task correctly"

Conductor – electric line or overhead power line or similar other (i.e. service wire)

Council - Whitehorse City Council

Declared Area – The area of the municipality where vegetation management around electric lines is the responsibility of Whitehorse City Council

DC – Distribution Company (or a Major Electricity Company or a transmission company)

DELWP - Department of Environment, Land, Water and Planning

ESV - Energy Safe Victoria

ELC - Electric Line Clearance

ELCMP - Electric Line Clearance Management Plan

FRV - Fire Rescue Victoria

FWO – Field Works Orders (issued by MEC)

HV - High voltage means a nominal voltage exceeding 1,000V AC or exceeding 1,500V DC

LBRA – Low Bushfire Risk Area - An area that a fire control authority has assigned a fire hazard rating of "low" under section 80 of the Act; or an urban area

LV – Low voltage means nominal voltage exceeding 50V AC or 120V DC but not exceeding 1000V AC or 1500V DC

MEC – Major Electricity Company (or a distribution company or a transmission company)

PTW – Permit to Work (issued by MEC)

Remove – in relation to a tree, means to remove the whole of a tree above ground level

Regulations – Electricity Safety (Electric Line Clearance) Regulations 2020

Responsible Person – As defined in Electricity Safety (Electric Line Clearance) Regulations 2020. The City of Whitehorse is the responsible person for this Plan

Suitably qualified arborist – an arborist who holds a minimum of: Certificate IV Arboriculture including Assess trees module; Certificate II in ESI – Powerline Vegetation Control; and 3 years of experience.

Qualified Person - for the purposes of this document a Qualified Person has the same meaning as the *Electricity Safety (General) Regulations 2019* r. 614 (3) "qualified person means a person who holds a current certificate that is approved by Energy Safe Victoria specifying satisfactory completion of a training course in tree clearing"

The Act – means the Electricity Safety Act 1998

UFS – Whitehorse City Council Urban Forest Strategy 2021 – 2031

#### 1.0 PURPOSE

This document was prepared to articulate the systems and processes in place at Whitehorse City Council for meeting the Electrical Line Clearance (ELC) responsibilities under the Act, Regulation (9(2)) and Code as well as the associated strategies and policies relating to the management of trees on council managed land.

#### 1.1 Objective

The objective of the plan is to document and communicate systems in place to:

- Maintain public safety and electrical safety
- Achieve compliance with the Electricity Safety (Electric Line Clearance) Regulations 2020 (Regulations) and the Code of Practice for Electric Line Clearance Code (Code), whilst protecting areas of important vegetation within Whitehorse.
- To minimise fire starts that may occur due to contact between vegetation and the electricity network.
- To assist in the provision of reliable electrical supply.
- To provide a safe working place for employees and Contractors.
- To protect areas of important vegetation which may be deemed as such on the basis of those
  areas listed in a planning scheme to be of ecological, historical or aesthetic significance or trees
  of cultural or environmental significance.
- To maintain community satisfaction with the manner in which the necessary works are carried out.
- To continuously improve the Plan and its implementation through the use of measurable key performance indicators.
- Facilitate future maximisation of the environment & amenity without infrastructure conflict.

#### 2.0 PLAN PREPARATION

Whitehorse City Council's Arbor Coordinator or delegated officer will review and amend the Plan annually. The amended document will be submitted to the Director Infrastructure for review and authorisation and then sent to ESV prior to the 31 March each year. The updated content is tracked between versions and recorded in the front of the document.

Preparation of this document is scheduled in the Parks and Natural Environment Administration calendar for the first week in February every year. The preparation of this document will include a review of all processes and procedures and their effectiveness in meeting the plan objectives.

The Arbor Coordinator will ensure the superseded document is removed from circulation (in print and Council's corporate website) no later than 30 June of each year and replaced with the new approved document. The Arbor Coordinator will, following a formal request, submit the Plan within 14 days of that request.

#### 2.1 Identified Roles and Contact Information

The following information identifies the role and contact details of the responsible person and roles associated with plan provision as required in the Regulations.

#### 2.1.1 Whitehorse City Council - Responsible Person

The principal organisational representative for Whitehorse City Council is the Chief Executive Officer, Simon McMillan.

Name: Whitehorse City Council

Address: 379-399 Whitehorse Road, Nunawading VIC 3131

Telephone No: (03) 9262 7500 Name of Chief Executive Officer: Simon McMillan

#### 2.1.2 Responsibility for plan preparation

The responsibility for preparation, review and authorisation of the Plan is the Director Infrastructure.

Name: Steven White

Position: Director Infrastructure

Address: 1 Ailsa Street, Box Hill South VIC 3128

Telephone No: (03) 9262 6222

Email Address: customer.service@whitehorse.vic.gov.au

#### 2.1.3 Responsibility for plan implementation

Implementation of the Plan is allocated to the following roles: Arbor Coordinator (Parks and Natural Environment Department); and the Team Leader Arbor Compliance. These roles ensure the Plan is applied throughout the municipality and that effective performance and compliance monitoring is maintained. Electrical line clearance works within the municipality are undertaken under contract and supported by Council's internal staff including two Inspection Arborists and a number of field staff.

Name: Callan Walker
Position: Arbor Coordinator

Address: 1 Ailsa Street, Box Hill South VIC 3128

Telephone No: (03) 9262 6222

Email Address: callan.walker@whitehorse.vic.gov.au

Name: Declan Keogh

Position: Team Leader Arbor Compliance
Address: 1 Ailsa Street, Box Hill South VIC 3128

Telephone No: (03) 9262 6222

Email Address: declan.keogh@whitehorse.vic.gov.au

#### 2.1.4 Emergency contact details

Whitehorse City Council has internal staff and contractors on call to manage emergency works relating to electric line clearance. In the case of an emergency contact the customer service number to be directed to the appropriate staff of representative.

Name: Customer Service Emergency Telephone No: (03) 9262 6333

#### 3.0 ELECTRIC LINE CLEARANCE MANAGEMENT

The entire municipality is a 'declared' LBRA (Victorian Government Gazette 49-14 December 1995, page 3552).

The municipality is located in the Eastern suburbs of Melbourne and encompasses approximately 64 square kilometres. It incorporates the suburbs of Balwyn North (partial), Blackburn North, Blackburn, Blackburn South, Box Hill North, Box Hill, Box Hill South, Burwood, Burwood East, Forest Hill, Mitcham, Mont Albert, North, Mont Albert, Nunawading, Surrey Hills, Vermont and Vermont South. The

municipality is bordered by the City of Manningham to the North, City of Maroondah and Knox to the East, Monash to the South and Boroondara City Council to the West. A map of the municipality is provided below in *Figure 1*.

#### 3.1 Accuracy of management area

Under Section 80 of the Electricity Safety Act 1998, the fire control authority assigns "low" and "high" fire hazard ratings for electric lines to parcels of land in the country area of Victoria. FRV is the authority for Whitehorse City Council. In order to ensure the boundaries of the declared area and the boundaries of LBRA are accurate, the Arbor Coordinator will, on a minimum annual basis, contact FRV to confirm the declared boundaries. The map will show the following:

- 1. Clearly defined municipal boundaries;
- 2. Clearly defined LBRA boundaries.

Any updates to declared LBRA boundary information will be included on Council's internal GIS database and made accessible to all staff.



Figure 1 Municipality map of Whitehorse City Council

#### 4.0 TREE PROTECTION AND ELECTRIC LINE CLEARANCE

The residents living within Whitehorse value the natural environment inherited from previous generations. Trees in streets, parks and reserves contribute to a 'web of greenways' across the municipality and provide direct and indirect environmental, health, social and economic benefits to the community. These indigenous, native and exotic trees are major components of the urban forest and are essential assets in a functional, liveable city. The strategies and policies in place to manage, protect and enhance our urban forest are provided in the Whitehorse Urban Forest Strategy 2021-2031, Interim

Urban Forest Policy and Tree Management Plan and are to be understood in collaboration with this Plan.

The following sections outline considerations and protections for trees within the municipality and is relevant to provisions of the regulations -reg.9(4)(h) – and s.1, pt. 2, divs. 2 of the code. Further information and relevant information sources are provided below in **Error! Reference source not found.**.

#### 4.1 Native Trees

For the purposes of this plan, native vegetation (including a native tree/s) is defined under the Victoria Planning Provisions – Clause 73.01 General Terms, as "Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses". A list of known native species present in ELC areas can be found at Attachment 6 – Native Trees. To ensure the trees are identified correctly Whitehorse City Council utilises suitably qualified arborists for inspections who are able to identify the relevant species.

Council is undertaking a data harvest, including point location, of all street trees and all trees within the declared area that may need to be cut or removed to ensure compliance with the Code. Once complete, maps of native trees (as well important trees as described in reg. 9(4)(h)(i), (ii) and (iii) of the regulations) present within electric line clearance areas will be included in the ELCMP. Council will maintain and update the data base maintained by the Parks and Natural Environment department. Identification of native trees is also provided on work orders issued to internal and contract staff undertaking ELC works.

At present Council is not aware of 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. Specific provisions for the protection and enhancement of threatened flora and fauna are addressed in Whitehorse's Urban Biodiversity Strategy (available at <a href="https://www.whitehorse.vic.gov.au/sites/whitehorse.vic.gov.au/files/assets/documents/Whitehorse-Urban-Biodiversity-Strategy.pdf">https://www.whitehorse.vic.gov.au/sites/whitehorse.vic.gov.au/files/assets/documents/Whitehorse-Urban-Biodiversity-Strategy.pdf</a> ).

#### 4.1.1 Protected fauna

Parts of the urban forest affected by this plan may contain protected fauna. Council is not currently aware of any threatened fauna which may be affected by the implementation of this plan however, there is a procedure in place should threatened fauna be identified during operations. The Procedure is provided in Attachment 4.

As part of the preparation for the Plan, Council will consult with all relevant bodies to ensure any species distribution updates are captured and all organisational procedures are current.

#### 4.2 Planning Schemes for Trees of Ecological, Historical or Aesthetic Significance

Whitehorse City Council has Vegetation Protection Overlays (VPO 42.02), Environmental Significance Overlays (ESO – 42.01), Significant Landscape Overlays (SLO 42.03) and Heritage Overlays (HO 43.01) that require a permit to remove, destroy or lop significant native, exotic and indigenous trees on private and public land throughout the municipality.

Public trees managed under this plan are protected generally by Significant Landscape Overlay (Schedule 9, SLO9) although a planning permit exemption for SLO9 is listed for any action which is 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. Pruning does not trigger a planning permit, so long as it is performed and compliant with this Plan, AS4373-2007 and Council's Street Tree Pruning Policy and Cyclic contract pruning specifications.

Council provides protection of the urban forest through the Whitehorse Planning Scheme. This includes the following Overlays and Particular Provisions:

Significant Landscape Overlay (SLO). Within the Significant Landscape Overlay a planning permit is required to remove, destroy or lop a protected tree. A protected tree is one that has a single trunk circumference of 1 metre or more, when measured at a height of 1 metre above ground level or a height of 5 metres or greater.

- Vegetation Protection Overlay (VPO). The Vegetation Protection Overlays apply to properties with trees recognised as possessing special qualities. There are four schedules that are applied in two separate ways: blanket controls; and specific trees referenced in City of Whitehorse Statements of Tree Significance. There are not currently any identified trees of significance within Council's ELC management zone.
- Environmental Significance Overlay (ESO). The Environmental Significance Overlay identifies
  areas where development may be affected by environmental constrains and ensures that
  development is compatible with the identified environmental values of the site. A planning
  permit is required to remove, destroy or lop any vegetation and may also include dead
  vegetation.
- Heritage Controls (HO). There are a number of properties within the municipality that are affected by the Heritage Overlays tree protection control. In this case a planning permit is required to remove, destroy or lop a tree.
- Clause 52.17 *Native Vegetation*. There are a number of properties greater than 4,000 square metres in area, predominantly Council managed parks and reserves that are affected by Clause 52.17. In these cases a planning permit is required to remove, destroy or lop native vegetation, including dead native vegetation.

In all instances a planning permit is not required where keeping vegetation clear of, or minimising risk of fire ignition from, an electric line in accordance with a code of practice prepared under Part 8 of the Electricity Safety Act 1998. Pruning is required to be compliant with AS4373-2007.

A map identifying the locations of the HO, SLO, ESO and VPO is provided in Attachment 8. The map is correct as of March 2023 The most current location of protection overlays is maintained by Council's GIS team and available to council officers through the in house spatial data viewer WEAVE.

NOTE: Exemptions from requiring a planning permit to remove, destroy or lop native vegetation in the Victoria's planning system are provided for keeping native vegetation clear of, or minimising the risk of fire ignition from, an electric line in accordance with a code of practice prepared under Part 8 of the Electricity Safety Act 1998.

Table 2 Tree protection information

Information Type	Organisation	Method
Native trees – list	City of Whitehorse	See Attachment 6 of this plan
Planning Overlays:	Department of	DTP website -
Heritage, Significant	Transport and Planning	https://www.planning.vic.gov.au/schemes-
Landscape,		and-amendments/browse-planning-schemes
Environmental		
Significance, Vegetation		Also Attachment 8 of this plan.
Protection.		
Cultural significance	National Trust Register	Website - https://trusttrees.org.au/
		List of trees – Appendix 9
	The Victorian Heritage	Website -
	Database	https://vhd.heritagecouncil.vic.gov.au/
	Victorian Aboriginal	Website - Victorian Aboriginal Heritage
	Heritage Register	Register   First Peoples - State Relations
		(firstpeoplesrelations.vic.gov.au)
Environmental	Department of Energy,	Legislation -
Protection	Environment and	https://www.environment.vic.gov.au/conservi
	Climate Action	ng-threatened-species/threatened-list
	(DEECA)	Native vegetation maps - NVIM - Homepage
		(delwp.vic.gov.au)

#### 4.3 Identification of Protected Trees

Council staff removing, lopping or destroying a tree for ELC purposes must, before undertaking or directing appointed contractors, use the process below in Figure 2 to ensure the correct identification of: management area; species; planning protections; and cultural significance. This process may be altered identification prior to commencement of works.

Locate the tree on the corporate mapping system (Weave) to ensure it is within Council Managed land.

NO: Cease work and notify Distribution Business (DB)

YES: Proceed to next step

Ensure the tree has been assessed and identified to species level by a suitably qualified arborist. Confirm that species is not listed as threatened flora and is not likely to be habitat for threatened fauna.

NO: Cease work and notify Team Leader Arbor Compliance

**YES**: Proceed to next step

Undertake an investigation on the corporate mapping system (Weave) of the planning overlays and Significant Tree List to ensure works are permitted under those provisions.

NO: Cease work and notify Team Leader Arbor Compliance

YES: Proceed to next step

Undertake an investigation of external flora / fauna and cultural protection controls to ensure there is no conflict with the proposed works.

NO: Cease work and notify Team Leader Arbor Compliance

**YES**: Proceed to next step

Proceed with works ensuring that all notification requirements under the Regulation and this plan area met and that works are consistent with the strategies and policies provided in the Whitehorse City Council Urban Forest Strategy.

Figure 2: Pre-works investigation process.

#### 5.0 ACHIEVING ELECTRIC LINE CLEARANCE COMPLIANCE

Council implements a three tier system for the management of ELC compliance:

- Tier 1 Maintain an internal team tasked with managing our urban forest including inspecting, auditing and contract managing ELC compliance and associated works.
- Tier 2 Maintain and appropriately fund a contract specifically to deliver ELC compliance on Council managed land on a programed cyclic pruning schedule.
- Tier 3 Maintain and appropriately fund a contract specifically to deliver reactive ELC compliance work on Council managed land that is out of schedule with the cyclic pruning program.

The system is delivered largely through contracted works that are managed and audited by suitably qualified and experienced internal staff. The management structure for delivery of the ELCMP is provided in Table 3.

Table 3: Management structure for ELCMP Delivery.

Role	ELCMP Responsibility	ELCMP Accountability		
Director Infrastructure	Oversight ELC delivery requirements including: Plan authorisation; allocation of ELC delivery to a department; Approval of effective budget submission to Council; Briefing the Responsible Person at Whitehorse City Council	Accountable to CEO		
Manager Parks and Natural Environment	Oversight and management of operations including the Natural Environment Coordinator and Arbor Team	Accountable to Director Infrastructure		
Arbor Coordinator	Coordination, quality assurance, contract management and operational supervision of the Natural Environment teams including Arbor Team	Accountable to Manager Parks and Natural Environment		
Team Leader Arbor Compliance	Delivery, quality assurance, contractor supervision and operational supervision of the ELC Management Plan	Accountable to Arbor Coordinator		

# 5.1 Management of the Urban Forest

Council's Urban Forest Strategy 2021-2031 (UFS, adopted in 2021) articulates the key targets, actions, principles, methods and strategies in place for effectively delivering Council's commitment to:

"Continue to sustainably manage, enhance and increase trees and vegetation in Council's streetscapes, parks and gardens, with species that enhance neighbourhood character, support biodiversity and are adaptable to a changing climate".

The Urban Forest Strategy 2021-2031 is available on our website:

https://www.whitehorse.vic.gov.au/sites/whitehorse.vic.gov.au/files/assets/documents/Whitehorse-urban-forest-strategy.pdf

The Interim Urban Forest Policy and Tree Management Plan makes specific reference to the Regulations and Code as having management requirements as well as this Plan, as a tool for meeting ELC responsibilities. Implementation of the Policy and Plan is achieved through integration at every decision point from city design and planning to tree pruning and planting.

The Interm Urban Forest Policy and Tree Management Plan is available at:

https://www.whitehorse.vic.gov.au/sites/whitehorse.vic.gov.au/files/assets/documents/Final-Interim-Urban-Forest-Policy-and-Tree-Management-Plan.PDF

A key action of the Strategy is to significantly reduce the interaction of Council managed trees with electric lines in the future. This will be achieved through a number of strategies including: suitable routine pruning programs, requesting the asset owner use engineering solutions such as aerial bundling and underground power where new infrastructure is being installed or where old infrastructure is being upgraded; selecting replacement tree species with a reduced maximum growth height where trees are being replaced under electric lines; and education campaigns that articulate the benefits of a carefully selected urban canopy. A further key action of the Strategy was to undertake a data harvest collection of all street trees within the municipality. In 2021 this was conducted and trees identified and GIS located. This data was then integrated into Forestree©, a tree management asset system. This system (after testing) went live in March 2022.

Forestree© has been integrated into Council's main asset management system, Weave and work is also underway and it is anticipated that Forestree© will also be integrated with Council's customer service request system (Infor Pathway) by mid 2023.

The Urban Forest Strategy Implementation and Action Plan 2021-2031 is available on our website:

https://www.whitehorse.vic.gov.au/sites/whitehorse.vic.gov.au/files/assets/documents/Whitehorse-Urban-Forest-Strategy-Action-Plan-2021-2031.pdf

#### 5.2 Maintaining ELC

The following sections articulate Council's approach to maintaining vegetation clearances from electric lines within the municipality.

In any specific location where pruning is required, the extent of pruning will maintain minimum ELC as well as providing additional clearance as necessary to prevent regrowth from entering the clearance space between pruning cycles including allowances for sag and sway of electrical conductors. Calculation of those distances will be informed by reference to the regulations (Schedule 2 – Applicable distance for middle 2 thirds of electric line span). A copy of the calculation graphs and images from Schedule 2 is provided in Attachment 1. At present there are no known spans greater than 100m in Whitehorse. The Arbor team will maintain contact with the MEC listed in Table 5 Contact for Asset Owners within Whitehorse to ensure Council are made aware of any new spans and their length. Any spans of over 100m will be listed in this plan.

\*NOTE: Clause 21 (2) of the Code requires a distribution company or an owner or operator of a railway or tramway supply network that is consulted by a Council must assist the Council by determining the additional distance.

# 5.2.1 Cyclic Pruning

In 2017 Council adopted the Cyclic Pruning Services Contract 20037. The contract was specifically developed to ensure all street trees within the municipality are maintained to promote the health of the canopy, ensure public safety and achieve ELC compliance with the Regulations through implementation of this plan. The contract commenced in August 2017 and has recently been extended to September 2023. Council is currently preparing to tender for a new Cyclic Pruning Services contract as at February 2023. It is anticipated that the new contract will be adopted by Council and in effect in line with the cessation of the current contract.

To structure the cyclic pruning services program the municipality was divided into 17 blocks, with approximately two blocks being completed every three months. The program is provided below in *Figure* 

3: Cyclic Pruning Schedule and can be found on Council's corporate website (https://www.whitehorse.vic.gov.au/waste-environment/trees-and-gardens/naturestrips/street-trees).

Some street trees within Whitehorse have been identified as having particular significance to residents and / or the character of the location. Where these trees are unlikely to maintain ELC compliance on a biennial cycle they have been allocated to an annual cycle. A list of these streets is provided below in *Table 4*.

Table 4: Streets on an Annual Cyclic Pruning Program.

Street Name	Suburb	Street Name	Suburb
Boongarry Avenue	Blackburn	Burnett Street	Mitcham
Cottage Street	Blackburn	Doncaster East Road	Mitcham
Furness Street	Blackburn	Grove Street	Mitcham
Goodwin Street	Blackburn	Harrison Street	Mitcham
Jeffery Street	Blackburn	Hovea Street	Mitcham
Laburnum Street	Blackburn	Irvine Street	Mitcham
Laural Grove North	Blackburn	The Glade	Mitcham
Laural Grove South	Blackburn	Vernal Avenue	Mitcham
Linum Street	Blackburn	Mont Albert Road	Mont Albert
Maple Street	Blackburn	Windsor Crescent	Mont Albert
Pakenham Street	Blackburn	Laughlin Avenue	Nunawading
Surrey Road – between Springfield Rd and Whitehorse Rd	Blackburn	Nicholson Street	Nunawading
Kintore Crescent	Box Hill	Tunstall Avenue	Nunawading
Sanders Road	Box Hill	Park Road	Surrey Hills
Margaret Street	Box Hill / BH North	Shepherd Street	Surrey Hills
Frank Street	Box Hill South	Moore Road	Vermont
Haig Street	Box Hill South	Canowindra Close	Vermont South
Burnett Street	Mitcham	Weeden Drive	Vermont South

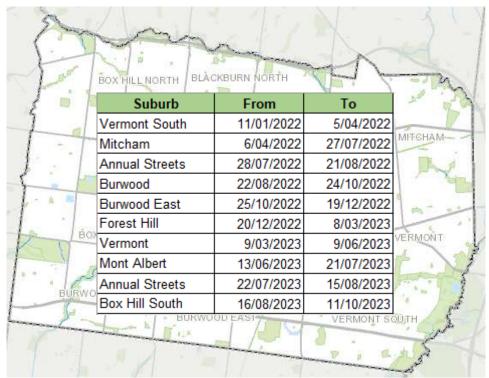


Figure 3: Cyclic Pruning Schedule for the life of this document.

Contractor performance monitoring and compliance auditing targets are clearly articulated in the specifications of the cyclic contract. The delivery and assessment of the audits is the responsibility of Council staff listed in Sections 2.1 and 2.1.3.

The key processes of the Cyclic Pruning Services contract are as follows:

- All trees located within the road reserve and that are under or adjacent to electric lines are inspected (either annually or biennially) as part of the cyclic pruning services program. All inspection details are recorded on Forestree© and all inspections must be completed by a suitably qualified arborist (as per section 3 and 4, clause 4.3 and 4.15 of the cyclic pruning services contract specification).
- Any and all works identified during the inspections are completed within three months under the cyclic program. All works under the annual cyclic program are completed between July and September each year.
- Council's cyclic contractor provides weekly updates (in the form of progress maps and written reports) of completed works (all documents are stored in Council's electronic document management system HP Content Manager (HPCM) under folder SF18/2525: Parks Reserves & Open Space Arbor Electric Line Clearance), which then allows Council arborists to undertake post works audits for ELC compliance. Council arborists undertake ELC compliance auditing of all completed cyclic pruning works to ensure compliance with the Regulations and also with contract specifications. Any trees requiring reworks or additional pruning to maintain ELC compliance are logged in Forestree© and issued to the contractor for rectification within 5 working days as per contract specifications (clause 4.16). This is aimed at preventing regrowth from entering the clearance space between pruning cycles.
- Requests are made as required to the MEC for additional resources such as live line and or shutdown/s as required. These works (and requests to the MEC) are recorded separately within Forestree©. Requests, field works orders (FWO) and or permits to work (PTW) are filed in HP

Content Manager (HPCM) under folder SF22/657: Parks Reserves & Open Space – Arbor – United Energy Powercor faults and requests, as well as being logged in Forestree©.

- Post completion of live line and or shutdown/s works, Council's Inspection Arborist or Team Leader Arbor Compliance undertakes a post-works audit and completed works are closed-out in Forestree©.
- Each tree within the program is inspected and pruned at a frequency where regrowth can be maintained, therefore it is unnecessary to record regrowth data.
- Where pruning to AS4373-2007 is not practicable and or achieving minimum ELC compliance
  will result in an unviable or hazardous tree, these trees are referred to Council's Inspection
  Arborist or Team Leader Arbor Compliance to make an assessment on whether or not it is
  reasonably practicable to deviate from AS4373-2007.
- The progress of the cyclic pruning contract is also monitored and documented through monthly contract meetings. All results are documented through the meeting minutes are filed in HP Content Manager (HPCM) under folder SF18/2525: Parks Reserves & Open Space – Arbor – Electrical Line Clearance.

#### 5.2.2 Reactive ELC Works

Reactive maintenance works occur where trees are identified as being non-compliant outside the normal maintenance regime and these trees can be reported to Council's Customer Service team on 9262 6333 or via <a href="maintenance">customer.service@whitehorse.vic.gov.au</a>. These requests are then referred to the Inspection Arborist or Team Leader Arbor Compliance for inspection.

If works are required, the request is then referred to one of Council's general tree services contractors. The conditions and response times for contractors are identified in the General Tree Services Contract 20046. After-hours requirements are included in both cyclic and general tree services contracts.

- Non-urgent reactive works must be completed within thirty (30) business days of the works being allocated, unless another timeframe is determined by the Inspection Arborist.
- In situations of high priority (including urgent works under section 8), the primary aim is to respond within one (1) hour and make the site safe as soon as is practicable, depending on the situation. Additional works will be scheduled as required.
- All works are recorded in the Council's customer request system (Infor Pathway) and Forestree©.
- Trees must be pruned to meet minimum ELC requirements as per the Regulations and Code
  as well as conforming to AS4373-2007 (as far as practicable). If this is not possible the tree is
  referred to the Inspections Arborist or Team Leader Arbor Compliance and an alternative
  management process may be sought.

#### 5.2.3 Hazardous Trees and Urgent Works

In the instance where a hazardous tree has been reported to Council (either by Council staff, contractor or a third party) the tree must be inspected by a suitably qualified arborist and confirmed as hazardous. For the purposes of this Plan a hazardous tree may include any tree that may fall into or otherwise come into contact with an electric line.

At the time of inspection the timeframe for action will be determined. Any urgent works undertaken for ELC compliance must not prune past the point of 'minimum clearance space' (inclusive of an allowance for regrowth) unless required to meet the standards of AS4373-2007.

Where pruning to AS4373-2007 is not practicable and or achieving minimum ELC compliance will result in an unviable or hazardous tree, these trees are referred back to Council's Inspection Arborist or Team Leader Arbor Compliance to make a determination of required works.

### 5.2.4 Proactive Tree Management for ELC Compliance

Identification of unsuitable tree species or specimens will occur when a suitably qualified and experienced arborist has determined a tree cannot be practicably managed to comply with the Regulations and Code, is not eligible for an exception and the appropriate tree removal protocols have been applied. This process involves:

- A Council arborist or contractor identifies a tree that cannot be managed by pruning, including during implementation of the Cyclic Pruning Services contract.
- The Team Leader Arbor Compliance or Inspection Arborist inspects the tree to confirm:
  - The tree cannot be managed through pruning;
  - o Is not eligible for an exception (Clause 4, 5, 6 or 7 of the Code); and
  - o An engineering solution/s is not able to implement.
- Community notification is undertaken regarding the proposed removal of the tree.
- Works are programmed as per the reactive works process.
- Removal of tree and stump completed within thirty (30) business days or in accordance with timelines required by the MEC if live line or a shutdown is required.
- All processes are recorded in Forestree© and the vacant site is referred for review against Council's street tree planting policy for possible tree replacement.

Requests for engineering solution/s are made as required to the MEC. If a viable engineering solutions can be undertaken, (Council is working toward implementing a future policy process for this) these works (and requests to the MEC) are recorded separately within Forestree© as well as being filed in HP Content Manager (HPCM) under folder SF22/657.

# 5.2.5 Procedure for works that cannot meet ELC Compliance and AS4373-2007

Due to the nature and age of the urban forest within Whitehorse there will be trees that cannot be pruned to meet the minimum ELC requirements; road, property, vehicle crossing, naturestrip and footpath clearances; and the requirements of AS4373-2007 (see *Figure 4*). In these circumstances any staff member or contractor responsible for pruning works must notify the Team Leader Arbor Compliance for further assessment and consideration. Once notified, the Team Leader Arbor Compliance will follow *Arbor Management Procedure 1.0 – Managing Trees That Cannot Practicably Achieve Pruning Compliance and Pruning of Amenity Trees (AS4373-2007) – refer Attachment 3.* 



Figure 4 Street tree in conflict with electric lines

Street tree in figure 4 in conflict with electric clearance requires MEC assistance for live line pruning to meet the Regulations – street tree foliage is within the minimum clearance space.

\*Note: In the instance where a tree was not able to be pruned in the cyclic pruning schedule due to delays in securing live line or shutdown works, that tree will be listed as a non-conformance under contract and will be completed by the contractor as soon as practicable.

### 5.3 Exceptions and Alternative Compliance Mechanisms

Where ELC compliance cannot practicably be met and the Whitehorse Arbor Management Procedure 1.0 has not produced an acceptable outcome, Council may investigate an alternative compliance mechanism under Clause 31 of the Prescribed Code of Practice.

In this circumstance the Responsible Person must apply the following procedure:

- 1. Inform the Manager Parks and Natural Environment of the circumstances surrounding the non-compliance and the mitigation actions taken up to that point;
- 2. Outline benefits and expected costs of the proposed alternative compliance mechanism/s; and
- 3. Provide a documented application addressing the information required under Clause 31,3 (a-e) of the Code to the Manager for review and authorisation prior to possible submission to ESV.

The proposed alternative mechanism may require further budgetary approval by Council dependent on implementation and maintenance cost.

Once approved the alternative compliance mechanism will be: included in an updated version of this Plan and published accordingly; communicated via email bulletin to all ELC personnel; included in the agenda of the next ELC contract progress meeting.

#### 5.3.1 Current Exceptions and Alternative Compliance Mechanisms

At present there are no alternative compliance mechanisms in place or awaiting approval in Whitehorse.

In 2021 Council undertook a municipality wide street tree data collection. Data was also collected on all street trees where an applicable exception could be applied. This data was then integrated into Forestree© in March 2022.

Council's Team Leader Arbor Compliance commenced an inspection regime in October 2022 to confirm all the exception data. Forestree now has 125 confirmed exceptions (part 2, 4 and 7) recorded in accordance with the Regulations and these have been placed on a scheduled 14 months inspection program.

Forestree exception structural limb list – see link below:

https://forestree.app/projects/summary/c0gmd2aonw4ixuj

#### 5.4 Notification and Consultation

#### 5.4.1 Notification

Council is committed to maintaining notification requirements as required in Clause 16 and 17 of the Code. Depending on the works, either Whitehorse staff of contractors will notify persons affected by ELC works at least 14 days and not more than 60 days before the intended pruning or removal is to occur. Notification is undertaken using three methods:

- 1. Letter drop a postcard notification is delivered ahead of the works that identifies what is to be undertaken, names the Regulations and provides contact details for further information.
- 2. Print publication the block pruning schedule, including current and upcoming works, is advertised in the Whitehorse News.
- Customers can find out when cyclic pruning will next occur in their street by using an interactive map found on Councils website: <a href="www.whitehorse.vic.gov.au">www.whitehorse.vic.gov.au</a> or by following this link: <a href="https://www.whitehorse.vic.gov.au/waste-environment/trees-and-gardens/naturestrips/street-trees">https://www.whitehorse.vic.gov.au/waste-environment/trees-and-gardens/naturestrips/street-trees</a>

Examples of Notifications are provided in Attachment 7.

#### 5.4.2 Consultation

Council, through staff and contractors, must also notify electrical asset owners of an intention to undertake ELC works on or near their assets. This will be done by providing a copy of this plan to the nominated contact person each year. Additionally staff or contractors undertaking work are to consult the relevant asset owners as appropriate. Contact details for common assets are provided below in *Table 5*.

Table 5 Contact for Asset Owners within Whitehorse

Business	Contact	Phone	Email
Yarra Trams	Tobias Meyer	03) 9610 2400	Tobias.Meyer@yarratrams.com.au
VicTrak	Pamela James	03) 9619-8892	Pamela.James@victrack.com.au
United Energy Powercor	Leo Hourigan Daniel Martini No-Go Zone Team	0408 304 984 0428 245 628	LHourigan@powercor.com.au damartini@powercor.com.au ngz_vegetation@powercor.com.au
Metro Trains	Katrina Lewis	0405 506 488	Katrina.Lewis@metrotrains.com.au
VicRoads	Sean Carter	03) 9881 8943	sean.carter@roads.vic.gov.au

#### 5.4.3 Dispute Resolution

All disputes regarding the implementation of this Plan will be managed in accordance with the Whitehorse City Council Complaint and Feedback Policy and this documents is available on the Whitehorse Council City website (link: https://www.whitehorse.vic.gov.au/sites/whitehorse.vic.gov.au/files/assets/documents/Whitehorse-Complaints%2BFeedback\_Policy\_2021.pdf) and at the Civic Centre 379-397 Whitehorse Road, Nunawading VIC. This document is periodically reviewed and updated by Council. Council documents are published online and - in some cases - in print. All such documentation is made available through Council's Communications Department by calling 9262 6124 emailing customer.service@whitehorse.vic.gov.au.

A flow chart identifying the specific roles and decision paths for dispute resolution in regard to this Plan is provided in Attachment 2. The flowchart is monitored and updated with this plan.

#### **6.0 TRAINING AND QUALIFICATIONS**

Council has a commitment to ensuring the personal safety of all personnel working for the organisation or on its behalf as well as ensuring public safety in the municipality. As part of that commitment, the following minimum qualifications (see Table 6 below) and experience is required prior to undertaking ELC works in Whitehorse. Our training requirements ensure all persons undertaking works are Qualified Persons as described in the Electricity Safety (General) Regulations 2019 r. 614 (3).

Any person/ contractor found working on electric line clearing without the required training will be instructed to cease works immediately. If there are not sufficient trained staff on site to undertake the task at hand then all staff are to demobilise. The non-conformance will be reported as an OHS incident and investigated accordingly. Contractors will be issued with a contract non-conformance and Council staff may face formal disciplinary action.

Table 6 Minimum qualifications for qualified persons undertaking ELC works at Whitehorse City Council

	Role				
Required Training and qualifications	Assessor	EWP	EWP	Ground Crew	
	Assessor	Cutter	Observer	(chipper)	
Certificate II in ESI Powerline Vegetation Control					
<ul> <li>UET20319, including up to date refresher</li> </ul>	<b>√</b>	<b>✓</b>	✓		
training (as per	·		·		
https://training.gov.au/Training/Details/UET20319)					
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	<b>√</b>	✓	✓		
apparatus as a non-electrical worker					
UETTDRVC23A Plan the removal of vegetation		✓	✓		
up to vegetation exclusion zone near live	✓				
electrical apparatus					
UETTDRVC27A Monitor safety compliance of	✓	✓	✓		
vegetation control work in an ESI environment					
AHCPCM201 Recognise plants	✓				
UETTDRVC33A Apply pruning techniques to		✓			
vegetation control near live electrical apparatus		·			
UETTDRVC24A Assess vegetation and					
recommend control measures in an ESI	✓				
environment					
Understand and adhere to AS4373-2007 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	✓	✓	<b>✓</b>	<b>√</b>	
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					
UETTDRVC25A Use elevated platform to cut					
vegetation above ground level near live electrical		<b>✓</b>			
apparatus			,		
UETTDRRF03B EWP Rescue		✓	✓		
UETTDRRF08B EWP controlled descent and			✓		
escape					
FPIHAR2206B Operate a mobile chipper/ mulcher		✓	✓	<b>√</b>	
TLILIC0005 Licence to operate a boom-type					
elevating work platform & High Risk Work Licence		<b>✓</b>	<b>✓</b>		
(WP)					
Qualification in First Aid Level -1 (including CPR)		✓	✓		
RIIWHS302D - Implement traffic management					
plan; and RIIWHS205D - Control traffic with stop-				<b>√</b>	
slow bat	,				
City of Whitehorse Electrical Line Clearance	✓	✓	✓	✓	
Induction			1		

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

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

#### 7.0 MONITORING ELC PERFORMANCE

The setting of clear performance measures and effective monitoring is vital to achieving and maintaining compliance as well as identifying opportunities for program improvement. Whitehorse City Council, through the roles identified in Section 2.1, has set specific Key Performance Indicators (KPI) to ensure obligations under the Regulations and Code are met.

KPI were developed to ensure organisational compliance using the S.M.A.R.T (Specific, Measurable, Attainable, Relevant, Timely) goal methodology and allocated to roles in the organisation that could reasonably be expected to have the experience and authority to meet the KPI. The relevant KPI and allocated roles/s are provided in *Table 7* below. The performance indicators are measured through auditing and reporting. The Director Infrastructure is responsible for ensuring the KPI are monitored and met. The audit and reporting process are described in the next section.

Table 7 Electric Line Clearing KPI's

Objective	Key Performance Indicators	Allocated Role					
Regulatory	ELC management plan is due for submission before 31	Director					
compliance	March for the coming financial year to ESV	Infrastructure					
	Inspection programs are completed to schedule	Arbor Coordinator					
	Cyclic Pruning and removal programs are completed to schedule						
	Identified regulation clearance breaches actioned within established time frames						
	Review and verify external databases relevant to the plan						
	(Declared areas, heritage lists, planning schemes,						
	protected flora and fauna, cultural significance)						
	Provide quarterly compliance report to Director						
	Infrastructure						
	Notification of Cyclic Pruning Program meets requirements of the Code	Arbor Coordinator					
	The most up-to-date version of the ELCMP is available						
	online and at both the Council Civic Centre and Operations Depot						
Health, safety	HS&E audit program is completed to schedule	Arbor Coordinator					
and	Induction and training records validation						
environment	Monitoring of incident reporting	]					
Minimise	Little or no notifications of fire starts and outages	Arbor Coordinator					
impact on	Little or no requests for emergency clearing						
electrical	Little or no reactive requests for clearing outside the cyclic						
assets	program						
Environmental	Pruning is in compliance with AS4373-2007	Arbor Coordinator					
and quality	Populations of significant trees and important vegetation						
practices	are identified						
	Protected trees (threatened flora species and habitat for						
	threatened fauna) are identified	1					
Customer	Little or no customer complaints (ELC related)	Arbor Coordinator					
satisfaction	Little or no customer requests for emergency ELC clearing						

#### 7.1 Auditing Procedures

Ongoing auditing of systems and field compliance is undertaken by internal Council staff to ensure Plan objectives are being met. The audits are described in Table 8 below. An ELC performance report outlining compliance and monitoring outcomes is provided to the Director Infrastructure on a quarterly basis starting in the first quarter of the financial year. The audits follow the principals below:

- System audits focus on all administrative aspects of the Plan ensuring all information is up to date and all procedures are being followed.
- Field audits for quality and completeness of work are structured to achieve a confidence level of 99%, a confidence interval of 0.05 and a proportion of 0.5. When calculating sample size staff will utilise the sample size calculator provided by the Australian Bureau of Statistics (<a href="https://www.abs.gov.au/websitedbs/D3310114.nsf/home/Sample+Size+Calculator">https://www.abs.gov.au/websitedbs/D3310114.nsf/home/Sample+Size+Calculator</a>). At the end of 1 complete cycle of the Cyclic Pruning Program approximately 70,000 trees will have been inspected, in that time a minimum of 658 trees will need to be audited to achieve the desired confidence level and interval. Following each audit any non-conformances will be referred to the delivery team (internal or contractor) for correction within 5 days.
- Field audits for health, safety and environmental performance will have an expected pass mark of 100%. Any non-compliance will result in an order to stop work.

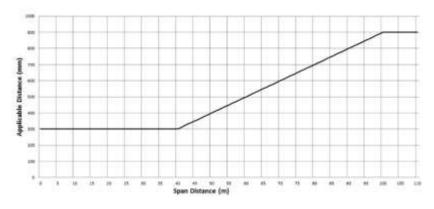
Templates for the quality audits are provided in Attachment 5.

Table 8 Summary of internal audits

Audit Category	Audit objective	Frequency
System and Plan	Internal audit of ELC management systems, processes and procedures to confirm they are being implemented as intended.	Quarterly
Compliance	Systematic 100% field audits of all recently completed streets within the suburb (block) in the Cyclic Pruning Program to ensure ELC compliance is being achieved and works remain compliant until the next pruning cycle.	Weekly
Quality	Random monthly field audits of the most recently completed block in the Cyclic Pruning Program to ensure works are performed in compliance with AS4373-2007. Sample size will be determined using the number of pruned trees as the population size.	Monthly
Worksite safety	Scheduled unannounced field audits to verify compliance with OH&S requirements.	Monthly
Training, qualifications and experience	Review of contractor OHS and training data in LinkSafe (Council contractor OHS management system) and internal staff training data using ORACLE (internal training management system). To be combined with field based audits to validate competency.	Monthly
Bushfire Risk Area	Whitehorse has a number of parks and bushland reserve sites affected by electric lines. These sites are audited prior to and at the end of the declared fire season. Any electric line clearance tree works required are allocated for completion within 14 days.	2 inspections during declared fire season.

#### 8.0 ATTACHMENT 1 - DETERMINATION OF MINIMUM CLEARANCE SPACE

# 8.1 Clauses 3 and 24 Graph 1— Insulated electric lines in all areas



Graph 1

# **Graph 1 Formula**

The formula by which the applicable distance for the middle 2 thirds of an electric line span to which clause 24 applies is calculated as follows:

For  $0 < SD \le 40$ , AD = 300 mm For  $40 < SD \le 100$ , AD = 300 + ((SD - 40) × 10) For 100 < SD, AD = 900 mm Where:

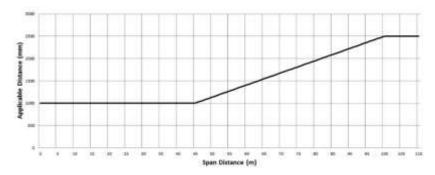
SD = Span Distance AD = Applicable Distance

# Notes to Graph 1

- 1. The applicable distance includes allowances for sag and sway of the conductor.
- 2. The minimum clearance space for an electric line span 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 an electric line span to which clause 24 applies is 300 millimetres.

.

# 8.2 Clauses 3 and 25 Graph 2: Uninsulated Low Voltage Electric Line in Low Bushfire Risk Area



Graph 2

# **Graph 2 Formula**

The formula by which the applicable distance for the middle 2 thirds of an electric line span to which clause 25 applies is calculated as follows:

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

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

For 100 < SD, AD = 2500 mm

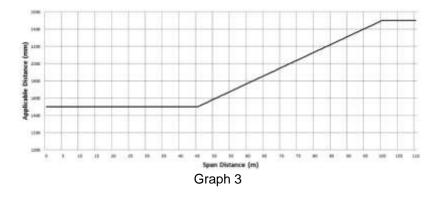
Where:

SD = Span Distance

AD = Applicable Distance

- 1. The applicable distance includes allowances for sag and sway of the conductor 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 conductor. 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 conductor (see clause 21(2)).
- 4. The minimum clearance space for an electric line span to which this Graph and clause 25 apply is partially illustrated in Figures 1 and 4.

# 8.3 Clauses 3 and 26 Graph 3: Uninsulated High Voltage Electric Line (other than a 66,000 volt electric line) in Low Bushfire Risk Area



### **Graph 3 Formula**

The formula by which the applicable distance for the middle 2 thirds of an electric line span to which clause 26 applies is calculated as follows:

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

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

For 100 < SD, AD = 2500 mm

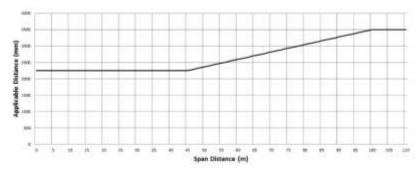
Where:

SD = Span Distance

AD = Applicable Distance

- 1. The applicable distance includes allowances for sag and sway of the conductor 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 conductor. 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 an electric line span 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 an electric line span to which clause 26 applies is 1500 millimetres.

#### 8.4 Clauses 3 and 27 Graph 4: Uninsulated 66,000 Volt Electric Line in Low Bushfire Risk Area



Graph 4

# **Graph 4 Formula**

The formula by which the applicable distance for the middle 2 thirds of an electric line span to which clause 27 applies is calculated as follows:

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

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

For 100 < SD, AD = 3500 mm

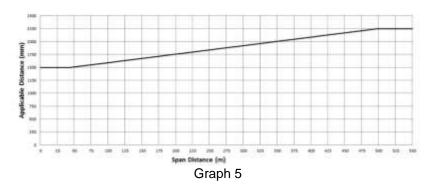
Where:

SD = Span Distance

AD = Applicable Distance

- 1. The applicable distance includes allowances for sag and sway of the conductor 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 conductor. 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 an electric line span 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 an electric line span to which clause 27 applies is 2250 millimetres.

# 8.5 Clauses 3 and 28 Graph 5: Uninsulated Low Voltage and High Voltage Electric Line (Other Than A 66 000 Volt Electric Line) in Hazardous Bushfire Risk Area



#### **Graph 5 Formula**

The formula by which the applicable distance for the middle 2 thirds of an electric line span to which clause 28 applies is calculated as follows:

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

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

For 500 < SD, AD = 2250 mm

Where:

SD = Span Distance

AD = Applicable Distance

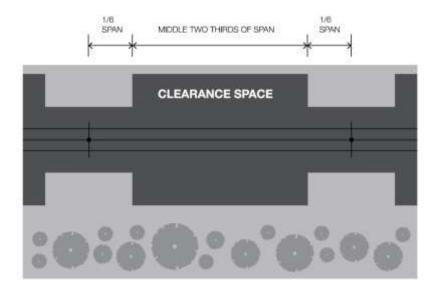
- 1. The applicable distance must be extended by an additional distance to allow for sag and sway of the conductor. This is done by adding that distance to the applicable distance (see clause 28/2)(a))
- 2. A distribution company, or an owner or operator of a railway supply network or a tramway supply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

# 8.6 EXAMPLE IMAGES OF CLEARANCE SPACE

Electricity Safety (Electric Line Clearance) Regulations 2015, Schedule 2—Applicable distance for middle two thirds of a span of an electric line

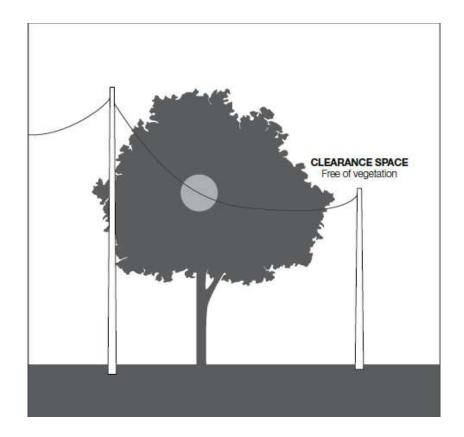
# FIGURE 1—PLAN VIEW OF ELECTRIC LINES IN ALL AREAS

Clauses 24, 25, 26, 27, 28 and 29, Graphs 1, 2, 3, 4, 5 and 6



# FIGURE 2—INSULATED ELECTRIC LINES IN ALL AREAS

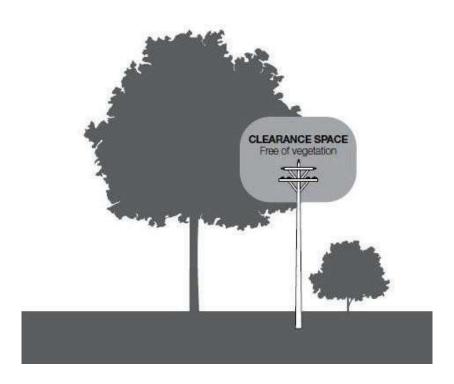
Clause 24, Graph 1



# **NOT TO SCALE**

# FIGURE 3—INSULATED ELECTRIC LINES IN ALL AREAS AND UNINSULATED HIGH VOLTAGE ELECTRIC LINES (OTHER THAN 66 000 VOLT ELECTRIC LINES) IN LOW BUSHFIRE RISK AREAS

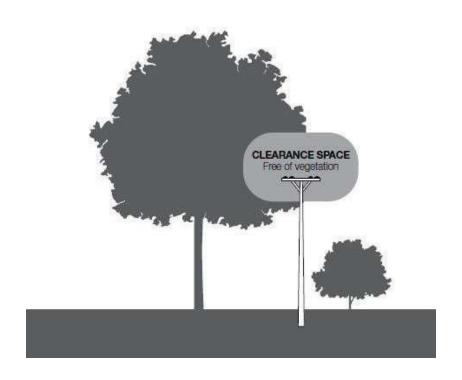
Clauses 24 and 26, Graphs 1 and 3



NOT TO SCALE

# FIGURE 4—UNINSULATED LOW VOLTAGE ELECTRIC LINE IN A LOW BUSHFIRE RISK AREA

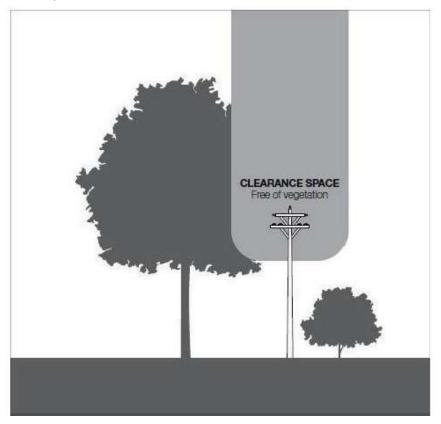
Clause 25, Graph 2



**NOT TO SCALE** 

# FIGURE 5--UNINSULATED 66 000 VOLT ELECTRIC LINE IN A LOW BUSHFIRE RISK AREA AND UNINSULATED ELECTRIC LINE IN A HAZARDOUS BUSHFIRE RISK AREA

Clauses 27, 28 and 29, Graphs 4, 5 and 6



**NOT TO SCALE** 

#### 8.7 Determination of Safe Approach Distances

Safe approach distances for qualified persons working for or on behalf Council are provided in the Electrical Safety Rules for Vegetation Management Work Near Overhead Powerlines by Non-Electrical Workers.

Table 1: Safe Approach Distances (mm) for Vegetation Management Work Near OH lines when working from an insulated EWP

	Insulated LV	Ва	are or covered	LV	HV up to, and including, 22kV			Greater than 22kV up to, and including, 66kV		
	All directions	Under conductor	Beside conductor	Over conductor	Under conductor	Beside conductor	Over conductor	Under conductor	Beside conductor	Over conductor
Worker's Body Clearance	No Contact	300	300	300	1000	1000	Work not permitted	2000	2000	Work not permitted
Uninsulated tool/Equipment	200	300	300	300	1000	1000	Work not permitted	2000	2000	Work not permitted
Insulated tool & Equipment	200	300	300	300	1000	1000	Work not permitted	2000	2000	Work not permitted
Uninsulated Part of EWP	200	1000	1000	1000	2000	2000	Work not permitted	3000	3000	Work not permitted
Insulated Part of EWP	No Contact	No Contact	No Contact	No Contact	1000	1000	Work not permitted	2000	2000	Work not permitted
Vegetation Clearances	No clearance required <sup>4</sup>	No clearance required <sup>4</sup>	No clearance required <sup>4</sup>	1000 <sup>1</sup>	300	700	Work not permitted	400	900	Work not permitted

#### Note:

- Vegetation which is located at least 1000mm above bare LV conductor can be cleared subject to the following conditions: (a) A risk assessment is carried out with appropriate
  control measure put in place and; (b) Effective control measures are used to prevent the cut vegetation from contacting the conductor or encroaching into the vegetation
  clearance space. (c) a safety observer is posted.
- 2. Conductor sag and sway exclusion: The safe approach distances and vegetation clearances detailed in the Electrical Safety Rules make no provision for conductor movement due to wind or change in conductor temperature. Unexpected conductor movement may occur under moderate wind, network faults or changes in conductor heating or cooling factors. Conductor movement of several metres may result in long span/s of electric lines. Appropriate allowance for sway and sag changes must be applied in accordance with advice sought from the electrical asset owner.
- Where the safe approach distances cannot be maintained, an access authority must be obtained from the owner of the electrical asset.
- 4. Vegetation contacting live LV conductors may be cut only after a risk assessment has been performed and precautionary actions are taken to control hazards to ensure that the work can be performed safely

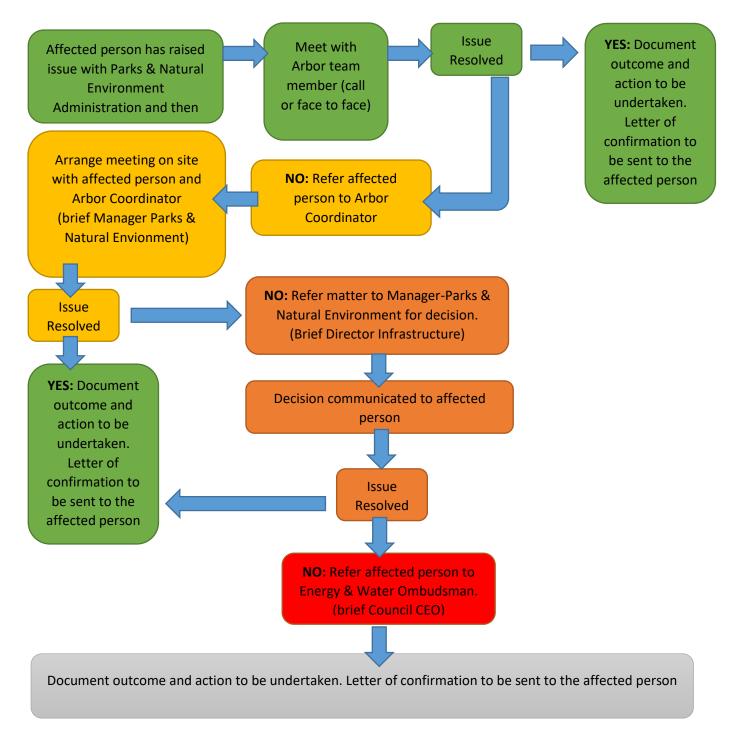
Table 1: Safe Approach Distances (mm) for Vegetation Management Work Near OH lines when working from an insulated EWP

	Insulated LV	Bare or covered LV			HV up to, and including, 22kV			Greater than 22kV up to, and including, 66kV		
	All directions	Under conductor	Beside conductor	Over conductor	Under conductor	Beside conductor	Over conductor	Under conductor	Beside conductor	Over conductor
Worker's Body Clearance	200	1000	1000	Work not permitted	1200	1200	Work not permitted	2000	2000	Work not permitted
Uninsulated tool/Equipment	200	300	300	Work not permitted	1000	1000	Work not permitted	2000	2000	Work not permitted
Insulated tool & Equipment	200	300	300	Work not permitted	1000	1000	Work not permitted	2000	2000	Work not permitted
Vegetation Clearances	No clearance required <sup>4</sup>	No clearance required <sup>4</sup>	No clearance required <sup>4</sup>	3000 <sup>4</sup>	700	700	Work not permitted	900	900	Work not permitted

#### Note:

- 1. Vegetation which is located at least 3000mm above bare LV conductor, can be cleared subject to the following conditions: (a) A risk assessment is carried out with appropriate control measure put in place and; (b) Effective control measures are used to prevent the cut vegetation from contacting the conductor or encroaching into the vegetation clearance space (c) a safety observer is posted.
- 2. Conductor sag and sway exclusion: The safe approach distances and vegetation clearances detailed in the Electrical Safety Rules make no provision for conductor movement due to wind or change in conductor temperature. Unexpected conductor movement may occur under moderate wind, network faults or changes in conductor heating or cooling factors. Conductor movement of several metres may result in long span/s of electric lines. Appropriate allowance for sway and sag changes must be applied in accordance with advice sought from the electrical asset owner.
- 3. Where the safe approach distances cannot be maintained, an access authority must be obtained from the owner of the electrical asset.
- 4. Vegetation contacting live LV conductors may be cut only after a risk assessment has been performed and precautionary actions are taken to control hazards to ensure that the work can be performed safely.

#### 9.0 ATTACHMENT 2 - DISPUTE RESOLUTION FLOWCHART



#### 10.0 ATTACHMENT 3 – ARBOR MANAGEMENT PROCEDURE 1.0

# ARBOR MANAGEMENT PROCEDURE 1.0 – MANAGING TREES THAT CANNOT PRACTICABLY ACHIEVE PRUNING COMPLIANCE AND PRUNING OF AMENITY TREES (AS4373-2007)

#### **Background**

Pruning of amenity trees is a routine task undertaken by Whitehorse City Council to: promote the health and longevity of trees; meet clearance requirements within the municipality in relation to Council's Interim Urban Forest Policy and Tree Management Plan (Pruning Policy); comply with Electric Safety (Electric Line Clearance) Regulations 2020; and manage public safety.

Whitehorse City Council requires all staff and contractors pruning trees within the municipality to comply with AS4373-2007 *Pruning of Amenity Trees* as far as is reasonably practicable. Reasonably and practicably in relation to AS4373-2007 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 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 AS4373-2007 is not practicable the site or trees are to be referred to the Inspection Arborist or a delegated officer who holds a Certificate Level V or above in Arboriculture to make an assessment on whether or not it is reasonably practicable to deviate from AS4373-2007.

#### 10.1 Management Procedure

When assessing the appropriate course of action Council officers will consider the objectives of Council's Urban Forest Policy and Tree Management Policy.

On occasion achieving electric line clearance requirements will not allow compliance with AS4373-2007 and may result in a defective, unsafe or unviable tree, in this case the Whitehorse City Council may elect to:

- Apply an exception as provided under Clause 4, 5, 6 or 7 of the Code (refer below);
- Apply to ESV for approval for an alternative compliance mechanism;
- Increase the pruning frequency to minimise the required pruning;
- Remove scaffold/ parent limbs;
- Investigate the potential for engineering solutions to facilitate compliance;
- List the tree for an exception; or
- Remove trees where the tree is of low retention value or the resulting pruning would leave the tree/s unsuitable for retention.

The decision will consider the cost to residents of the options in terms of tree value, initial and ongoing works costs and the environment surrounding the tree.

Where trees are to be removed all residents visually affected by the removal will be notified in writing that the removal will occur within 14 days.

#### 10.1.1 Exceptions provided within the Code of Practice

As per Schedule 1 – Code of Practice for Electric Line Clearance (Electricity Safety (Electric line Clearance) Regulations 2020, Clauses 4, 5, 6 and 7 (listed below). The responsible person (being Council) may reduce the minimum clearance distances for spans of certain electric lines. The following text describes the exceptions available to Council as a responsible person referred to in section 84, 84C or 84D of the Act.

The exceptions are simplified in the text below. If using an exception refer to Schedule 1, Clause 4, 5, 6 and 7 of the Code.

## 10.1.2 Clause 4 – Exception to minimum clearance space for structural branches around insulated low voltage electric lines

Council is not required to ensure that a particular branch of a tree for which the person has clearance responsibilities is clear of the minimum clearance space for a span of an electric line if:

- the electric line is an insulated cable and is a low voltage electric line; and
- the branch is wider than 130 millimetres at the point at which it enters the minimum clearance space; and
- in the case of a span distance of 40 metres or less, the branch is more than 150 millimetres from the line; and
- in the case of a span distance greater than 40 metres, the branch is more than 300 millimetres from the line.

For the exception to apply, a suitably qualified arborist must have undertaken a documented inspection of the tree, of which the branch is a part, within the last fourteen (14) months. The inspection must show that:

- the tree does not have any visible structural defect that could cause the branch to fail and make contact with the electric line; and
- an assessment of the risks posed by the branch has been done and any works required to effectively mitigate the identified risks are completed.

If this exception is used, Council must keep records of the following matters referred to in sub-clause (2)(e)(i),(ii),(iii) and (iv) for 5 years:

- a) each documented inspection;
- b) all advice referred to in the inspection;
- c) each assessment referred to in the inspection;
- d) all measures referred to in the inspection.

## 10.1.3 Clause 5 – Exception to minimum clearance space for small branches around insulated low voltage electric lines

Council is not required to ensure that a particular branch of a tree for which the person has clearance responsibilities is clear of the minimum clearance space for a span of an electric line if —

- the electric line is an insulated cable and is a low voltage electric line; and
- the branch is less than 10 millimetres wide at the point at which it enters the minimum clearance space; and
- the branch has been removed from the minimum clearance space within the last twelve months.

# 10.1.4 Clause 6 – Exception to minimum clearance space for small branches growing under uninsulated low voltage electric lines in low bushfire risk areas

Council is not required to ensure that a particular branch of a tree for which the person has clearance responsibilities is clear of the minimum clearance space for a span of an electric line if —

- the electric line is an uninsulated cable and a low voltage electric line; and
- the electric line is located in a low bushfire risk area; and
- the branch is less than 10 millimetres wide at the point at which it enters the minimum clearance space and is no more than 500 millimetres inside the minimum clearance space; and
- the point at which the branch originates is below the height of the electric line; and
- in the case of a branch that comes within the minimum clearance space around the middle 2 thirds of the span, the span is fitted with
  - one conductor spreader if the length of the span does not exceed 45 metres; or
  - o 2 conductor spreaders if the length of the span exceeds 45 metres.

**\*NOTE**: A spreader is not required to be fitted to the span if the branch comes within the minimum clearance space around the first or last sixth of the span.

For the exception to apply, a suitably qualified arborist must have undertaken a documented inspection of the tree, of which the branch is a part, within the last twelve months. The inspection must show that:

- the tree does not have any visible structural defect that could cause the branch to fail and make contact with the electric line:
- an assessment of the risks posed by the branch has been done and any works required to effectively mitigate the identified risks are completed.

If this exception is used, Council must keep records of the following matters referred to in sub-clause (2)(e)(i),(ii),(iii) and (iv) for 5 years:

- a) each documented inspection;
- b) all advice referred to in the inspection:
- c) each assessment referred to in the inspection:
- d) all measures referred to in the inspection.

## 10.1.5 Clause 7 – Exception to minimum clearance space for structural branches around uninsulated low voltage electric lines in low bushfire risk areas

Council is not required to ensure that a particular branch of a tree for which the person has clearance responsibilities is clear of the minimum clearance space for a span of an electric line if —

- the electric line is an uninsulated cable and is a low voltage electric line; and
- located in a low bushfire risk area; and
- in the case of a branch that comes within the minimum clearance space around the middle 2 thirds of the span, the span is fitted with:
  - o one conductor spreader if the length of the span does not exceed 45 metres; or
  - o 2 conductor spreaders if the length of the span exceeds 45 metres; and
- the branch is more than 130 millimetres wide at the point at which it enters the clearance space;
   and
- the branch is no more than 500 millimetres inside the minimum clearance space;

**\*NOTE**: A spreader is not required to be fitted to the span if the branch comes within the minimum clearance space around the first or last sixth of the span.

For the exception to apply, a suitably qualified arborist must have undertaken a documented inspection of the tree, of which the branch is a part, within the last fourteen (14) months. The inspection must show that:

- the tree does not have any visible structural defect that could cause the branch to fail and make contact with the electric line; and
- an assessment of the risks posed by the branch has been done and any works required to effectively mitigate the identified risks are completed.

If this exception is used, Council must keep records of the following matters referred to in sub-clause (2)(e)(i),(ii),(iii) and (iv) for 5 years:

- e) each documented inspection;
- f) all advice referred to in the inspection;
- g) each assessment referred to in the inspection;
- h) all measures referred to in the inspection.

#### 10.1.6 Half year review of performance measures for the responsible person

A 6 month review must be undertaken for each financial year (i.e. in December of each year). This review must report on the assessment of the performance of the ELC program and identify opportunity for improvement. The following items must be included:

- Vegetation code clearance breaches;
- Emergency clearances;
- Customer requests for electric line clearance;
- Network operator requests for pruning;
- Clearing not meeting quality requirements (AS4373-2007); and
- Implementation of audit schedule.

#### 10.1.7 Closeout of identified non-compliances

In field non-compliances are identified through a number of means:

- i. Customer requests;
- ii. Quality audit inspections (undertaken by Council arborists);
- iii. Notification from the DB / MEC;
- iv. Random ESV field audits.

All audited non-compliances are logged into Council's customer service request system (Pathway). Once these non-compliances are made compliant, the request is closed off with all relevant details recorded.

#### 11.0 ATTACHMENT 4 – FAUNA MANAGEMENT PROCEDURE

Whitehorse City Council is not currently aware of any threatened fauna affected by the implementation of this plan. However due to the nature of the urban forest areas affected by ELC responsibilities there may be protected fauna either currently or in the future.

This procedure provide details for maintaining awareness of potential populations and the steps to ensure threatened fauna can be identified during operations.

#### 11.1 Identifying Potential Habitat

As part of the preparation for the Plan and prior to allocating works Whitehorse City Council will consult with all relevant bodies to ensure any species distribution updates are captured and all organisational procedures are current.

Whitehorse City 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.

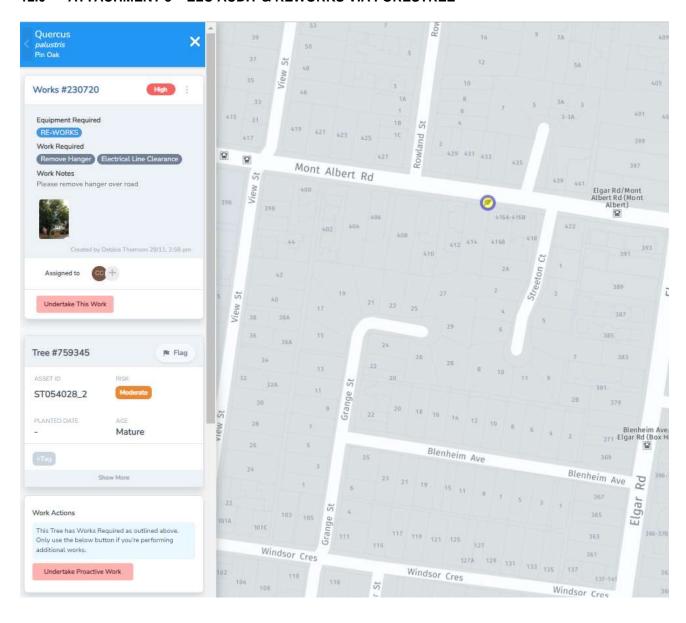
#### 11.2 Communication

Whitehorse City Council will inform employees, contractors and other agencies involved in electric line clearance works, of the location of trees within the municipality that are known to have or provide habitat for threatened species. Communication will be via bulletin, contract meeting and update of this Plan.

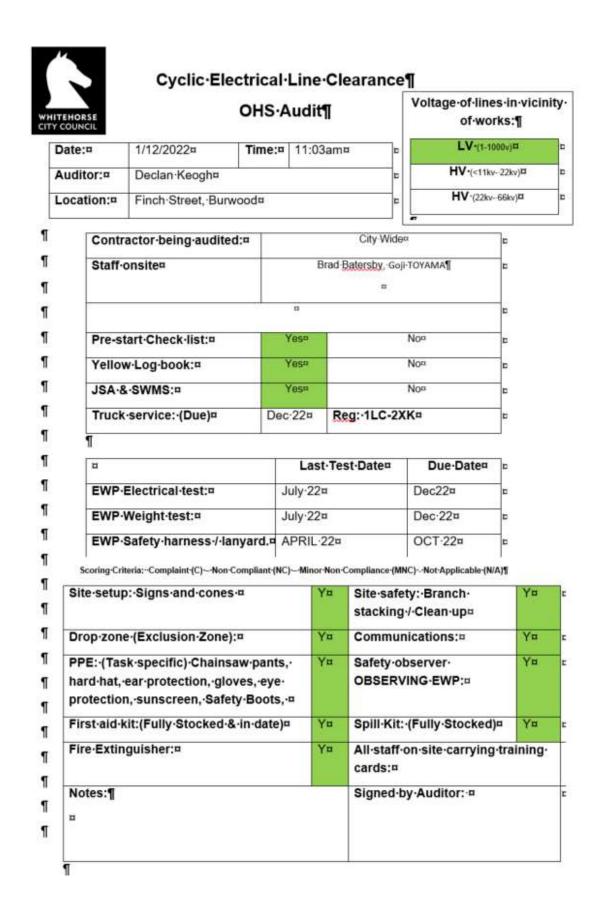
#### 11.3 Procedure Once Threatened Fauna is Identified

- 1. Location of threatened fauna and associated habitat is mapped, tree maintenance and inspection teams are notified;
- 2. Tree assessment conducted by a suitably qualified arborist and results recorded in Forestree. The assessment must:
  - a. consider tree health, structure and potential risk; and
  - b. consider history, location and foreseeable local conditions; and
  - c. aim to identify if the fauna using the tree is a threatened species.
- 3. Once identified the breeding season for the fauna using the tree will be determined. Resources such as <a href="https://www.environment.vic.gov.au/conserving-threatened-species/threatened-species-overview">https://www.environment.vic.gov.au/conserving-threatened-species/threatened-species-overview</a> may be used in the first instance;
- 4. Specialist advice may be sought to identify fauna, determine breeding season if required or to translocate fauna:
- 5. Assessment results and information regarding management of the fauna will be referred to the Arbor Coordinator for approval prior to commencing works;
- 6. Where practicable works will be undertaken outside the breeding season;
- 7. The tree pruned to habitat until breeding season is complete; or
- 8. Relocation of the fauna can be considered to make safe an unsafe situation as identified in Clause 8, or if it is not practical to undertake works outside of the breeding season.

#### 12.0 ATTACHMENT 5 – ELC AUDIT & REWORKS VIA FORESTREE



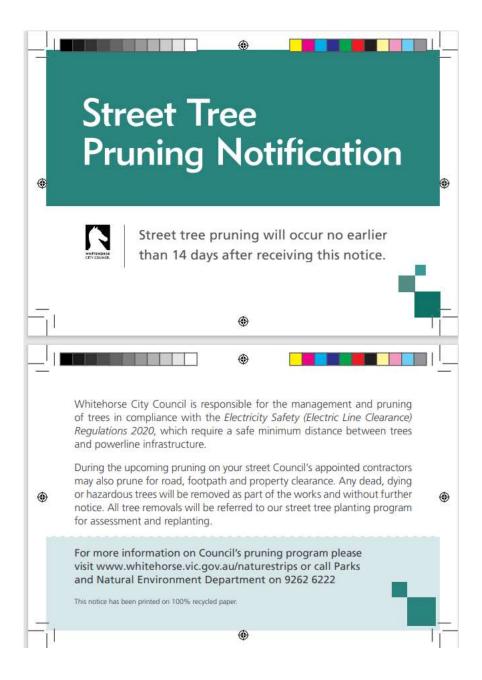
#### 13.0 ATTACHMENT 6 - OHS COMPLIANCE AUDIT TEMPLATE



## 14.0 ATTACHMENT 7 – KNOWN NATIVE TREES IN ELC AREAS

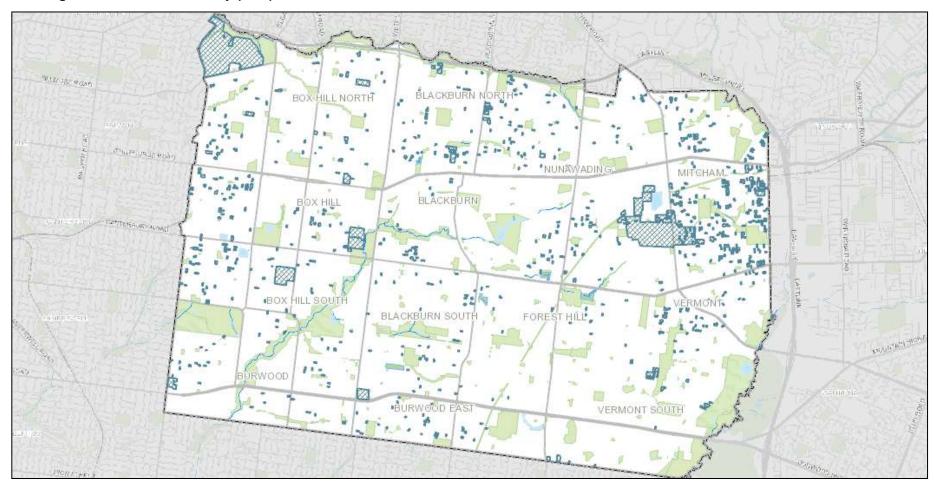
Botanical Name	Common Name	
Acacia dealbata	Silver Wattle	
Acacia implexa	Lightwood, Hickory Wattle	
Acacia mearnsii	Black Wattle	
Acacia melanoxylon	Blackwood	
Acacia pycnantha	Golden Wattle	
Allocasuarina littoralis	Black She-oak	
Allocasuarina verticillata	Coast She-oak, Drooping She-oak	
Banksia marginata	Silver Banksia	
Eucalyptus baxteri	Brown Stringybark	
Eucalyptus camaldulensis	River Red Gum	
Eucalyptus cephalocarpa	Silver Leafed Stringybark, Mealy Stringybark	
Eucalyptus globoidea	White Stringybark	
Eucalyptus goniocalyx	Long-leafed Box, Bundy	
Eucalyptus leucoxylon ssp. connata	Yellow Gum, White Ironbark, S.A. Blue Gum	
Eucalyptus macrorhyncha	Red Stringybark	
Eucalyptus melliodora	Yellow Box	
Eucalyptus obliqua	Messmate	
Eucalyptus ovata	Swamp Gum	
Eucalyptus polyanthemos	Red Box	
Eucalyptus radiata	Narrow-leaved Peppermint	
Eucalyptus viminalis	Manna Gum, Ribbon Gum	
Eucalyptus yarraensis	Yarra Gum	
Melaleuca ericifolia	Swamp Paperbark	

#### 15.0 ATTACHMENT 8 – EXAMPLE OF ELC NOTIFICATIONS

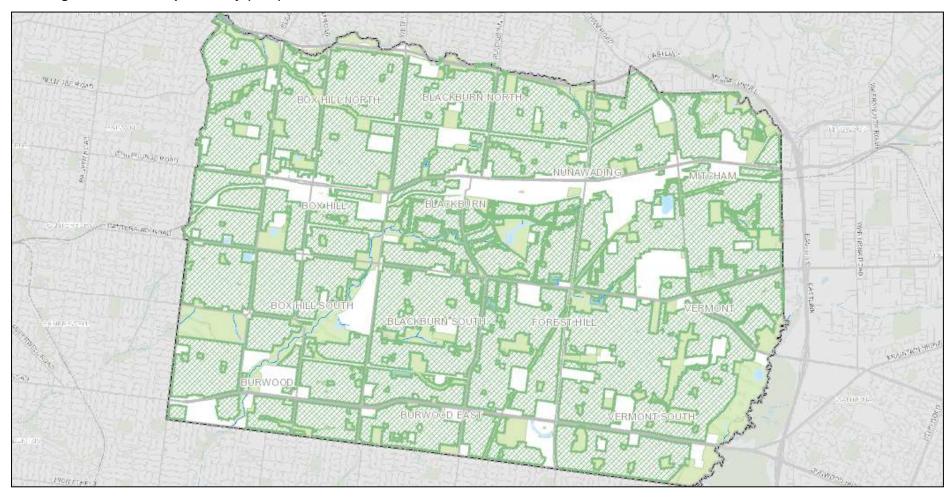


#### 16.0 ATTACHMENT 9 – VEGETATION OVERLAY MAPS

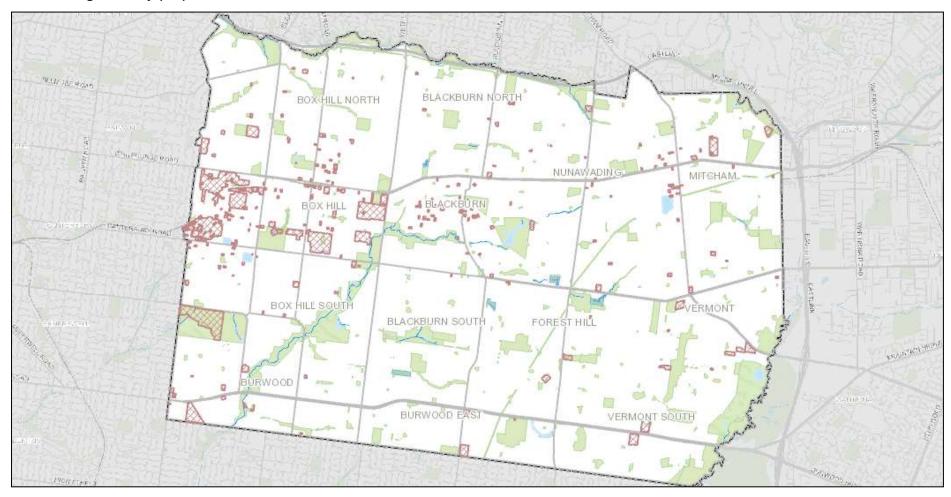
## 16.1 Vegetation Protection Overlay (VPO)



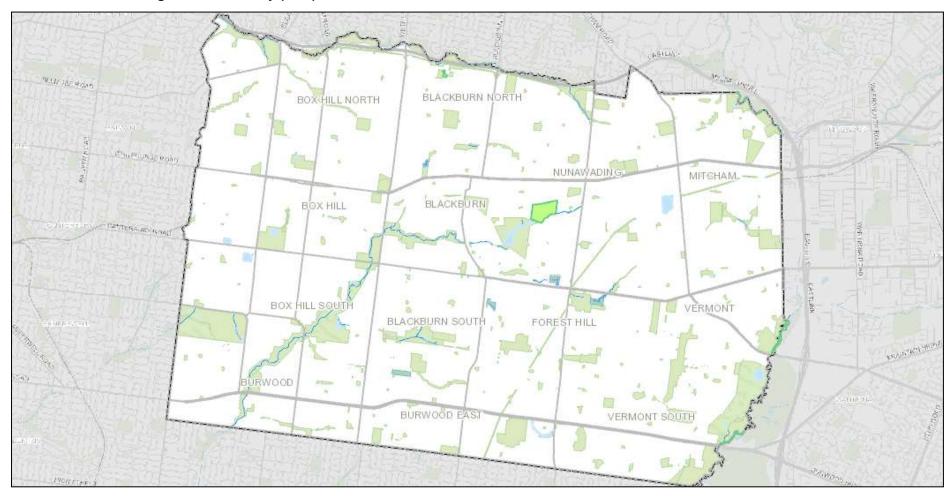
## 16.2 Significant Landscape Overlay (SLO)



## 16.3 Heritage Overlay (HO)

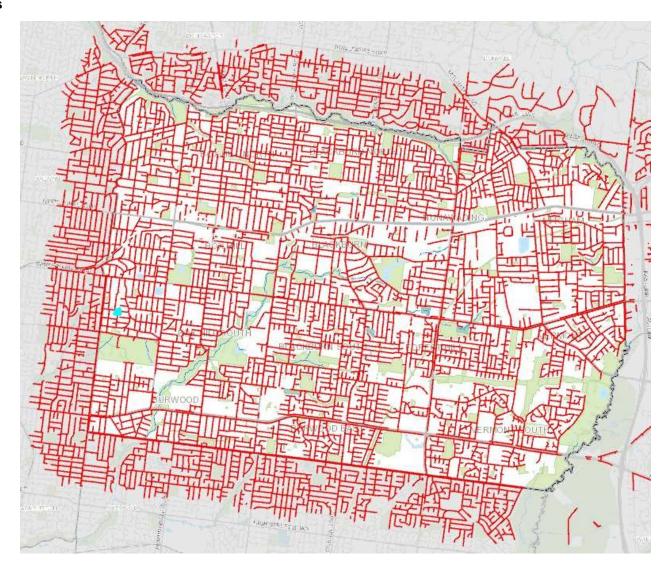


## 16.4 Environmental Significance Overlay (ESO)

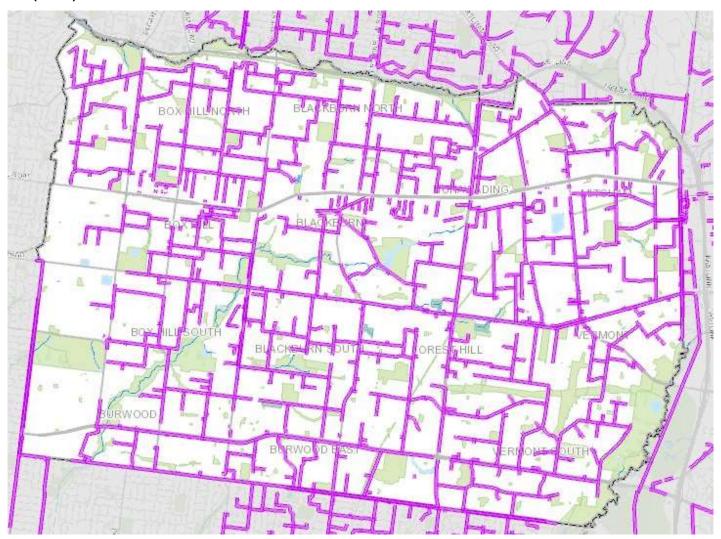


### 17.0 ELECTRIC LINES WITHIN WHITEHORSE CITY COUNCIL

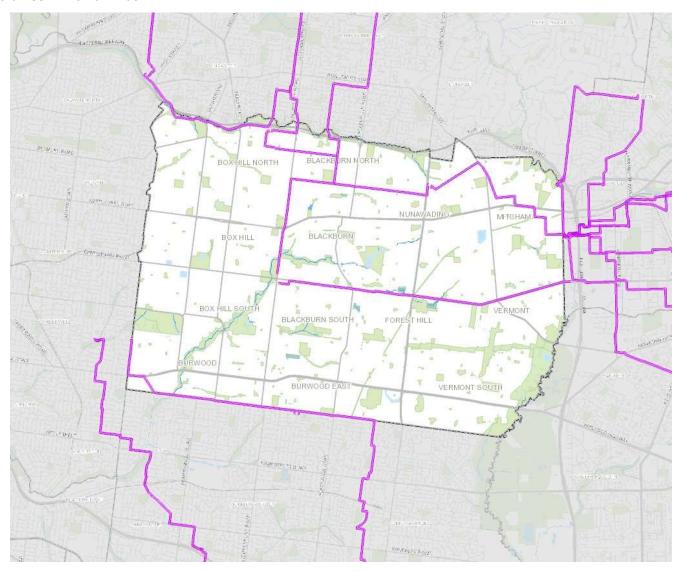
## 17.1 LV power lines



## 17.2 HV power lines (22 Kv)



#### 17.3 Sub transmission 66Kv Power lines



## 18.0 ATTACHMENT 10 – NATIONAL TRUST TREES

SPECIES NAME	COMMON NAME	ADDRESS	SIGNIFICANCE
Araucaria bidwillii	Bunya Pine	751 Cantebury rd Surrey Hills VIC 3127	State
Pinus brutia	Calabrian Pine, Lone Pine	Wattle Park, 1012 Riversdale Road Surrey Hills VIC 3127	State
Ulmus glabra 'Camperdownii'	Weeping Elm	1 - 3 Lightfoot Street Mont Albert VIC 3127	State
Araucaria bidwillii	Bunya Bunya Pine	800 Station Street, Box Hill North VIC 3129	Regional
Waterhousea floribunda	Weeping Lilly Pilly Or Weeping Myrtle	Warren Street, Burwood VIC 3125	State
Angophora costata	Smooth Barked Apple gum	Riversdale Road Burwood VIC 3125	Regional
Ulmus minor 'variegata'	Silver Elm, Variegated European Field Elm	'The Gables', 20 Pembroke Street, Surrey Hills VIC 3127	Regional
Ulmus glabra 'Camperdownii'	Weeping Elm	Campbells Croft Reserve, Boronia Road Nunawading VIC 3131	Regional
Arbutus unedo	Irish Strawberry Tree	Presbyterian Ladies College, Burwood Highway, Burwood VIC 3125	File Only