



Electric Line Clearance Management Plan

(Bendigo WRP)

2023/24

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Plan Authorisation

This Electric Line Clearance Management Plan outlines how Coliban Water manages vegetation clearance along our electrical assets to mitigate bushfire risk and ensure our assets are safe and reliable.

As the owner and operator of electrical assets Coliban Water has prepared this plan in accordance with Section 84D of the Electricity Safety Act 1998 and the Electricity Safety (Electric Line Clearance) Regulations 2020, for approval by Energy Safe Victoria.

This plan is subject to annual review to ensure it describes current management regimes and processes, and to allow for continuous improvement.

Latest Version Updated By:	Reviewed By:	Approved By:
William Poker	Hayden Mowat	Mick Dunne
Graduate Engineer	Wastewater Treatment Manager	Manager Transition
		
13/04/2023	13/04/2023	13/04/2023

Document Control and Version History

Version	Description	Approved By	Date
1.0	Document created	N/A	07/11/2018
4.0	Published to new QA Docs system	N/A	14/12/2022
5.0	Published to new QA Docs system	N/A	30/03/2023
6.0	Update to table in Appendix 2 to clarify all measurements are from the pole centre line	N/A	13/04/2023

Definitions

Term	Definition
Annual Works Plan (AWP)	Coliban Water's preventative maintenance program conducted by Coliban Water's O&M Contractor.
Code	Code of Practice for Electric Line Clearance, which exists as a Guideline to the Electricity Safety (Electric Line Clearance) Regulations 2020.
Coliban Region Water Corporation (Coliban Water)	Coliban Water is a large Victorian Regional urban water corporation that manages, maintains and operates 35 reservoirs and water storage basins across North-Central Victoria and provides water and wastewater services to rural and urban customers across an area of 16,500 square kilometres.
ELCMP	Electric Line Clearance Management Plan
HBRA	Hazardous Bushfire Risk Area – An area that a fire control authority has assigned a fire hazard rating of "high" under section 80 of the Act; or an area that is not an urban area and has not been assigned a fire hazard rating of "low" under section 80 of the Act.
High Voltage Powerline	An overhead powerline which carries a voltage greater than 1000V (22kV for Coliban Water assets).
Important Vegetation	Includes native vegetation, vegetation listed in a planning scheme to be of ecological, historical or aesthetic significance, a tree of cultural or environmental significance or provides habitat for threatened fauna.
Maintenance	Works required to be undertaken on vegetation to maintain the minimum required clearance space to overhead powerlines. Includes pruning, clearing, cutting or removing.
Minimum Clearance Space	Refers to the minimum clearance space (air gap) between electric lines and vegetation as per the requirements of the code.
Native Vegetation	Species indigenous to Victoria and naturally occurring. Excludes trees deliberately planted (e.g. street trees or screening trees).
Operations and Maintenance Contractor (O&M Contractor)	The O&M Contractor is responsible for the operation and maintenance of Bendigo WRP (among other plants) under a service agreement, including the organization and management of grounds maintenance.
Tree of Cultural or Environmental Significance	Means a Tree that is included in the: <ul style="list-style-type: none"> • Heritage Register; • The Victorian Aboriginal Heritage Register; • Trees listed in a Planning Scheme to be of ecological, historical or aesthetic significance; • Flora or a habitat of fauna listed as threatened in accordance with section 10 of the Flora and Fauna Guarantee Act 1988; • Environment Protection and Biodiversity Conservation Act 1999 Part 13, Division 1; • Flora listed in the Threatened Flora List with a conservation status in Victoria of 'endangered' or 'vulnerable'; or • A habitat of fauna which is— <ul style="list-style-type: none"> ◦ Listed in the Threatened Invertebrate Fauna List with a conservation status in Victoria of 'vulnerable', 'endangered' or 'critically endangered'; or

	<ul style="list-style-type: none"> ○ Listed in the Threatened Vertebrate Fauna List with a conservation status in Victoria of 'vulnerable', 'endangered' or 'critically endangered'.
Vegetation	Any living or non-living flora or any part of that flora.
Vegetation Clearance	Means the minimum separation in air that shall be maintained between vegetation and live electrical apparatus when performing vegetation management work.
Vegetation Management Work	<p>Pruning, cutting, trimming or felling of, or application of herbicides to, vegetation and assisting to prune, cut, trim or fell, or apply herbicides to, vegetation, where:</p> <ul style="list-style-type: none"> • any part of the vegetation being pruned or cleared may come within 2 metres of live overhead power lines, or • the work requires any person, tool, equipment or vehicle to come closer to live overhead power lines than the following relevant minimum distances: <ul style="list-style-type: none"> ○ 100 mm for insulated low voltage conductors ○ 1500 mm for bare or covered low voltage conductors ○ 2000 mm for high voltage conductor with a nominal voltage not exceeding 66 kV.
Vegetation Management Contractor (VMC)	<p>A specialised external company responsible for carrying out vegetation inspection and clearing activities associated with this plan. The VMC is the "authorised person" engaged by the O&M Contractor or Coliban Water to undertake electrical line clearance works.</p> <p>Vegetation Workers are "authorised persons" as referred to in the Electricity Safety (Installation) Regulations 2009 r.318 & r.319.</p>
Vegetation Management Worker (VMW)	<p>Is a person working for a VMC someone:</p> <ul style="list-style-type: none"> • whose qualifications, experience and training and assessment ensure competency in the performance of vegetation management work; and • who has completed a training course approved by ESV; and • who has technical knowledge or sufficient experience to perform the duty concerned; and • who has been endorsed in writing by an organisation (e.g. the employer) to perform the work.



Regulatory Compliance Summary

This table is aligned with the structure of Regulation 9 to 11 of the Electricity Safety (Electric Line Clearance) Regulations 2020 and the Code of Practice for Electric Line Clearance indicating which section(s) of the plan describes how compliance will be achieved.

Regulation / Code	Requirement	Section reference in this plan	Page
9(2)	Before 31 March in each year, a responsible person must ensure that a management plan relating to compliance with the Code for the next financial year is prepared.	Section 2: Particulars of the ELCMP	9
9(4)(a)	Name, address and telephone number of the responsible person.	Section 2: Particulars of the ELCMP	9
9(4)(b)	Name, position, address and telephone number of the individual who was responsible for the preparation of the management plan.	Section 2: Particulars of the ELCMP	9
9(4)(c)	Name, position, address and telephone number of the persons who are responsible for carrying out the management plan.	Section 2: Particulars of the ELCMP	9
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.	Section 2: Particulars of the ELCMP	9
9(4)(e)	The objectives of the management plan.	Section 2: Particulars of the ELCMP	10
9(4)(f) 9(4)(g)	The land to which the management plan applies (as indicated on a map).	Section 2: Particulars of the ELCMP	11
9(4)(h) – (i)(ii)(iii)	The location of 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 considered a native and (or) significant tree.	Section 2: Particulars of the ELCMP	11
9(4)(i)	The means which the responsible person is required to use to identify a tree specified in paragraph (g).	Section 2: Particulars of the ELCMP	12
9(4)(j)(i)	Procedures for establishing and maintaining the minimum clearance space.	Section 3: Line Clearance Management Procedures	12
9(4)(j)(ii) Sch. 21	Process to describe how an allowance for sag and sway is to be calculated.	Section 3: Line Clearance Management Procedures	13
9(4)(k) Sch. 9	Ensure compliance with AS4373 – Pruning of Amenity Trees	Section 3: Line Clearance Management Procedures	14

9(4)(n)	A description of the measures that must be used to assess the performance of the responsible person under the management plan.	Section 4: Monitoring and Auditing	15
9(4)(o)	Details of the audit processes that must be used to determine the responsible person's compliance with the Code.	Section 4: Monitoring and Auditing	15
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.	Section 5: Training, Qualifications and Experience	16
9(4)(q)	Notification and consultation procedures.	Section 6: Notification, Consultation and Dispute Resolution	17
9(4)(r)	Dispute resolution procedures.	Section 6: Notification, Consultation and Dispute Resolution	17
10(6)	Publishing and availability of information.	Section 7: Publishing Information	17
11(1) and 11(2) Sch. 4,5,6	Exemptions and exceptions.	Section 8: Exemptions and Exceptions	18

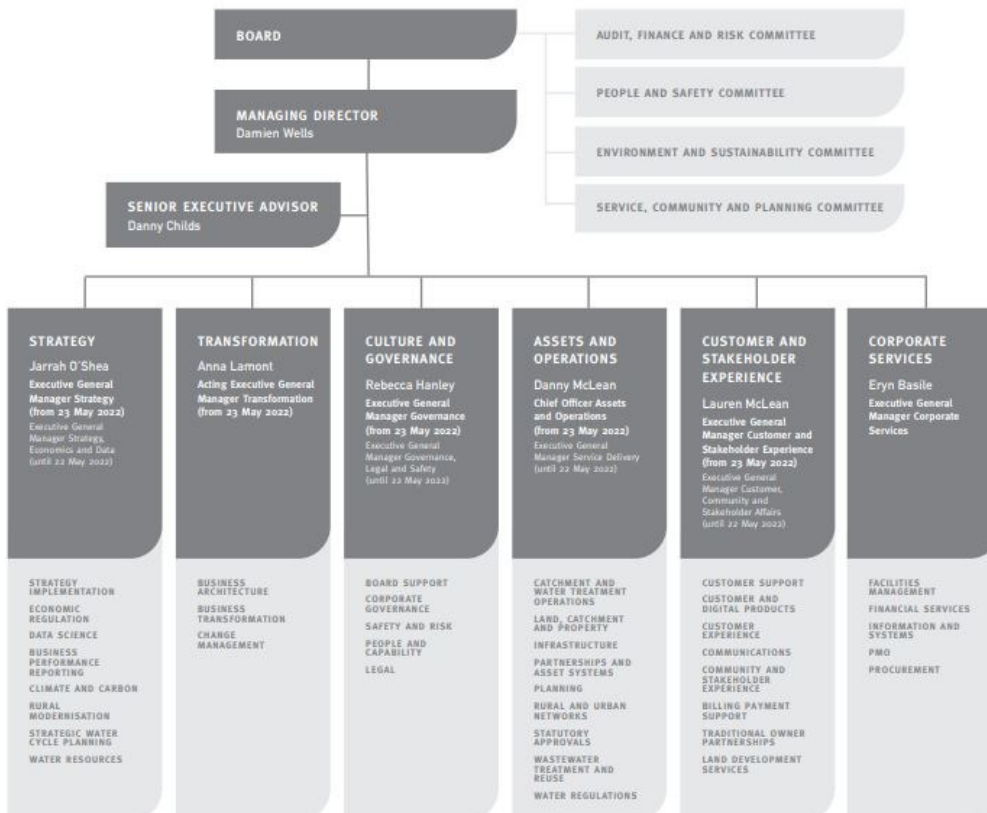
Section 1: Introduction

Responsible Person

Coliban Region Water Authority was established on 1 July 1992 under the Water Act 1989 as a Regional Urban Water Authority. The Authority became the Coliban Region Water Corporation on 1 July 2007 and operates as Coliban Water. Our shareholder is the Victorian Government.

We manage, maintain and operate 35 reservoirs and water storage basins across North-Central Victoria and provide water and wastewater services to rural and urban customers across an area of 16,500 square kilometres.

Management Structure



The Assets and Operation Group is responsible for managing the activities associated with this plan. The Group engages and manages an Operations and Maintenance Contractor to undertake the activities associated with carrying out this plan.

Objective of the Electric Line Clearance Management Plan

The objective of the ELCMP is to ensure the vegetation clearance space for all Coliban Water Corporation responsible overhead power lines is maintained in accordance with the Code.

The following information addresses the relevant requirements of Regulation 9 of the Electricity Safety (Electric Line Clearance) Regulations 2020 and the Code of Practice for Electrical Line Clearance.

This plan for the 2023/24 financial year has been prepared on the 30th March 2023.

Access to the Management Plan

Coliban Water Corporation publishes the most current management plan each year to its website. The plan can be accessed at the following location:

<https://coliban.com.au/help-advice/bushfire-readiness>

A hard copy of the management plan is also available for viewing at the Coliban Water Head Office located in Bridge Street, Bendigo during normal business hours.

Should a request be received from Energy Safe Victoria for the Management Plan to be submitted the Manager Transition will be responsible for making a copy available. A copy is to be made available within 14 days of the request being received by Coliban Water.

Section 2: Particulars of the ELCMP

Regulation Management Plan Particulars

Document Title / Identification Number

Electric Line Clearance Management Plan – 2023/24.

Regulation 9 (2)

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

Following the annual review and update of the ELCMP against changes to the Code, the document will be placed in the Coliban Water document management system "Records and Information Now" (RAIN) and managed as a controlled document. The most current version will be accessible to all Coliban Water staff via "Records and Information Now" (RAIN) and the O&M Contractor via the SharePoint Collaboration Site.

Coliban Water will complete an annual review of the ELCMP prompted by its controlled document management system.

The review process will be initiated to ensure the annual review and approval process is completed prior to March 31st each year.

Regulation 9 (4)(a)

Name, address and telephone number of the responsible person.

Name of Responsible Person: Coliban Water Corporation

Managing Director: Damian Wells

Address: 37-45 Bridge Street, Bendigo, Victoria 3550.

Telephone: 1300 363 200

Regulation 9 (4)(b)

Name, position, address and telephone number of the individual who was responsible for the preparation of the management plan.

Name: Mick Dunne

Position: Manager Transition

Address: 37-45 Bridge Street, Bendigo, Victoria 3550

Email: mick.dunne@coliban.com.au

Telephone: 1300 363 200

Regulation 9 (4)(c)

Name, position, address and telephone number of the persons who are responsible for carrying out the management plan.

Name: Danny Childs

Position: Program Director – Bendigo / Castlemaine WRP

Address: 37-45 Bridge Street, Bendigo, Victoria 3550

Email: danny.childs@coliban.com.au

Regulation 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.

Name: Coliban Water 24hr Contact Phone

Emergency Contact Number (24 hours): 1300 363 200

Regulation 9 (4)(e)

The objectives of the management plan.

The objective of the ELCMP is to ensure the vegetation clearance space for all Coliban Water responsible overhead power lines is maintained in accordance with the Code.

Coliban Water has identified the following key objectives to fulfil its commitment to maintain the space between the vegetation and power lines (clearance space) under its responsibility and ensure compliance as outlined in the Electricity Safety (Electric Line Clearance) Regulations 2020.

At all times Coliban Water will ensure vegetation works are carried out with attention to:

- Minimising fire risk associated with Coliban Water power lines
- Ensuring public safety
- Ensuring electrical safety
- Commitment to work place safety
- Ensuring continuity of electricity supply to Coliban Water facilities
- Responsible environmental management
- Protection of areas of important vegetation
- Effective notification, consultation and negotiation

Relevant processes will be monitored and audited by Coliban Water to ensure that the objectives of the plan are being implemented and actioned.

Key Performance Indicators (KPIs) include the following:

No.	Category	KPI	Performance Measure	Target
1	Regulatory	ELCMP implemented as required	ELCMP submitted by 31 st March each year	100%
		Minimum clearance maintained	Annual Works Plan delivered	100%
2	Minimise fire risk / Public safety	Pre-summer inspection completed	Inspection by 1 st October each year	100%
		Pre-summer clearing works completed	Prior to declared fire danger period	100%

Regulation 9 (4)(f) & (4)(g)

The land to which the management plan applies (as indicated on a map).

Any hazardous bushfire risk areas and low bushfire risk areas in the land referred to in paragraph (f) (as indicated on the map)

Coliban Water is responsible for the clearance of vegetation in the vicinity of overhead powerlines it owns and operates. This particular management plan applies to the 22kV overhead powerlines supplying electricity to the Bendigo Water Reclamation Plant located at Howard Street, Epsom.

Figure 1 (below) provides an overview map of the location of overhead powerlines at the site.



Figure 1: Bendigo Water Reclamation Plant (Howard Street, Epsom)

As part of its annual review of the management plan Coliban Water will ensure records relating to its existing and new powerlines are updated accordingly to ensure its vegetation management records remain current.

The overhead powerlines managed under this managed plan are located in HBRA.

Appendix 4 provides a further overview of the property indicating boundaries in relation to roadways indicated in Figure 1.

Regulation 9 (4)(h)(i)

The location of 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:

Native

At the time of this plan Coliban Water is aware of some vegetation within the vicinity of its overhead powerline, on the Millman Rd / Burnside Rd section, that meets this criterion. This vegetation has been identified as needing to be removed.

Vegetation on the site has been planted as part of the overall site development and aesthetics.

Regulation 9 (4)(h)(ii)

The location of 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:

Listed in a planning scheme to be of ecological, historical or aesthetic significance

At the time of this plan Coliban Water is unaware of any vegetation within the vicinity of its overhead powerline that meets this criteria.

Vegetation on the site has been planted as part of the overall site development and aesthetics.

**Regulation 9
(4)(h)(iii)**

***The location of 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:
A tree of cultural or environmental significance.***

At the time of this plan Coliban Water is unaware of any vegetation within the vicinity of its overhead powerline that meets this criterion.

Vegetation on the site has been planted as part of the overall site development and aesthetics.

Regulation 9 (4)(i)

The means which the responsible person is required to use to identify a tree specified in paragraph (h).

Coliban Water shall identify any significant trees within the vicinity of its overhead powerline via referencing various sources including:

- Heritage Register within the meaning of the Heritage Act 1995.
- Victorian Aboriginal Heritage Register established under section 144 of the Aboriginal Heritage Act 2006
- Flora or a habitat of fauna listed as threatened in accordance with section 10 of the Flora and Fauna Guarantee Act 1998.
- Flora listed in the Threatened Flora List with a conservation status of "endangered" or "vulnerable".
- A habitat of fauna which is listed within the Threatened Invertebrate Fauna List with conservation status in Victoria of "vulnerable", "endangered" or "critically endangered".
- A habitat of fauna which is listed within the Threatened Vertebrate Fauna List with a conservation status in Victoria of "vulnerable", "endangered" or "critically endangered".

At the time of this plan Coliban Water is unaware of any vegetation within the vicinity of its overhead powerline that meets this criterion.

Should Coliban Water seek to alter the status of the current overhead powerlines (e.g. relocate), or add additional overhead powerlines to the site covered by this plan, a review of the abovementioned registers would be included within project assessment and planning phase.

If vegetation of significance was identified clearing, pruning, removal or other works which may impact the vegetation would not commence until appropriate referral to, and where appropriate, approval has been granted by the relevant authorities.

Section 3: Line Clearance Management Procedures

**Regulation 9
(4)(i)(i)**

***The management procedures that the responsible person is required to adopt to ensure compliance with the Code, which must:
Include details of the methods to be adopted for managing trees and maintaining a minimum clearance space as required by the Code.***

Inspection Program Overview

The O&M Contractor conducts regular inspections and maintenance activities of vegetation on and adjacent to its property as part of its Annual Works Plan. Activities include regular pruning, removal of hazardous vegetation, slashing and mowing and application of herbicides to manage regrowth. This program includes the parts of Coliban Waters property containing overhead powerlines referenced within this plan.

To ensure vegetation clearance to its overhead powerline is maintained Coliban Water, via its O&M Contractor, engages a suitably qualified VMC, at least annually (prior to 1st October), to conduct an inspection of its overhead powerline to ensure vegetation likely to encroach the minimum clearance space is identified and actioned prior to the declared fire danger period (including details of action required, plant and equipment required and competencies to complete the task).

The VMC will consider the following key aspects in determining works to be completed:

- Span length and minimum clearance requirements (including sag and sway)
- Previous span inspection data
- Type of vegetation and expected growth / re-growth

Managing Regrowth Between Cycles

To reduce, and where practical eliminate, the need for urgent pruning or clearance works, regular maintenance and annual VMC inspections will also evaluate potential hazards to the clearance space, including:

- Dead and dangerous limbs
- Physical defects in trees (e.g. deterioration through disease or natural stresses)
- Other trees or limbs that may be unstable and could fail under the range of weather conditions that can be reasonably expected

In the event non-compliant vegetation is identified outside the vegetation management program timeframe the O&M Contractor shall engage a suitably trained and qualified VMC to undertake the works required to restore the minimum clearance space as soon as practical.

Identifying and Managing Hazard Trees

Where trees of a hazardous nature are identified such trees are then subject to further assessment by a suitably qualified arborist to determine further actions required including providing a report to Coliban Water.

For the purpose of this plan a hazard tree is defined as having the potential to damage electric lines. Vegetation outside the clearance space is monitored to mitigate the risk of falling trees or branches. The vegetation outside the clearance space is assessed by a suitably qualified arborist to identify obvious hazard trees. This assessment is limited to visual assessment only by an arborist. Typically, an obvious hazard tree would be exhibiting one or more of the following:

- Poor anchorage (e.g. Root uplift)
- Major stage of decline (i.e. dead and dangerous limbs)
- Excessive imbalance towards electrical assets
- Obvious cracks / splits in trees

Coliban Water has a preventative maintenance plan for vegetation management activities relative to this plan in its annual works plan within its Asset management Information System (Hansen). This activity will be monitored by Coliban Waters O&M Contractor.

Responsible Cutting / Pruning Practices

The O&M Contractor will ensure that the VMC has appropriate training and certification in compliance with the Code to prevent excess pruning and/or inappropriate clearing of vegetation.

All cutting and pruning activities associated with this plan are, as far as practicable, to be completed in compliance with AS4373 Pruning of Amenity Trees.

Where it is not practicable to cut or prune vegetation in accordance with the practices outlined in AS4373 Coliban Water will engage a suitably qualified Arborist to determine the most practical solution to ensure the minimum clearance between the vegetation and overhead powerline is maintained.

**Regulation 9
(4)(j)(ii)
Schedule 21**

***The management procedures that the responsible person is required to adopt to ensure compliance with the Code, which must:
Specify the method for determining an additional distance that allows for conductor sag and sway***

Coliban Water manages uninsulated overhead powerlines operating at 22,000V within HBRA which are subject to the conditions and management procedures described in this plan. The spans under management are described in Appendix 2 of this plan.

Coliban Water acknowledges that the characteristics of overhead powerlines is affected by a number of factors including:

- Ambient temperature
- Electricity current loading
- Wind
- Line construction
- Length of span

Coliban Waters O&M Contractor is responsible for managing vegetation growth as part of general grounds management activities.

In order to determine the minimum clearance requirements for each of its overhead powerline spans, and provide suitable guidance for vegetation management workers, Coliban Water has undertaken the following process:

1. Determined the “applicable distance” for each span as per Clause 28 of the Code.
2. Engaged a suitably qualified contractor to conduct an Overhead Powerline Survey and calculate “sag and sway” measurements for each of its spans.

Appendix 2 provides an overview of the minimum clearance space for each span and Appendix 3 provides relevant vegetation clearance information from the Code relevant to Coliban Water overhead powerlines managed under this plan.

**Regulation 9 (4)(k)
Schedule 9**

***The procedures to be adopted if it is not practicable to comply with the requirements of AS 4373 while cutting a tree in accordance with the Code.
Schedule 9 - A responsible person cutting a tree to achieve compliance must, as far as practicable, cut the tree in accordance with AS 4373 as published or amended from time to time***

Where a tree is identified during the inspection or vegetation management works as not capable of being cut in accordance with AS 4373-2007 an alternative solution should be sought. The selection of the cutting technique and plant and equipment is the responsibility of the VMC.

Options to be considered are:

- Investigate whether an alternative compliance mechanism can be applied under Division 2 of the Code of Practice for Electric Line Clearance.

Where it is cost prohibitive or approval is not granted to apply an alternative compliance mechanism, the tree may, in some circumstances:

- Be removed by the VMC following consultation with Coliban Water and a more suitable species planted.

Reasonably practicable in relation to AS 4373 means that which is, or was at a time, reasonably able to be done in relation to ensuring continued tree health and future tree safety, considering and weighing up all relevant matters including:

- a) The likelihood of the hazard or the risk concerned occurring – will the action create a defect, hazard, loss of tree health or aesthetic value in the present or future.
- b) The degree of harm that might result from the hazard or the risk - what will the impact be on the tree or future safety of the public.
- c) What the person concerned knows, or ought reasonably to know about:

- i. The hazard or the risk – must have adequate knowledge to determine the hazards risks
 - ii. Ways of eliminating or minimising the risk – must have adequate knowledge in relation to alternative measures
- d) The availability and suitability of ways to eliminate or minimise the risk – are other resources or techniques available to complete works to the standard.
 - e) After assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk – does the cost required to complete works to the standard grossly outweigh the value of the tree.

VMCs completing pruning works are required to complete all works to AS4373 as far as reasonably practicable which includes not removing more than 30% of foliage, not removing large structural limbs, and using top/bottom cut method to prune to eliminate bark tearing.

Where this cannot be achieved, the site or trees are to be referred to Coliban Water to make an assessment on whether it is reasonably practicable to deviate from AS4373.

Where pruning to achieve clearance will not allow compliance with AS4373, Coliban Water may elect to:

- Increase the pruning frequency to minimise the required pruning.
- Remove scaffold/ parent limbs initially to minimise future required pruning.
- Remove trees where the resulting pruning would leave trees unsuitable for retention.

Where the above situations occur, Coliban Water is to be notified. Where trees are to be removed, notification of the relevant authority(s) will be undertaken by Coliban Water as required.

Coliban Water shall conduct inspections of cutting or removal activities to ensure it is done in accordance with industry standards, including AS4373 (Pruning of Amenity Trees) and that VMCs continually demonstrate compliance with the prescribed safety and environmentally responsible aspects of the industry. Further detail is provided in Section 4 of this plan.

Section 4: Monitoring and Auditing

Regulation 9 (4)(n)

A description of the measures that must be used to assess the performance of the responsible person under the management plan.

The overall performance of the management plan is monitored and is subject to annual review as part of the Annual Works Plan process. Key performance indicators used to measure the outcome of the plan include the completion pre-summer assessments and identified works prior to the declared fire danger period.

Coliban Water and its O&M Contractor have certified safety management systems that are also used to report incidents and hazards. It is a requirement of all contractors to be inducted into and meet Coliban Water's management systems requirements. Coliban Water's certified systems include:

- AS/NZS 4801:2001: Occupational Health and Safety
- AS/NZS 14001:2004 Environmental Surveillance Audit
- AS/NZS ISO 9001:2008: Quality

References to relevant Coliban Water procedures are provided in Appendix 1.

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

O&M Contractor performance is auditing via the contract auditing process. Coliban Water and its O&M Contractor have certified safety management systems that are also used to report incidents and hazards. It is a requirement of all contractors to be inducted into and meet Coliban Water's management systems requirements. Coliban Water's certified systems include:

- AS/NZS 4801:2001: Occupational Health and Safety
- AS/NZS 14001:2004 Environmental Surveillance Audit
- AS/NZS ISO 9001:2008: Quality

References to relevant Coliban Water procedures are provided in Appendix 1.

Section 5: Training Qualifications and Experience

Regulation 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

Note: Regulation 616(2) of the Electricity Safety (General) Regulations 2019 sets out specific requirements for qualified persons carrying out vegetation management work.

Coliban Water workers and VMCs undertaking vegetation management activities per this plan shall have sufficient knowledge, qualifications, training, authorisation and experience appropriate for the task they are to perform to ensure tree activities are conducted in a safe and environmentally responsible manner.

Induction processes shall verify the currency of all licenses, authorities and refresher training required by workers prior to vegetation management activities commencing.

The following provides a summary of the minimum qualifications for Coliban Water workers and VMCs employed to undertake works as part of this plan.

Role	Qualifications (minimum)	Monitored By
Arborist	Certificate II - ESI in Powerline Vegetation Control and National Certificate III in Arboriculture or equivalent, including units of competency relevant to the role as outlined in Table 4 of the <i>Guidance for the Electric Line Clearance Regulations 2020</i>	Contractor Management (engagement) Process Coliban Water Induction Onsite audits
Vegetation Inspector	Certificate II - ESI in Powerline Vegetation Control, including electives relevant to the role as outlined in Table 4 of the <i>Guidance for the Electric Line Clearance Regulations 2020</i>	Contractor Management (engagement) Process Coliban Water Induction Onsite audits
Tree Cutter / Pruner	Certificate II - ESI in Powerline Vegetation Control, including electives relevant to the role as outlined in Table 4 of the <i>Guidance for the Electric Line Clearance Regulations 2020</i>	Contractor Management (engagement) Process Coliban Water Induction Onsite audits
Ground Worker	Certificate II - ESI in Powerline Vegetation Control, including electives relevant to the role as outlined in	Contractor Management (engagement) Process, Coliban Water Induction, Onsite audits

	Table 4 of the <i>Guidance for the Electric Line Clearance Regulations 2020</i>	
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The Certificate II ESI covers many aspects of the required training such as chainsaw use, OH&S principles, first aid, pruning techniques and EWP licenses. Additionally, staff may be required to hold training in:

- Traffic management / Chipper operation / Chemical application

To operate High Risk Plant and equipment (e.g. EWP) the operator shall have the applicable High Risk License issued by WorkSafe Victoria.

Induction training of all Coliban Water and VMC workers shall be undertaken prior to commencing or accessing the site. All employees and contractors must be inducted into the safety requirements for the contract and the site prior to being permitted to undertake works on the site. AS4373 and the definition of “as far as practicable” will be outworked to personnel at the induction. The VMC will be required to complete a Job Safety Analysis (JSA) or equivalent procedure which will document the occupational safety and environmental risks associated with the use of the appropriate technique(s), plant and equipment. The O&M Contractor will review and approve the JSA prior to implementation.

In the unlikely event a situation arises where tree cutting or pruning is required to be conducted in the vicinity of the Coliban Water overhead powerlines, with the lines remaining in-service, the O&M Contractor will consult with an appropriately qualified VMC and (or) Powercor Australia, to determine the most appropriate method and resource to complete the works safely.

Any worker found to be undertaking vegetation management works on the site without the appropriate training or qualifications will be immediately directed to cease work.

Section 6: Notification, Consultation and Dispute Resolution

Regulation 9 (3)(q) Notification and consultation procedures

At the time of this plan Coliban Water has no records of trees on private or public land (other than Coliban Water owned land) that may require consultation.

If, during inspections, vegetation works are identified which may impact other parties the VMC will notify Coliban Water. If appropriate/required, the VMC may then provide written notification to all the affected parties (i.e. Local Government, residents) within a minimum of 14 days and a maximum 60 days before the intended cutting or removal is to occur.

In the case of urgent or emergency works Coliban Water will ensure that notice is given to the affected persons as soon as practicable after the work has been completed (as required). Coliban Water keeps records of urgent pruning works within the database and captures information such as the location, timing of works (cut/inspection), and the reasons for the cut/removal was required (as specified by an arborist).

If required, notification of the VMC program of works will be undertaken in accordance with the Electricity Safety (Electric Line Clearance) Regulation's 2020.

Regulation 9 (3)(r) Dispute resolution procedures

Coliban Water has established and documented policies and procedures for handling complaints. Contact can be made in writing, by email to coliban@coliban.com.au or by telephone on 1300 363 200.

A summary of Complaints and Dispute Resolution Procedure is provided in the “Urban Customer Charter” which is available for viewing on Coliban Water’s Customer Support page of its website.

Where disputes relevant to this plan cannot be resolved, the matter will be directed to Energy Safe Victoria or the Energy and Water Ombudsman of Victoria. Coliban Water will comply with the subsequent outcome.

The Manager Transition is responsible for managing disputes relating to this plan.

Section 7: Publishing Information

Regulation 10 (6)

A responsible person must ensure that a copy of the management plan is: published on the responsible person's Internet site

Coliban Water will publish a copy of its most current, approved ELCMP on its website at the following website address:

<https://coliban.com.au/help-advice/bushfire-readiness>

Section 8: Exemptions and Exceptions

Regulation 11 (1,2)

Energy Safe Victoria may exempt a responsible person from any of the requirements of these Regulations subject to any conditions specified by Energy Safe Victoria.

A responsible person who is granted an exemption under this regulation must comply with the conditions (if any) of the exemption.

At the time of this plan Coliban Water has not requested any exemptions or exceptions.

Schedule 4, 5, 6

Exception to minimum clearance space (Low Voltage lines)

Not applicable to the assets covered by this plan.

Appendix 1: Reference Documentation

Electricity Safety Act 1998

Electricity Safety (Electric Line Clearance) Regulations 2020

Australian Standard AS4373 – Pruning of Amenity Trees

Electricity Safety (General) Regulations 2019

Electricity Safety Electric Line Clearance Guidelines 2016

Information to better understand the Electricity Safety (Electric Line Clearance) Regulations 2020 and to assist in preparing an Electric Line Clearance Management Plan Rev C 2017

ESV's ELCMP evaluation matrix

Coliban Water Management System Documents

- Risk Management Framework

- Bushfire Preparedness Plan

- Hazard and Risk Management Procedure

- Training and Induction Procedure

- Contract Audit Procedure

- Corrective Action and Continual Improvement Procedure

- Management Review Procedure



Appendix 2: Span Details

Under this plan Coliban Water is responsible for maintaining the clearance between vegetation and overhead powerlines for two separate installations totaling five spans carrying a voltage of 22kV.

The minimum clearance space outlined below is currently being reassessed (April 2023) and may be subject to update. A new version of the Electric Line Clearance Management Plan will be approved and published if the minimum clearance distances change.

Line 1: Ex-Powercor Pole 56 (Burnside / Millman Road):

Span	Conductor Type	Stringing	Span Length (m)	Voltage	Fire Zone	Notes – Minimum Clearance Space (First and Last 1/6 of Span)	Notes – Minimum Clearance Space (Middle 2/3 of Span) from Pole centre line
1-2	3 – 19/3.25 AAC	EC261 (M49)	145.8 (150m)	22,000	HBRA	1500mm	North 7.71m South 8.06m

Note¹: Minimum Clearance Space determined per Graph 5, Schedule 2 Electricity Safety (Electric Line Clearance) Regulations 2020.

Line 2: Ex-Powercor Pole 8 (Howard Street):

Span	Conductor Type	Stringing	Span Length (m)	Voltage	Fire Zone	Notes – Minimum Clearance Space (First and Last 1/6 of Span)	Notes – Minimum Clearance Space (Middle 2/3 of Span) from Pole centre line
1 - 2	3 – 7/3.75 AAC	EC261 (M49)	105.6 (110m)	22,000	HBRA	1500mm	East 7.53m West 7.31m
2 - 3	3 – 7/3.75 AAC	EC261 (M49)	46.3 (50m)	22,000	HBRA	1500mm	East 3.86m West 3.69m
3 - 4	3 – 7/3.75 AAC	EC261 (M49)	44.7 (50m)	22,000	HBRA	1500mm	East 3.76m West 3.57m

Note¹: Minimum Clearance Space determined per Graph 5, Schedule 2 Electricity Safety (Electric Line Clearance) Regulations 2020.

Note²: Minimum Clearance Space calculation:

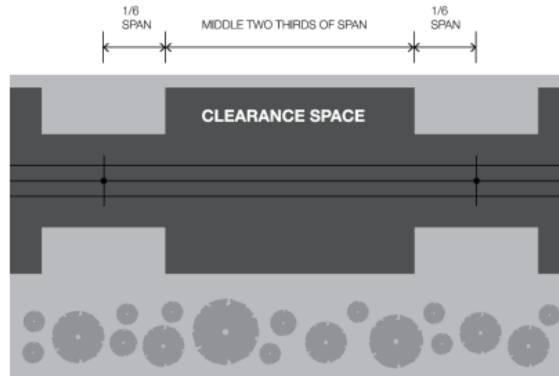
Applicable Distance + Calculated Design Sag & Sway + Cond. O/S

Appendix 3: Minimum Clearance Space Information

Clearance Space

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



Reference: Electricity Safety (Electric Line Clearance) Regulations 2020

Uninsulated electric lines in HBRA (Clearance Space)

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



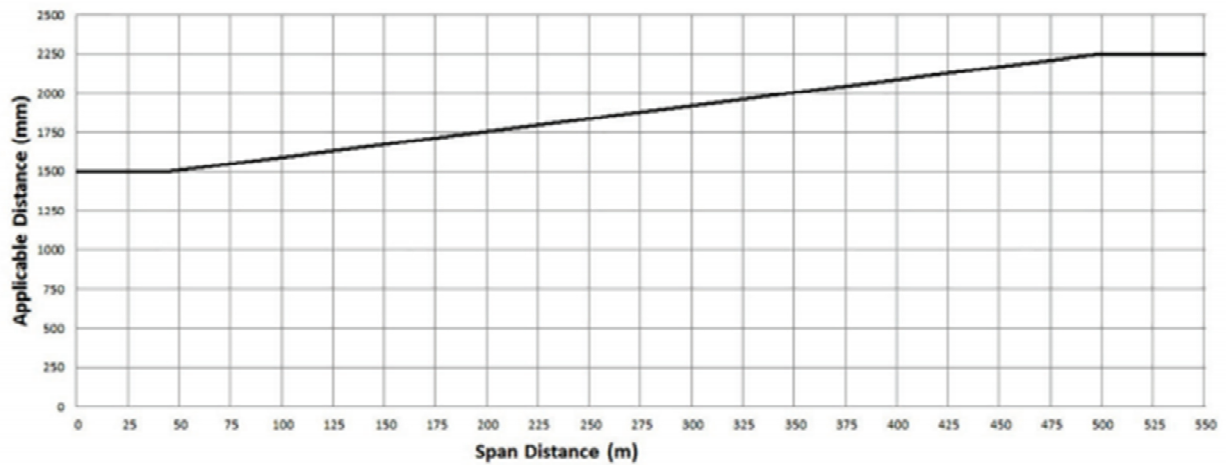
NOT TO SCALE

Reference: Electricity Safety (Electric Line Clearance) Regulations 2020

Clearance Space Graph

GRAPH 5—UNINSULATED LOW VOLTAGE AND HIGH VOLTAGE ELECTRIC LINE (OTHER THAN A 66 000 VOLT ELECTRIC LINE) IN HAZARDOUS BUSHFIRE RISK AREA

Clauses 3 and 28



Reference: Electricity Safety (Electric Line Clearance) Regulations 2020

Appendix 4: Property Map

