Electric Line Clearance Management Plan

Melbourne Water Corporation

2021/2022

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Plan authorisation

This Electric Line Clearance Management Plan outlines how Melbourne 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 Melbourne 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.

Approved by

Joanne Hunt

Joanne Hunt

Water & Sewerage Asset Management, Service Delivery

Document control and version history

Document issue number	Authorised by	Date
1	Tohi Otimi	7 June 2018
2	Peter Gall	29 March 2019
3	Kitty Niven	31 March 2020
4	Joanne Hunt	29 March 2021

Definitions

Suitably qualified arborist, A professional in the practice of arboriculture, which is the cultivation, management, and study of individual trees. Suitably qualified arborists are qualified to assess the hazards associated with removing or cutting Hazard trees, and are further qualified compared to an assessor.

Code, Refers to the Code of Practice for Electric Line Clearance, which exists as a Guideline to the Electricity Safety (Electric Line Clearance) Regulations 2020. Schedules 1 and 2 of these regulations are together prescribed as the Code of Practice for Electric Line Clearance.

Cut, in relation to a tree, includes cutting a part of the tree

Hazardous Bushfire Risk Areas (HBRA), these areas are considered to be in rural regions and have been assigned by the fire control authority as high fire risk rating.

High Voltage powerline is an overhead powerline which carries a higher voltage than 1000 V, typically 11 kV or 22 kV.

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

Low Bushfire Risk Areas (LBRA), these areas are considered to be predominately urban and have been assigned by the fire control authority as a low fire risk rating.

Low voltage powerline is an overhead electrical line which carries 1000 V or less

Maintenance, Refers to works required to be undertaken on vegetation to maintain the clearance space. Includes pruning, clearing, cutting or removing.

Melbourne Water Corporation (MWC) is a water resource manager owned by the Victorian Government.

Minimum Clearance Space, Area around an electric line that must be kept clear of vegetation at all times as per the requirements of the Code

Native vegetation includes species indigenous to Victoria and naturally occurring, excluding trees deliberately planted (e.g. street trees or screening trees).

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

Tree of Cultural or Environmental Significance,

means a tree that is—

a. included in the Heritage Register within the meaning of the Heritage Act 2017; or

b. included in the Victorian Aboriginal Heritage Register

c. flora that is—

    i. listed as threatened in accordance with section 10 of the Flora and Fauna Guarantee Act 1988; or

ii. listed in the Threatened Flora List with a conservation status in Victoria of "endangered" or "vulnerable"; or

iii. a habitat of threatened fauna.

Vegetation, means 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, means the 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:

- 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:

  a. 100 mm for insulated low voltage conductors

  b. 1500 mm for bare or covered low voltage conductors

  c. 2000 mm for high voltage conductor with a nominal voltage not exceeding 66 kV.

Vegetation Management Company (VMC), A certified (ISO 14001) accredited specialised external company responsible for the management and co-ordination of work associated with the Vegetation Management Program**.** The VMC is the 'authorised person' engaged by MWC to undertake electrical line clearance works on behalf of MWC. A Vegetation management worker (VMW), is a person working for a VMC:

- 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.

Regulation compliance summary

This table is aligned with the structure of Regulation 9 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 no.
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 - ELCMP particulars	11
9(4)	A responsible person must ensure that a management plan prepared under sub regulation (2) specifies the following –	Section 2 - ELCMP particulars	12
9(4)(a)	Contact details of the responsible person	Section 2 - ELCMP particulars	12
9(4)(b)	Contact details for the individual who was responsible for the preparation of the management plan	Section 2 - ELCMP particulars	12
9(4)(c)	Contact details for the persons who are responsible for carrying out the management plan	Section 2 - ELCMP particulars	12
9(4)(d)	Contact details for 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 - ELCMP particulars	12
9(4)(e)	Objectives of the plan	Section 2 - ELCMP particulars	12
9(4)(f)	The land to which the management plan applies by the inclusion of a map	Section 2 - ELCMP particulars	13
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);	Section 2 - ELCMP particulars	13
9 (4) (h)(i)(ii)(iii)	Clear understanding of the indigenous to Victoria tree population and where these species are located	Section 2 - ELCMP particulars	13-15
9 (4) (i)	Clear understanding of how to identify the category of trees	Section 2 - ELCMP particulars	15

Regulation / Code	Requirement	Section reference in this plan	Page no.
9 (4) (j)(i)	Procedure for establishing and maintaining vegetation clearances from electrical infrastructure	Section 3 – Line clearance procedures	17-28
9 (4) (j)(ii)	Process to describe how an allowance for cable sag and sway will be calculated	Section 3 – Line clearance procedures and Appendix D	29-34
9 (4) (k)	Compliant with AS 4373 – Pruning of Amenity Trees	Section 3 – Line clearance procedures	34
9 (4) (l)	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;	Not Applicable	
9 (4) (m)	the details of each approval for an alternative compliance mechanism that – the responsible person holds; and is in effect	Not Applicable	
9 (4) (n)	Methods and Details of the audit processes	Section 4 – Monitoring and auditing	35-36
9 (4) (o)	Details of the audit processes	Section 4 – Monitoring and auditing	36-37
9 (4) (p)	The qualifications and experience that the responsible person must require	Section 5 - Training qualifications and experience	38-39
9 (4) (q)	Notification and consultation procedure	Section 6 – Notification, consultation and dispute resolution	40
9 (4) (r)	Describe how disputes relevant to the cutting and removal of trees will be managed	Section 6 – Notifications and conflict dispute	42
10(2) (3)	The responsible person must: - provide a copy of the management plan to Energy Safe Victoria within 14 days after a written request from Energy Safe Victoria or such longer period as	Section 7 – Publishing information	43

Regulation / Code	Requirement	Section reference in this plan	Page no.
	specified by Energy Safe Victoria in the written request. - provide further information or material in respect of the pan a copy of the management plan to Energy Safe Victoria within 14 days after a written request from Energy Safe Victoria or such longer period as specified by Energy Safe Victoria in the written request		
10(6)	A responsible person must ensure that a copy of the management plan is published on the responsible person's Internet site	Section 7 – Publishing information	43
11(2)	A responsible person who is granted an exemption under this regulation must comply with the conditions (if any) of the exemption.	Section 8 – Exemptions and Exceptions	44

Section 1 - Introduction

Key Contacts

The address of all contacts is 990 La Trobe Street, Docklands. Key contacts can also be contacted by email [first name].[surname]@melbournewater.com.au.

Role	Name	Position
ELCMP Approver	Joanne Hunt	Manager Water and Sewerage Asset Management (WASAM)
Review and Update of the ELCMP	Andy Fitzgerald	Principal Electrical Engineer WASAM
Delivery Project Manager Lead	Stephen Sonnenberg	Team Leader DPD West
Delivery project Manager	Elmo Tharmaseelan	Project Manager
Cultural Heritage Advisor	Austen Graham (Paul Balassone)	Cultural Heritage Advisor Asset Management Services
Trees of ecological, historical or aesthetic significance	Rene Van der Sant	Asset Practitioner Land Asset Management Services

Melbourne Water Corporation (MWC) is a water resource manager owned by the Victorian Government. MWC manages Melbourne's water supply catchments, removes and treats most of Melbourne's sewage, and manages rivers and creeks and major drainage systems throughout the Port Phillip and Westernport region.

MWC is a significant landowner in the Port Phillip and Western Port region managing 33,582 hectares of land and is responsible for managing $8.7 billion of water supply, sewerage and drainage assets, as well as natural assets such as rivers and creeks. These assets service 3.4 million people in an area spanning 12,800 square kilometres.

MWC is the **responsible person** for clearance of vegetation in the vicinity of overhead power lines owned and operated by MWC (here in referred to MWC power lines) in accordance with the requirements of the *Electricity Safety Act 1998* and the associated regulations.

MWC Project Management Structure

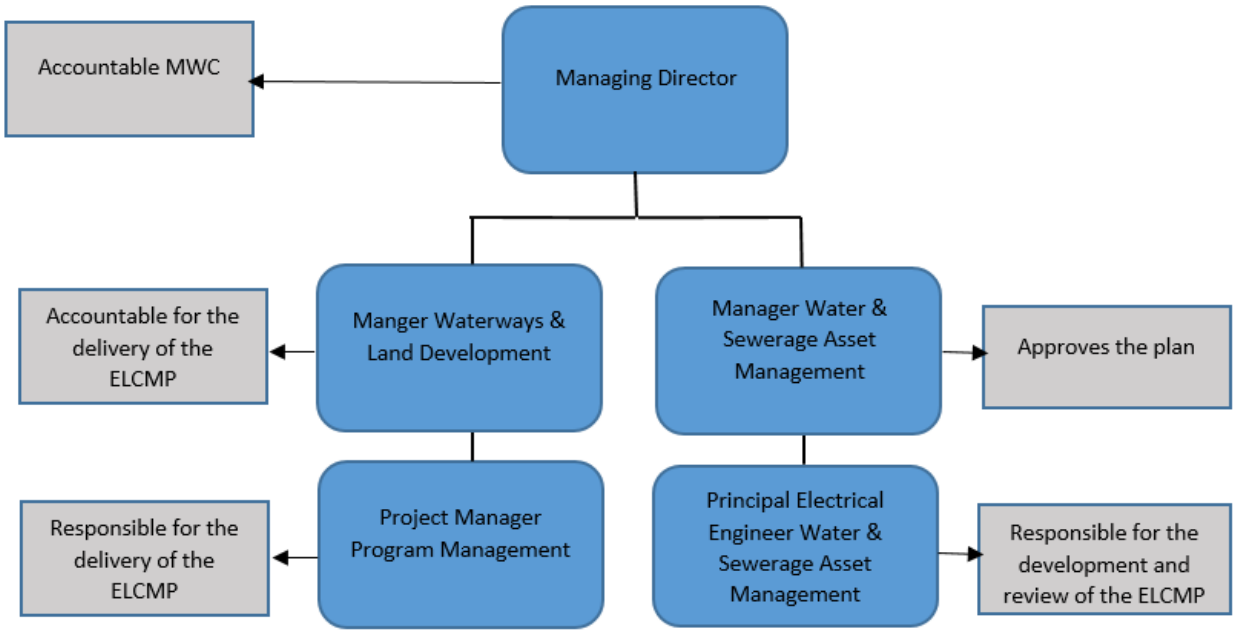


Figure 6 Organisation structure displaying key accountabilities and responsibilities regarding ELCMP

1. The Project Manager engages a suitable qualified Vegetation Management Company (VMC) to complete inspections of all MWC responsible electricity lines to ensure compliance with the Code.
2. Works identified by the inspections is reported to the Project Manager who compiles corrective works.
3. MWC's approved contractors complete the required corrective works identified in the inspection.

Section 2 - ELCMP particulars

Reg.	*Management plan particulars*
	Document title / identification number: Electric Line Clearance Management Plan – Melbourne Water responsible power lines 2021/2022. Document ID no is 51958492 (as per previous superseded year versions)
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*
	This ELCMP is a revised version of the previous 2020/2021 submission. Following internal approval of the ELCMP, this document will be placed in MWC's Integrated Management System (IMS) Controlled Document Library, where the most current version can be made readily available to all MWC staff. The 'add version' process is used to maintain the document ID number. Link CONTROLLED document is below: **Melbourne Water Electrical Line Clearance Management Plan** http://inflo/inflo/cs.exe/link/51958492 Drafting documents used in the preparation of the next years plan are located within the below location. These documents have DRAFT in the title and are watermarked DRAFT: *Electric Line Clearance Management Plan UNCONTROLLED FOLDER* http://inflo/inflo/llisapi.dll/link/39904259 Common information links such as maps, spans are also kept in this folder. As part of the review the following documents shall be reviewed for currency and identify any changes: • Electricity Safety Act 1998 • Electricity Safety (Electric Line Clearance) Regulations (Incorporates code of practice in schedules 1 & 2) • WorkSafe (Victoria) – "Working Safely With Trees – Recommended Practices for the Amenity Tree Industry" • Australian Standard AS 4373- Pruning of Amenity • Electricity Safety (General) Regulations for work on or near high voltage electrical apparatus (The Blue Book) • Electricity Safety Electric Line Clearance Guidelines The IMS will prompt a review of this document annually. The initiation of this process via the IMS will ensure the document is reviewed and approved by 31 March each year.

9(4)(a)	*Name, address and telephone number of the responsible person.*
	Name of Responsible Person: Melbourne Water Corporation Managing Director: Michael Wandmaker Address: 990, Latrobe Street, Docklands, Victoria 3008. Telephone: 131 722
9(4)(b)	*Name, position, address and telephone number of the individual who was responsible for the preparation of the management plan.*
	Name: Joanne Hunt Position: Manager, Water & Sewerage Asset Management, Service Delivery Address: Melbourne Water Corporation 990 Latrobe Street, Docklands, Vic 3008. Email: Jo.Hunt@melbournewater.com.au Telephone: (03) 8574 9705
9(4)(c)	*Name, position, address and telephone number of the persons who are responsible for carrying out the management plan.*
	Name: Rod Clifford Position: Manager, Delivery Program Development Address: Melbourne Water Corporation 990 Latrobe Street, Docklands, Vic 3008. Telephone: (03)96797272
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: Water Supply Duty Officer (24 hour availability) Control Room Emergency contact number: (03) 9325 2666 - (MON to SUN, 07:30hrs to 17:00hrs). After Hours - From 17:00hrs to 07:30hrs. All Water Control Centre phones are diverted to South East Water Limited.
9(4)(e)	*Objectives of the plan.*
	The objective of the ELCMP is to ensure the vegetation clearance space for all MWC responsible overhead power lines is maintained in accordance with the Code. This plan for the 2021-22 financial year details MWC commitment to maintain the space between the vegetation and power lines (clearance space) under its responsibility in compliance with the Electricity Safety (Electric Line Clearance) Regulations 2020 and the Code of Practice for electrical line clearance. The following are identified as the key objectives of this plan • Minimising fire risk associated with MWC power lines

	• Ensuring public safety • Ensuring electrical safety • Commitment to work place safety • Ensuring continuity of electricity supply to Melbourne Water facilities • Responsible environmental management • Protection of areas of important vegetation • Effective notification, consultation and negotiation
9(4)(f)	*The land to which the management plan applies by the inclusion of a map.*
	MWC is the responsible person for clearance of vegetation in the vicinity of overhead power lines owned and operated by MWC in accordance with the requirements of the *Electricity Safety Act* and the associated regulations. Appendix A provides: • an overview map of the location of all MWC power lines. • Individual localised site maps with power line details imposed The individual localised maps are generated from Melbourne Water's GIS system (ESRI) database.
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);*
	Appendix A provides: • Individual localised site maps of bushfire zoning and power line details *The individual localised maps are generated from Melbourne Water's GIS system (ESRI) database.*
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: *Indigenous to Victoria*
	Appendix B provides details of each native tree including type and location in the vicinity of the power lines that run on MWC property. The VMC is required to report to MWC any native tree issues identified during inspection of power lines.
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*
	The purpose of this section is to document the tree population that is listed in a planning scheme to be of ecological, historical or aesthetic significance. A part of the annual review process for the ELCMP MWC's internal Cultural Heritage team will undertake a review of the Victorian Aboriginal Heritage Register. This should be initiated in early January as can take several months to complete.

This review was last undertaken Feb 2021 with the result being permits are not required. Key aspects of the report are given in appendix I. The full report can be found via internal link Powerline-Vegetation-Clearance-Program_Cultural-Heritage-Due-Diligence_16022021.pdf.

If any of the locations in the future trigger either an Aboriginal cultural heritage permit or a historic heritage permit then the project manager and a member of the heritage team will work to complete the permit as soon as possible. The process may take up to 3 months to complete. It is suggested that the process begin April / May.

Historical trees

No trees registered with the National Trust were recorded within 200m of MWC power lines. Similarly, no sites of historic significance (as identified on the Heritage Victoria register) were identified to occur in close proximity to MWC power lines.

Rare and threatened flora and fauna species locations

The Victorian Biodiversity Atlas (VBA) search of rare/threatened flora and fauna and MWC internal database show that there are some records within the 200m buffer search area of each MWC asset. It is unlikely that any of these species would be substantially impacted by vegetation management work for vegetation clearance. Refer to Appendix A for the details and locations of rare/threatened flora and fauna species records in the vicinity of the power lines that run on MWC property. The individual localised maps are generated from Melbourne Water's GIS system (ESRI) database.

Melbourne Water internal database

In addition to the rare and threatened flora and fauna MWC hold information (outlined below) of sites at major power line locations which display important habitat features.

Sugarloaf Reservoir

The power line at Sugarloaf reservoir is situated within the Box Ironbark Forest EVC in the Highlands – Southern Fall Bioregion. The dominant vegetation is Eucalyptus sp. mainly *E. leucoxylon* (Yellow Gum) and *E. macroryncha* (Red Stringybark). Box Ironbark vegetation in this region is categorised as a vulnerable vegetation type in Victoria.

Records at Sugarloaf reservoir also document important habitat sites for the Brush tailed phascogale (*Phascogale tapoatafa*), White-bellied Sea-Eagle (*Haliaeetus leucogaster*), Musk Duck (*Biziura lobata*), Caspian Tern (*Hydroprogne caspia*) and the Common Dunnart (*Sminthopsis murina*), within vicinity of the power lines. These species are classed as vulnerable within the Victorian Rare or Threatened Species List except for the Caspian Tern which is listed as near threatened. Although, there has been evidence of a juvenile White-bellied Sea-eagle flying over the reservoir. To date there are no records of trees along the power line easement at Sugarloaf that may be suitable active or recent nest trees for the White-bellied Sea-eagle. The Brush tailed phascogale is utilising the landscape at Sugarloaf as a whole. Any vegetation management should not adversely impact any hollow bearing trees, as these are a vital component of the species' habitat. Where trees containing hollows are adversely affected, every attempt should be made to retain hollows, as much as possible.

	Western Treatment Plant The power lines at the Western Treatment Plant (WTP) run primarily along farm roads and through grassy farm paddocks. Large pines exist in the northern section of the power lines and Moonah (*Melaleuca lanceolata*) grows along a section of Farm Rd. The Western Treatment Plant site is a Ramsar site and MWC stringent management regimes are implemented to protect its values. All pruning works at WTP within the Ramsar site will reflect the same sensitivity to management whilst complying with the code. *Summary of findings and processes* To date, no trees or vegetation) are listed in a planning scheme to be of ecological, historical or aesthetic significance, a tree of cultural or environmental significance or provide habitat for threatened fauna. MWC undertakes annual searches of the above mentioned databases to verify that this information is current and up-to-date. MWC is responsible for passing this information to its VMC prior to conducting annual assessments. MWC engages an independent VMC to conduct an annual assessment on all spans in the area The VMC is required to report to MWC if anything arises during inspection of power lines. The detailed process for undertaking line clearance management is provided in Section 3 of this plan.
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.*
	A search of the databases comprising Aboriginal Victoria (AV) and Melbourne Water internal database found a number of culturally significant locations in proximity to MWC property. Scarred trees, aboriginal places and artefacts were among the results found. (Note: The search uses an estimated prescribed 1m x 1m grid). No trees or vegetation are listed to be of cultural significance. Furthermore, the activities undertaken by the VMC do not involve ground disturbance and would be unlikely to disturb sites. Refer Appendix A for the details and locations of places/trees of cultural significance. Silvan has an Environmental Significant Overlay that requires a permit to lop or prune a tree. Planning and Environment Act overriding exemptions Clause 62.01 exempts Melbourne Waters from that permit for the proposed maintenance of existing power lines at Silvan as they were installed prior to July 2019. (https://planning-schemes.api.delwp.vic.gov.au/schemes/vpps/62_01.pdf) MWC engages an independent VMC to conduct assessments, any trees of potential cultural or environmental significance identified during the assessment are to be reported to MWC. The Delivery team, in consultation with heritage management team will consider appropriate action to protect the vegetation of significance while maintaining public safety. This may include reducing the amount of pruning and increase the frequency of pruning. Prior to work commencing on vegetation of significance, advice will be obtained from a qualified Arborist on the methods used to prune or remove to minimise the impact and determine the amount or regrowth that needs to be allowed for. The detailed process for undertaking line clearance management is provided in Section 3 of this plan.

9(4)(i)	*The means which the responsible person is required to use to identify a tree specified in paragraph (h);*
	The MWC as the responsible person shall identify a tree described in paragraph (g). Under the Code vegetation may be considered significant if it is indigenous to Victoria, 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. Appendix A maps present the outcomes of the annual searches of the above mentioned databases to verify that this information is current and up-to-date. CORP AM P019 Geotechnical Information Management Requirements refers to the procedure for managing GIS information. MWC will ensure that relevant lists and registers listed below are checked annually for a buffer area of 200 m around each MWC power line asset. This annual check will identify locations that may contain a tree or vegetation of ecological, historical or aesthetic significance as a requirement of the relevant maintenance activity. • National Trust Register for Important Trees (search date: 16 Feb 2021) - (see below due diligence report items: Register of the National Estate and National Heritage List) • Victorian Biodiversity Atlas (VBA) for Rare and Threatened Flora and Fauna and Biodiversity Sites of Significance via GIS (ESRI) system • Heritage Victoria Register (search date: 16 Feb 2021) (see below due diligence report items: Victorian Heritage Register and Victorian Heritage Inventory) Powerline-Vegetation-Clearance-Program_Cultural-Heritage-Due-Diligence_16022021.pdf The following internal resources will be engaged annually to assist the person responsible for updating the plan: • The MWC Cultural Heritage Advisor • The Area Lead Geospatial & Surveying Services will assist in the review of GIS data The outputs of those reviews will be documented and issued to the VMC. Note: the above VBA search includes the following information for each search: • Vulnerable, endangered or critically endangered Flora List • Vulnerable, endangered or critically endangered Vertebrate Fauna List • Vulnerable, endangered or critically endangered Invertebrate Fauna List MWC undertakes annual searches of the above mentioned databases to verify that this information is current and up-to-date. MWC is responsible for passing this information to its VMC prior to conducting inspections. If the VMC identifies any potentially impacted trees as potentially important when undertaking inspections, this information is reported to MWC. The MWC Heritage Services team (within Service Delivery) would then undertake an investigation and consult with the VMC as needed to determine the appropriate way forward.

Section 3 - Line clearance management procedures

Reg.	Details
9(4)(j)(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
	Melbourne water is committed to ensuring both immediate and long term compliance with the code. For the longer term: • Melbourne Water will not plant new or replacement trees within 8m of the power distribution lines. Outside of that zone, trees should be selected to ensure they are not capable of falling on to the lines once they reach mature height. To ensure this, an additional 3m added to the mature height is the minimum distance from the line (subject to the minimum 8m zone). • Where an existing unsuitable tree is identified by the VMC an arborist shall be engaged to confirm this. The heritage team and Land management teams shall be consulted before the tree can be removed. Melbourne adopts Ausnet tree planting list when considering power lines https://www.ausnetservices.com.au/-/media/Files/AusNet/Residential-Electricity/Safety/Your-guide-to-planting-near-electricity-lines.ashx?la=en The purpose of this section is to describe the details and management procedures for establishing and maintaining vegetation clearances from electrical infrastructure owned and operated by MWC. MWC implements a program of inspection and vegetation management works throughout MWC property to maintain clearance between vegetation and electrical assets (Figure 7). Vegetation along power lines is inspected every 12 months in designated HBRA and every 36 months in LBRA. Inspection program details • The electrical line inspection and any subsequent clearing will be delivered as a project by Melbourne Water's Delivery Program Development Team and have a dedicated Project Manager • Projects are delivered in accordance with Delivery Program Development Work Instructions using internal work crews and a Field Services Panel • The Field Services Panel includes a dedicated "Arborist and Tree Work" work-stream which provides assessment, pruning and felling of tree services .

- Delivery Program Developments work instructions are part of an integrated Management System, which includes extensive Corporate Safety Procedures
- As required by the work instructions, the Project Manager will create a Project within Melbourne Water's IBM Maximo Project Module .
- As required by the work instructions, the Project Manager will create a dedicated workspace in Melbourne Water's document management system (Inflo) which is cross referenced to the IBM Maximo Project .
- Evidence required to demonstrate compliance with the Regulations (as noted below) will be progressively stored in the Project File.
- The Project Manager will engage Arbor Solutions (or an equivalent Service Provider) from the Arborist & Tree Work work-stream.
- An Inspection Report will be prepared for each electrical line by Abor Solutions.
- For each span, using a simple table or tables, the Inspection Report will identify:
  - estimates of current clearances,
  - whether any clearing is required,
  - any significant trees identified by Melbourne Water,
  - any potentially significant trees not already identified by Melbourne Water,
  - what precisely needs to be cleared,
  - how access will be obtained (e.g. cherry picker or climber),
  - any exceptions required under Part 2 Division 1 Clause 4, 5, 6 or 7 of the Code,
  - any hazards to remove under Part 2 Division 1 Clause 9 of the Code,
  - confirmation that all work will be as per AS4373-2007,
  - other non-electrical hazards present, and
  - the likely duration and cost of the work.
- If the Inspection Report identifies that a significant tree needs to be pruned or removed then the Project Manager will assess and apply for local, state or government permits as may be required by various acts. Melbourne Water's Heritage & Facilities Team and Principal Environmental Sustainability will assist as required.
- Before commencing work Melbourne Water work and access permits (including COVID access permits) will be obtained as required. These permits will ensure isolations are implemented as required.
- Clearing work will be undertaken using the methods described in the Inspection Report.
- Regardless of the method (e.g. cherry picker or climber), all trees will be cut in accordance with AS4373-2007 Pruning of Amenity Trees. All equipment, disinfection, pre-cut and final cut practices will be as per AS4373-2007. None of the unacceptable practices described in AS4373-2007 are required.

- After trees have been cut and lines cleared, the new clearances will be estimated, recorded and reported by Arbor Solutions to the Project Manager in an update to the Inspection Report.
- Cleared materials will be chipped, removed from site and used at another natural resource management site or disposed to land fill as appropriate.

Each year a new project is raised and the project manager advises of any changes.

This year's project number is: **P25919**

Project raised in MAXIMO PROJECTS to deliver all of line clearance WORKS

Individual inspection DELIVERABLE created for each site

- an inspection work order is created for each site using the individual DELIVERABLE.

- Individual deliverables raised in that project for individual veg clearance works

MWC engages a suitable VMC to:

- conduct annual assessment on all HBRA spans in a timely manner to allow for all clearing to be completed prior to the declaration of the fire season. Given the fire season start is fluid this is taken to be the 30th November.
- Conduct a 36 monthly assessment on all LBRA spans.

MWC engages an independent VMC to conduct assessment on all spans in the area that has been designated as a HBRA in a timely manner to allow for all clearing to be completed prior to the declaration of the fire season. Each work order (WO) is issued from MWC with the following information:

- Detailed Map
- Link to the Electric Line Clearance Management Plan
- Feeder Spans
- Site Emergency Contact

Span information is stored on Inflo in the following folder:

OH Line Spans
http://inflo/inflo/cs.exe/link/54259357

Table 2 lists the power lines includes vegetation clearance programs and their been scheduling

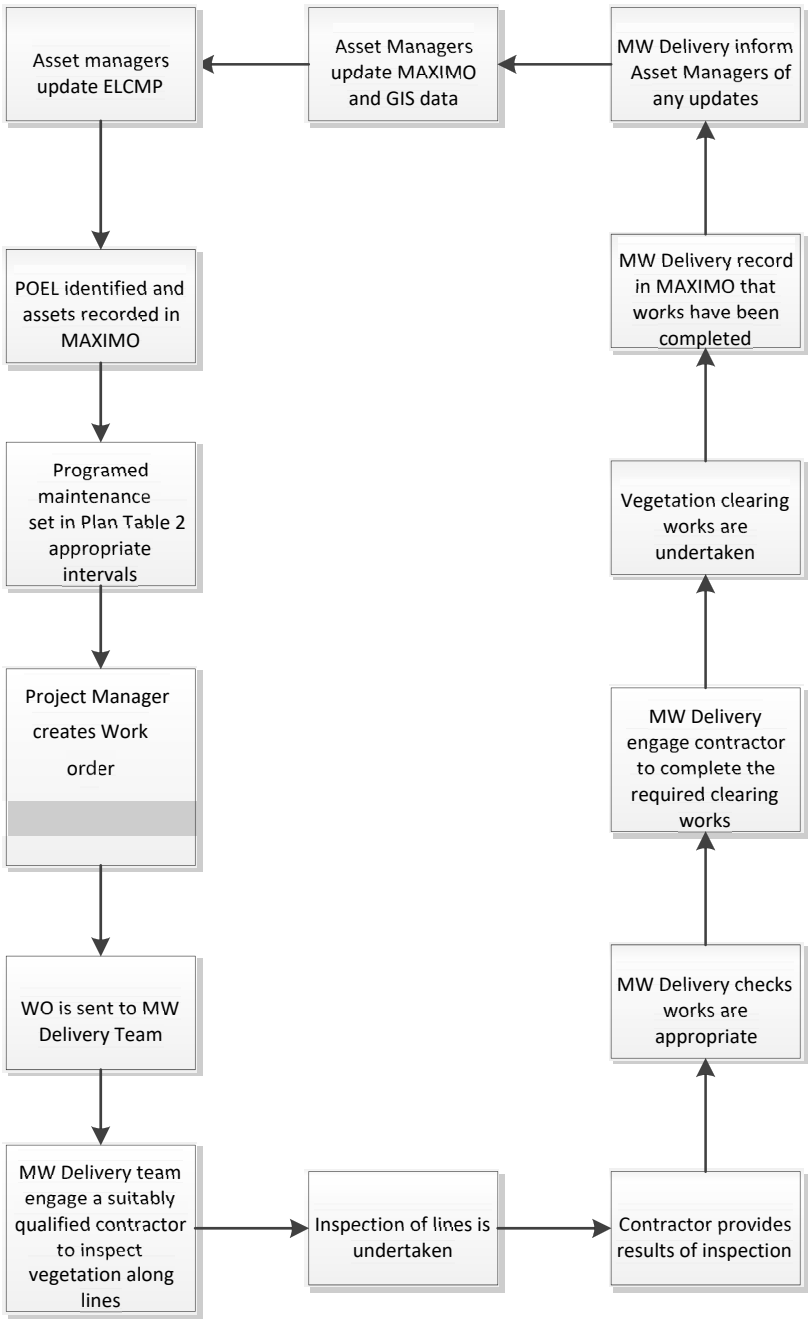
To ensure project generated work orders are linked to the asset in MAXIMO, asset LOCATIONS or ROUTE must be included in the work order using the PLAN tab. This will then allow maintenance and asset management to view work order history, alongside other non-clearance activities, directly from the individual assets themselves.

Description: Inspect Overhead Powerline Vegetation Clearance	Frequency (months) / Next Scheduled Date	Bushfire Classification	Location ID
SUGARLOAF RESERVOIR	12 / 01/08/2021	HBRA	WQ1-14HB07 WQ1-14HB05 WH001ISE WH001LVL002 WQ1-14HB06 WQ1-14HB08 (ROUTE RT10619)
CARDINIA - DUFFYS LOOKOUT PICNIC AREA	12 / 01/08/2021	HBRA	WH060LVL004
Silvan LV LINE (OVERHEAD)	12 / 01/08/2021	HBRA	WP242LVL001 WP242LVL002 RT10561
TARAGO RESERVOIR TREATMENT PLANT LV	12 / 01/08/2021	HBRA	WH120LVL001
Upper Yarra Reservoir	12 / 01/08/2021	HBRA	WH040LVL001
Bells Portal	12 / 01/08/2021	HBRA	WH081HVL001
Devilbend Reservoir (WH110LVL001 & WH110LVL002)	12/ 01/05/2021	HBRA	ROUTE RT13071
LAUNCHING WAY (WATLEYS DRAIN) PS LV The LV service line is owned by the utility. MWC has vegetation clearance responsibilities for this cable	36 / 30/09/2021	LBRA	DP2902LVL001

where it crosses Patterson river reserve but not where it crosses the private residence			
POLE IN PIPETRACK - Gordon St, Croydon	36/ 30/09/2022	LBRA	M056LVP001
PIPETRACK PRIVATE LINE JARVIS AV CROYDON	36/ 30/09/2022	LBRA	M054LVL001
Western Treatment Plant	36/ 01/08/2023	LBRA	ROUTE HAN00344
Montrose Reservoir	36/ 01/05/2021	LBRA	WR011LVL001

Table 1 – List of power lines

Figure 7: Vegetation management process



Vegetation along power lines is inspected:

- Every 12 months in designated HBRA
- Every 36 months in LBRA.

For all spans, MWC will engage an independent and certified VMC to undertake inspections to identify actual vegetation growth, to monitor vegetation that has the potential to invade the clearance space of the power lines and give pruning recommendations. The VMC will calculate the required clearance according to:

- The Code of Practice for Electric Line Clearance 2020 - Part 2 Clearance Responsibilities and Part 3 Minimum Clearance Spaces.
- The pruning/clearance cycle
- Expected growth rates of the species

Information from these assessments is reported to the MWC Delivery team and checked for appropriateness (Figure 8). MWC recognises that that there are some trees that are of special importance due to their,

- Ecological (identified in planning schemes);
- Historical (identified in planning schemes);
- Aesthetic (identified in planning schemes);
- Cultural (identified in planning schemes/ heritage register); and
- Environmental (identified in planning schemes/ heritage register) significance.

Melbourne Water Delivery team assesses where practicable, these trees are subjected to special consideration in relation to tree cutting or removal activities. This information is then given to the VMC to conduct vegetation clearance works under the Electricity Safety (Electric Line Clearance) Regulations 2020.

The VMC whom are engaged by MWC will utilise the following to identify required work:

- Pre-fire season HBRA power line inspections
- LBRA power line inspections
- Cyclic work programs
- Reports from MWC asset inspections
- Supplemented information from the public, the Department of Environment, Land, Water and Planning, Parks Victoria and the Country Fire Authority.

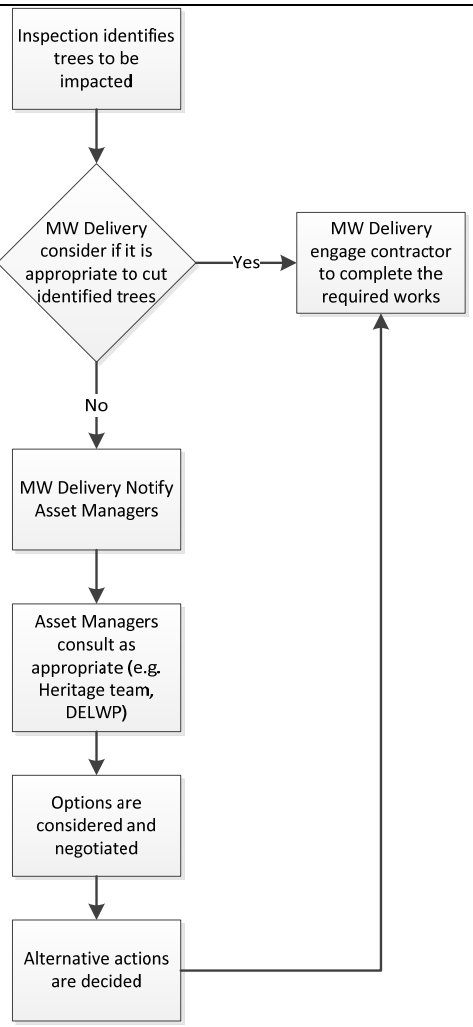


Figure 8: Method for avoiding impacts to trees of ecological, historical, environmental, cultural or aesthetic significance.

Cutting or removing habitat for threatened fauna must not occur during its breeding season unless—

(a) it is necessary to cut or remove the tree to make an unsafe situation safe; or

(b) it is not practicable to undertake cutting or removal of that tree outside the breeding season.

If it is not practicable to undertake cutting or removal of that tree outside the breeding season, the fauna must be translocated before undertaking the works if it is practicable to do so. A wildlife handler with a Wildlife Act permit should be engaged to capture the animals and relocate or take to a vet.

To reduce the potential for urgent pruning or clearance works between cycles, the VMC will evaluate the potential hazards to the clearance space as part of the routine inspection. Typically:

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

Urgent cutting/pruning of trees should not exceed more than one metre from the minimum clearance space around the electric line, unless the tree or limb is deemed an immediate hazard and removal is the most appropriate option. The subject tree is then placed in the cyclic program to cut to required clearance.

Circumstances that may require urgent pruning works include incidents (fire, flood, high winds), reported hazards during normal operation activities (outside of routine power line inspections), and hazards that are identified by external parties. In cases where urgent works are required, a work order in MAXIMO is raised and associated timeframes will be adjusted to facilitate prompt response.

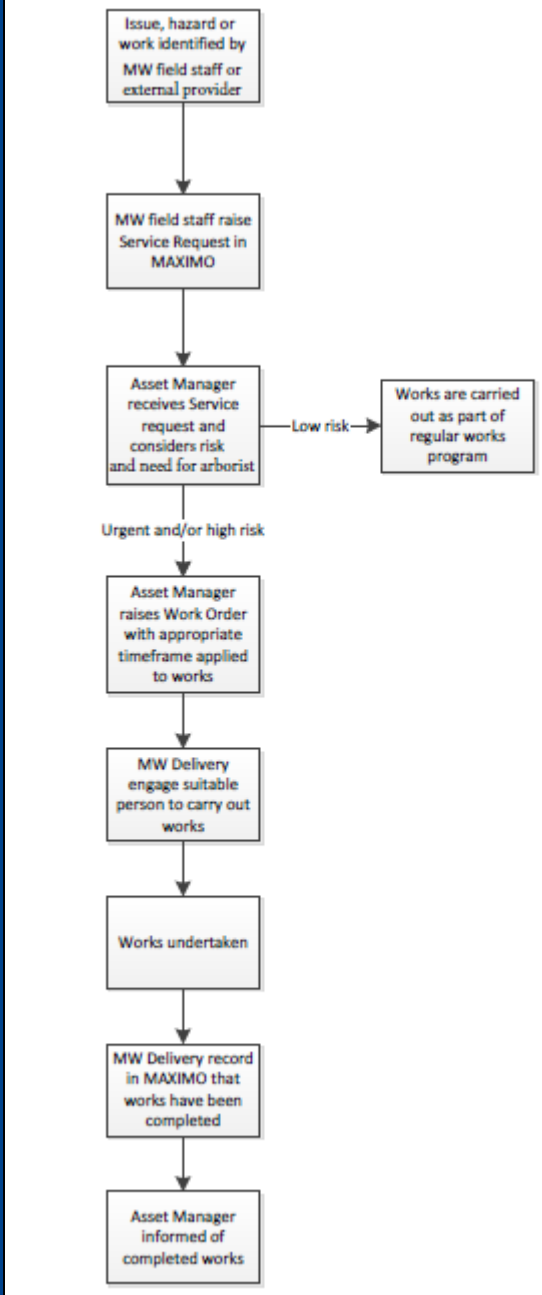


Figure 9: Process for works identified outside the normal works program.

A hazard tree is defined as having the potential to damage electric lines and must be assessed by a suitably qualified arborist. Vegetation outside the clearance space is managed to mitigate the risk of falling trees or branches. The vegetation outside the clearance space is assessed by a 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:

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

The arborist assessment report for a hazard tree is captured in MAXIMO against the PM. Appropriate follow up work orders are raised by Water Civil Maintenance to cut or remove hazard trees.

Any potential hazards identified will be addressed, and works will be conducted in accordance with the requirements in the Code - Part 2 Clearance Responsibilities and Part 3 Minimum Clearance Spaces.

The cutting or removal of indigenous or significant trees must be minimised to either ensure compliance with Division 1 of the Regulations; or make an unsafe situation safe. Only if an arborist has inspected and advised that cutting only would make the tree unhealthy or unviable may it be removed.

MWC will use information from inspections, recommendations and subsequent works to:

- Plan and schedule maintenance works
- Consider options for improvements (e.g. removal of exotic vegetation and replacement with suitable indigenous vegetation, line upgrades)
- Allocate resources
- Schedule future inspections and monitoring
- Determine community consultation and engagement requirements
- Determine tree types and predicted growth rates
- Consider environmental, social (includes aesthetic and cultural) and economic impacts in determining maintenance requirements

Managing vegetation regrowth between pruning cycles

Vegetation inspections by the VMC will identify any vegetation within the clearance space, but must also account for vegetation regrowth between cutting cycles. The VMC will determine an appropriate regrowth allowance and recommend cutting which should ensure vegetation does not grow into the clearance space before the next inspection (one year for HBRA, three years for LBRA).

The VMC will calculate the required clearance according to:

- The Code of Practice for Electric Line Clearance 2015 - Part 2 Clearance Responsibilities and Part 3 Minimum Clearance Spaces.
- The pruning/clearance cycle
- Expected growth rates of the species

This information enables MWC to account for rates of growth typical to species of vegetation present. It also enables the ongoing monitoring and evaluation of growth patterns and appropriate revision of cutting distance (or cutting frequency) for each area.

Preventing excess cutting of trees

MWC 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. MWC only contracts to VMCs that are certified vegetation management specialists that adhere to complying with ISO 1400 standards. Records of AS 4373- 2007 Pruning of Amenity Trees or equivalent is obtained from the VMC. Contractor services are monitored in accordance with MWC CORP H&S PRO - Contractor Safety Management to ensure quality control is maintained. Resolution of issues identified with the quality of VMC work, e.g. incorrect pruning, is managed in accordance with MWCs CORP GOV PRO Non Conformance, Corrective and Preventative Action Procedure.

Avoiding impacts to significant trees

MWC will consult with all relevant authorities, such as Local Government or the Department of Environment, Land, Water, and Planning, in relation to managing impacts on important trees affected by power line clearance activities. Methods used will adhere to this advice and/or requests from the above authorities. When the inspection takes place, details of any significant trees will be recorded. MWC then considers appropriate actions to avoid/minimise the impact on any significant trees (Figure 8). MWC will consider where appropriate:

- Transplanting significant trees away from power lines
- Relocation of power lines/installing Aerial Bundled Cable
- Changing cutting cycles frequency

9(4)(j)(ii) Include Reg. 9(4) Sch. 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 cable sag and sway
	Melbourne Water Corporation maintain low voltage (LV), less than 1 kV, and high voltage (HV), usually 11 kV and 22 kV, power lines. The relevant powerlines are presented in Table 3, Appendix D. While electric lines have the appearance of being static structures they are in fact dynamic and can be affected significantly by various factors such as: • Ambient temperature • Electricity current loading • Wind • Line construction • Length of span. Additional distance is required to be added to the applicable distance for sag and sway for all spans>100m in LBRA and >45m in HBRA All MWC power line span lengths vary based on site location and hence a standard additional distance methodology is utilised to quantify the sag and sway of the line, for the purpose of calculating the additional distance which is added to the applicable distance. This methodology is in accordance with Schedule 1 and 2 of the Electricity Safety (Electric Line Clearance) Regulation 2020 and shall be considered in all instances, other than the exceptions noted in this management plan. This minimum clearance is illustrated in Figures 10 – 14. Power line span lengths are recorded in INFLO in a folder called Span Lengths, and will be issued to the VMC to assist in determining the additional distance of each power line. The sag and sway shall be calculated in the field by the VMC using the graphs shown in Appendix D. For those sites which require additional calculation to the graphs MWC will provide the required distances. These sites are: • Some spans at Western Treatment Plant see table 4 • Bells Portal see table 5 • Upper Yarra see table 6

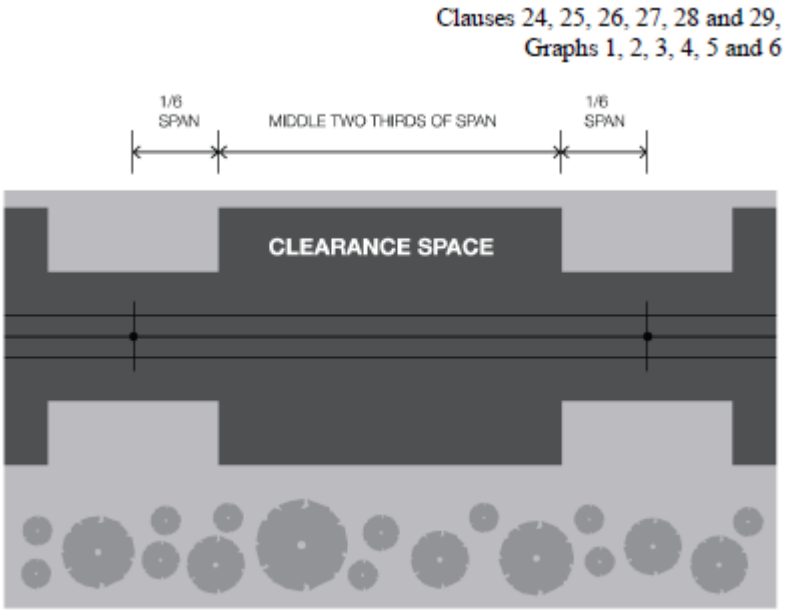


Figure 10: Extract from Electricity Safety (Electric Line Clearance) Regulation 2020 (Schedule 2, Figure 1) of minimum clearance space of Electric Lines in all areas

Insulated electric lines in all areas

The minimum clearance space for a span of insulated electric line in all areas is partially illustrated in Figures 10 & 11.

The applicable distance for the first and last sixths of a span is 300 mm, in accordance with clause 24 of the Electricity Safety (Electric Line Clearance) Regulation 2020.

The applicable distance for the middle two thirds of the span can be calculated in Appendix D from Graph 1. See Appendix D for a 50 m worked example.

MWC does not have any insulated electric lines with spans >100 m as presented in Table 3, Appendix D. Therefore an additional distance is not required.

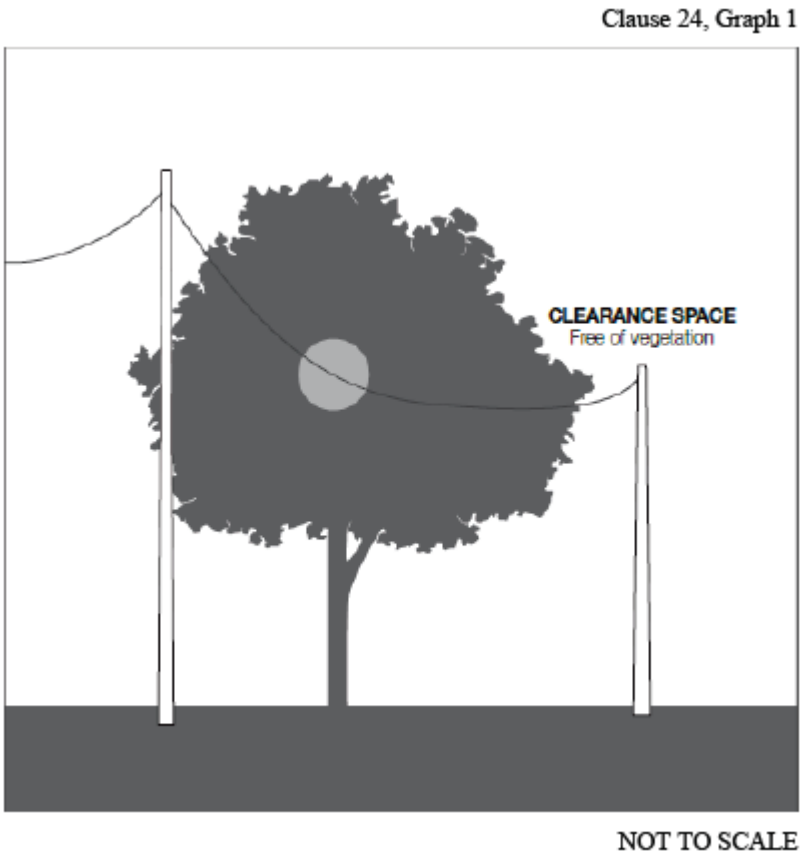


Figure 11: Extract from Electricity Safety (Electric Line Clearance) Regulation 2020 (Schedule 2, Figure 2) of minimum clearance space of Insulated Electric Lines in all areas

Uninsulated low voltage electric lines in LBRA

The minimum clearance space for a span of uninsulated electric line in LBRA is partially illustrated in Figures 10 & 12.

MWC does not have any uninsulated electric lines in LBRA as presented in Table 3, Appendix D. Applicable distance calculations are therefore not presented in this document.

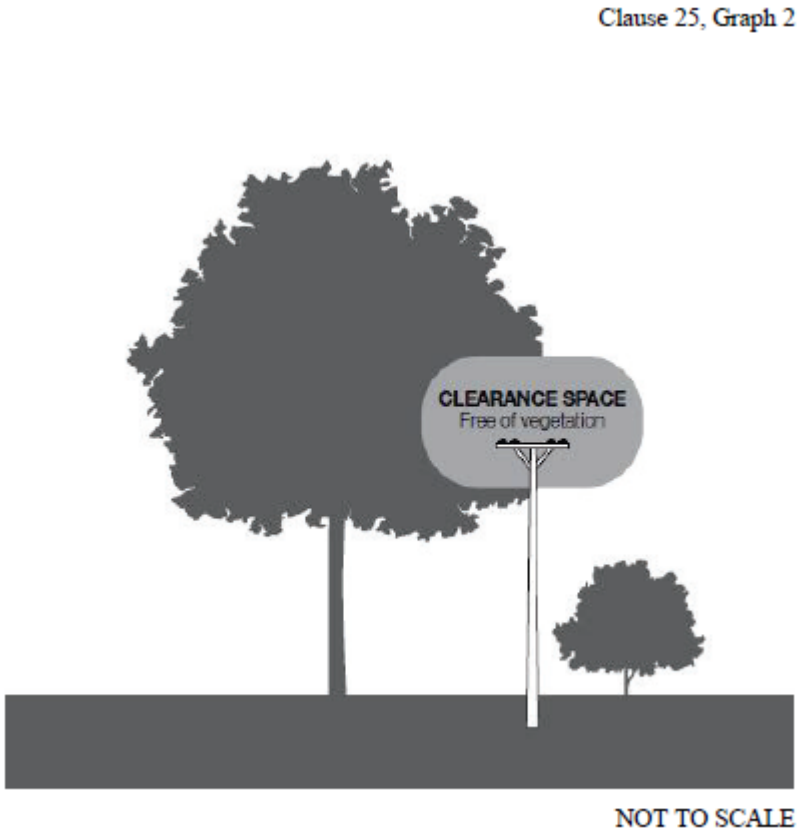


Figure 12: Extract from Electricity Safety (Electric Line Clearance) Regulation 2020 (Schedule 2, Figure 4) of minimum clearance space of Uninsulated LV Electric Lines in LBRA

Uninsulated high voltage electric lines in LBRA

The minimum clearance space for a span of uninsulated high voltage electric line in LBRA is partially illustrated in Figures 10 & 13.

The applicable distance for the first and last sixths of a span is 1500 mm, in accordance with Electricity Safety (Electric Line Clearance) Regulation 2020 (Figure 13).

The applicable distance for the middle two thirds of the span can be calculated in Appendix D from Graph 3. See Appendix D for a 50 m worked example.

MWC has one uninsulated high voltage electric line in LBRA with span distances greater than 100 m as presented in Table 3, Appendix D. The additional distances for the Werribee electric line are presented in Appendix D.

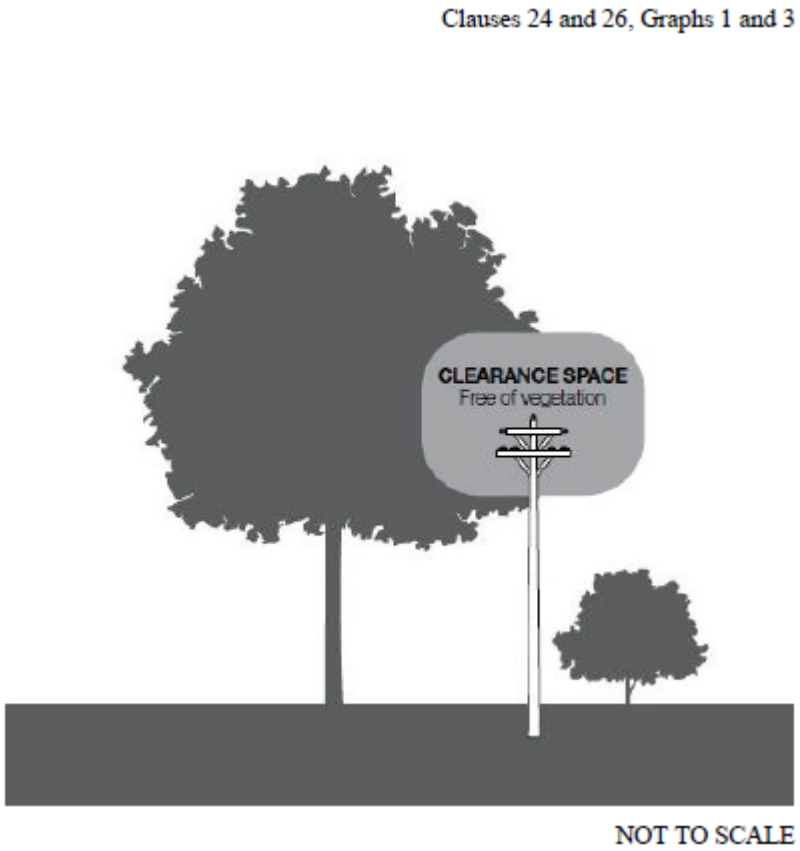


Figure 13: Extract from Electricity Safety (Electric Line Clearance) Regulation 2020 (Schedule 2, Figure 3) of minimum clearance space of Uninsulated HV Electric Lines in LBRA

Uninsulated electric lines in HBRA

The minimum clearance space for a span of an uninsulated electric line in HBRA is partially illustrated in Figures 10 and 14.

MWC has uninsulated electric lines in HBRA as presented in Table 3, Appendix D. Applicable distance calculations are presented in this document.

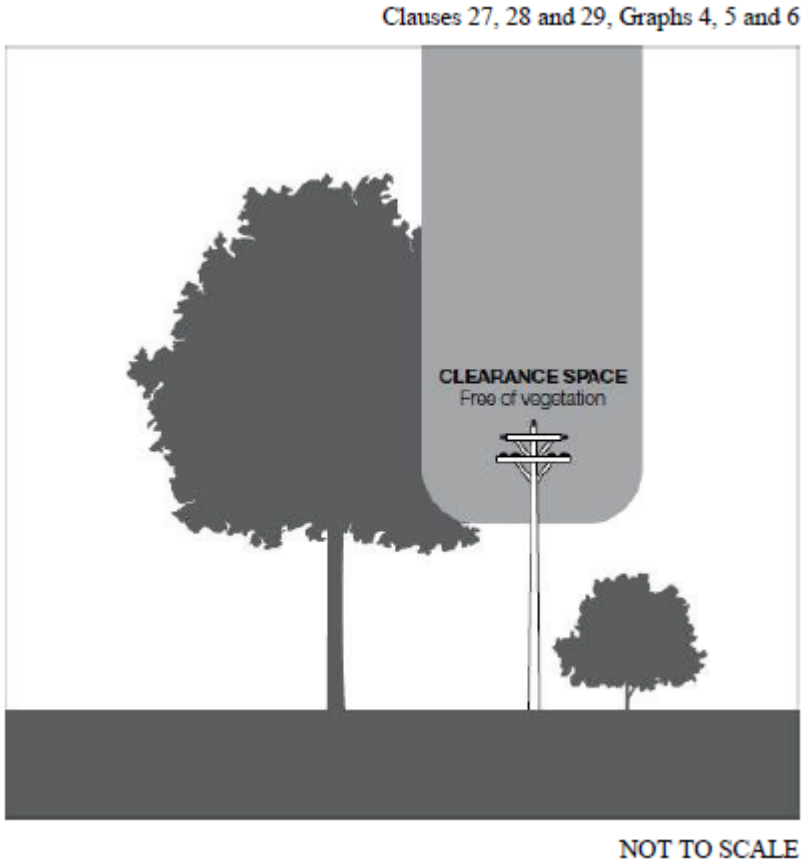


Figure 14: Extract from Electricity Safety (Electric Line Clearance) Regulation 2020 (Schedule 2, Figure 5) of minimum clearance space of Uninsulated Electric Lines in HBRA

It is the responsibility of MWC and the Vegetation Management Company (VMC) to assess the additional distance when undertaking the following:

- An annual assessment of power lines within HBRA (before the 15th of September)
- A periodic (every 36 months) assessment of power lines within a LBRA.

These assessments will identify whether vegetation management works are required.

9(4)(k)	The procedures to be adopted if it is not practicable to comply with the requirements of AS 4373 while cutting a tree in accordance with the Code.
	It will be practicable to comply with the requirement of AS4373 for all Melbourne Water electrical lines.

Section 4 - Monitoring and auditing

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

Relevant processes will be monitored and audited by MWC to ensure that the objectives of the plan are being implemented and actioned. Key Performance Indicators (KPIs) include the following:

Table 2: KPIs

No.	Category	KPI	Performance Measure	Target
1	Minimising fire risk and ensuring public, electrical and work place safety	Pre summer inspection completed, for all programmed lines, within the specified time span	Compare the actual date of inspection against the target start date specified in MAXIMO. All identified clearance works completed before start of the bushfire season in HBRA (taken to be 30th November)	100%
2	Ensuring public, electrical and work place safety	Contractors are managed in accordance with contractor management plans	MWC supervisor for works who have a degree of management oversight over works, who record via "Contractor Feedback form" or via "Presence on Ground".	100%
3	Environmental management and protection	Protect vegetation	Review of VMC inspection reports to identify if any tree of environmental or cultural significance has not been identified by the plan.	0

	4	Quality of work	No need for emergency pruning between inspections or any loss of supply due to poor vegetation management.	Review the number of MAXIMO work orders related to emergency pruning or line repairs by reviewing corrective work orders feedback logs.	0%

The following performance measures have been adopted:

1. ELC Management Plan completed by 31st March 2021.
2. ELC Management Plan available on MWC Web site by 1st July 2021
3. Qualified Service Provider engaged by end June 2021.
4. Qualifications Reviewed & Filed.
5. Consultation complete by end August 2021.
6. 100 percent of HBRA inspection completed by 15th September 2021.
7. 100 percent of line clearance works completed by 30th November 2021.
8. Internal audit completed by end Feb Month 2022.

The performance measures will be reported in a monthly progress report prepared by the Project Manager.

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

The accountability for auditing of the Vegetation Management program (see Table 2) rests with the General Manager, Waterways & Land MWC. The Manager for Delivery is responsible for the regular auditing of the Vegetation Management program to ensure that it complies with the requirements. This includes:

- Undertake Patrols of HBRA prior to the commencement of the fire season to validate the completion of all bushfire mitigation obligations.
- HSE, qualifications and competencies for each time a PM identified in Table 2 is undertaken
- Review of KPI's to determine how effectively the plan was undertaken
- Ensure ELC activities are code compliant and will last until next cutting cycle.

The VMC inspection contractor shall be re-engaged to perform an audit of a sample of completed works

	The sample size for annual auditing will be 25 % of sites each year with all sites having being audited within the last 4 years. The findings of the audit will be made available to the following: • General Manager waterways and Land • Manager Delivery works execution • Manager Water & Sewerage Asset Management • Principal Electrical Water & Sewerage Asset Management In addition, contractor services are monitored in accordance with MW's CORP H&S PRO - Contractor Safety Management MWC will provide documentation of audits of the VMC and pruning and clearance works to Energy Safe Victoria, and follow-up onsite confirmation upon request.

Section 5 - Training qualifications and experience

Reg.	*Details*
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.*
	MWC employees and VMCs undertaking vegetation management activities 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. The Electricity Safety (Installations) Regulations 2009 r. 319(3) refers to an authorised person as a person who holds a current certificate specifying satisfactory completion of a training course in tree clearing, approved by Energy Safe Victoria, along with specific requirements outlined in "The Blue Book". The authorised person is the VMC who undertakes on behalf of MWC electric line clearance works. Personnel shall be qualified persons in accordance with Electricity Safety (General) regulations 2019 r616 (1,2 & 3) when completing vegetation management works The minimum role specific requirements are given in appendix C – ELC VESI matrix. This list should be used to capture each individual's training for each site works. Personnel will be removed from site if identified to be working without appropriate training/ qualification. The subsequent investigation will be conducted as per Melbourne Water's fair and just policy and procedure (see CORP H&S 044 Licences, Qualifications, and Competencies and CORP HR PRO Fair and Just). MWC applies its fair and just framework to investigate all serious non-conformances such as working on site without appropriate training or qualifications. All VMC must complete Certificate II in ESI Powerline Vegetation Control. This course provides competencies for planning and carrying out vegetation control at and above ground level near live electrical apparatus. For inspectors this training must include the following modules; AHCPCM201A - Recognise plants and UETTDRVC24A - Assess vegetation and recommend control measures in an ESI environment. In accordance with Electricity Safety Electric Line Clearance Regs schedule 1 code 9 the cutting or removal of a Hazard tree requires that a suitably qualified arborist must have assessed and advised on the risks. A arborists must hold the qualification of National Certificate III in Arboriculture including the "Perform a ground-based tree defect evaluation" unit of competency, or an equivalent qualification and at least three years of field experience in assessing trees.

	MWC will ensure the VMC whom are acting as the 'authorised person' when undertaking ELC works including inspection and pruning/clearance works have appropriate training and certification as defined by the code. All appropriate qualifications and insurance documentation is to be approved by MWC's contract manager prior to commencement of the contract of works. The VMC that are engaged by MWC will ensure that all personnel are appropriately authorised in accordance with the Electricity Safety (Installations) Regulations 2009. Permit to Work requirements are defined in CORP H&S 064 – Permit to Work Health and Safety Procedure. For details of Qualifications of the VMC employees refer to Appendix C. Where a person performs multiple roles, they shall undertake the mandatory training for each of those roles. To operate High Risk Plant and equipment (e.g. EWP) the operator shall have the applicable High Risk Licence issued by Worksafe Victoria. Induction training of all MWC employee and VMC 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. AS 4373 and the definition of "as far as practicable" will be outworked to personnel at the induction. Furthermore, 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. MWC will review and approve the JSA prior to implementation. The Responsible Person that books training using external providers is responsible for checking that the Registered Training Organisation (RTO) can provide the services and qualifications requested and ensuring that the RTO is an approved training provider meeting the requirements of ESV. Prior to engaging with an RTO which is not an approved training provider, an investigation should be done to ascertain the RTO's "fit" with MWC. At a minimum, the following must be considered: the RTO's level of experience with delivering training in our industry, their training methods and learning materials, the qualifications their trainers hold, their scope of registration for running nationally accredited training listed at www.training.gov.au outlining the information relating to Nationally Recognised Training Packages requirements and units of competency.

Section 6 - Notification, consultation and dispute resolution

Reg.	*Details*
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*
	To date MWC predominantly owns / manages nearly all the land that power lines are on. There are a few sections where MWC does not and the relevant council will need to be consulted before any cutting clearing works are undertaken The inspection works do not require any notice. See Appendix F for further details. Of those sites that require notice.. If, during inspections, vegetation works are identified which may impact other parties the VMC will notify MWC. If appropriate/required, the VMC may then provide written notification in the form of a letter 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. A typical letter example is given in appendix G If the clearing does not occur within the 14-60 day time frame the VMC issue a new notice and also notify MWC so that the Customer and Strategy team can be engaged. The notification letter would include as a minimum: • A description of the works and reason • The location of the works • The planned date of the works • Contact details of the responsible person managing the works • Advice that the responsible person has procedures for resolving disputes and details on how to access the procedures. • details of whether the tree to be cut or removed is— (i) on public land; or (ii) a tree of cultural or environmental significance; or (iii) listed in a planning scheme to be of ecological, historical or aesthetic significance; In the case of urgent or emergency works MWC will ensure that notice is given to the affected persons as soon as practicable after the work has been completed (as required). MWC 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).

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

Record of any written notice given under 19 subclause (4) must be retained for at least 5 years. The notice should be attached to the associated work order record in MAXIMO.

A hazard tree is defined as having the potential to damage electric lines. Vegetation outside the clearance space is managed to mitigate the risk of falling trees or branches. The vegetation outside the clearance space is assessed by a 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:

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

Based on the assessment, Water civil maintenance may raise a work order to cut or remove hazard trees.

Hazard trees will be considered with respect to the above-mentioned steps and are not subject to additional processes. Where a hazard tree is identified as part of an inspection, the Work Order within MAXIMO can be assigned a higher priority in accordance with the process outlined in Figure 7.

MWC power lines are contained on MWC land. There is very little opportunity for consultation with private land owners, and any cases that are identified through inspections are handled on a site by site basis. This will likely be a letter drop and/or face to face discussion.

9(4)(r)	*Dispute resolution procedures. Schedule 19 – Dispute resolution*
	All complaints are managed by MWC in accordance with its CORP GOV PRO Complaint Handling Procedure. ELC relevant extracts are given in appendix H. Complaints may be made through contacting MWC Customer Service Centre on 131 722. These issues will be referred to the relevant MWC team for action as per the Procedure. Further details are provided on our web site https://www.melbournewater.com.au/complaints-compliments-and-suggestions Contractor disputes are managed in accordance with the relevant contract dispute resolution clauses. Where disputes cannot be resolved, the matter may be directed to the Energy and Water Ombudsman of Victoria (EWOV) or to Energy Safe Victoria (ESV). MWC will comply with the subsequent outcome. Contact details as below: **EWOV** – Tel. - 1800 500 509 (freecall) ; Email ewovinfo@ewov.com.au **ESV** - Email - complaints@energysafe.vic.gov.au Letter to - Complaints Coordinator, Energy Safe Victoria PO Box 262, COLLINS STREET WEST, VIC 8007 If you are unable to do either of the above, please contact the Complaints Coordinator by calling (03) 9203 9700.

Section 7 - Publishing information

Reg.	*Details*
10 (2) (3)	*The responsible person must:* *- provide a copy of the management plan to Energy Safe Victoria within 14 days after a written request from Energy Safe Victoria or such longer period as specified by Energy Safe Victoria in the written request.* *- provide further information or material in respect of the pan a copy of the management plan to Energy Safe Victoria within 14 days after a written request from Energy Safe Victoria or such longer period as specified by Energy Safe Victoria in the written request.*
	Upon written request Melbourne Water will provide a copy of the plan or further information within the 14 days or the longer time frame specified by ESV.
10(6)	*A responsible person must ensure that a copy of the management plan is:* *published on the responsible person's Internet site*
	The ELCMP is published on MWC website. An updated copy of the ELCMP covering the next financial year (1 July-30 June) will be displayed on the MWC website from 1 July of each year and be available until 30 June the following year. https://www.melbournewater.com.au/aboutus/reportsandpublications/compliance-reports/Pages/compliance-reports.aspx

Section 8 – Exemptions and Exceptions

Reg.	*Details*
11(2)	*A responsible person who is granted an exemption under this regulation must comply with the conditions (if any) of the exemption.*
	MWC will not be requesting any exception under this clause.

References

Electricity Safety Act 1998

Electricity Safety (Electric Line Clearance) Regulations 2020 (Incorporates code of practice in schedules 1 & 2)

WorkSafe (Victoria) – "Working Safely With Trees – Recommended Practices for the Amenity Tree Industry" - July 2001

Australian Standard AS 4373-2007 Pruning of Amenity

Electricity Safety (General) Regulations 2019 for work on or near high voltage electrical apparatus (The Blue Book)

National Trust of Australia – Register of Significant Trees (2019). Search undertaken 24 March 2019 – of the 'Around Me' database: source http://trusttrees.org.au/aroundMe?lat=-33.494&long=143.2104

CORP H&S PRO - Contractor Safety Management

http://inflo/inflo/cs.exe/link/3514908

CORP GOV PRO Complaint Handling Procedure

ESV 2020, Melbourne Water Corporation ELC systems audit report, Energy Safe Victoria, August 2020

Appendix A – Figures

The individual localised pdf maps are generated by Melbourne Water's GIS system (ESRI) and can be found via the following Inflo links.

Overview map of Melbourne Water OH Line Sites.pdf (non GIS generated)
http://inflo/inflo/cs.exe/link/57795425

Bells Portal
http://inflo/inflo/cs.exe/link/54703744

Cardinia
http://inflo/inflo/cs.exe/link/54704230

Devilbend
http://inflo/inflo/cs.exe/link/57795792

Gordon St Croydon
http://inflo/inflo/cs.exe/link/54498702

Launching Way
http://inflo/inflo/cs.exe/link/54701209

Montrose service Res
http://inflo/inflo/cs.exe/link/57795203

Olinda-Mitcham Pipe track Jarvis Avenue
http://inflo/inflo/cs.exe/link/54701520

Silvan
http://inflo/inflo/cs.exe/link/54698296

Tarago
http://inflo/inflo/cs.exe/link/54699597

Upper Yarra
http://inflo/inflo/cs.exe/link/54698189

Winneke
http://inflo/inflo/cs.exe/link/54505583

WTP
http://inflo/inflo/cs.exe/link/54503495

Details of Overhead line spans are located on Inflo within the following folder:

OH Line Spans
http://inflo/inflo/cs.exe/link/54259357

Appendix B –Tree Type Information

List last reviewed 1/03/2021

Typical native tree species located in the vicinity of MW owned electric lines

Species information based on Ecological Vegetation Class (EVC) bioregions

Bells portal – Thomson reservoir			
Heathy dry forest (EVC 20)	Damp Forest (EVC 29)		
Eucalyptus dives Broad-leaved Peppermint *Eucalyptus cypellocarpa* Mountain Grey-gum *Eucalyptus radiata* Narrow-leaf Peppermint	*Eucalyptus cypellocarpa* Mountain Grey-gum *Eucalyptus obliqua* Messmate Stringybark *Eucalyptus globulus ssp. bicostata* Eurabbie *Pomaderris aspera* Hazel Pomaderris *Acacia dealbata* Silver Wattle *Coprosma quadrifida* Prickly Currant-bush *Cassinia aculeata* Common Cassinia *Cyathea australis* Rough Tree-fern *Dicksonia antarctica* Soft Tree-fern		

Western Treatment Plant			
Plains Grassy Woodland (EVC 55)			
Eucalyptus camaldulensis River Red-gum *Allocasuarina littoralis* Black Sheoak *Kunzea ericoides* Burgan			

Winneke (Sugarloaf reservoir)

Grassy Dry Forest (EVC 22)	Plains Grassy Woodland (EVC 55)	Creek line Herb-rich woodland (EVC 164)	Box Iron bark forest (EVC 61)
Eucalyptus macrorhyncha Red Stringybark *Eucalyptus goniocalyx* Bundy *Eucalyptus polyanthemos* Red Box *Exocarpos cupressiformis* Cherry Ballart *Cassinia aculeata* Common Cassinia *Acacia genistifolia* Spreading Wattle	*Eucalyptus camaldulensis* River Red-gum *Allocasuarina littoralis* Black Sheoak *Kunzea ericoides* Burgan	*Eucalyptus ovata* Swamp Gum *Acacia melanoxylon* Blackwood *Acacia stricta* Hop Wattle *Ozothamnus ferrugineus* Tree Everlasting *Olearia lirata* Snow Daisy-bush	*Eucalyptus polyanthemos* Red Box *Eucalyptus macrorhyncha* Red Stringybark *Eucalyptus goniocalyx* Bundy *Eucalyptus tricarpa* Red Ironbark *Acacia genistifolia* Spreading Wattle *Kunzea ericoides* Burgan *Cassinia aculeata* Common Cassinia

Upper Yarra reservoir			
Heathy dry forest (EVC 20)	Damp Forest (EVC 29)	Riparian forest (EVC 18)	Shrubby foothill forest (EVC 45)
Eucalyptus dives Broad-leaved Peppermint *Eucalyptus cypellocarpa* Mountain Grey-gum *Eucalyptus radiata* Narrow-leaf Peppermint	*Eucalyptus cypellocarpa* Mountain Grey-gum *Eucalyptus obliqua* Messmate Stringybark *Eucalyptus globulus ssp. bicostata* Eurabbie *Pomaderris aspera* Hazel Pomaderris *Acacia dealbata* Silver Wattle *Coprosma quadrifida* Prickly Currant-bush *Cassinia aculeata* Common Cassinia *Cyathea australis* Rough Tree-fern *Dicksonia antarctica* Soft Tree-fern	*Eucalyptus obliqua* Messmate Stringybark *Eucalyptus viminalis* Manna Gum *Acacia dealbata* Silver Wattle *Pomaderris aspera* Hazel Pomaderris *Acacia melanoxylon* Blackwood *Coprosma quadrifida* Prickly Currant-bush *Prostanthera lasianthos* Victorian Christmas-bush *Cyathea australis* Rough Tree-fern	*Eucalyptus obliqua* Messmate Stringybark *Eucalyptus sieberi* Silvertop Ash *Eucalyptus baxteri* Brown Stringybark *Eucalyptus radiata* Narrow-leaf Peppermint *Exocarpos cupressiformis* Cherry Ballart *Spyridium parvifolium* Dusty Miller

Tarago reservoir			
Lowland Forest (EVC 16)	Damp Forest (EVC 29)	Riparian forest (EVC 18)	
Eucalyptus obliqua Messmate Stringybark	*Eucalyptus cypellocarpa* Mountain Grey-gum	*Eucalyptus obliqua* Messmate Stringybark	

Eucalyptus radiata Narrow-leaf Peppermint *Eucalyptus sieberi* Silvertop Ash *Eucalyptus dives* Broad-leaved Peppermint *Leptospermum continentale* Prickly Tea-tree *Acacia mucronata ssp. longifolia* Narrow-leaf Wattle	*Eucalyptus obliqua* Messmate Stringybark *Eucalyptus globulus ssp. bicostata* Eurabbie *Pomaderris aspera* Hazel Pomaderris *Acacia dealbata* Silver Wattle *Coprosma quadrifida* Prickly Currant-bush *Cassinia aculeata* Common Cassinia *Cyathea australis* Rough Tree-fern *Dicksonia antarctica* Soft Tree-fern	*Eucalyptus viminalis* Manna Gum *Acacia dealbata* Silver Wattle *Pomaderris aspera* Hazel Pomaderris *Acacia melanoxylon* Blackwood *Coprosma quadrifida* Prickly Currant-bush *Prostanthera lasianthos* Victorian Christmas-bush *Cyathea australis* Rough Tree-fern	

Silvan reservoir			
Lowland Forest (EVC 16)	Riparian forest (ECV 18)		
Eucalyptus obliqua Messmate Stringybark *Eucalyptus radiata* Narrow-leaf Peppermint *Eucalyptus sieberi* Silvertop Ash *Eucalyptus dives* Broad-leaved Peppermint *Leptospermum continentale* Prickly Tea-tree *Acacia mucronata ssp. longifolia* Narrow-leaf Wattle	*Eucalyptus obliqua* Messmate Stringybark *Eucalyptus viminalis* Manna Gum *Acacia dealbata* Silver Wattle *Pomaderris aspera* Hazel Pomaderris *Acacia melanoxylon* Blackwood *Coprosma quadrifida* Prickly Currant-bush *Prostanthera lasianthos* Victorian Christmas-bush *Cyathea australis* Rough Tree-fern		

Cardinia reservoir			
Damp Heathy Woodland (EVC 793)			
Eucalyptus cephalocarpa Mealy Stringybark *Eucalyptus radiata* Narrow-leaf Peppermint *Eucalyptus ovata* Swamp Gum			

Leptospermum continentale Prickly Tea-tree *Banksia marginata* Silver Banksia *Kunzea ericoides* Burgan			

Other spans			
	Gordon St Croydon	**Launching Way**	**Pipe track Jarvis Ave**
	Artificial – street trees	Artificial – street trees	Artificial – street trees
	Eucalyptus spp *Acacia spp* *Melaleuca spp*	*Eucalyptus spp* *Acacia spp* *Melaleuca spp*	*Eucalyptus spp* *Acacia spp* *Melaleuca spp*

Appendix C – Documentation of certification of VMC

ELC VESI matrix.xlsx

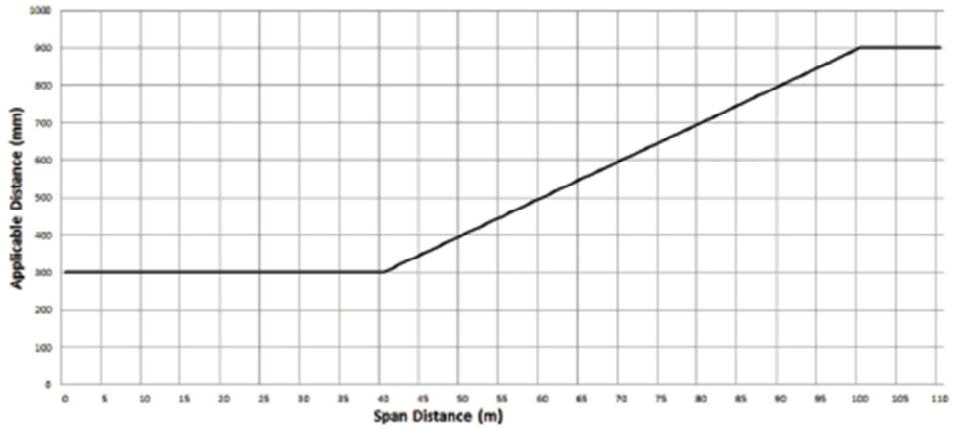
Appendix D – Minimum Clearance Space Graphs

Table 3: Melbourne Water Overhead Powerlines

	O/H Line Name	Bushfire Risk Area	Voltage	Span lengths (m)	Comments	Relevant Schedule 2 Graph	Assessment of requirement for Additional Distance
ROUTE HAN00344	Werribee	LBRA	22kV	**>100**	Uninsulated Cable	Graph 3	**Additional distance is required for uninsulated spans greater than 100m. See table 4**
WH120LVL001	Tarago Reservoir	HBRA	LV	<100	Insulated service wire	Graph 1	No additional distance is required
WH081HVP017	Bells Portal	HBRA	HV		Uninsulated Cable		**Additional distance is required, see table 5**
WH040HVL003	Upper Yarra Reservoir	HBRA	LV	<100	Uninsulated Cable	Graph 1	**Additional distance is required, see table 6**
WP242LVL001 WP242LVL002	Silvan Reservoir Shed at Office supply	HBRA	LV	<100	Insulated service wire	Graph 1	No additional distance is required
	Silvan Reservoir Screen Chambers	NA	LV	<100	Insulated service wire	NA	NA
WH060LVL004	Cardinia Duffys lookout	HBRA	LV	<100	Insulated service wire	Graph 1	No additional distance is required
WQ1-14HB07 WQ1-14HB05 WH001ISE WH001LVL002 WQ1-14HB06 WQ1-14HB08	Sugarloaf Reservoir (Winneke)	HBRA	11kV	>100	Insulated Cable	Graph 1	No additional distance is required
DP2902LVL001	Launching Place	LBRA	LV	<100	Insulated service wire	Graph 1	No additional distance is required
M054LVL001	Jarvis Avenue	LBRA	LV	<100	Insulated service wire	Graph 1	No additional distance is required
M056LVP001	Gordon St Croydon	NA	LV	<100	Insulated service wire	NA	NA
WR011LVL001	Montrose Reservoir	LBRA	LV	<100	Insulated	Graph 1	No additional distance is required
ROUTE RT13071	Devilbend Reservoir	HBRA	LV	<100	Insulated	Graph 1	No additional distance is required

Graph 1 - Insulated electric lines in all areas

Source: Schedule 2 – Applicable distance for middle two thirds of a span of an electric line. Graph 1 – Insulated Electric Lines in All Areas (Clauses 3 and 24)



Notes for Graph 1:

1. The applicable distance includes allowances for sag and sway of the cable
2. The applicable distance for the first and last sixths of an electrical line span to which clause 24 applies is 300 mm

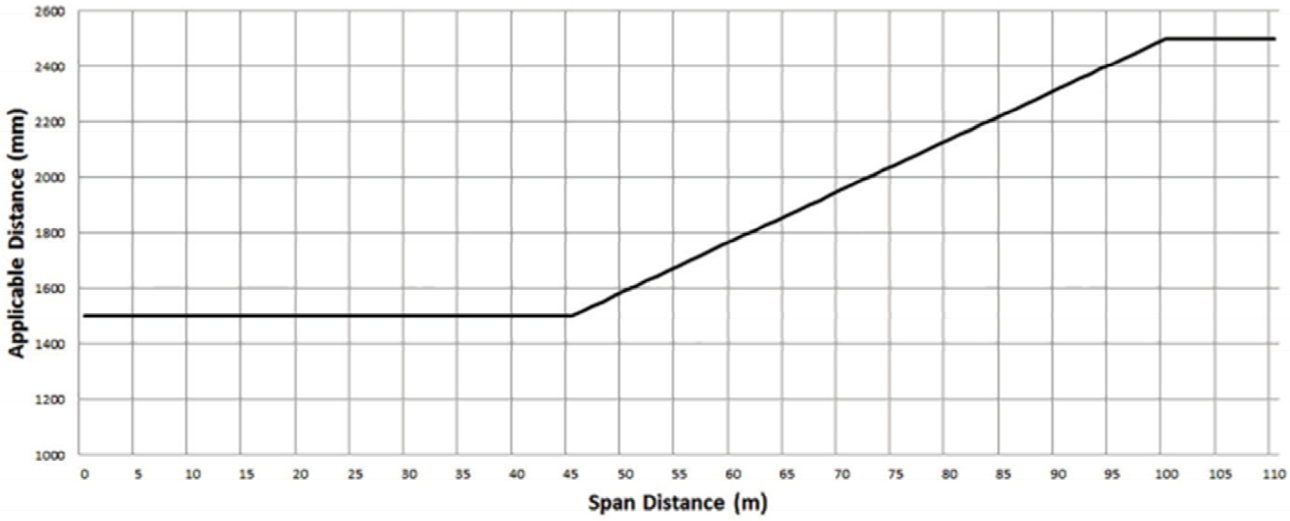
Worked example of a 50 metre span:

SD = Span Distance (m), AD = Applicable Distance (mm)

#	Condition	Formula for AD	AD (mm)
1	0 < SD ≤ 40	300	300
2	40 < SD ≤ 100	300+ ((SD-40) x 10)	400
3	100 < SD	900	900

Graph 3 - Uninsulated High Voltage Electric Line (Other than a 66,000 Volt Electric Line) in LBRA

Source: Schedule 2 – Applicable distance for middle two thirds of a span of an electric line. Graph 3 – Uninsulated High Voltage Electric Line (Other than a 66,000 Volt Electric Line) in LBRA. Clauses 3 and 26



Notes for Graph 3:

1. The applicable distance includes allowances for sag and sway of the cable for a span up to and including 100 metres in length
2. For a span longer than 100 metres, the applicable distance must be extended by an additional distance to allow for sag and sway of the cable. This is done by adding that distance to the applicable distance. See Table 4 for the additional distance calculation for the Werribee electric line.
3. The applicable distance for the first and last sixths of a span of an electric line to which clause 26 applies is 1500 millimetres

Worked example of a 50 metre span:

SD = Span Distance (m), AD = Applicable Distance (mm)

#	Condition	Formula for AD	AD (mm)
1	0 < SD ≤ 45	1500	1500
2	40 < SD ≤ 100	1500+ ((SD-45) x (1000/55)	1590
3	100 < SD	2500	2500

Required Clearance Distance for Werribee Electric Line

Table 4: Additional Distance for Werribee Electric Line (Western Treatment Plant)

Horizontal Span Length (m)	Applicable distance direct from ELC Regs schedule 2, graph 3 formula (mm)	Calculated applicable distance (M) for lengths greater than 100m plus 20%)	Required Clearance (mm)
10	1500	0	1500
20	1500	0	1500
30	1500	0	1500
40	1500	0	1500
45	1500	0	1500
50	1600	0	1600
60	1800	0	1800
70	2000	0	2000
80	2200	0	2200
90	2300	0	2300
100	2500	0	2500
110	N/A	2.9	2900
120	N/A	3.4	3400
130	N/A	4.0	4000
140	N/A	4.7	4700
150	N/A	5.3	5300

Required Clearance Distance for Bells Portal Electric Line

Table 5: Additional Distance for Bells Portal

Span (m)	Mid Span Sag (m)	Vertical Sag (m)	Hor. Blow out (m)	Typical as per Table 13.1 HB331[1]			AS/NZS 7000:2016 Table 3.7		Following Cl. 28 of Regulations		Recommended Minimum Clearance[7] (m)
				AA (m)	AP[2] (m)	AB[3] (m)	Clearance B (Vertical)[4] (m)	Clearance C (Any direction other than vertical)[5] (m)	AD (m)	Minimum Clearance[6] (m)	
43	1.03	0.29	0.98	3	3.98	2.29	3.99	3.13	1.5	2.53	4.0
7	0.13	0.04	0.12	3	3.12	2.04	3.74	2.23	1.5	1.63	3.8

See 22kV Bells Portal and 415V Upper Yarra Vegetation Clearance Assessment rev. 1.pdf for details on how the recommended minimum clearance was determined.

see http://inflo/inflo/cs.exe/link/56202067 for calculation details

1. Considering rural. HB331 used here for comparison only.
2. AP plus horizontal blow-out
3. AB plus vertical sag
4. Clearance B plus vertical sag
5. Clearance C plus mid span sag
6. AD plus mid span sag
7. Maximum of Clearance B, Clearance C and Minimum Clearance

Required Clearance Distance for Upper Yarra Electric Line

Table 6: Additional Distance for Upper Yarra

Span (m)	Mid Span Sag (m)	Vertical Sag (m)	Hor. Blow out (m)	Typical as per Table 13.1 HB331[1]			AS/NZS 7000:2016 Table 3.7		Following Cl. 28 of Regulations		Recommended Minimum Clearance[7] (m)
				AA (m)	AP[2] (m)	AB[3] (m)	Clearance B (Vertical) (m)[4]	Clearance C (Any direction other than vertical)[5] (m)	AD (m)	Minimum Clearance[6] (m)	
50	1.44	0.35	1.4	2	3.4	1.35	3.05	2.94	1.51	2.95	3.1
60	1.98	0.47	1.92	2	3.92	1.47	3.17	3.48	1.525	3.50	3.5
30	0.63	0.15	0.61	2	2.61	1.15	2.85	2.13	1.5	2.13	2.9
90	4.17	1	4.05	2	6.05	2	3.7	5.67	1.574	5.74	5.8

See 22kV Bells Portal and 415V Upper Yarra Vegetation Clearance Assessment rev. 1.pdf for details on how the recommended minimum clearance was determined.

see http://inflo/inflo/cs.exe/link/56202067 for calculation details

Appendix E– CORP H&S 056 – Event Notification, Investigation and Analysis

CORP H&S 056 - Event Notification, Investigation and Analysis
http://livelink/livelink/livelink.exe/link/3520430

Appendix F– Land Ownership Details

The following details were last confirmed Jan 2021. Assets that require external stakeholder notification are in bold.

Thompson - Bells Portal - All within MW Crown land under formal management.

Cardinia - Within MW Freehold land.

Gordon St Croydon - Within MW Freehold land.

Launching Way - At this time (2021) Northern pole in MW Crown Land under management. Note this land will become Crown land managed by Parks Victoria for the Paterson River Reserve.

Pipe track Jarvis Avenue -Within MW Freehold Land.

Silvan - Within MW Freehold Land.

Tarago - The two northernmost poles are within the Crown land reservation of the Tarago River within our Tarago Reservoir. The Tarago River and land is managed by Melbourne Water under the provisions of our Water Act. The southernmost pole is within MW's Freehold Land.

Upper Yarra - All the lines are within Crown Land reserved for State Forest in which MW manages its water supply assets and catchment.

Winneke - Simpson Rd Caretakers Residence – All within MW's Freehold land.

Winneke powerlines - All within MW's Freehold land except for:

WQ01HVP006A and 007 which are in the Ashmore Rd reserve managed by Nillumbik Shire Council.

WQ01HVP003 to 006 are in the Skyline Rd reserve managed by Nillumbik Shire Council

- WQ01HVP001 and 002 are within MW Crown Land under management.
- WP168HVP001 to 007 are within MW Crown Land under management.

Winneke Substation – All within MW's Crown land under management.

Western Treatment Plant - All within MW Freehold land except were poles and wires lie in road reserves.

Road reserves within the bounds of the WTP facility are managed by MW, e.g. Farm Rd, 160 South Rd, Point Wilson Rd and Beach Rd.

Please use the Map View web application to view MW's land holdings (property group layer) in relation to our electricity mains in the Services group layer.

Appendix G–Typical example of Notice

Melbourne Water
Enhancing Life and Liveability

Your ref: XXXX (delete paragraph if not required)

17 February 2021

Prefix Recipient's name
Recipient's title
Recipient's company
Recipient's address
SUBURB STATE POSTCODE

Dear (recipient's salutation)

Notification of Overhead Power line Vegetaion Clearance Works

Dear Property Owner

Melbourne water has overhead electrical power lines that cross the boundary of your property. We intend to undertake vegetation clearance works to keep those lines clear and as such will require to access to your property. This work is *planned/ urgent work/ involves removal of a tree (delete as appropriate)[Insert additional site specific detail scope as known e.g details of whether the tree to be cut or removed is i) on public land; or (ii) a tree of cultural or environmental significance; or (iii) listed in a planning scheme to be of ecological, historical or aesthetic significance;.....]*

This work is required by law as per the *Electricity Safety Act 1998* and the *Electricity Safety (Electric Line Clearance) Regulations 2020*

The intend work is expected to take .. day and will occur between XXXX and XXXXX

Our notice requirement is a minimum of 14 days and a maximum 60 days before the intended cutting or removal is to occur. If for some reason we are not able to undertake the works within the 14-60 day time frame a new notice will be issued.

Melbourne Water has procedures for resolving disputes. The start of the process is by contacting the person named below or alternatively contacting MWC Customer Service Centre on 131 722 or via our website (https://www.melbournewater.com.au/complaints-compliments-and-suggestions)

Please contact the person below if you require any further information

Name..... Position.... Tel ..... Email...

Yours sincerely

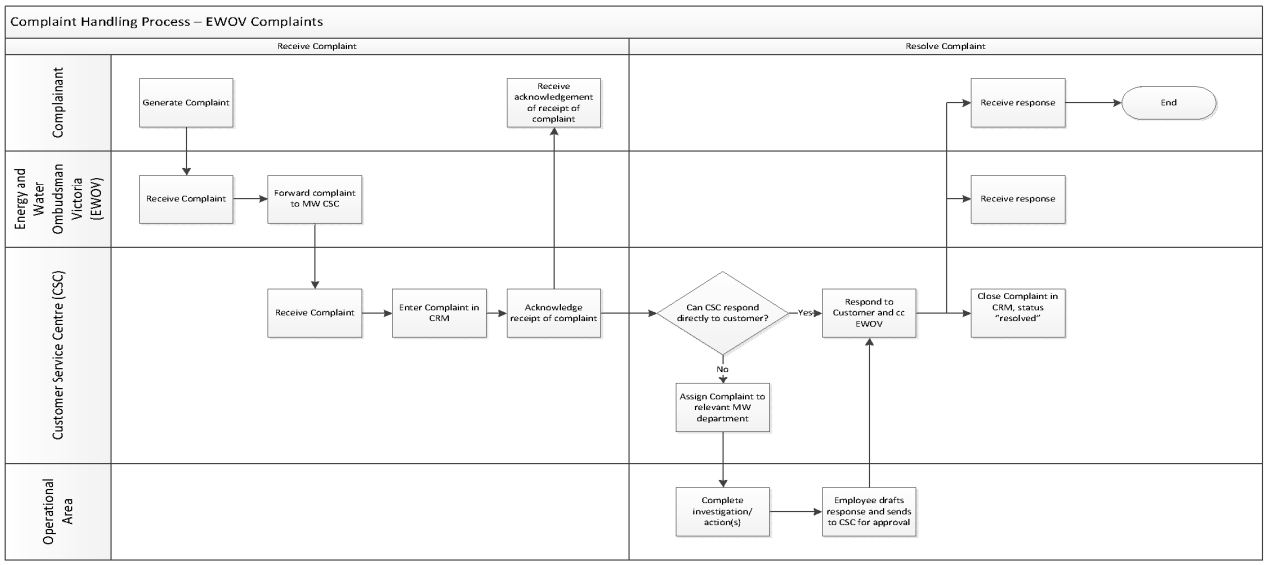
Insert Inflo ID here or delete if not required

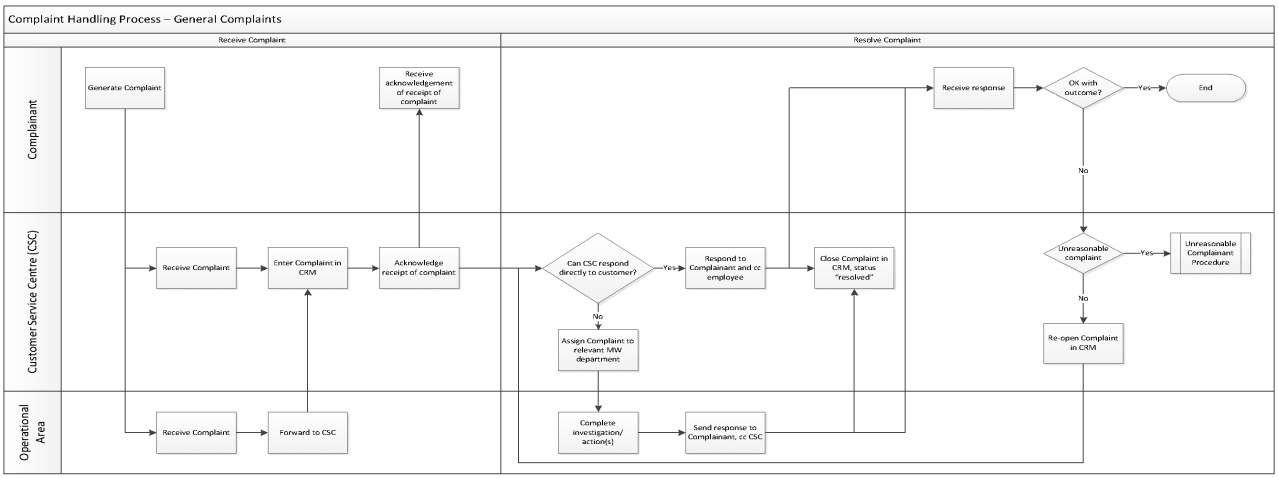
VICTORIA State Government

Inflo link - ELC Typical Notice of works letter.docx

Appendix H– CORP H&S 056 – Event Notification, Investigation and Analysis

ELC Relevant extracts from CORP GOV PRO Complaint Handling Procedure





Appendix I– Historical Heritage & Aboriginal Cultural Heritage Assessment

Key aspects of the assessment ore given below. Internal link to full report: Powerline-Vegetation-Clearance-Program_Cultural-Heritage-Due-Diligence_16022021.pdf

HISTORICAL HERITAGE ASSESSMENT-Under the Heritage Act 2017, a Consent is required for any works which may affect the historical archaeological values of a place. As the proposed power line vegetation clearance works will not impact on the historical archaeological values of any historical site, a Consent (permit) or permit exemption is not required.

Power Line Location	Historic Heritage	Heritage place name	Further assessment or requirements?
Bells Portal	NO	-	NO
Cardinia	NO	-	NO
Eel Race Creek	NO	-	NO
Launching Way	NO	-	NO
Olinda-Mitcham Pipe Track - Gordon Street	NO	-	NO
Olinda-Mitcham Pipe Track - Jarvis Avenue	NO	-	NO
Silvan	NO	-	NO
Tarago	NO	-	NO
Upper Yarra	NO	-	NO
Winneke – Caretakers Residence	NO	-	NO
Winneke – Power Lines	NO	-	NO
Winneke - Substation	YES	H2381: Maroondah Water Supply System (Upper & Central)	NO
WTP 1	NO	-	NO
WTP 2	NO	-	NO
WTP 3	NO	-	NO
WTP 4	NO	-	NO
WTP 5	NO	-	NO
WTP 6	NO	-	NO
WTP 7	NO	-	NO
WTP 8	NO	-	NO
WTP 9	NO	-	NO

ABORIGINAL CULTURAL HERITAGE ASSESSMENT- A CHMP is required for an activity if all or part of the activity area is an area of cultural heritage sensitivity and all or part of the activity is a high impact activity. The project areas are situated within known areas of cultural heritage sensitivity, pursuant to Regulations 25, 26, 29, 30, 34 & 40 of the Aboriginal Heritage Regulations 2018. Additionally, the proposed works do not constitute high impact activities under the Aboriginal Heritage Regulations 2018. Therefore, a CHMP is not required and works can proceed in accordance with Melbourne Water's Standard Cultural Heritage Contingency Plan. An Aboriginal cultural heritage permit is also not required as works will not cause harm to any known Aboriginal place.

Power Line Location	Area of Aboriginal Cultural Heritage Sensitivity	Further assessment?
Bells Portal	-	NO
Cardinia	-	NO
Eel Race Creek	Regulation 34 (Koo Wee Rup plain) Regulation 26 (Kananook Creek) Regulation 29 (Edithvale-Seaford Wetland)	NO
Launching Way	Regulation 26 (Patterson River) Regulation 30 (Coastal Crown Land) Regulation 40 (Dune)	NO
Olinda-Mitcham Pipe Track - Gordon Street	Regulation 26 (Tarralla Creek)	NO
Olinda-Mitcham Pipe Track - Jarvis Avenue	-	NO
Silvan	-	NO
Tarago	Regulation 26 (Tarago River)	NO
Upper Yarra	Regulation 26 (Yarra River, Batts Creek and Five Mile Creek)	NO
Winneke – Caretakers Residence	-	NO
Winneke – Power Lines	Regulation 26 (Stevenson Creek, Sugarloaf Creek and Yarra River)	NO
Winneke - Substation	Regulation 26 (Yarra River & Stevenson Creek)	NO
WTP 1	Regulation 29 (Declared Ramsar Wetland)	NO
WTP 2	Regulation 29 (Declared Ramsar Wetland)	NO
WTP 3	Regulation 29 (Declared Ramsar Wetland)	NO
WTP 4	Regulation 25 (Aboriginal place 7822-3803 [1-6]) Regulation 29 (Declared Ramsar Wetland)	NO – (artefacts are longer at location & works will not disturb place)
WTP 5	Regulation 29 (Declared Ramsar Wetland)	NO
WTP 6	Regulation 29 (Declared Ramsar Wetland)	NO
WTP 7	Regulation 29 (Declared Ramsar Wetland)	NO
WTP 8	Regulation 25 (Aboriginal place 7822-4259 [1-4]) Regulation 29 (Declared Ramsar Wetland)	NO – (works will not be undertaken at exact place locations)
WTP 9	Regulation 29 (Declared Ramsar Wetland)	NO