Electrical Line Clearance Management Plan

Melbourne Water

2024/2025

VICTORIA State Government

Melbourne Water makes a vital contribution to the famous Melbourne lifestyle through the supply of high-quality water, reliable sewerage services, integrated drainage and flood management services and by enhancing our waterways and land for greater community use.

Melbourne Water
Enhancing Life and Liveability

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Executive Summary

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.

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

Approved by:

David Browne

Manager Technical Services, Service Programs

Acronyms and Abbreviations

Term	Description
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	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)	Areas considered to be in rural regions and have been assigned by the fire control authority as high fire risk rating.
High Voltage powerline	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),	Areas considered to be predominately urban and have been assigned by the fire control authority as a low fire risk rating.
Low voltage powerline	An overhead electrical line which carries 1000 V or less.
Maintenance	Works required to be undertaken on vegetation to maintain the clearance space. Includes pruning, clearing, cutting or removing.
Melbourne Water	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.

Term	Description
Tree of Cultural or Environmental Significance	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	Any living or non-living flora or any part of that flora.
Vegetation clearance	The minimum separation in air that shall be maintained between vegetation and live electrical apparatus when performing vegetation management work.
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 Melbourne Water to undertake electrical line clearance works on behalf of Melbourne Water. 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.
Vegetation management work	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.

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	10
9(4)	A responsible person must ensure that a management plan prepared under sub regulation (2) specifies the following –	Section 2 - ELCMP particulars	11
9(4)(a)	Contact details of the responsible person	Section 2 - ELCMP particulars	11
9(4)(b)	Contact details for the individual who was responsible for the preparation of the management plan	Section 2 - ELCMP particulars	11
9(4)(c)	Contact details for the persons who are responsible for carrying out the management plan	Section 2 - ELCMP particulars	11
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	11
9(4)(e)	Objectives of the plan	Section 2 - ELCMP particulars	11
9(4)(f)	The land to which the management plan applies by the inclusion of a map	Section 2 - ELCMP particulars	12
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	12
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	12-15
9 (4) (i)	Clear understanding of how to identify the category of trees	Section 2 - ELCMP particulars	15
9 (4) (j)(i)	Procedure for establishing and maintaining vegetation clearances from electrical infrastructure	Section 3 – Line clearance procedures	16-26
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	26-31
9 (4) (k)	Compliant with AS 4373 – Pruning of Amenity Trees	Section 3 – Line clearance procedures	31

Regulation / Code	Requirement	Section reference in this plan	Page no.
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	32-33
9 (4) (o)	Details of the audit processes	Section 4 – Monitoring and auditing	33
9 (4) (p)	The qualifications and experience that the responsible person must require	Section 5 - Training qualifications and experience	34-35
9 (4) (q)	Notification and consultation procedure	Section 6 – Notification, consultation and dispute resolution	36-37
9 (4) (r)	Describe how disputes relevant to the cutting and removal of trees will be managed	Section 6 – Notifications and conflict dispute	37 -38
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 plan 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	Section 7 – Publishing information	39
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	39
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	40

1. Introductions

Responsibilities

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.

Table 1: Melbourne Water representatives involved in this Plan

Role	Name	Position
Review and Update of the ELCMP	Andy Fitzgerald	Principal Electrical Engineer, Technical Services
Delivery Project Manager Lead	Anthony Von Stieglitz	Area Lead - Delivery, Waterways & Catchment Operations
Delivery Project Manager	Mitchell Peters	Project Manager - Delivery, Waterways & Catchment Operations
Cultural Heritage Advisor	Paul Balassone	Cultural Heritage Advisor, Aboriginal Engagement & Community Connections
Trees of ecological significance	Rene Van der Sant	Senior Asset Manager, Service Enablement Catchment & Land

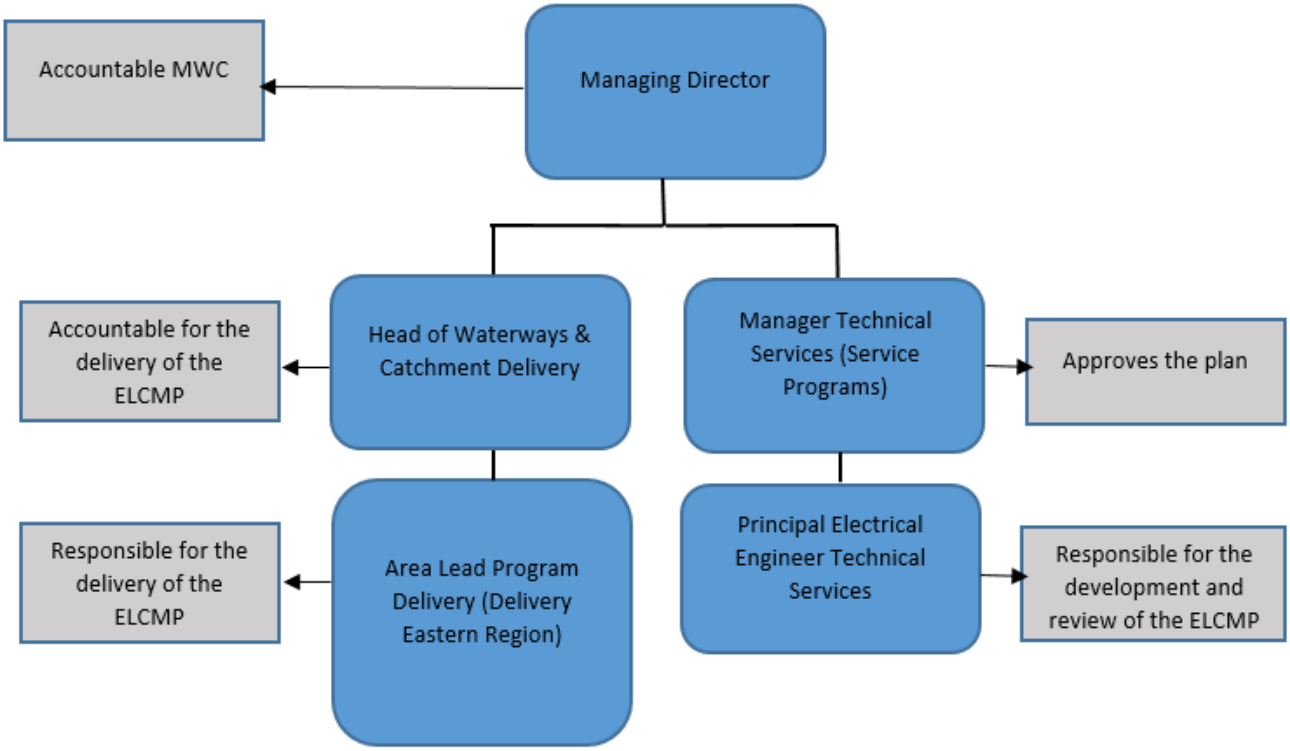
Melbourne Water is a water resource manager owned by the Victorian Government. Melbourne Water manages Melbourne's water supply catchments, removes and treats most of Melbourne's sewage, and manages rivers and creeks and major drainage systems throughout the Port Phillip and Westernport region.

Melbourne Water 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.

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

Melbourne Water Project Management Structure

Figure 1: 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 Melbourne Water 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. Melbourne Water's approved contractors complete the required corrective works identified in the inspection.

2. ELCMP Particulars

Reg.	*Management plan particulars*
	Document title / identification number: Electric Line Clearance Management Plan – Melbourne Water responsible power lines 2024/2025. Document ID number 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 2023/2024 submission. Following internal approval of the ELCMP, this document will be placed in Melbourne Water's Integrated Management System (IMS) Controlled Document Library, where the most current version can be made readily available to all Melbourne Water staff. The 'add version' process is used to maintain the document ID number. Link to the 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 and spans are kept in the below folder. Powerlines http://inflo/inflo/llisapi.dll/link/31646299 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 trees (reconfirmed 2020) • Electricity Safety (General) Regulations for work on or near high voltage electrical apparatus (The Blue Book) The IMS will automatically prompt a review of this document annually by generating a workflow assigned to the person responsible for the development and review of the ELCMP . The initiation of this process via the IMS will ensure the document is reviewed and approved by 31 March each year.

Reg.	*Management plan particulars*
9(4)(a)	*Name, address and telephone number of the responsible person.*
	Name of Responsible Person: Melbourne Water Corporation Managing Director: Nerina Di Lorenzo 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:David Browne Position: Manager Technical Services, Service Programs, Service & Asset Lifecycle Address: Melbourne Water Corporation 990 Latrobe Street, Docklands, Vic 3008. Email: Barry.Perkins@melbournewater.com.au Telephone: (03) 3861 55091
9(4)(c)	*Name, position, address and telephone number of the persons who are responsible for carrying out the management plan.*
	Name: Kristina Campbell (Acting) Position: Head of Waterways & Catchment Delivery Address: Melbourne Water Corporation 990 Latrobe Street, Docklands, Vic 3008. Telephone: (03) 85759207
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 Melbourne Water responsible overhead power lines is maintained in accordance with the Code. This plan for the 2024-25 financial year details Melbourne Water 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:

Reg.	*Management plan particulars*
	• Minimising fire risk associated with Melbourne Water 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.*
	Melbourne Water is the responsible person for clearance of vegetation in the vicinity of overhead power lines owned and operated by Melbourne Water 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 Melbourne Water 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 Melbourne Water property. The VMC is required to report to Melbourne Water 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 Melbourne Water's internal Cultural Heritage team will undertake a review of the Victorian Aboriginal

Reg.	*Management plan particulars*
	Heritage Register. This should be initiated in early January as can take several months to complete. This review was last undertaken February 2024 with the result being permits **may be required** in some areas dependent on the cutting activity. Key aspects of the report are given in appendix I. The full report can be found via internal link Powerline Vegetation Clearance Cultural-Heritage-Due-Diligence_v1.Feb 2024. 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 Melbourne Water power lines. Similarly, no sites of historic significance (as identified on the Heritage Victoria register) were identified to occur in close proximity to Melbourne Water power lines. *Rare and threatened flora and fauna species locations* The Victorian Biodiversity Atlas (VBA) search of rare/threatened flora and fauna and Melbourne Water internal database show that there are some records within the 200m buffer search area of each Melbourne Water 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 Melbourne Water 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 Melbourne Water 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

Reg.	*Management plan particulars*
	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 Melbourne Water 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 ecologicalor aesthetic significance, a tree of cultural or environmental significance or provide habitat for threatened fauna. The only site with historical significance is WTP, where conditions have recently changed. The Cocoroc Precinct and a stretch of Metropolitan Farm Rd has been added to the Victorian Heritage Register. Site maps WTP 6, 7 & 8 show these locations (see appendix I). Melbourne Water undertakes annual searches of the above mentioned databases to verify that this information is current and up-to-date. Melbourne Water is responsible for passing this information to its VMC prior to conducting annual assessments. Melbourne Water engages an independent VMC to conduct an annual assessment on all spans in the area The VMC is required to report to Melbourne Water 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 Melbourne Water 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) Melbourne Water engages an independent VMC to conduct assessments, any trees of potential cultural or environmental significance identified during the assessment are to be reported to Melbourne Water. The Delivery team, in consultation with heritage management team will consider appropriate action to

Reg.	*Management plan particulars*
	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 Melbourne Water 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. Melbourne Water will ensure that relevant lists and registers listed below are checked annually for a buffer area of 200 m around each Melbourne Water 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 Cultural-Heritage-Due-Diligence_v1.Feb 2024 The following internal resources will be engaged annually to assist the person responsible for updating the plan: • The Melbourne Water 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 Melbourne Water undertakes annual searches of the above mentioned databases to verify that this information is current and up-to-date. Melbourne Water is

Reg.	*Management plan particulars*
	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 Melbourne Water. The Melbourne Water Heritage Services team (within Service Delivery) would then undertake an investigation and consult with the VMC as needed to determine the appropriate way forward.

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 Water adopts the local Power Utility guidelines tree planting list when considering power lines: 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 Melbourne Water. Melbourne Water implements a program of inspection and vegetation management works throughout Melbourne Water 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. <u>Inspection program details</u> • 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 external work crews from the Field Services Panel (FSP)

Reg.	Details
	• The Field Services Panel (FSP) 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 Project Folder 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 the at Service Provider. • An Inspection Report will be prepared for each electrical line by the Service Provider. The report shall provide and assessment code that indicates currents and forecast condition as follows: – at the time of assessment vegetation is contacting or there is evidence that has been contacting, overhead conductors – at the time of assessment vegetation is clearly within the clearance space to overhead conductors – At the time of assessment vegetation is outside the clearance space but is likely to grow into the space within 12 months – At the time of assessment vegetation is outside the clearance space but is likely to grow into the space within 24 months – At the time of assessment vegetation is outside the clearance space but is likely to grow into the space within 36 months • 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.

Reg.	Details
	• 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 the Service Provider 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. The annual review of the plan is the initiator for the generation of a new project. The plan developer requests feedback from the previous project manager for any improvements to the plan. The plan developer requests the incumbent project manager to create a new project. This year's project number is: **P35268**. The project is 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 the sites site using the **individual** DELIVERABLE. This will effectively be a record that an inspection has taken place regardless whether subsequent cutting is required. - Individual deliverables raised in that project for any required vegetation clearance works that are identified by the inspection. 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. For an example see Appendix J Association of work orders to MAXIMO LOCATION history. A typical project folder structure is given in Appendix K Melbourne Water 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.

Reg.	Details

Melbourne Water 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 Melbourne Water 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 below lists the power lines, their vegetation clearance programs and scheduling.

Table 2: List of power lines

Description: Inspect Overhead Powerline Vegetation Clearance	Frequency (months) / Next Scheduled Date	Bushfire Classification	Location ID
SUGARLOAF RESERVOIR	12 / 01/08/2024	HBRA	WQ1-14HB07 WQ1-14HB05 WH001ISE WH001LVL002 WQ1-14HB06 WQ1-14HB08 (For info: ROUTE RT10619)
CARDINIA - DUFFYS LOOKOUT PICNIC AREA	12 / 01/08/2024	HBRA	WH060LVL004
Silvan LV LINE (OVERHEAD)	12 / 01/08/2024	HBRA	WP242LVL002 RT10561
TARAGO RESERVOIR TREATMENT PLANT LV	12 / 01/08/2024	HBRA	WH120LVL001
Upper Yarra Reservoir	12 / 01/08/2024	HBRA	WH040LVL001
Bells Portal	12 / 01/08/2024	HBRA	WH081HVL001
Devilbend Reservoir	12/ 01/08/2025	HBRA	WH110LVL001 (for info ROUTE RT13071)

Reg.	Details			
	LAUNCHING WAY (WATLEYS DRAIN) PS LV The LV service line is owned by the utility. Melbourne Water has vegetation clearance responsibilities for this cable where it crosses Patterson river reserve but not where it crosses the private residence	36 / 30/08/2025	LBRA	DP2902LVL001
	POLE IN PIPETRACK - Gordon St, Croydon	36/ 30/08/2025	LBRA	M056LVP001
	PIPETRACK PRIVATE LINE JARVIS AV CROYDON	6	LBRA	M054LVL001
	Western Treatment Plant	36/ 01/08/2024	LBRA	ROUTE HAN00344
	Montrose Reservoir	36/ 01/05/2025	LBRA	WR011LVL001
	Eastern Treatment Plant -54a (120) Worsley road LV. The LV service line is owned by the utility. Melbourne Water has vegetation clearance responsibilities for this cable where it crosses the site boundary. Note:- the HV OH cables located East of Thompson Rd are utility owned and as HV clearance is utility responsibility	36/ 01/05/2025	LBRA	LVL0654
	Hoppers Crossing HV OH cables crossing the site are utility owned and as HV clearance is utility responsibility Listed for information only	N/A	N/A	N/A

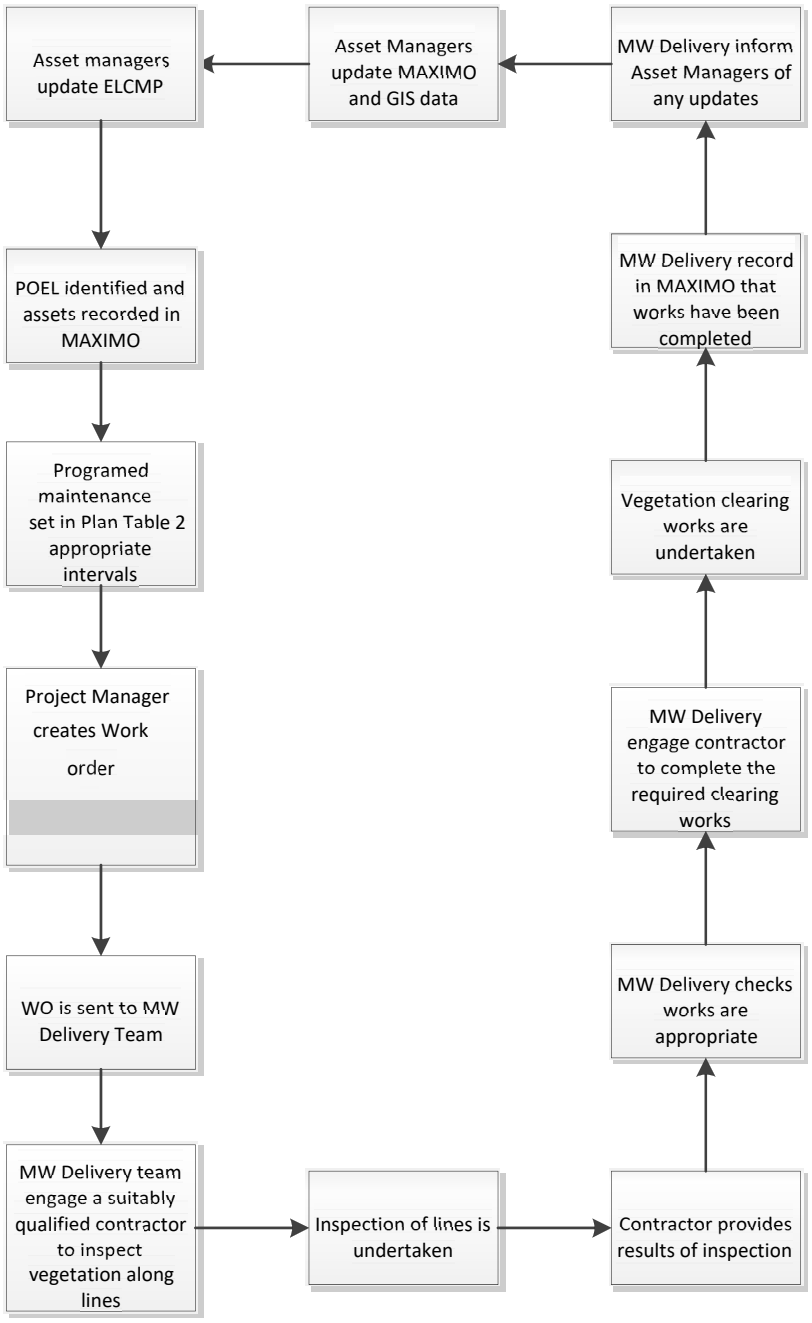


Figure 2: Vegetation management process

Vegetation along power lines is inspected:

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

For all spans, Melbourne Water 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

Reg.	Details
	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 Melbourne Water Delivery team and checked for appropriateness (Figure 8). Melbourne Water 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 Melbourne Water will utilise the following to identify required work: • Pre-fire season HBRA power line inspections • LBRA power line inspections • Cyclic work programs • Reports from Melbourne Water asset inspections • Supplemented information from the public, the Department of Energy, Environment and Climate Action (DEECA), Parks Victoria and the Country Fire Authority.

Reg.	Details

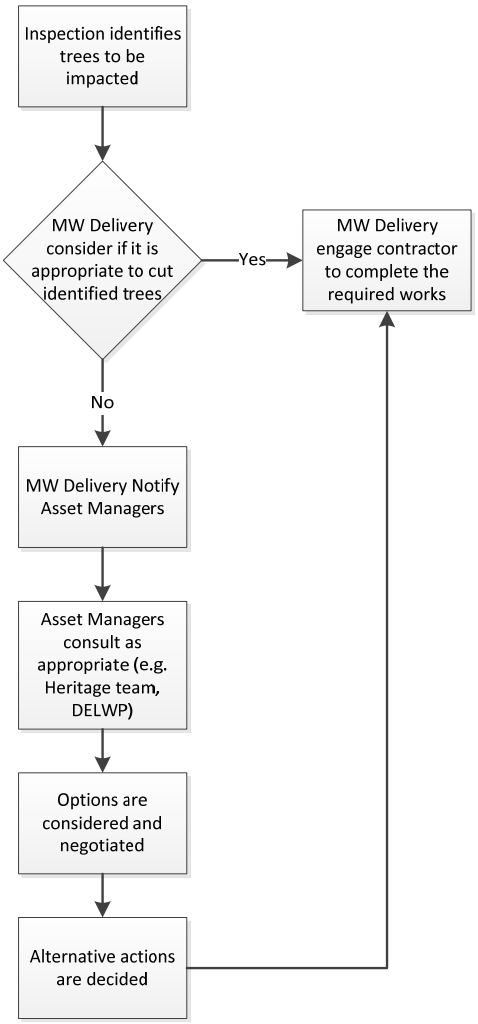


Figure 3: Method for avoiding impacts to trees of ecological, historical, environmental, cultural or aesthetic significance.

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

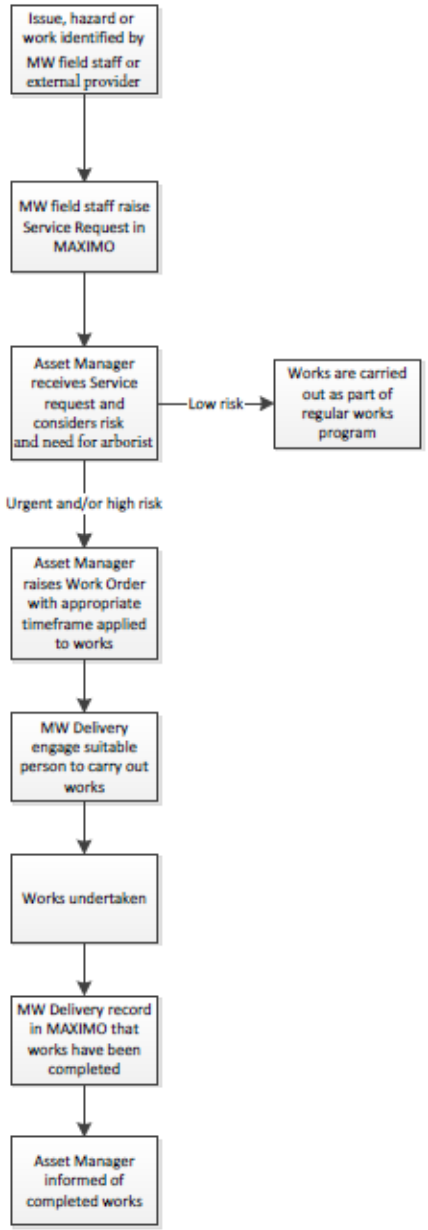
(a) it is necessary to cut or remove the tree to make an unsafe situation safe; or

(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.

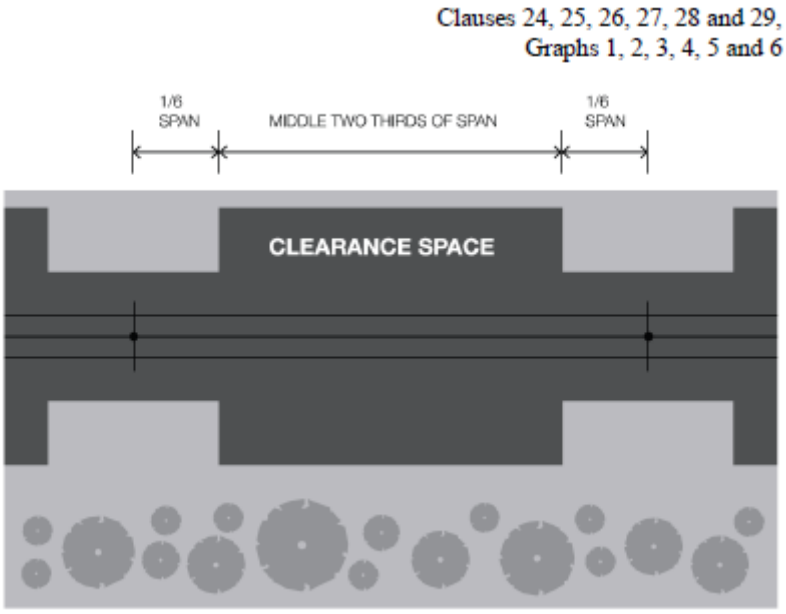
To reduce the potential for urgent pruning or clearance works between cycles, the VMC will evaluate the potential hazards to the clearance space as part of the routine inspection. Typically:

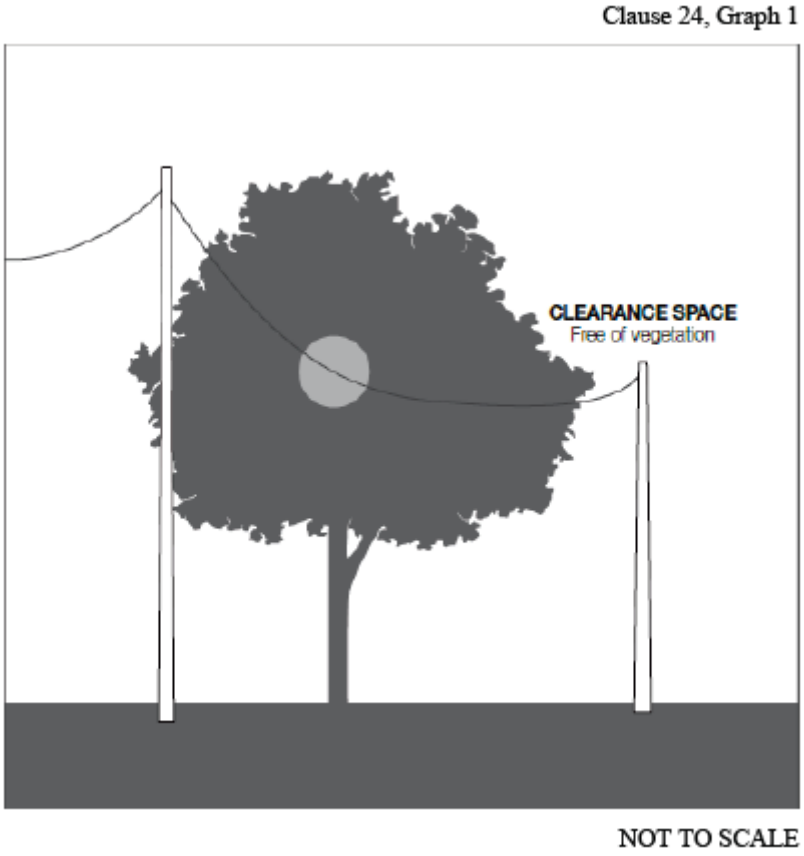
- Dead and dangerous limbs
- Physical defects in trees (deterioration through diseases and natural stresses)

Reg.	Details
	• 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 4: Process for works identified outside the normal works program.

Reg.	Details
	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: 4. Poor anchorage (e.g. Root uplift) 5. Major stage of decline (i.e. dead and dangerous limbs) 6. Excessive imbalance towards electrical assets 7. Obvious cracks / splits in trees The arborist assessment report should include any hazard tree. The inspection / cutting Project shall arrange its appropriate cutting. 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. Melbourne Water 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 2020 - Part 2 Clearance Responsibilities and Part 3 Minimum Clearance Spaces. • The pruning/clearance cycle • Expected growth rates of the species

Reg.	Details
	This information enables Melbourne Water 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** Melbourne Water 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. Melbourne Water 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 PROC PRO Contract 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 Melbourne Waters PROC PRO Contract Management. **Avoiding impacts to significant trees** Melbourne Water will consult with all relevant authorities, such as Local Government or the Department of Energy, Environment and Climate Action (DEECA), 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. Melbourne Water then considers appropriate actions to avoid/minimise the impact on any significant trees (Figure 8). Melbourne Water 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 12, 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.

Reg.	Details
	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 Melbourne Water 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 5-9. Power line span lengths are recorded in INFLO in a folder called OH Line Spans , 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 Melbourne Water will provide the required distances. These sites are: • Some spans at Western Treatment Plant see Appendix D, Table 15 • Bells Portal see Appendix D, Table 16 • Upper Yarra see Appendix D, Table 17  Figure 5: 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 5 and 6. 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.

Reg.	Details
	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. Melbourne Water does not have any insulated electric lines with spans >100 m as presented in Table 12, Appendix D. Therefore an additional distance is not required.  Figure 6: 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 5 and 7. Melbourne Water does not have any uninsulated electric lines in LBRA as presented in Table 12, Appendix D. Applicable distance calculations are therefore not presented in this document.

Reg.	Details

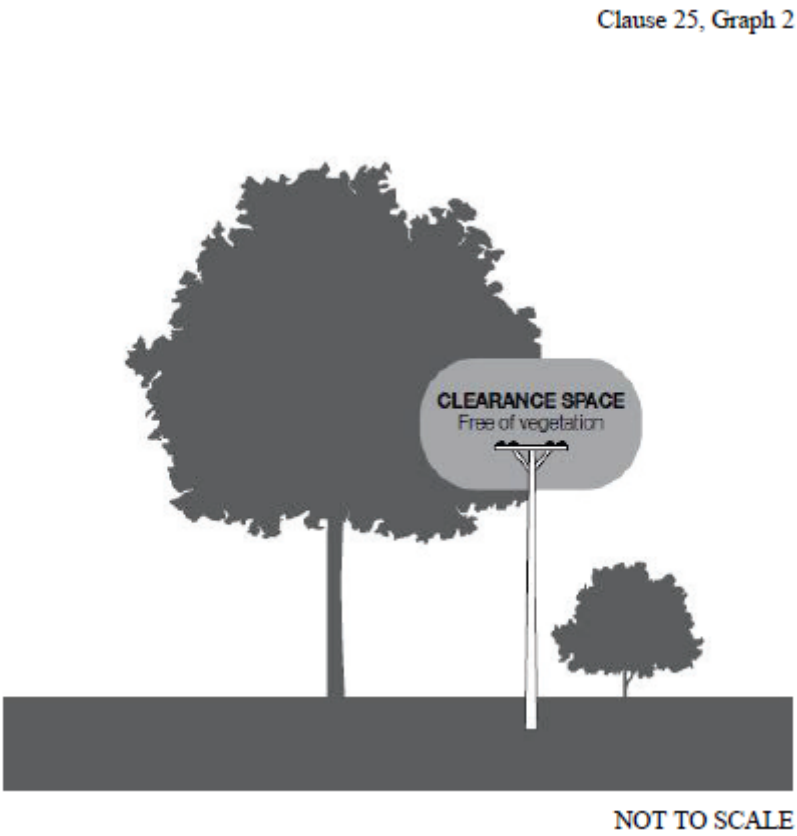


Figure 7: Extract from Electricity Safety (Electric Line Clearance) Regulation 2020 (Schedule 2, Figure 4) of minimum clearance space of Uninsulated LV Electric Lines in LBRA

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 5 and 8.

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.

Melbourne Water has one uninsulated high voltage electric line in LBRA with span distances greater than 100 m as presented in Table 12, Appendix D. The additional distances for the Werribee electric line are presented in Appendix D.

Reg.	Details

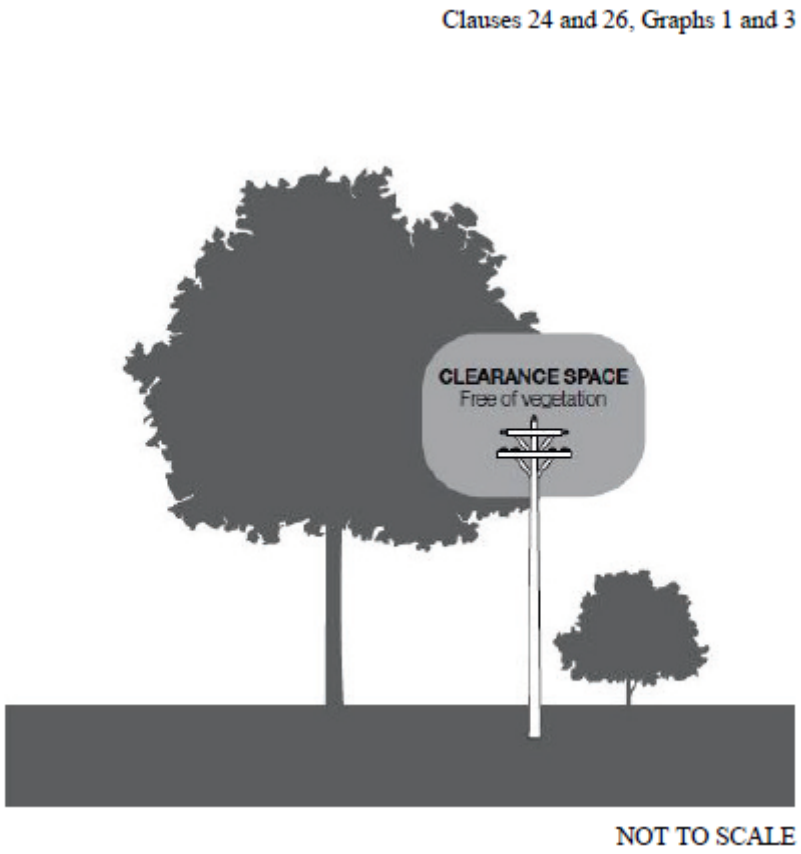
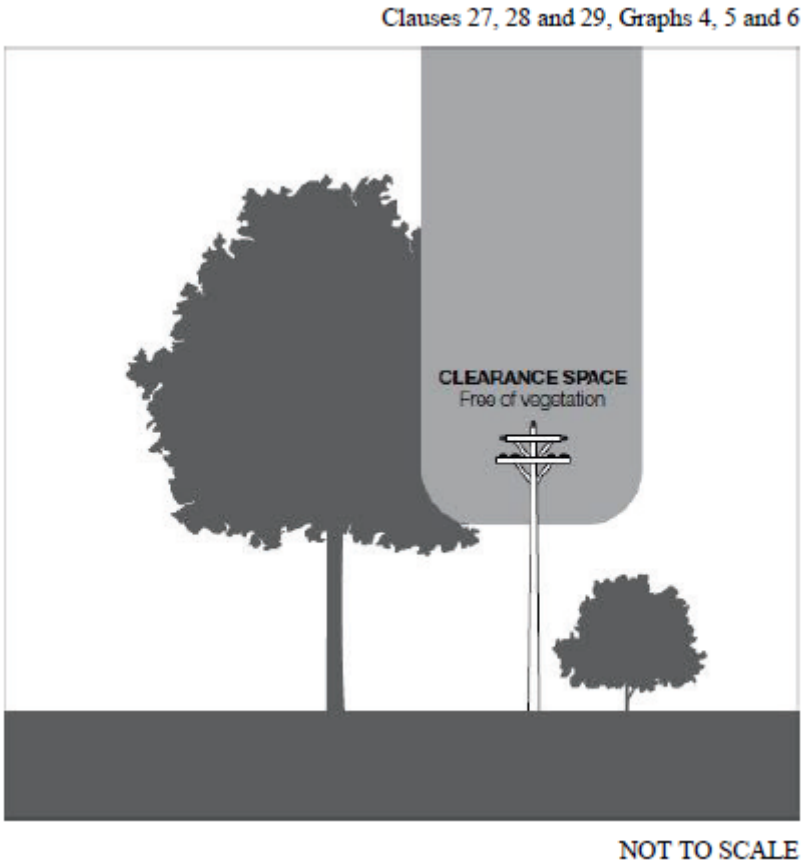


Figure 8: Extract from Electricity Safety (Electric Line Clearance) Regulation 2020 (Schedule 2, Figure 3) of minimum clearance space of Uninsulated HV Electric Lines in LBRA

Uninsulated electric lines in HBRA

The minimum clearance space for a span of an uninsulated electric line in HBRA is partially illustrated in Figures 5 and 9.

Melbourne Water has uninsulated electric lines in HBRA as presented in Table 12, Appendix D. Applicable distance calculations are presented in this document.

Reg.	Details
	 Figure 9: 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 Melbourne Water 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.

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 Melbourne Water to ensure that the objectives of the plan are being implemented and actioned. Key Performance Indicators (KPIs) include the following:

Table 3: KPIs of this Plan

No.	Category	KPI	Performance Measure	Target	Responsibility
1	ELC Management Plan completed	Document issued	On Integrated Management System	By 31st March 2024	Principal Electrical Technical Services
2	ELC Management Plan available on Melbourne Water Website	Document issued	On Melbourne Water Website	by 1st July 2024	Principal Electrical Technical Services
3a	Service Provider engagement	Inspector Engaged in timely manner	Qualified & engaged. Qualifications reviewed & filed	End June 2024	Project manager
3b	Service Provider engagement	Cutting crew engaged	Qualified & engaged. Qualifications reviewed & filed	To meet timeframes	Project manager
4a	Minimising fire risk and ensuring public, electrical and work place safety	HBRA inspection completion	HBRA inspection completed	100% by 15th Sept. 2024	Project manager
4b	Minimising fire risk and ensuring public, electrical and work place safety	Line clearance works completed	All identified clearance works completed before start of the bushfire season in HBRA (taken to be 30th November)	100% by 30th Nov. 2024	Project manager

Reg.	*Details*					
	5	Ensuring public, electrical and work place safety	Contractors are managed in accordance with contractor management plans	Melbourne Water supervisor for works who have a degree of management oversight over works, who record via "Contractor Feedback form" or via "Presence on Ground".	100%	Project manager
	6	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	Principal Electrical Technical Services
	7	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 vegetation related line repairs by reviewing corrective work orders feedback logs from previous year	0%	Principal Electrical Technical Services
	8	Consultation with other land users/owners	Consultation with other land users/owners complete	Before cutting; notices filed	100%	Project manager
	9a	Audit	Internal audit undertaken	Audit check list completed	by end Feb Month 2025	Project manager

Reg.	*Details*
	9b | Audit | Internal audit undertaken | 25 % of sites (as determined by PM) revisited by VMC inspector post cutting to confirm clearance. Report received | by end April 2025 | Project manager The performance measures will be reported the Project Manager. The following template may utilised for this purpose, PXXXX ELCMP Monitoring and Auditing Template 20XX_20XX.xlsx
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 rests with the Head of Waterways & Catchment Delivery. The Area Lead Program Delivery (delivery eastern Region) is responsible for the regular auditing of the Vegetation Management program to ensure that it complies with the requirements. See table 3 for auditing list The following report format template shall be used to record the audit findings;_ PXXXX ELCMP Monitoring and Auditing Template 20XX_20XX.xlsx A completed copy shall be placed in the project's completion folder so as to be readily available to: • Head of General Waterways & Catchment Delivery • Manager Technical Services (Service Programs) • Principal Electrical Technical Services In addition, contractor services are monitored in accordance with Melbourne Water's PROC PRO Contract Management. Melbourne Water will provide documentation of audits of the VMC and pruning and clearance works to Energy Safe Victoria, and follow-up onsite confirmation upon request.

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.*
	Melbourne Water 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.

Reg.	*Details*
	For full details list and matrix of Qualifications / task for VMC employees refer to Appendix C. 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 Training requirements matrix Template.xlsx. This document also acts as a template for recording individuals qualifications and roles. A copy of the template should be taken for project use. The copied template shall capture each individual's training for each site works. The project manager shall store the completed matrix and all certification in a dedicated folder within the project's. 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 HR PRO Fair and Just procedure. Melbourne Water 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; –'Recognise plants' and – '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. Melbourne Water 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 Melbourne Water's contract manager prior to commencement of the contract of works. The VMC that are engaged by Melbourne Water will ensure that all personnel are appropriately authorised in accordance with the Electricity Safety (Installations) Regulations 2009. Permit to Work requirements are defined in H&S PRO Control of Work 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 Melbourne Water 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

Reg.	*Details*
	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. Melbourne Water 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 Melbourne Water. 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.

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 Melbourne Water predominantly owns / manages nearly all the land that power lines are on. There are a few sections where Melbourne Water 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 Melbourne Water. 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 Melbourne Water 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 Melbourne Water will ensure that notice is given to the affected persons as soon as practicable after the work has been completed (as required). Melbourne 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). 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.

Reg.	*Details*
	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: 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 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 inspection / cutting Project will arrange its appropriate cutting. If a potential hazard tree is identified outside the project inspection / cutting program, Water civil maintenance may raise a work order for appropriate cutting. A qualified arborist should be engaged prior to confirm. Melbourne Water power lines are contained on Melbourne Water 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 Melbourne Water in accordance with its GOV PRO Complaint Handling Procedure. ELC relevant extracts are given in appendix H. Complaints may be made through contacting Melbourne Water Customer Service Centre on 131 722. These issues will be referred to the relevant Melbourne Water 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). Melbourne Water will comply with the subsequent outcome. Contact details as below: **EWOV** – Tel. - 1800 500 509 (freecall); Email ewovinfo@ewov.com.au **ESV** - Email - info@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.

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 Melbourne Water website. An updated copy of the ELCMP will be published, after it has been formally approved and loaded onto IMS. See Electrical asset Management Plans on below web page. Electrical asset management plans | Melbourne Water

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.*
	Melbourne Water will not be requesting any exception under this clause.

References

Document title
Australian Standard AS 4373-2007 Pruning of Amenity
GOV PRO Complaint Handling Procedure
Electricity Safety (Electric Line Clearance) Regulations 2020 (Incorporates code of practice in schedules 1 & 2)
Electricity Safety (General) Regulations 2019 for work on or near high voltage electrical apparatus (The Blue Book)
Electricity Safety Act 1998
ESV 2020, Melbourne Water Corporation ELC systems audit report, Energy Safe Victoria, August 2020
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
PROC PRO Contract Management
WorkSafe (Victoria) – "Working Safely With Trees – Recommended Practices for the Amenity Tree Industry" - July 2001

Document control and version history

Date	Reviewed/ Actioned By	Version	Action
March 2024	Principal, Electrical	7	Organisation structure and personnel changes; reg 9(4)(j)(i)Inspection and cutting codes added; reference to Arbor removed, New project number added; Table 2 scheduling updated; reference to Dept of Environment replaced, Table 3 KPIs updated; 9(4)(n) table amended; 9(4)(o) audit template checklist created, removed VESI references; H&S PRO Control of Work replaces H&S PRO Work Permit ; Appendix A CFA maps updated (no impact on plan); Silvan partial OH line removal (P16499) ; Appendix F Reference to Winneke – Simpson Rd cartetakers residence removed ; Appendix I Historical / Aboriginal table 18 and 19 updated to include the requirements for further assessments points at WTP, Hazard tree removal suggested Maximo work orders would be raise, this has been rephrased to 'the

Date	Reviewed/ Actioned By	Version	Action
			inspection / cutting Project will arrange its removal'.
March 2023	Principal, Electrical	6	Organisation structure and personnel changes; updated heritage due diligence; delivery project number updated; ETP Worsley Rd and HCPS sites added; updated inflo links as necessary; VESI training matrix updated; web publishing date removed, removed annual submit to ESV in favour of upon ESV request.
23 March 2022	Joanne Hunt	5	
29 March 2021	Joanne Hunt	4	
31 March 2020	Kitty Niven	3	
29 March 2019	Peter Gall	2	
7 June 2018	Tohi Otimi	1	Document Created

Appendices

Appendix
Appendix A –
Appendix B – Tree Type Information
Appendix C – Documentation of certification of VMC
Appendix D – Minimum Clearance Space Graphs
Appendix E – H&S PRO Event Notification, Investigation and Analysis
Appendix F – Land Ownership Details
Appendix G – Typical Example of Notice
Appendix H – Customer Complaints Handling Procedure
Appendix I – Historical Heritage & Aboriginal Cultural Heritage Assessment
Appendix J - Association of Work Orders to MAXIMO Location History
Appendix K - Typical Project Folder Structure

Appendix A – Maps and Spans

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

Eastern Treatment Plant

http://inflo/inflo/cs.exe/link/63863084

Gordon St Croydon

http://inflo/inflo/cs.exe/link/54498702

Launching Way

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

Montrose Service Reservoir

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 Melbourne Water owned electric lines

Species information based on Ecological Vegetation Class (EVC) bioregions

Table 4: Native tree species located near electrical lines at Bells Portal

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		

Table 5: Native tree species located near electrical lines at Western Treatment Plant

Western Treatment Plant			
Plains Grassy Woodland (EVC 55)			
Eucalyptus camaldulensis River Red-gum			

Allocasuarina littoralis Black Sheoak *Kunzea ericoides* Burgan			

Table 6: Native tree species located near electrical lines at Winneke

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

Table 7: Native tree species located near electrical lines at Upper Yarra Reservoir

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	*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	*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

	Cassinia aculeata Common Cassinia *Cyathea australis* Rough Tree-fern *Dicksonia antarctica* Soft Tree-fern	*Cyathea australis* Rough Tree-fern	

Table 8: Native tree species located near electrical lines at Tarago Reservoir

Tarago Reservoir			
Lowland Forest (EVC 16)	Damp Forest (EVC 29)	Riparian forest (EVC 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 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	

Table 9: Native tree species located near electrical lines at Silvan Reservoir

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	*Eucalyptus obliqua* Messmate Stringybark *Eucalyptus viminalis* Manna Gum *Acacia dealbata* Silver Wattle *Pomaderris aspera* Hazel Pomaderris *Acacia melanoxylon* Blackwood *Coprosma quadrifida* Prickly Currant-bush		

Acacia mucronata ssp. longifolia Narrow-leaf Wattle	*Prostanthera lasianthos* Victorian Christmas-bush *Cyathea australis* Rough Tree-fern		

Table 10: Native tree species located near electrical lines at Cardinia Reservoir

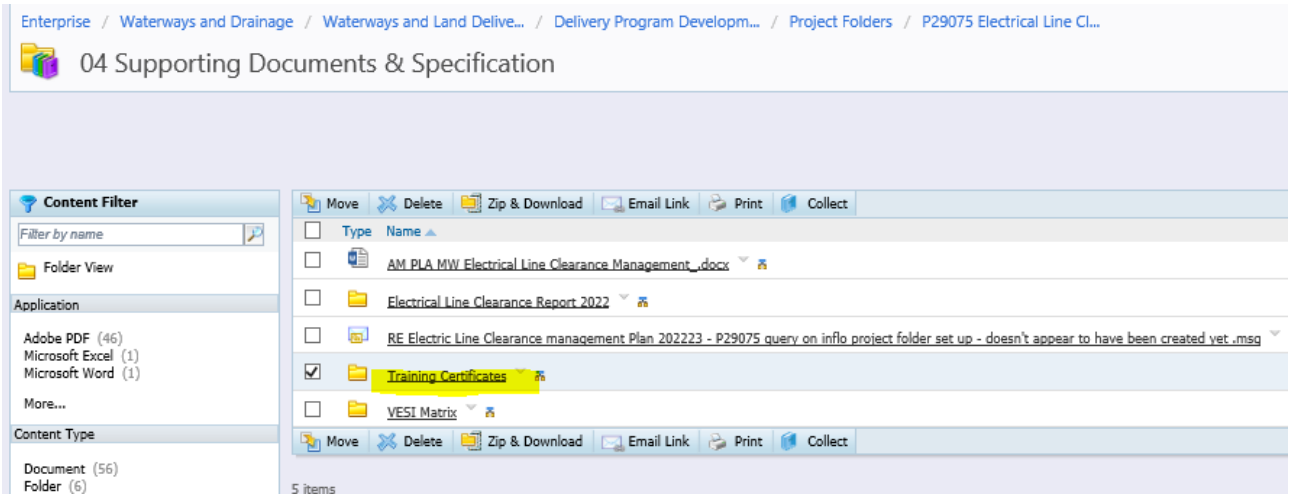
Cardinia Reservoir			
Damp Heathy Woodland (EVC 793)			
Eucalyptus cephalocarpa Mealy Stringybark *Eucalyptus radiata* Narrow-leaf Peppermint *Eucalyptus ovata* Swamp Gum *Leptospermum continentale* Prickly Tea-tree *Banksia marginata* Silver Banksia *Kunzea ericoides* Burgan			

Table 11: Native tree species located near electrical lines at other spans

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

A copy of the ELC Training requirements matrix Template.xlsx can be obtained using the inflo hyperlink



Appendix D – Minimum Clearance Space Graphs

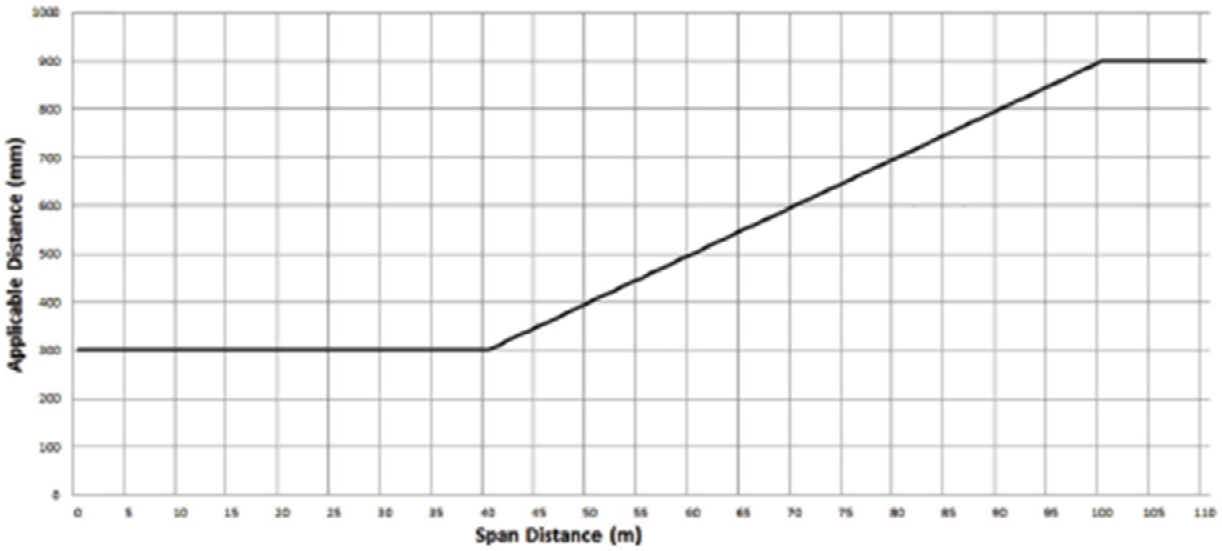
Table 12: Melbourne Water Overhead Powerlines

	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.
WP242LVL002						Graph 1	No additional distance is required.
	Silvan Reservoir Screen Chambers	HBRA	LV	<100	Insulated service wire	Graph 1	No additional distance is required.
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
LVL0654	Eastern Treatment Plant - 54a (120)	LBRA	LV	<100	Insulated service wire	Graph 1	No additional distance is required.

	O/H Line Name	Bushfire Risk Area	Voltage	Span lengths (m)	Comments	Relevant Schedule 2 Graph	Assessment of requirement for Additional Distance
	Worsley road LV.						

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:

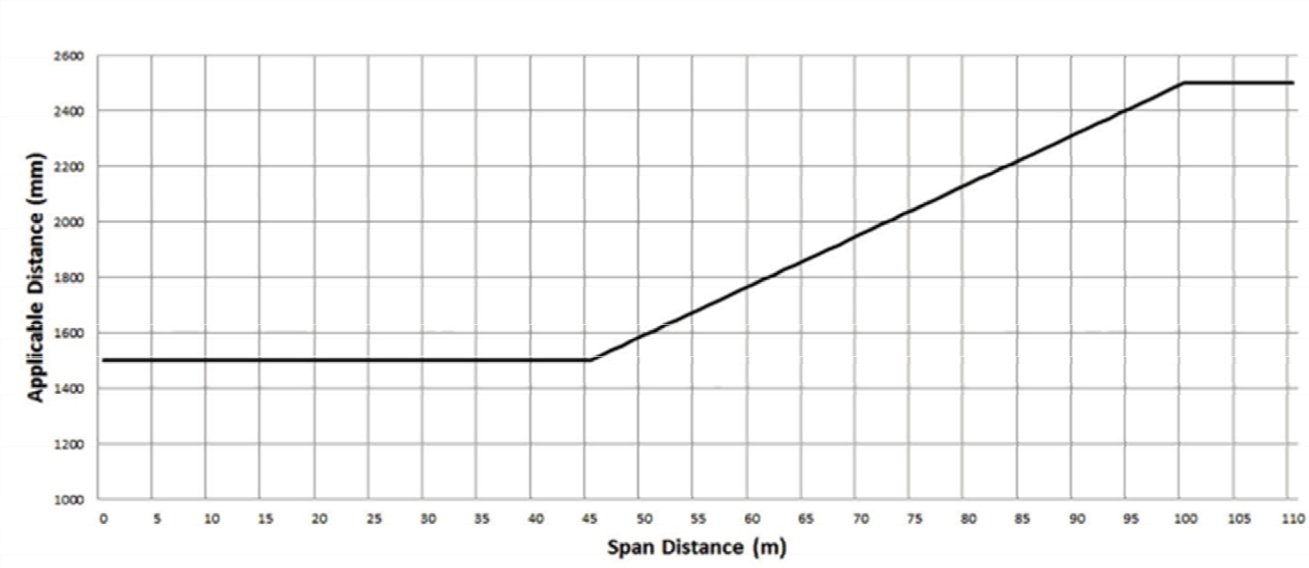
SD = Span Distance (m), AD = Applicable Distance (mm)

Table 13: Calculation for Applicable Distance

#	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)

Table 14: Calculation for Applicable Distance

#	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 15: 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 16: 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, and 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 17: 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, and for calculation details.

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

H&S PRO 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 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

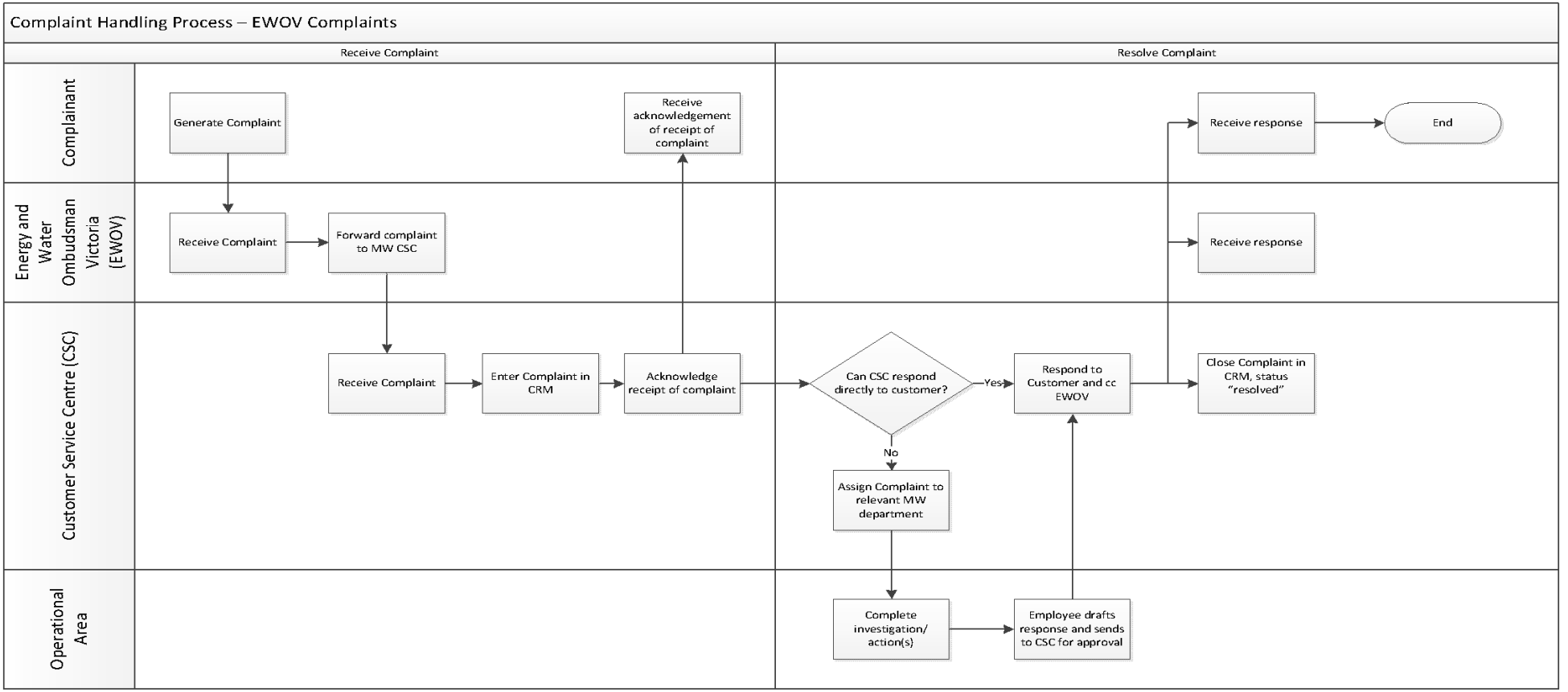
TYPICAL

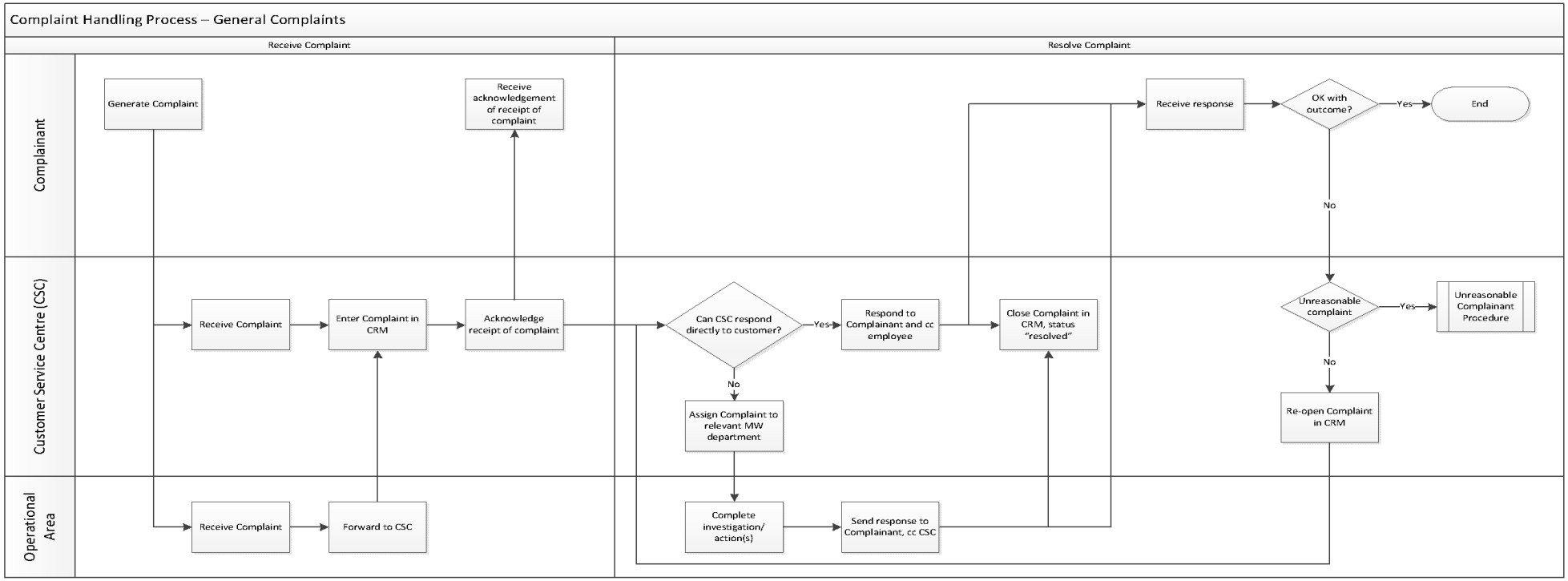
VICTORIA
State Government

Inflo link - ELC Typical Notice of works letter.docx

Appendix H – Customer Complaints Handling Procedure

ELC Relevant extracts from GOV PRO Complaint Handling Procedure:




Complaint Handling Process – General Complaints
Receive Complaint
Resolve Complaint
Complainant
Customer Service Centre (CSC)
Operational Area
Generate Complaint
Receive acknowledgement of receipt of complaint
Receive Complaint
Enter Complaint in CRM
Acknowledge receipt of complaint
Receive Complaint
Forward to CSC
Can CSC respond directly to customer?
Yes
No
Respond to Complainant and cc employee
Assign Complaint to relevant MW department
Complete investigation/ action(s)
Send response to Complainant, cc CSC
Close Complaint in CRM, status "resolved"
Receive response
OK with outcome?
Yes
End
No
Unreasonable complaint
Yes
Unreasonable Complainant Procedure
No
Re-open Complaint in CRM

Appendix I – Historical Heritage & Aboriginal Cultural Heritage Assessment

Key aspects of the assessment ore given below. Internal link to full report:

Powerline Vegetation Clearance Cultural-Heritage-Due-Diligence_v1.Feb 2024
The assessment finds the following historical and Aboriginal cultural heritage 'red flags' which may require approvals:

WTP 5, 6 and 8: vegetation clearance to power lines may trigger the requirement for a Permit (for Victorian Heritage Register listed place H2400 (Former Metropolitan Farm), should works be required to the historical wind break of Monterey Cypress located along Metropolitan Farm Road.

WTP 5 and 8: one previously registered Aboriginal cultural heritage place is located within the project area (VAHR 7822-4259: Werribee Treatment Plant LDAD). A Cultural Heritage Permit will not be provided that the works do not cause harm to the registered Aboriginal cultural heritage place:

- The location of the registered Aboriginal cultural heritage place should be established on-site prior to works commencing and declared as a 'no-impact' zone. This information should be disclosed to all crew members as part of site induction.
- The coordinate locations of VAHR 7822-4259 are provided below (GDA 94, Zone 55):
  - VAHR 7822-4259-1: E 293168.865, N 5799352.754
  - VAHR 7822-4259-2: E 293168.667, N 5799354.045
  - VAHR 7822-4259-3: E 293170.624, N 5799312.637
  - VAHR 7822-4259-4: E 293216.811, N 5799413.243
- No works can occur within or in the immediate vicinity of the registered extent of the Aboriginal cultural heritage place.
- If works are to occur within the registered extent of this Aboriginal cultural heritage place, a Cultural Heritage Permit must be obtained for the works.

Please let the Heritage Services team know if there is a change to the scope of the project, methodologies and/or a change in the project area size or location, prior to the commencement of any works.

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.

Table 18: Requirement for Historical Heritage Registers Assessment at Melbourne Water power line locations (extract from report)

Power Line Location	Historical Heritage Present?	Heritage Place Name	Further assessment or requirements?
Bells Portal	NO	-	NO
Cardinia	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 Reservoir	YES	LGA HO listed HO314: Upper Yarra Reservoir & Park	NO
Winneke – Caretakers Residence	NO	-	NO
Winneke – Power Lines	NO	-	NO
Winneke - Substation	YES	VHR listed H2381: Maroondah Water Supply System (Upper & Central); and LGA HO listed HO2: Maroondah Water Supply System (Upper and Central Sections)	NO
WTP 1	NO	-	NO
WTP 2	NO	-	NO
WTP 3	YES	VHR listed H2400 (Former Metropolitan Farm); and LGA HO listed HO19 (Water Tank)	NO
WTP 4	NO	-	NO
WTP 5	YES	VHR listed H2400 (Former Metropolitan Farm); and LGA HO listed HO19 (Water Tank)	YES: Vegetation clearance may trigger the

			requirement for a Permit, should works be required to the historical wind break of Monterey Cypress located along Metropolitan Farm Road
WTP 6	YES	VHR listed H2400 (Former Metropolitan Farm); and LGA HO listed HO19 (Water Tank) Also immediately adjacent to VHR listed H1416 (Water Tank)	YES: Vegetation clearance may trigger the requirement for a Permit, should works be required to the historical wind break of Monterey Cypress located along Metropolitan Farm Road
WTP 7	NO	-	NO
WTP 8	YES	VHR listed H2400 (Former Metropolitan Farm); and LGA HO listed HO19 (Water Tank)	YES: Vegetation clearance may trigger the requirement for a Permit, should works be required to the historical wind break of Monterey Cypress located along Metropolitan Farm Road
WTP 9	NO	-	NO
Montrose Reservoir	NO	-	NO
Devilbend Reservoir	NO	-	NO
Worsley Rd Bangholme	NO	-	NO

Worsley Rd Bangholme	YES: Regulation 34 (Koo Wee Rup Plain)	-	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. **There are** some areas that will require 'No impact zones to be established. An Aboriginal cultural heritage permit is not required as works will not cause harm to any known Aboriginal place.

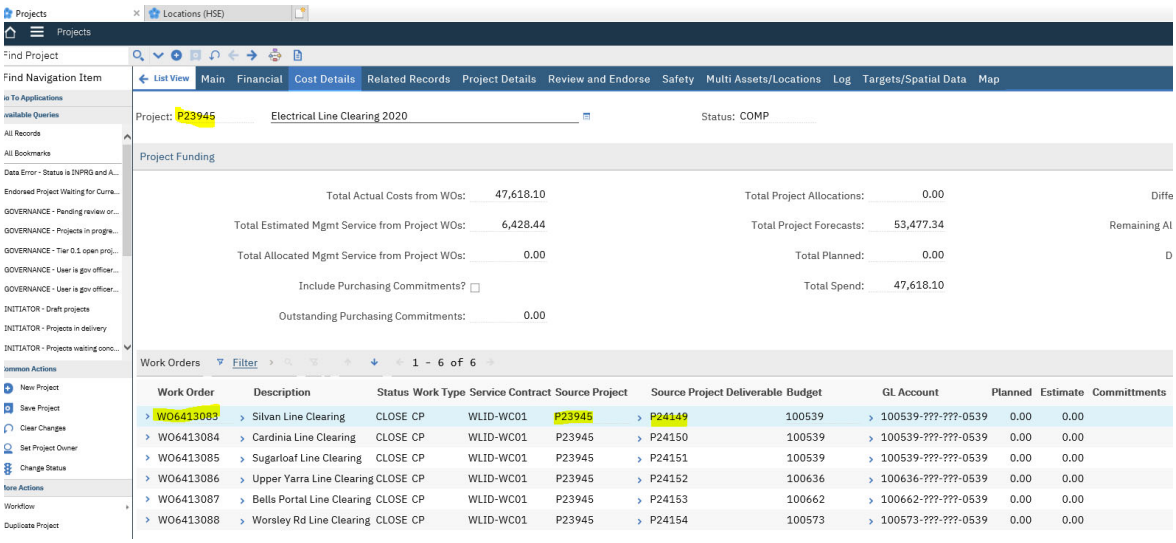
Table 19: Aboriginal Cultural Heritage Sensitivity at Melbourne Water power line locations (extract from report)

Power Line Location	Area of Aboriginal Cultural Heritage Sensitivity?	VAHR Place Details	Further assessment / works required?
Bells Portal	NO	-	NO
Cardinia	NO	-	NO
Launching Way	YES: Regulation 26 (Patterson River), Regulation 30 (Coastal Crown Land) and Regulation 40 (Dune)	-	NO
Olinda-Mitcham Pipe Track - Gordon Street	YES: Regulation 26 (Tarralla Creek)	-	NO
Olinda-Mitcham Pipe Track - Jarvis Avenue	NO	-	NO
Silvan	NO	-	NO
Tarago	YES: Regulation 26 (Tarago River)	-	NO
Upper Yarra	YES: Regulation 26 (Five Mile Creek)	-	NO
Winneke – Caretakers Residence	NO	-	NO
Winneke – Power Lines	YES: Regulation 26 (Stevenson Creek and Sugarloaf Creek)	-	NO
Winneke - Substation	YES: Regulation 26 (Yarra River and Stevenson Creek)	-	NO
WTP 1	YES: Regulation 29 (Declared Ramsar Wetland)	-	NO
WTP 2	YES: Regulation 29 (Declared Ramsar Wetland)	-	NO

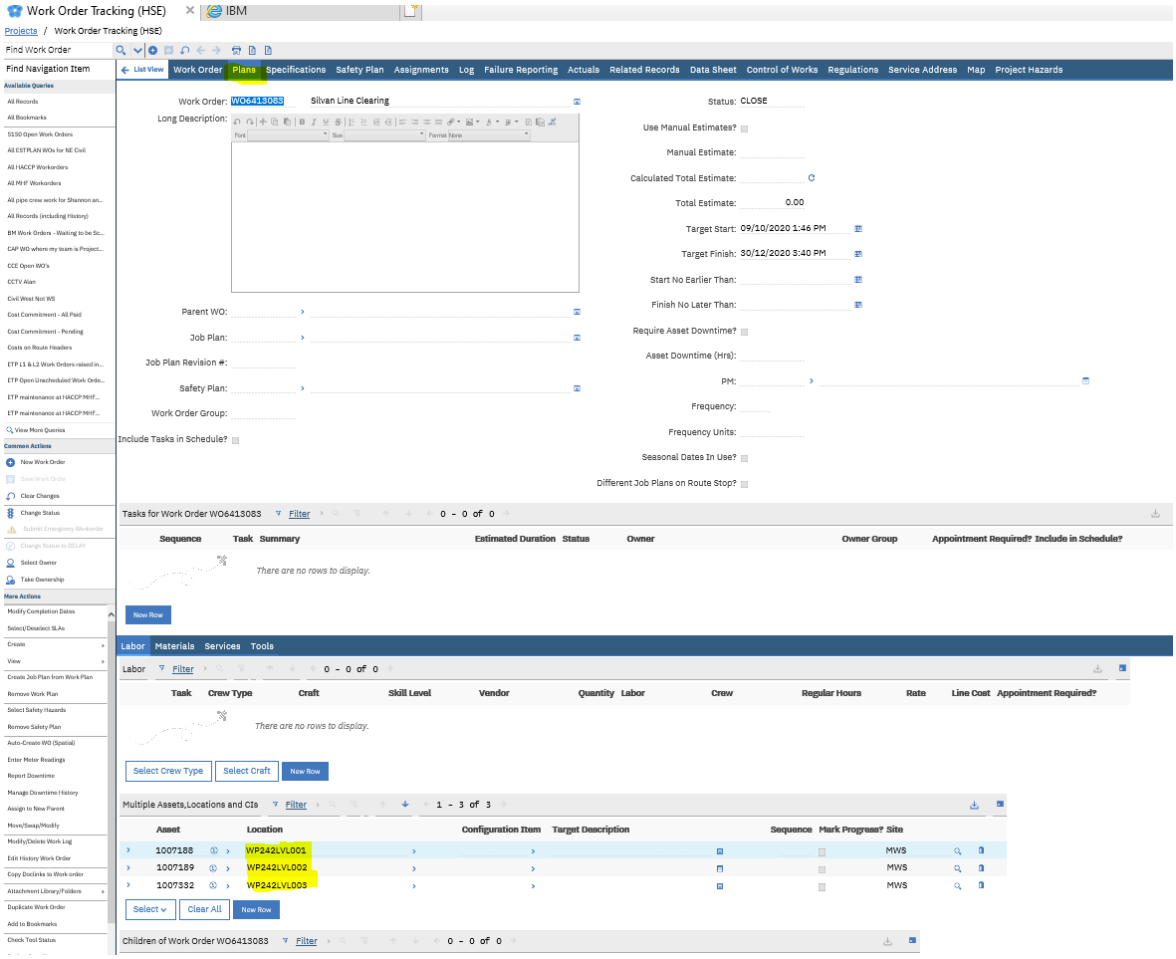
WTP 3	YES: Regulation 29 (Declared Ramsar Wetland)	-	NO
WTP 4	YES: Regulation 25 (Aboriginal place VAHR 7822-3803 [1-6]), Regulation 26 (Lollypop Creek) and Regulation 29 (Declared Ramsar Wetland)	-	NO – all artefacts comprising VAHR 7822-3803 are subsurface and have been collected so no harm will occur to the place
WTP 5	YES: Regulation 25 (Aboriginal place VAHR 7822-4259 [1-4] and Regulation 29 (Declared Ramsar Wetland)	VAHR 7822-4259 is a low-density artefact distribution comprising four stone artefacts (silcrete, quartzite and trachyte flakes) identified on the ground surface during the preparation of CHMP 15755. The artefacts have not been recorded as being collected.	YES – 'No impact' zones to be established at the four locations of VAHR 7822-4259 prior to the commencement of works.
WTP 6	YES: Regulation 25 (Aboriginal place VAHR 7822-2346) and Regulation 29 (Declared Ramsar Wetland)	-	No – VAHR 7822-2346 is located in adjacent paddock
WTP 7	YES: Regulation 29 (Declared Ramsar Wetland)	-	NO
WTP 8	YES: Regulation 25 (Aboriginal place VAHR 7822-4259 [1-4] and Regulation 29 (Declared Ramsar Wetland)	VAHR 7822-4259 is a low-density artefact distribution comprising four stone artefacts (silcrete, quartzite and trachyte flakes) identified on the ground surface during the preparation of CHMP 15755. The artefacts have not been recorded as being collected.	YES – 'No impact' zones to be established at the four locations of VAHR 7822-4259 prior to the commencement of works.
WTP 9	YES: Regulation 29 (Declared Ramsar Wetland)	-	NO
Montrose Reservoir	NO	-	NO
Devilbend Reservoir	YES: Regulation 26 (Devil Bend Creek)	-	NO

Appendix J - Association of Work Orders to MAXIMO Location History

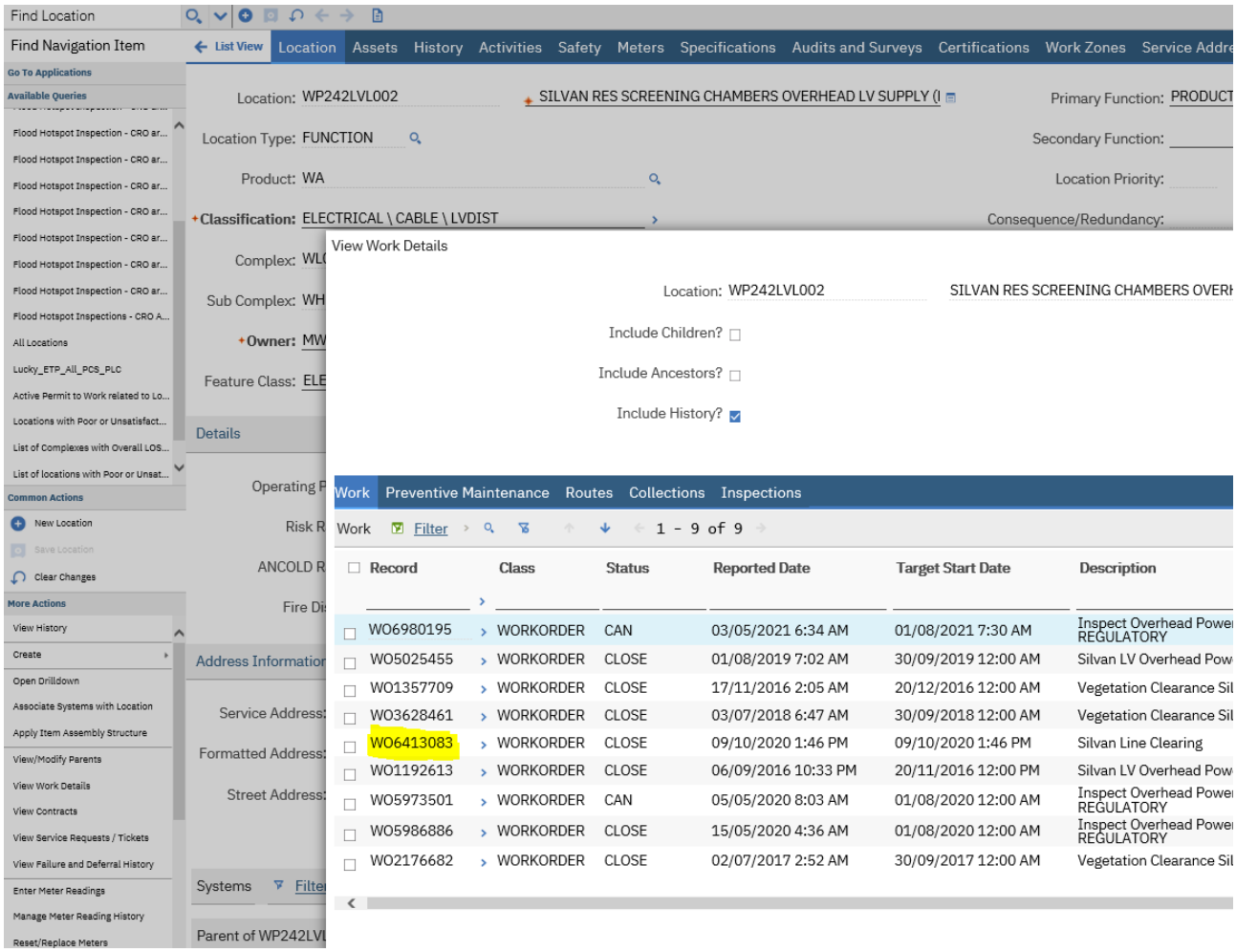
A project has deliverables from which work orders can be raised. Work orders raised in this way are not automatically linked to the MAXIMO LOCATION.



In order to create the link the LOCATION assets must be added to the work order using the PLANS tab.



Associating the work order via PLANS enables other users to see the work order activity that was raised by the project from the LOCATION as demonstrated below:



Appendix K - Typical Project Folder Structure

A typical folder structure is detailed below and includes key information locations: