
Volume 4

Chapter 6

Agriculture and forestry

6 Agriculture and forestry

This chapter provides an assessment of the potential agricultural and forestry impacts associated with the construction, operation, and decommissioning of the project. This chapter is based on Technical Appendix K: Agriculture and forestry and an additional assessment of forestry impacts.

Agriculture is an important land use in Gippsland, contributing over \$2 billion in gross regional product per year. One of Australia's largest private timber plantation companies is also located in Gippsland along the project alignment. The Victorian terrestrial component of the project traverses a range of agricultural and forestry activities including beef, dairy, horticulture and plantations. Organic farming is also an important land use in the area.

The project has the potential to impact on agricultural and forestry plantation production due to disturbance during construction and it is important that these potential impacts are understood, with appropriate controls implemented to minimise disturbance and loss of productivity.

There are no specific requirements in the EIS guidelines relevant to agriculture and forestry. Refer to Attachment 1: Checklist - Guidelines for the Content of a Draft Environmental Impact Statement for the EIS guidelines.

The EES scoping requirements set out the following EES evaluation objective relevant to agriculture:

- ***Agriculture, land use and socioeconomic*** – *Avoid and, where avoidance is not possible, minimise adverse effects on agriculture, forestry and other land uses, social fabric of communities, and local infrastructure, businesses and tourism.*

Refer to Attachment 2: Checklist - Scoping Requirements Marinus Link Environment Effects Statement for the EES scoping requirements.

Other aspects covered in the above EES evaluation objective are addressed in the following EIS/EES chapters:

- Volume 1, Chapter 7 – Economics.
- Volume 4, Chapter 15 – Land use and planning.
- Volume 4, Chapter 16 – Social.

6.1 Method

The significance method was used to assess the potential level of impacts to agriculture and forestry. This method is detailed further in Volume 1, Chapter 5 –EIS/EES assessment framework. The sensitivity and magnitude criteria were amended from the model criteria described in Volume 1, Chapter 5 –EIS/EES assessment framework to be specific to the assessment of impacts on agriculture and forestry. The key steps of this assessment included:

- Defining a study area.
- Characterising existing conditions for the agriculture and forestry sectors to identify values that could be affected by the project, including:
 - Conducting a desktop review of government data and statistics, council strategies and published studies; and
 - Conducting property visits at a representative sample of agricultural properties impacted by the project.
- Identifying potential impacts to different types of agricultural activities and forestry plantations.
- Conducting an impact assessment, considering the sensitivity of identified values and the magnitude of potential impacts to determine level of impacts.
- Conducting cumulative impact assessment of other projects proposed in the same location and at the same time as the project.
- Assessment of the agricultural and forestry impacts during construction, operation, and decommissioning of the project using the significance and compliance methods described in Volume 1, Chapter 5 – EIS/EES assessment framework.
- Development of EPRs in response to the impact assessment to define the outcomes to be achieved to avoid and minimise agriculture and forestry impacts. The assessment of residual impacts presented in this chapter assume implementation of measures to comply with the EPRs. Refer to Volume 5, Chapter 2 – Environmental Management Framework for a full list of EPRs.

This chapter is based on Technical Appendix K: Agriculture and forestry and provides further assessment of forestry impacts building on the overview of impacts presented in the technical appendix. The forestry assessment presented in this chapter has been completed since finalising the Technical Appendix K: Agriculture and forestry.

6.1.1 Study area

The study area is a corridor that is approximately 90 km long and 220 m wide (110 m either side of the cable) that extends between the shore crossing at Waratah Bay and the converter station at Hazelwood in Victoria. It also includes the HDD drill pad site at Waratah Bay, transition station site, laydown areas outside of the 220 m corridor, access tracks and the converter station site at Hazelwood. Figure 4-33 shows the study area between Waratah Bay and Hazelwood.



LEGEND

- Landfall
- Converter station
- HVDC subsea cable
- Underground HVDC cable
- - - Cable option not progressing
- Survey area
- - - Local government area boundary



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 PROJECTION: GDA2020 MGA Zone 55

SOURCE
 Proposed route from Tetra Tech Coffey.
 LGA boundaries from VICMAP.
 Imagery from ESRI Online.

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FIGURE 4-33

Agricultural and forestry study area



6.1.2 Legislative context

Table 6-1 outlines the key legislation that has informed the agriculture and forestry assessment. A more detailed description of legislation relevant to the assessment is provided in Volume 1, Chapter 4: Legislative framework.

Table 6-1 Key legislation relevant to the assessment of agriculture and forestry

Title	Relevance to the assessment
<i>Biosecurity Act 2015</i> (Cwlth)	<p>The Act manages biosecurity risks in Australia. It covers the management of diseases and pests that may cause harm to human, animal or plant health or the environment. The Act will inform biosecurity plans required under EPR A06 and property management plans required under EPR A02 (see Section 6.6 for details of the EPRs). Biosecurity plans will include controls to prevent the introduction and spread of animal and plant pathogens, pests and weeds such as requirements for:</p> <ul style="list-style-type: none"> ➤ Wash down and disinfecting facilities ➤ Limiting vehicle movements in production areas ➤ Limiting machinery and equipment entry.
<i>Victorian Plantations Corporation Act 1993</i> (Vic)	<p>The Act specifically applies to the land to be used for forestry. Part of the Hancock Victorian Plantations' (HVPs) Thorpdale Plantation is located in this area.</p>

6.1.3 Assumptions and limitations

As detailed in Technical Appendix K: Agriculture and forestry, 23 agricultural properties were identified for property visit, including dairy and beef farms and a racehorse training facility. Fifteen of these were visited and interviews conducted with the landholders about the nature of their farming practices. Additional property visits would have strengthened the conclusions made, however 15 are considered sufficient to inform the agriculture and forestry impact assessment.

6.2 Existing conditions

Agriculture (mainly beef, dairy and horticulture) contributes over \$2 billion to the southern Gippsland region each year. Forestry is important in the Latrobe area, where the industry supplies one of the largest paper manufacturers in the southern hemisphere, Opal Australian Paper (DTP 2022).

There are extensive plantation forests in the Strzelecki Ranges and foothills, with softwood plantations making up most of the plantation forestry activity in the project area. HVP is one of Australia's largest private timber plantation companies in Victoria. Approximately 70% of HVP Victorian holdings are sustainably managed plantations that are largely grown on land that was previously cleared for farming. HVP maintains the remaining 30% of its holdings in a protected area for plantation protection, conservation, and other community values. In the Strzelecki Ranges, HVP has set aside almost half of its land to manage native forest for conservation and community values.

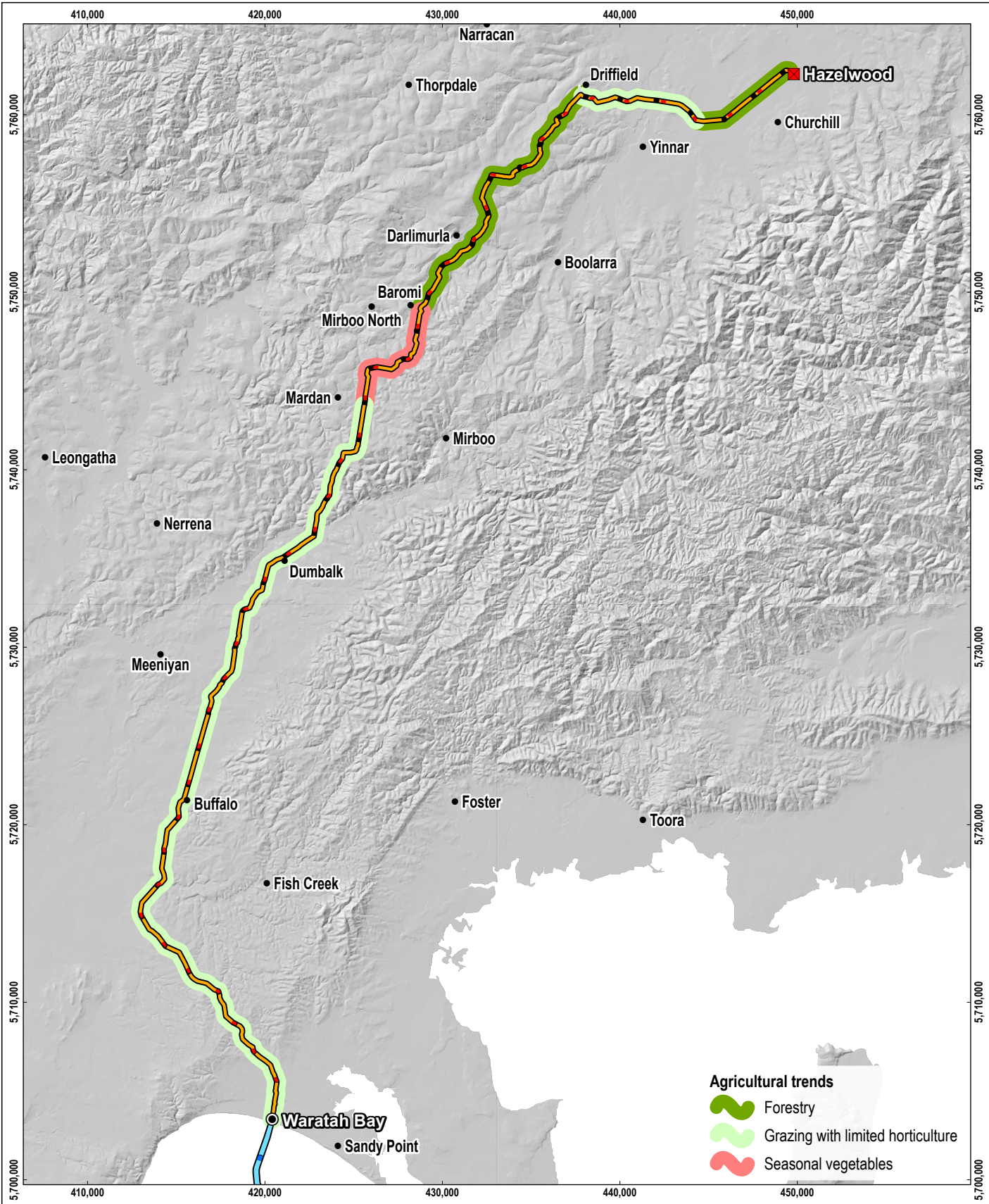
The type of agriculture found on each farm is influenced by geography and soil type. The terrain varies from gentle hills in the south to very hilly with steep gullies in the north. The climate is temperate with high rainfall, particularly in winter and spring, and the growing season is approximately 10 months. Frosts generally occur between May and September.

Soils from the HDD landfall at Waratah Bay up to Mardan support mainly grazing with limited horticulture (Figure 4-34). Soils between Mardan and Baromi are more suited to cultivation and support the seasonal vegetable industry, especially potatoes. From Baromi to Driffield, the well-drained, acidic soils support hardwood and softwood forestry. From Driffield to Hazelwood, a mix of soils support grazing with limited horticulture near Driffield and forestry closer to Hazelwood.

Desktop review and property visits indicated that most land in the study area is freehold agricultural land and most farms are family owned. There are 159 privately owned freehold parcels with many landholders holding multiple adjoining allotments. Of the freehold land, several allotments are held by private interests such as HVP Plantations and its subsidiaries. The agriculture types include beef, dairy, forestry, horticulture, organic farming and horse breeding, training and spelling. Of these, beef (136.5 ha), dairying (93.8 ha) and forestry plantation area (41.02 ha) are most impacted by the footprint of the project (see Table 6-2).

Table 6-2 Primary agriculture types across the study area

Agriculture type	Number of properties	Length (kms)	Area affected (ha)
Beef	34	30.6	136.5
Dairy	18	22.4	93.8
Forestry	6	18.8	41.02
Horticulture	3	2.4	7.8
Organic farming	2	1.1	3.8



Agricultural trends

- Forestry
- Grazing with limited horticulture
- Seasonal vegetables

LEGEND

- Landfall
- Converter station
- HVDC subsea cable
- Underground HVDC cable
- Cable option not progressing



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 PROJECTION: GDA2020 MGA Zone 55

SOURCE
 Proposed route from Tetra Tech Coffey.
 Agricultural trends from John Gallienne.
 DTM shaded relief from VICMAP.

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FIGURE 4-34

Agricultural trends across the study area



6.2.1 Landholders

Given the rural nature of the community, few landholders have experienced a construction project of this size. Fifteen properties were visited, and landholders interviewed. The following issues were discussed with landholders:

- Construction timeframes.
- Short and long-term impacts on farm production.
- Potential impacts on farm income and options for compensation.
- Understanding how biosecurity risks will be managed.

MLPL has also consulted with HVP in the development of the project. HVP identified the following issues which will continue to be addressed through project delivery and have been addressed in the development of EPRs:

- Reduction in plantation estate affecting wood stocks and flow.
- Fragmentation of plantation estate causing uneconomic slithers in coupes affecting wood stocks and flow.
- Impacts on planting, thinning and harvesting operations where access required over the cables increasing costs.
- Biosecurity risks from soil borne pathogens e.g. dieback or *Phytophthora cinnamomi* affecting plantation health and wood stocks and flow.

Landholders views have been considered in the assessment of impacts to agriculture and forestry land uses, and in the development of EPRs.

6.2.2 Agricultural and forestry values

Two key values were identified for agriculture and forestry activities in the study area – land capability, and farm or plantation infrastructure, practices and planning. These are detailed below.

Land capability

Land capability refers to how well land supports agriculture or forestry. Land capability can be assessed on a scale where the lowest capability land will not support crops or grazing, low capability land is generally only suitable for grazing, and the highest capability land will support both crops and grazing.

Suitable land for growing crops will typically have deep, nutrient rich, well-drained soil, be reasonably sheltered from strong winds and extremes of temperature, have a good length of day and receive regular, non-extreme rainfall.

Land capability is fundamentally the natural state of the land however, human inputs can impact land capability. For example, nutrient levels can be improved with the addition of fertilisers, shelter belts and trees can be planted to create wind breaks, and irrigation can be used to compensate for poor rainfall.

Farm and plantation infrastructure, practices and planning

Farm infrastructure, practices and planning relates to the nature of activities undertaken on land and the assets that have been installed for the farming and plantation practices.

Certain types of agriculture and forestry require high levels of physical infrastructure to support operational requirements. For example, cattle operations (dairy or beef) require stock yards, laneways and gates to manage the movement of cattle and isolate them for branding, veterinary treatment etc. In addition, dairy operations require milking sheds and access to these sheds at least twice a day for milking.

The project traverses the Thorpdale plantation operated by HVP, which is a combination of hardwood and softwood plantations. HVP have over 81,000 hectare (ha) of forestry plantation in the Gippsland defined forestry area. HVP is one of Australia's largest private timber plantations with their total land holdings spread across 240,000 ha of southern Victoria, of which 165,000 ha is logged for timber (HVP 2023).

A forestry plantation is comprised of coupes, where a coupe is an economic unit of trees, and it supports wood flow to end users. Impacting a coupe can reduce its economic value and may affect wood flow from the plantation.

The loss of trees in a coupe may affect its economic viability depending on the age when the trees are removed, the number of trees removed (wood flow), and the extent of the coupe affected (too much taken coupe becomes uneconomical to manage). Coupe trees must be a certain size to harvest and the coupe itself (stand of trees) must be large enough to be economically viable to harvest and manage.

The cycle of forestry is land preparation, planting, growing, harvesting, and thinning of trees. Forestry harvesting and thinning operations are ongoing across a plantation. Coupes are established and harvested at 30 years for softwood pine plantations, thinning these activities may occur at 10 to 13 years and 18 to 20 years. Coupes are set up for certain number of trees which minimise costs in managing weeds and pests. Small slithers of trees from coupes are not economical to manage.

6.2.3 Sensitivity of agricultural values

Both values are assigned different sensitivity ratings based on the agricultural type and for forestry (see Table 6-3). This is because the characteristics of each agricultural type are unique; grazing beef cattle is different to growing vegetables, the land requirements, physical infrastructure and human inputs are not the same.

Table 6-3 Sensitivity of agriculture and forestry values

Value	Sensitivity	Reason for sensitivity
Land capability (dairy)	High	Dairy cattle require a lot of water and feed, including supplementary feeding of e.g., hay. If hay production on the farm is disturbed due to construction, landholders might have to buy it in at their expense
Land capability (beef)	Moderate	Beef cattle require access to pasture that may be disturbed during construction. Moderate to high carrying capacity depending on target market and climatic conditions
Land capability (horticulture)	Moderate	Growing crops relies heavily on soil (including the amount of organic matter, how well it holds water etc.), which may be disturbed during construction
Land capability (organic farming)	High	Achieving and maintaining organic status is labour intensive and time consuming; organic land is not easily replaced
Land capability (horse breeding, training and spelling)	High	Horses have high water and feed requirements and may also require access to pasture that may be disturbed during construction.
Land capability (forestry)	High	The yield of a plantation is directly proportional to the number of trees. If construction restricts the area available to grow trees in, that land becomes less capable
Farm infrastructure, practices and planning (dairy)	High	Dairy farms have significant infrastructure (milking sheds, access tracks, laneways, fencing and gates). Restrictions on being able to move cattle to and from milking sheds due to construction is potentially an issue
Farm infrastructure, practices and planning (beef)	Moderate	Beef cattle are moved between paddocks to maximise their feed input and allow paddocks to recover. Restrictions on being able to move cattle (e.g., moving gates or laneways) due to construction is potentially an issue
Farm infrastructure, practices and planning (horticulture)	High	Farms growing crops have significant physical infrastructure (harvest, sorting and packing infrastructure) as well as high biosecurity requirements (especially seed potatoes). Any disturbance to these due to construction is potentially an issue
Farm infrastructure, practices and planning (organic farming)	High	Maintaining organic status may frequent crop rotations or co-locating of crops to maximise pest resistance without applying chemicals. Any restrictions to being able to manage land in this way is potentially an issue
Farm infrastructure, practices and planning (horse breeding, training and spelling)	High	Horse enterprises have significant infrastructure (arenas, stables, round yards, corrals, laneways) with particular infrastructure arrangements.
Plantation infrastructure, practices and planning (forestry)	High	Plantations have significant physical infrastructure (access tracks and timber loading/handling facilities), as well as carefully developed planting, growing and felling programs. Any disturbance to these due to construction is potentially an issue

6.3 Construction impacts

The agricultural and forestry impact assessment for construction is presented below. The assessment considers potential impacts on each of the agricultural types present in the study area that have different levels of sensitivity (see Table 6-3) to accommodate the changes due the project. The assessment of forestry impacts has been further developed and documented in this chapter beyond what is presented in Technical Appendix K: Agriculture and forestry.

The application of EPRs to establish the property condition prior to construction (EPR A01), develop and implement property management plans (EPR A02), soil management plans (EPR A03), reinstatement and rehabilitation plans (EPR A04), and implement measures to avoid impacts to organic farming certification (EPR A05), will reduce the impacts of the project to agricultural and forestry properties.

EPRs have also been developed to reduce impacts to agricultural and forestry activities in operation (EPR A06).

During construction, access licences or construction leases with landholders and land managers will ensure access for the construction contractors. These agreements will include financial arrangements to compensate landholders for use of their land during construction.

6.3.1 Agriculture

The potential impacts on land capability for agriculture from the construction of the project are:

- Reduced productivity or yields from disturbance during construction.
- Reduced productivity or yields caused by degraded soil structure, soil moisture content and fertility during construction.
- Reduced amenity or reduced productivity or yields from dust emissions and deposition.
- Lost or reduced production or yields through breach of biosecurity controls during construction leading to introduction or spread of animal or plant pathogen or noxious weed infestation.

The potential impacts on farm infrastructure, practices and planning from the construction of the project are:

- Impact on production during construction caused by need to modify or adopt alternative agricultural practices.
- Reduced income due to changes to operations and constraints on farm development plans during construction.

Beef

Potential impacts on beef production could arise due to change or restriction of access to pasture and stock infrastructure (yards, laneways, gates, etc.). Construction traffic and fencing off active construction areas could disturb stock movements and their access to pasture.

Some beef farmers are experimenting with regenerative pasture management, involving planting and then grazing cattle on a specific pasture mix designed to improve the soil. Potential impacts on this practice include the introduction of pest species via construction workers' boots or machinery.

Table 6-4 presents the potential impacts to beef production during construction before the application of EPRs.

Table 6-4 Construction impacts – beef

Impact	Initial impact assessment		
	Sensitivity	Magnitude	Impact
Reduced productivity or yields from disturbance	Moderate	Moderate	Moderate
Reduced productivity or yields caused by degraded soils	Moderate	Moderate	Moderate
Reduced amenity or reduced productivity or yields from dust emissions and deposition	Moderate	Minor	Low
Lost or reduced production or lost or reduced yields (biosecurity)	Moderate	Moderate	Moderate
Impact on production due to modifying agricultural practices	Moderate	Moderate	Moderate
Reduced farm income due to constraints on farm development plans	Moderate	Minor	Low

Dairy

Potential impacts on dairy operations could occur due to changes or restricted access to pasture and stock infrastructure. Dairy farming has specific stock management requirements such as twice daily stock movements to and from milking sheds, as well as a higher reliance on supplementary feeding, which could also be impacted.

Table 6-5 presents the potential impacts to dairy operations during construction before the application of EPRs. The higher sensitivity of dairy farming (compared to beef production) results in higher potential impacts.

Table 6-5 Construction impacts – dairy

Impact	Initial impact assessment		
	Sensitivity	Magnitude	Impact
Reduced productivity or yields from disturbance	High	Moderate	High
Reduced productivity or yields caused by degraded soils	High	Moderate	High
Reduced amenity or reduced productivity or yields from dust emissions and deposition	High	Minor	Moderate
Lost or reduced production or lost or reduced yields (biosecurity)	High	Moderate	High
Impact on production due to modifying agricultural practices	High	Moderate	High
Reduced farm income due to constraints on farm development plans	High	Moderate	High

Horticulture

Potential impacts on horticulture relate both to direct impacts on the soil used for growing crops, and access to horticultural infrastructure including greenhouses, irrigation systems and cultivation machinery (tractors, ploughs, harvesters, etc.). Lost or reduced production due to ineffective biosecurity controls (major impact) applies to all crops but is particularly relevant to seed potatoes which are highly prone to pest species and are a significant crop in the region.

Table 6-6 presents the potential impacts to horticulture during construction before the application of EPRs.

Table 6-6 Construction impacts – horticulture

Impact	Initial impact assessment		
	Sensitivity	Magnitude	Impact
Reduced productivity or yields from disturbance	Moderate	Moderate	Moderate
Reduced productivity or yields caused by degraded soils	Moderate	Moderate	Moderate
Reduced amenity or reduced productivity or yields from dust emissions and deposition	Moderate	Minor	Low
Lost or reduced production or lost or reduced yields (biosecurity)	High	Major	Major
Impact on production due to modifying agricultural practices	High	Moderate	High
Reduced farm income due to constraints on farm development plans	High	Moderate	High

Organic farming

Potential impacts on organic farming relate mainly to ineffective biosecurity controls resulting in the introduction of or spread of animal or plant pathogen or noxious weed infestations pest species/prohibited chemicals onto properties via construction workers' boots or machinery.

Table 6-7 presents the potential impacts to organic farming during construction before the application of EPRs.

All impacts were rated as major for organic farming, apart from direct disturbance, which reflects that achieving and maintaining organic status is time consuming and labour intensive. Degrading organic soils through construction works not only reduces crop production but reinstating them takes more time and money than reinstating non-organic soils.

Likewise, lost or reduced production due to ineffective biosecurity controls is a major impact because if organic status is compromised, the (reduced in volume) crop may no longer be sold as 'organic' or retain organic certification.

Table 6-7 Construction impacts – organic farming

Impact	Initial impact assessment		
	Sensitivity	Magnitude	Impact
Reduced productivity or yields from disturbance	High	Moderate	High
Reduced productivity or yields caused by degraded soils	High	Major	Major
Reduced amenity or reduced productivity or yields from dust emissions and deposition	High	Minor	Moderate
Lost or reduced production or lost or reduced yields (biosecurity)	High	Major	Major
Impact on production due to modifying agricultural practices	Very high	Severe	Major
Reduced farm income due to constraints on farm development plans	High	Major	Major

Horse breeding, training and spelling

Horse enterprises across the alignment require specific infrastructure including fencing, arenas, stables and training facilities. Maintaining access to paddocks, pastures and infrastructure is a key requirement for the operation of horse enterprises throughout the construction and operation of the project.

Construction noise, lighting and unsecured stored materials such as loose tarpaulin or rubbish may startle horses and will need to be considered during the project construction and operation.

Table 6-8 presents the potential impacts to horse breeding, training and spelling during construction, before the application of EPRs.

Table 6-8 Construction impacts – horse breeding, training and spelling

Impact	Initial impact assessment		
	Sensitivity	Magnitude	Impact
Reduced productivity or yields from disturbance	High	Moderate	High
Reduced productivity or yields caused by degraded soils	High	Moderate	High
Reduced amenity or reduced productivity or yields from dust emissions and deposition	High	Minor	Moderate
Lost or reduced production or lost or reduced yields (biosecurity)	High	Moderate	High
Impact on production due to modifying agricultural practices	High	Minor	Moderate
Reduced farm income due to constraints on farm development plans	High	Minor	Moderate

6.3.2 Forestry

Impacts to forestry activities are caused by changes to access, operational conditions and loss of wood stock or flow. Plantations are also susceptible to diseases which can affect the health of trees and reduce the wood production rates. Potential impacts on forestry operations could occur due to restrictions to access forestry infrastructure and plantations (notably access and logging tracks). The project has been designed to minimise disturbance to forestry coupes by locating infrastructure in areas where there are existing access tracks and where disturbance to forestry operations and wood stocks can be avoided as much as possible.

The key impact pathways which may lead to forestry impacts in construction include:

- Temporary restrictions on plantation access and harvesting activities.
 - Temporary restrictions on plantation access and harvesting activities could delay harvesting or thinning which can affect wood flow or plantation yield if thinning is not undertaken as scheduled.
- Restrictions on plantation harvesting practices caused by the transmission infrastructure.
 - Forestry access to the plantation coupes from access roads may be restricted due to heavy machinery weight over cable. This is managed through the design of the project which provides that the cables are buried to a depth where the cables are unaffected and or protected via concrete slabs which allow more weight transfer from big machinery crossing the cable.
- Loss of wood stock and wood flow from permanent clearing of trees.
 - To fulfil wood supply contract quotas, wood stock must be available to harvest from coupes. The project will cause the permanent loss of trees in the easement which will contribute to the loss of some wood stock and wood flow, necessitating alternative sources of trees to be sourced to make up the contract wood supply quota.
- Reduced wood flows from clearing of trees or pre-mature harvesting of trees.
 - Forestry operator plans for obtaining 100% volume from harvest to make wood flow quotas from a coupe. Through the project construction some of this is removed and cleared. The project may require the premature harvesting of trees (that do not meet planned tree size and standard to economically harvest) and by doing so it does not allow forestry to realise the full economic potential of those trees removed nor provide the required volumes for the supply contract.
- Loss of wood stock and reduced wood flow from introduced diseases (plant pathogens such as *Phytophthora cinnamomi*, which is more commonly known as dieback).
 - The introduction of diseases into forestry during construction or operation would establish an ongoing management issue, which may require more resources and investment to protect the remaining coupes for economical harvest and conservation. The immediate impact would depend on the number of trees in a coupe that are affected. This would affect wood flow that may have been realised from the coupe.

There is the potential for fire to occur due to construction or operation activities, which could result in a loss of wood and wood flow in affected areas. The risk of bushfires occurring across the project alignment has been assessed in Volume 4, Chapter 12 – Bushfire, and is therefore not re-assessed for forestry. The Bushfire assessment has recommended EPRs for bushfire prevention and bushfire emergency management for the project, including the forestry area.

Table 6-9 presents the potential impacts to forestry operations during construction before the application of EPRs.

Table 6-9 Construction impacts – forestry

Impact	Initial impact assessment		
	Sensitivity	Magnitude	Impact
Temporary restrictions on plantation access and harvesting activities	High	Minor	Moderate
Restrictions on plantation harvesting practices caused by the transmission infrastructure	High	Minor	Moderate
Loss of wood stock and wood flow from permanent clearing of trees	High	Moderate	High
Reduced wood flows from clearing of trees or pre-mature harvesting of trees	High	Moderate	High
Loss of wood stock and reduced wood flow from introduced diseases (plant pathogens such as <i>Phytophthora cinnamomi</i> , which is more commonly known as dieback).	High	Moderate	High

6.4 Operation impacts

The impacts during operation are associated with the conditions that apply to the cable easement as well as accessing the easement for maintenance activities. Most farming, cropping and plantation activities will be able to resume over the easement however some activities will be conditional or prohibited, as outlined in Table 6-10. There may also be some changes to farm or plantation operational activities or future development plans as a result of the easement.

Impacts can also occur in operation due to ineffective soil reinstatement and rehabilitation affecting production and yields.

MLPL was issued an electricity transmission licence in December 2023 under the *Electricity Industry Act 2000* (Vic). The licence will enable MLPL to acquire an easement where required to protect the project infrastructure and allow access for operation and maintenance. The project will be required to compensate landholders for losses due to the acquisition of the easement area. This compensation will account for restrictions to property development and use.

Table 6-10 How land can be used within the easement

Permitted activities	Conditional activities	Prohibited activities
Cropping (ploughing/tilling) to a depth of 0.5 m	Cropping (ploughing/tilling) to a depth of 0.7 m)	Cropping (ploughing/tilling) greater than a depth of 0.7 m
Grazing	Boring for groundwater or fence posts	Planting deep-rooted trees (greater than 0.5 m)
Irrigation	Fixed centre pivot irrigation (due to the depth of foundations required for a fixed centre pivot)	Building a dam
Most domestic recreational activities	Installing driveways	Reducing or increasing ground level
Minor structures e.g., washing lines or play equipment (subject to depth limits for objects inserted into the ground)	Building temporary/light structures e.g., shelters	Constructing houses or substantial structures
Planting a garden (access may be required in the unlikely event of a cable fault)	Planning subdivisions	Storing or using explosives
Parking vehicles (height/weight restrictions may apply)	Using electric fences	Installing fixed plant or equipment e.g., galvanised sheds or swimming pools
Driving vehicles	Excavation or earthworks	Placing or storing garbage, hay, silage or fallen timber
Electronic ear tags on stock	Constructing utility services whether overhead, buried or on the surface e.g., telephone, data and water	Storing or using flammable materials. Lighting fires

6.4.1 Agriculture

The potential impacts on land capability from the operation of the project are:

- Lost or reduced production or yields from farms due to ineffective biosecurity controls during operation leading to introduction or spread of animal or plant pathogen or noxious weed infestation.

The potential impacts on farm infrastructure, practices and planning from the operation of the project are:

- Impact on production during operation caused by need to modify or adopt alternative agricultural practices.
- Reduced farm income due to changes to operations and constraints on farm development plans during operation.

After construction has been completed and the land has been reinstated, agricultural landholders will generally be able resume the same use as before construction. Some restrictions will apply to the 20 m easement (10 m either side of the cable) during operation, including no planting of deep-rooted trees and no construction of houses or dams. The cable will be buried to a depth that ordinary farm uses should be able to be conducted. Activities resulting in extensive soil disturbance and/or soil loading (e.g., building a house on top of the cable) will be problematic and therefore restricted.

The easement and land cables may constrain farm development plans reducing options and flexibility in configuring paddocks and siting farm infrastructure to support diversified or alternative farming practices. The proposed route has however been designed to reduce the potential for residual impacts on farm development plans; taking future farm development ideas into consideration if known and shared by landholders.

Another operational issue for farms is site access for routine inspections and maintenance and unscheduled repairs. Routine maintenance is generally only required every five years at joint pits (where sections of cable are joined together underground) and involves two workers using hand tools and a 4WD vehicle. Potential impacts that could occur during these activities include lost or reduced production or yields through ineffective biosecurity controls and general disturbance to landholders.

Routine inspections of the cable easement will be undertaken fortnightly from the road or permanent access tracks. Occasional access to private properties may be required to inspect the easement. This will be arranged with the landholders.

6.4.2 Forestry

Operation of the project may affect forestry plantings, thinning activities and harvesting operations where change in access is required over the cable easement and increases operational costs. Long term operational impacts on forestry could be sustained where wood stocks are removed and restriction on plantation practices are permanent.

Specific operational impacts may include impacts on harvesting operations if maintenance activities cannot be scheduled around the harvesting (e.g., cable fault repair), incident of fire if started by operational and maintenance activities and introduction and spread of weeds or pathogens. There is not expected to be any restrictions on access over the cables as the design will accommodate heavy forestry equipment.

EPR A06 has been developed to provide that measures will be implemented to avoid and minimise impacts on agricultural and forestry properties in operation.

6.5 Decommissioning impacts

The operational lifespan of the project is a minimum 40 years. At this time the project will be either decommissioned or upgraded to extend its operational lifespan.

In the event that the project is decommissioned, all above-ground infrastructure will be removed, and associated land returned to the previous land use or as agreed with the landholders. All underground infrastructure will be decommissioned in accordance with the requirements of the time. This may include removal of infrastructure or some components remaining underground where it is safe to do so.

Requirements at the time will determine the scope of decommissioning activities and impacts. The key objective of decommissioning is to leave a safe, stable and non-polluting environment, and minimise impacts during removal of infrastructure.

Decommissioning activities required to meet the objective will include, as a minimum, removal of above ground buildings and structures. Remediation of any contamination and rehabilitation of the site will be undertaken to provide a self-supporting landform suitable for the end land use.

Decommissioning of project infrastructure will implement the waste management hierarchy principles being avoid, minimise, reuse, recycle and appropriately dispose. Waste management will accord with applicable legislation at the time.

A decommissioning management plan will be prepared to outline how activities will be undertaken and potential agricultural and forestry impacts managed.

6.6 Environmental performance requirements

EPRs set out the environmental outcomes that must be achieved during all phases of the project. In developing these EPRs, industry standards and guidelines, good practice and the latest approaches to managing impacts were considered. Project specific management measures, relevant legislation and policy requirements informed these EPRs (Table 6-11).

Table 6-11 EPRs

EPR ID	EPR
A01	<p>Complete property condition surveys prior to construction</p> <p>Prior to commencing project works, complete property condition surveys for each property to be disturbed during construction to document existing conditions.</p> <p>The property condition surveys should document all key activities on the property and infrastructure that could be directly or indirectly impacted, whether within or adjacent to the construction corridor. This could include, but not be limited to:</p> <ul style="list-style-type: none"> ➤ Existing pasture or current crop. ➤ Existing ground profile including levels and slope. ➤ Existing drainage and surface water management. ➤ The type and condition of fencing, gates and other farm infrastructure including but not limited to stockyards, stock water troughs, water supply systems, and temporary and permanent farm buildings. ➤ The type (tree species) and condition of shelter belts and windbreak plantings. ➤ The type and condition of access tracks and laneways including surface material, and culverts and bridges. <p>The property condition survey should be supported by a photographic or video record. A property condition report must be prepared, and a copy provided to the landholder.</p>
A02	<p>Develop and implement property management plans to avoid or minimise impacts on agricultural and forestry properties</p> <p>Prior to commencing project works on each agricultural or forestry property, develop a property management plan. The property management plan must outline property specific measures to avoid or minimise disruption to farm or forestry infrastructure, practices and operations to prevent reducing the carrying capacity of the property or its yield during construction and in operation.</p> <p>The property management plan must be informed by the property condition survey (EPR A01) and be prepared in consultation with the landholder. A property management plan may include:</p> <ul style="list-style-type: none"> ➤ Summary of existing farming practices and farm development plans relevant to project works.

- / Controls to minimise disturbance to farm infrastructure, farming practices, property operations and maintenance, activities that must occur seasonally for farming practices and plantations, forestry activities and practices. This must include consideration of:
 - Impacts on grazing and crop growing practices
 - Impacts on livestock management
 - Forestry operations
- / Communication protocol reflecting preferences advised by the landholder, to be utilised by MLPL, contractors and any other relevant parties through construction of the project.
- / The communication protocol must include:
 - Provision of a program of works for the property to the landholder at least one month prior to activities commencing on that property.
 - If the program of works is not continuous, the arrangements to manage and maintain worksites between staged construction activities will also be communicated.
 - Notification timeframes and nominate MLPL and principal contractor representatives responsible for managing access and responding to agricultural landholder issues and complaints. The nominated person must be available to respond to landholder issues daily.
- / Details of access arrangements including:
 - property entry and exit points for all construction, operation and maintenance vehicles
 - no go areas
 - maintenance of landholder access to farm or forestry operation areas and farm infrastructure
 - maintenance of stock, landholder access to water supplies (or alternatives provided)
 - limits on timing and duration of access to a property.
- / Location, construction method, material type (including materials to avoid damage or injury to stock), duration of use (i.e. temporary or permanent), maintenance responsibilities and requirements, and requirements for removal of temporary access tracks.
- / Measures to avoid, so far as reasonably practicable, impacts on land capability outside the construction corridor, laydown areas and access tracks during construction.
- / Type and location of fences or barriers to demarcate the construction corridor and associated workspace, provide stock crossings and restrict stock access.
- / Farm water supply arrangements during construction including temporary diversion or realignment of water supply infrastructure or alternative water supply arrangements.
- / Measures to avoid impacts on tree protection zones including for isolated trees and stands, shelter belts and windbreak plantings.
- / Measures to avoid impacts to farm infrastructure including services, sheds, feed store locations and other facilities.
- / Biosecurity controls to be implemented to prevent the introduction and spread of animal and plant pathogens, pests and weeds. Controls should be informed by a risk assessment for each property, comply with the requirements of the *Catchment and Land Protection Act 1994* (Vic), and be developed in consultation with Agriculture Victoria.
- / Controls during wet weather to avoid damaging access tracks, infrastructure and paddocks.
- / Controls to minimise dust impacts on farmhouses and farm worker accommodation, farm water supplies fed by water collected from rooves, animal nurseries, animal handling facilities including stockyards and dairies, farm orchards and vegetable patches, crops and pasture, and solar panels. Controls to minimise and manage these impacts must be included in the construction dust management plan required by EPR AQ01.
- / For forestry properties, bushfire management protocols.
- / Requirements for progressive reinstatement and rehabilitation including:
 - Reinstatement of farm infrastructure removed or altered to facilitate construction, to the same or better standard as outlined in the property condition report (EPR A01) or to a condition agreed with the landholder.
 - Rehabilitation of soils and rehabilitation of land to the same gradient, drainage and condition as prior to construction and outlined in the property condition report (EPR A01) prior to construction or to a condition agreed with the landholder. Rehabilitation requirements must include details of seed, lime, gypsum and fertiliser type; mix of plants for revegetation, and consideration of cropping and grazing cycles, where relevant.
- / Process for review and revision of property management plans and property condition reports in response to changes identified during construction.

The property management plans must be implemented during construction.

A03 Develop and implement property soil management plans to avoid or minimise impacts on agricultural and forestry properties

Prior to commencing of project works on each agricultural or forestry property, develop a property soil management plan in consultation with the landholder. Each property soil management plan must include the following, as a minimum:

- How management of the soil horizons will be achieved during construction including delineation and separate stockpiling of soil horizons.
- Measures to delineate and separate stockpiles of A and B horizon soils and any major delineation of the B horizon to avoid soil inversion and mixing.
- Measures to avoid impacts on soil fertility through:
 - stripping and separately stockpiling topsoil
 - excavating and separately stockpiling subsoil
 - managing topsoil and subsoil stockpiles to avoid erosion and mixing
 - reinstating subsoil and topsoil based on documented soil horizons to avoid mixing
 - compacting subsoils to 85% of in-situ soil strength to minimise slumping and erosion
 - minimising soil compaction of topsoils
 - deep cultivation during reinstatement to manage soil compaction and maintain soil moisture content.

The soil management plan must be a sub plan to the property management plan for each property and be implemented during construction.

A04 Develop and implement a rehabilitation strategy to avoid or minimise impacts on agricultural and forestry properties

Prior to commencement of project works, develop a strategy for progressive rehabilitation of disturbed areas not being used for permanent infrastructure.

The rehabilitation strategy must include:

- Requirements for rehabilitation of soil, surface contours and drains damaged or temporarily diverted during construction.
- Requirements for use of appropriate seeds and fertilisers for revegetation.
- Criteria for successful reinstatement and rehabilitation, and revegetation including soil capacity, pasture or crop health, and weed type and density.
- Details of an inspection program to be completed for a minimum of two years after completion of rehabilitation, to determine the success of rehabilitation. Inspections are required quarterly in the first year, twice in the second year after the completion of rehabilitation, and within two weeks of storm events.
- A procedure to manage locations where the success criteria has not been met and where additional work is required.

The rehabilitation strategy must be implemented until the rehabilitation criteria are achieved for all properties where construction activities disturb ground.

A05 Avoid impacts on organic farming certification

Prior to commencing project works on each certified organic farming property, develop measures to be implemented in construction to avoid impacts on organic farming and organic farming certification.

These measures must be informed by advice provided or guidelines published by approved organic certifying bodies registered by the Commonwealth Department of Agriculture, Fisheries and Forestry and be developed in consultation with organic farm landholders.

EPR ID	EPR
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A06 Develop and implement measures to avoid or minimise impacts on agricultural and forestry properties during operation

As part of the OEMP, develop measures to avoid or minimise impacts on agricultural and forestry properties. These measures must include:

- Communication protocols with landholders to facilitate site access for inspection and maintenance activities.
- Biosecurity protocols to prevent the introduction and spread of animal and plant pathogens, pests and weeds.
- Protocols for accessing certified organic farms.
- Measures for soil management and land reinstatement and rehabilitation in the event that excavations are required for maintenance.
- Measures to avoid impacts to farming and forestry infrastructure, practices and operations during operation activities.
- Bushfire management protocols.

In addition to the agriculture EPRs, the EPRs from other technical studies that will reduce potential project impacts on agriculture and forestry include:

- Electromagnetic fields (Volume 1, Chapter 10 – Electromagnetic fields)
- Contaminated land and acid sulfate soils (Volume 4, Chapter 3 – Contaminated land and acid sulfate soils)
- Surface water (Volume 4, Chapter 4 – Surface water)
- Groundwater (Volume 4, Chapter 5 – Groundwater)
- Traffic and transport (Volume 4, Chapter 8 – Traffic and transport).
- Air quality (Volume 4, Chapter 9 – Air quality)
- Noise and vibration (Volume 4, Chapter 10 – Noise and vibration)
- Bushfire (Volume 4, Chapter 12 – Bushfire)
- Land use and planning (Volume 4, Chapter 15 – Land use and planning)
- Social (Volume 4, Chapter 16 – Social)

The complete list of EPRs for the project is provided in Volume 5, Chapter 2 – Environmental Management Framework.

6.7 Residual impacts

Measures will be developed to mitigate impacts specifically for each agricultural and forestry property and documented in property management plans.

The following sections discuss the approach for managing residual impacts to the two key agricultural values being land capability and farm infrastructure, practices and planning. The residual impact assessment ratings for each type of agriculture and forestry are also presented considering the successful implementation of EPRs. A summary of residual impacts to agriculture is provided in Table 6-12 and Table 6-13. A summary of residual impacts to forestry is provided in Table 6-14.

6.7.1 Agricultural impacts

Land capability

The extent of residual impacts to land capability due to reduced productivity or yields due to disturbance will be determined by how effectively the land is rehabilitated after construction. Reinstating soils in the same order (i.e., topsoil on top) and depth as was removed, and not compacting the soil will be key requirements to enable grass or crops to re-establish.

Similarly, reinstating the soil and ground profile so that there is no ground collapse over or around the cable trench and re-instating drainage lines will reduce the chance for erosion of topsoil due to surface flow. Eroding topsoil can also impact land capability and productivity.

A two-year inspection program will be carried out to confirm that land capability is reinstated after construction.

Farm infrastructure, practices and planning

The residual impact to farm infrastructure, practice and planning will be determined by how quickly and to what extent farm operations can return to pre-construction conditions. During construction, certain farm infrastructure might not be accessible (e.g., laneways, farm buildings and gates). Likewise, if certain paddocks are unable to be used during the construction period, the remaining ones could be grazed more heavily. The nature of this impact will be temporary because infrastructure, including access to paddocks, will be reinstated as soon as is safe and possible. Where a reduced number of paddocks cannot support the number of grazing animals, additional feed (e.g., hay/silage) will be provided either directly by the proponent or by a third party engaged by the proponent for the duration of the impacts.

Following the implementation of EPRs, residual impacts on beef production have been reduced to low, dairy operations have been reduced to moderate and low, and horse breeding, training and spelling impacts have been reduced to low, horticulture have been reduced to low, and residual impacts on organic farming have been reduced to moderate and low.

Table 6-12 Residual impact summary for construction impacts on agricultural values

Impact – construction	Activity type	Initial impact	Justification of residual rating	Recommended EPRs	Residual impact assessment		
					Sensitivity	Magnitude	Impact
Reduced productivity or yields from disturbance during construction	Dairying	High	Understanding the existing conditions, adjusting the standard controls to the specific conditions of each property, managing soils and rehabilitating the property considering the existing conditions reduces impacts. Addressing the specific requirements for organic farming will avoid impacting organic farming certification.	A01, A02, A03, A04	High	Negligible	Low
	Beef production	Moderate		A01, A02, A03, A04	Moderate	Minor	Low
	Horticulture	Moderate		A01, A02, A03, A04	Moderate	Negligible	Low
	Organic farming	High		A01, A02, A03, A04, A05	High	Minor	Moderate
	Horse breeding, training and spelling	High		A01, A02, A03, A04	High	Negligible	Low
Reduced productivity or yields caused by degraded soil structure, soil moisture content and fertility during construction	Dairying	High	Understanding the existing conditions, adjusting the standard controls to the specific conditions of each property, managing soils, including reinstating soil horizons, protecting topsoil, and remediating compaction, and rehabilitating the property considering the existing conditions reduces impacts. Addressing the specific requirements for organic farming will avoid impacting organic farming certification.	A01, A02, A03, A04	High	Negligible	Low
	Beef production	Moderate		A01, A02, A03, A04	Moderate	Negligible	Low
	Horticulture	Moderate		A01, A02, A03, A04	Moderate	Negligible	Low
	Organic farming	Major		A01, A02, A03, A04, A05	High	Negligible	Low
	Horse breeding, training and spelling	High		A01, A02, A03, A04	High	Negligible	Low

Impact – construction	Activity type	Initial impact	Justification of residual rating	Recommended EPRs	Residual impact assessment		
					Sensitivity	Magnitude	Impact
Reduced amenity or reduced productivity or yields from dust emissions and deposition	Dairying	Moderate	Monitoring dust generating conditions, inspecting for dust deposition and suppressing dust reduces adverse effects of dust and dust deposition.	A02, A03, A04	High	Negligible	Low
	Beef production	Low		A02, A03, A04	Moderate	Negligible	Low
	Horticulture	Low		A02, A03, A04	Moderate	Negligible	Low
	Organic farming	Moderate		A02, A03, A04, A05	High	Negligible	Low
	Horse breeding, training and spelling	Moderate		A02, A03, A04	High	Negligible	Low
Lost or reduced production or lost or reduced yields through ineffective biosecurity controls during construction leading to introduction or spread of animal or plant pathogen or noxious weed infestation	Dairying	High	Effective implementation of biosecurity controls in accordance with EPR02 will reduce the risk of introducing and spreading animal and plant pathogens, pests and weeds.	A02	High	Negligible	Low
	Beef production	Moderate		A02	Moderate	Negligible	Low
	Horticulture	High	Addressing the specific requirements for organic farming will avoid impacting organic farming certification	A02	High	Negligible	Low
	Organic farming	Major		A02, A05	High	Negligible	Low
	Horse breeding, training and spelling	High		A02	High	Negligible	Low

Impact – construction	Activity type	Initial impact	Justification of residual rating	Recommended EPRs	Residual impact assessment		
					Sensitivity	Magnitude	Impact
Impact on production during construction caused by need to modify or adopt alternative agricultural practices	Dairying	High	Understanding the existing conditions, adjusting the standard controls to the specific conditions of each property, managing soils and rehabilitating the property considering the existing conditions reduces impacts.	A01, A02, A03, A04	High	Minor	Moderate
	Beef production	Moderate		A01, A02, A03, A04	Moderate	Minor	Low
	Horticulture	High	Addressing the specific requirements for organic farming will avoid impacting organic farming certification	A01, A02, A03, A04	High	Negligible	Low
	Organic farming	Major		A01, A02, A03, A04, A05	Very high	Negligible	Low
	Horse breeding, training and spelling	Moderate		A01, A02, A03, A04	High	Negligible	Low
Reduced farm income due to constraints on farm development plans during construction.	Dairying	High	Understanding the existing conditions, adjusting the standard controls to the specific conditions of each property, managing soils and rehabilitating the property considering the existing conditions reduces impacts.	A01, A02, A03, A04	High	Minor	Moderate
	Beef production	Low		A01, A02, A03, A04	Moderate	Negligible	Low
	Horticulture	High	Addressing the specific requirements for organic farming will avoid impacting organic farming certification	A01, A02, A03, A04	High	Negligible	Low
	Organic farming	Major		A01, A02, A03, A04, A05	High	Negligible	Low
	Horse breeding, training and spelling	Moderate		A01, A02, A03, A04	High	Negligible	Low

Table 6-13 Residual impact summary for operation impacts on agricultural values

Impact – operation	Activity type	Initial impact	Justification of residual rating	Recommended EPRs	Residual impact assessment		
					Sensitivity	Magnitude	Significance
Lost or reduced production or lost or reduced yields through ineffective biosecurity controls during operation leading to introduction or spread of animal or plant pathogen or noxious weed infestation	Dairying	High	Effective implementation of biosecurity controls in accordance with EPR06 will reduce the risk of introducing and spreading animal and plant pathogens, pests and weeds.	A06	High	Negligible	Low
	Beef production	Moderate		A06	Moderate	Negligible	Low
	Horticulture	High		A06	High	Negligible	Low
	Organic farming	Major		A06	High	Negligible	Low
	Horse breeding, training and spelling	High		A06	High	Negligible	Low
Impact on production during operation caused by need to modify or adopt alternative agricultural practices	Dairying	High	Implementing an OEMP with measures to address biosecurity protocols, reinstatement and rehabilitation, access to certified organic farms the existing conditions, and measures to avoid impacts to farming and forestry infrastructure, practices and operations during operation activities reduces impacts	A06	High	Minor	Moderate
	Beef production	Moderate		A06	Moderate	Minor	Low
	Horticulture	High		A06	High	Negligible	Low
	Organic farming	Major		A06	Very high	Negligible	Low
	Horse breeding, training and spelling	Moderate		A06	High	Negligible	Low
Reduced farm income due to constraints on farm development plans during operation	Dairying	High	Implementing an OEMP with measures to address biosecurity protocols, reinstatement and rehabilitation, access to certified organic farms the existing conditions, and measures to avoid impacts to farming and forestry infrastructure, practices and operations during operation activities reduces impacts	A06	High	Minor	Moderate
	Beef production	Low		A06	Moderate	Negligible	Low
	Horticulture	High		A06	High	Negligible	Low
	Organic farming	Major		A06	High	Negligible	Low
	Horse breeding, training and spelling	Moderate		A06	High	Negligible	Low

6.7.2 Forestry impacts

Following the implementation of EPRs, residual impacts on forestry operations have been reduced to moderate and low. Approximately 41.02 ha forestry land will be impacted by the project, which is part of the larger HVP plantation area (over 81,000 ha) in the Gippsland defined forest area where the project is located. The project easement will affect 34.52 ha of forestry land.

Low residual impacts on forestry will occur due to temporary restrictions on plantation access and harvesting activities. The implementation of mitigation measures to achieve EPRs (A01, A02, A03 and A04) reduces the impact from moderate to minor as measures will be implemented to limit the impact to plantation access and harvesting activities, and it is expected that there will be no change in harvesting practices required. This is due to the planning of construction activities to avoid harvesting operations and the alignment following existing or planned access tracks where possible to minimise impacts on plantation management plans.

Restrictions on plantation harvesting practices caused by the transmission infrastructure will be a low residual impact as the project design allows harvesting operations to occur over the easement without restrictions. Where harvesting practices are disrupted temporarily by the construction of the project, there will be no change required to the nature of these harvesting practices.

Moderate residual impacts on forestry include loss of wood stock and reduced wood flows from permanent clearing of trees, which cannot be replanted in the easement. There could also be a loss of wood stock and reduced wood flow from introduced disease.

The loss of wood stock from permanent clearing of trees will be mitigated through the project route refinement and final design to reduce impacts on coupes. Small parts of coupes will be permanently removed from forestry production and there may be uneconomic slithers of forestry coupes created which may affect wood stock and wood flow from plantations. The loss of wood stock from permanent clearing are not expected to affect plantation development plans. There will also be reduced wood flows from permanent clearing of trees or pre-mature harvesting of trees from the construction of the project.

The permanent removal of small parts of coupes from production and the creation of uneconomic slithers will affect wood stock and wood flow from plantations. EPRs will reduce the impact of lost wood stock and reduced wood flows through route refinement and final design with a view to avoid coupe impact and through the implementation of property management plans, which will outline specific measures to decrease disruption to forestry infrastructure and operations.

Introduced diseases (plant pathogens such as *Phytophthora cinnamomic*, which is more commonly known as dieback) may create a loss of wood stock and reduced wood flow from plantations. The effective implementation of biosecurity controls in accordance with EPR A02 and EPR A06 will reduce the risk of introducing and spreading animal and plant pathogens, pests and weeds.

Any changes to the locations of plantation trees (e.g., moving stands of timber away from the project alignment) will take at least one planting, growing and harvesting cycle to implement. The nature of this impact is therefore also temporary.

The project has been designed with consideration of forestry coupe location and the primary objective is to collocate project infrastructure with other projects where practicable, and to locate the project along the edges of coupes, rather creating impacts through a coupe. Where the project has removed land from forestry for cable installation, that land is permanently removed from forestry as trees cannot be planted over the cable or in the easement.

A summary of residual impacts on forestry is provided in Table 6-14.

Table 6-14 Residual impact summary for impacts on forestry values

Impact	Initial impact	Justification of residual rating	Recommended EPRs	Residual impact assessment		
				Sensitivity	Magnitude	Impact
Temporary restrictions on plantation access and harvesting activities	Moderate	Construction is planned to avoid harvesting operations or minimise impact on operations via the PMP	A01, A02, A03, A04	High	Negligible	Low
Restrictions on plantation harvesting practices caused by the transmission infrastructure	Moderate	Design allows harvesting operations without restrictions via the design process and PMP	A01	High	Negligible	Low
Loss of wood stock from permanent clearing of trees	High	Route refinement and final design reduce impacts on coupes.	A01	High	Minor	Moderate
Reduced wood flows from permanent clearing of trees or pre-mature harvesting of trees	High	Route refinement and final design reduce impacts on coupes, also via PMP.	A01, A02, A03, A04, A06	High	Minor	Moderate
Loss of wood stock and reduced wood flow from introduced diseases (plant pathogens such as <i>Phytophthora cinnamomi</i> , which is more commonly known as dieback).	High	Effective implementation of biosecurity controls in accordance with EPR A02 and EPR A06 will reduce the risk of introducing and spreading animal and plant pathogens, pests and weeds.	A02, A06	High	Minor	Moderate

6.8 Cumulative impacts

The project will not permanently remove the land from agriculture uses except where the above ground components of the project are to be located. In all other instances where the cable is below ground and agricultural land is affected by construction and operation of the project, the land can be returned to agricultural production. Forestry land affected by construction and that will be within the easement will be permanently removed from forestry as trees cannot be planted over the cable.

Cumulative impacts from Marinus Link and other projects in the region are associated with forestry operations rather than agriculture. This is due to individual agricultural landholders generally not being exposed to concurrent projects with similar impacts, but the much larger forestry operations could be.

The agricultural properties affected by the project are small in comparison with the forestry estates and generally will not be impacted by similar projects at the same time. Forestry operations are much larger in scale, so there is a higher likelihood of a similar project acquiring easements at the same time.

Estimates of the area of forestry plantations affected by the project and other similar projects are presented in Table 6-15.

Approximately 41.02 ha of HVPs forestry land is impacted by the project. This land is managed by HVP, which is one of Australia’s largest private timber plantations. Their land holdings are spread across southern Victoria and total 240,000 ha, of which 165,000 ha is logged for timber. HVP have over 81,000 ha of plantation area in Gippsland defined forest area where the project is located (HVP 2023).

Given the comparatively small footprint required for the project and other projects, minimal cumulative impacts are anticipated on forestry.

Table 6-15 Estimated area of forestry land impacted

Project	Estimated area of forestry land impacted (ha)
Marinus Link	41.02
Delburn Wind Farm	28
Star of the South Offshore Wind Farm	300
Gippsland Renewable Energy Zone	255

6.9 Conclusion

The study identified the existing use of agricultural and forestry land along the project alignment, and assessed the project's impacts to land capability, and farm or plantation infrastructure and practices. Most of the land in the study area is freehold agricultural land and largely comprised of family-owned farms. The agriculture types include beef, dairy, forestry, horticulture, organic farming and horse breeding, training, and spelling. The project alignment also travels through a large area of plantation forest managed by HVP.

The agriculture and forestry values that could be impacted by the project activities include:

- Land capability; and
- Farm or plantation infrastructure, practices and planning.

The assessment identified the following potential impacts to agriculture values:

- Reduced productivity or yields from disturbance during construction.
- Reduced productivity or yields caused by degraded soil structure, soil moisture content and fertility during construction.
- Reduced amenity or reduced productivity or yields from dust emissions and deposition.
- Lost or reduced production or yields through ineffective biosecurity controls during construction leading to introduction or spread of animal or plant pathogen or noxious weed infestation.
- Impact on production during construction caused by need to modify or adopt alternative agricultural practices.
- Reduced farm income due to changes to operations and constraints on farm development plans during construction.

The potential impacts to the forestry include:

- Temporary restrictions on plantation access and harvesting activities.
- Restrictions on plantation harvesting practices caused by the transmission infrastructure.
- Loss of wood stock or reduced wood flow from permanent clearing of trees.
- Reduced wood flows from permanent clearing of trees or pre-mature harvesting of trees.
- Loss of wood stock and reduced wood flow from introduced diseases (plant pathogens such as *Phytophthora cinnamomi*, which is more commonly known as dieback).

With the implementation of mitigation measures to achieve EPRs, the impacts on these values during construction will be low for all agriculture types except dairy operations and organic farming which have some moderate residual impacts (see Section 6.7). The moderate residual impacts identified for agriculture and forestry will be managed through consultation, and the preparation of site-specific detailed property management plans with measures to reduce impact of the construction activities on landholders and enable successful rehabilitation of the land.

Long-term impacts to forestry include the direct loss of land available to forestry and constraints to farm and forestry development plans (dairy operations and forestry). These long-term impacts will be mitigated by providing compensation to the landholders through easement acquisition. Operational impacts are expected to be low for agricultural activities and moderate and low residual impact for forestry activities following the implementation of EPRs.

Rehabilitation of agricultural and forestry land is critical to achieving a lower residual impact. The land and infrastructure will be returned to its previous condition to the extent practicable and as agreed with landholders.

The EES evaluation objective has informed the assessment and the development of the EPRs summarised above (the full extent of EPRs is described in Volume 5, Chapter 2 – Environmental Management Framework). Following the application of these EPRs, the residual impacts are as low as reasonably practicable.