



# 21 Cumulative impacts

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## 21.1 OVERVIEW

This chapter assesses the potential cumulative impacts arising from all components and stages of the proposed project, as required by Section 3.1. of the *Scoping Requirements for Mordialloc Bypass Environment Effects Statement* (scoping requirements) (Department of Environment, Land, Water and Planning (DELWP) 2018).

Cumulative impacts were assessed as part of the environmental risk assessment (ERA) process undertaken for the project. Cumulative impacts generally refer to the successive, incremental or combined impacts of one or a number of actions, occurring in the same area and over similar timeframes, on the existing environment.

This chapter identifies and assesses cumulative impacts in terms of the potential cumulative impacts of the project and other nearby projects.

## 21.2 EES OBJECTIVES AND REQUIREMENTS

The scoping requirements identify ‘*potential cumulative impacts (including but not limited to concurrent level crossing removals at Edithvale and Bonbeach railway stations)*’ as a key matter to be addressed by this Environment Effects Statement (DELWP 2018, p. 7). In addition, the scoping requirements also outlines ‘*Effects must include discussion of all potential direct, indirect, on-site and off-site and cumulative effects that might result from the proposed action*’ (DELWP 2018, p. 12).

### DRAFT EVALUATION OBJECTIVE

*Assess likely cumulative effects on biodiversity-related values that might result from the project in combination with other projects or actions taking place or proposed nearby.*

The scoping requirements identify the following evaluation specific additional objective:

## 21.3 METHODOLOGY

Potential cumulative impacts associated with the project were assessed as part of the ERA process described in Chapter 4: *EES assessment framework and approach* of this EES. Attachment I: *Environmental risk assessment report* contains full details of the methodology and risk outcomes for the cumulative assessment.

The relationship between the project and current or planned nearby projects were assessed to determine the cumulative impacts on the existing environment. The assessment of cumulative impacts was undertaken by the individual technical specialists, based on publicly available information and reported in their impact assessment reports.

The scope of projects considered as part of the cumulative impact assessment was tailored by each discipline; however, the Edithvale and Bonbeach Level Crossing Removal project and Hawthorn Football Club future development were considered by all disciplines as a minimum. The scope boundaries (i.e. distance from the project and their timing relative to the project) were defined by each technical specialist.

Limited information was available for some nearby projects because they are still in the inception and/or approvals phase. The risk register provided a gauge on the level of accuracy/reliability for the cumulative impacts assessment, usually based on the amount of information available. Where the confidence level was low, a more conservative approach was taken.

## 21.4 CUMULATIVE IMPACTS FROM NEARBY PROJECTS

This section discusses cumulative impacts of the project with respect to other infrastructure projects or developments that are planned, or currently being constructed, adjacent to or near the project area.

### 21.4.1 Nearby projects

Major current or planned infrastructure and development activities occurring within the same planning/construction timeframe and locality of the project are summarised in Table 21.1 and shown in Figure 21.1.

**Table 21.1**      **Nearby current or planned infrastructure and development projects**

Project	Description
Edithvale and Bonbeach Level Crossing Removal project	The Edithvale and Bonbeach Level Crossing Removal project will involve lowering the existing railway line into a trench and building a new Edithvale Road bridge at the current road level. Construction is planned to commence in 2019, with completion anticipated in 2022. Once construction commences there may be some interference with the project, as key haulage routes are shared by both projects.
Hawthorn Football Club development	The Hawthorn Football Club development includes the construction of a two-storey training and administration building and up to five ovals on a former landfill site. Construction is projected to commence in 2020 and the project is anticipated to be completed by 2022. If the Edithvale and Bonbeach Level Crossing Removal project and the Hawthorn Football Club development construction occur concurrently, dust control measures may be required. As the Hawthorn Football Club development project is located on a former landfill site, there may also be some implications for groundwater contamination on the northern side of the project alignment.
Monash Freeway upgrade	Stage two of the Monash Freeway Upgrade will involve expanding the existing Freeway from eight to 10 lanes between Warrigal Road and EastLink towards the west, and from four to six lanes between Clyde Road and Cardinia Road towards the east. The upgrade is due to commence in late 2018 and completion is projected for 2022. This project will contribute to the strengthening of major road networks and future growth elicited by the project.
Westall Road extension	The Westall Road extension is proposed along an existing road reserve to divert heavy freight traffic on roads between Westall Road and the Monash Freeway. The extension would run from the intersection of Westall Road and Princes Highway to the Monash Freeway. The project is still in the community consultation phase; however, on completion it would contribute to improving access to key transport routes in South-East Melbourne. There is the potential for the development timeframe of this project to overlap with that of the project.
Chadwick Reserve development	The City of Kingston has expressed interest in redeveloping Chadwick Reserve, an open space reserve containing an oval and two soccer pitches. Conversations among Council, the private sector and local community are underway regarding redeveloping the reserve in line with the expanding local population. This includes potential development of stormwater management infrastructure. The reserve abuts the project alignment and there is the potential for works to occur simultaneously.
Moorabbin Airport Master Plan	The most recent master plan for the Moorabbin Airport was developed in 2015 and lays out a strategy for the economic expansion of the airport over the next 20 years. The airport, which specialises in flight training, employs approximately 3,300 people and has an economic value of \$340 million annually, which the master plan aims to increase to 8,500 people and \$835 million respectively. Increasing levels of development are expected in this area in response to the master plan.
Kingswood Dingley Village	The Kingswood Dingley Village project proposes to redevelop the existing Kingswood Golf Course into a 760-lot residential community. An application for rezoning of the site is in progress. A commencement date for construction has not yet been publicised; however, the Peninsula Kingswood Country Golf Club will vacate the site in April 2019. The new residents of the proposed redevelopment will benefit from the improved road network.





**Figure 21.1** Nearby projects assessed for cumulative impacts



### 21.4.2 Traffic and transport

Appendix A: *Transport impact assessment* discusses the cumulative impacts on the metropolitan road network generated from project construction and operation. The cumulative assessment informed the network impact of the project and other potential projects considering the strategic changes associated with demographics, employment and public transport services.

The following cumulative projects were considered in relation to traffic and transport impacts with the project due to their interaction with the road network during construction and/or operation: Edithvale and Bonbeach Level Crossing Removal project (Figure 21.2), Westall Road extension, Monash Freeway Upgrade and the Dandenong Bypass.

As Edithvale Road is proposed to be a construction (haulage) route for the Edithvale and Bonbeach Level Crossing Removal project, potential cumulative impacts on the capacity and function of Springvale Road, Wells Road and Mornington Peninsula Freeway could be created if construction of the projects take place at the same time. Note that the project would not use Edithvale Road as a haulage route or for heavy construction vehicles.



**Figure 21.2 Edithvale Road level crossing**

Coordination with the Level Crossing Removal Authority (LXRA) and appropriate staging of construction for the project would be required to maintain functionality of the existing road network, and would be included in the Transport Management Plan developed for the project.

When the project is completed, there is the potential for the network performance not be achieved should the surrounding projects not proceed, which could lead to additional travel delays for road users or an underestimated use of the bypass. The project will be designed to meet VicRoads standards with operational monitoring to be undertaken to monitor performance, and ensure vehicle, bicycle and pedestrian access is replaced where necessary.

As for the project itself, when considered with the proposed surrounding projects, there would be significant positive cumulative impacts during operation in relation to the existing and future transport network. The benefits provided by the project which will be experienced and enhance with the surrounding transport projects will include:

- improved travel times within the existing network for general traffic including heavy vehicles and bus services
- enhanced safety with reduced potential for traffic collisions
- improved amenity by promoting active transport through a proposed shared use path corridor and significantly reducing heavy vehicle movements on existing arterial and local road network
- improved connectivity and accessibility for general traffic, freight, pedestrian and cyclists
- improved road network capacity to cater for future growth potential by supporting proposed major developments such as Moorabbin Airport and Monash National Employment and Innovation Cluster.

### 21.4.3 Biodiversity

The majority of the biodiversity risks identified for the project are not relevant to an assessment of cumulative risks, because of the distance between the projects, and/or the different species, communities, or habitats likely to be impacted. However, the potential for cumulative impacts was identified in relation to native vegetation, trees and mortality of fauna.

Cumulative biodiversity impacts have been assessed for the projects as detailed in Table 21.2. The cumulative biodiversity impact assessment did not identify any projects which are likely to result in significant cumulative impacts on the species and communities identified in this EES.

**Table 21.2 Cumulative impact assessment for biodiversity**

Project and description	Project impact summary	Cumulative impact with the project
LXRA Bonbeach and Edithvale  Removal of level crossings involving some vegetation removal and some local changes to groundwater	This project will have relatively minor local ecological impacts and local impacts on groundwater. No impacts on Edithvale wetland and no impacts on migratory birds are anticipated. The works for this project (including haulage) may occur during construction of the project, however they will be brief/short-term only.	Some cumulative vegetation and tree loss (although no threatened communities are proposed to be impacted by LXRA). As haulage along Edithvale Road will be avoided for this project, no cumulative impacts on the Ramsar wetland are anticipated.  No other cumulative impacts are anticipated.
Monash Freeway Upgrade (construction phase)  Upgrade between Chadstone and Pakenham	Although several of the relevant significant species (including Australasian Bittern and Latham's Snipe) were recorded or assessed as being likely to occur in the Monash Freeway Upgrade area in the referral submitted for the project it is unlikely that any habitat for these species has been or will be impacted, as the Monash Freeway Upgrade project requires minimal vegetation clearance (mostly infilling lanes). The only patch of native vegetation that may potentially be affected by the development is the Wet Verge Sedgeland to the north of the Monash Freeway bridge over Dandenong Creek.	Cumulative impacts are not anticipated due to minimal loss of vegetation.
Westall Road Extension (planning phase only) – extension from Westall Road/Princes Highway to the Monash Freeway	No assessments currently available. The extension may pass through or nearby water retention ponds, however from an examination of E-Bird (public bird database), no waterbird hotspots are present in the area.	Unknown impacts of the cumulative project, however considered unlikely.
City of Kingston development of Chadwick Reserve (project phase unknown)	No environmental assessment information available.	Unknown impacts, although considered unlikely.
Moorabbin Airport Master Plan (planning phase only)	No environmental assessment available, but likely to be minor and not involve impacts to wetlands. Unlikely to increase noise and light impacts at the project site, although no assessment is yet available.	None anticipated although as the projects are still in the planning phase this would need to be assessed by Moorabbin Airport as the project progresses to consider the bypass.
Kingswood Dingley Village (planning phase only)  Proposed residential development approximately 700m east of project area in the north	No environmental assessment available, likely to involve tree and some wetland removal (unlikely to support significant species). Wetland creation unlikely to be designed to support species of significance.	Unknown impacts, although considered unlikely.

In addition to the information contained in Table 21.2, cumulative impacts on the Ramsar Edithvale-Seaford Wetlands are not expected. The nearest project with potential to impact on the wetland system, Edithvale and Bonbeach Level Crossing Removal project. Groundwater modelling for that project indicates that changes to the water table as a result of that project would not extend to the Edithvale Wetlands, nor the project (refer to section 21.4.7). Therefore, hydrogeological effects from surrounding projects on the wetland habitats adjacent to the project are not considered likely to result in significant effects from changes in habitat composition and quality, and therefore will not require additional mitigation beyond that recommended in Chapter 10: *Biodiversity*.

Cumulative impacts on biodiversity values from the projects listed above may arise from a number of construction activities and the operation of the project. These relate to impacts to flora and fauna near the project, that when added together, have the potential to create a larger impact. These impacts include:

- Clearing of native vegetation: most of the nearby projects involve some native vegetation loss, although generally minor and would be compensated by offsets. Native vegetation removal from surrounding projects will include 1.123ha at Bonbeach and 1.315ha at Edithvale for the LXRA project. Exact areas are not known for other projects; however, additional small parcels are expected to be cleared. The application of project specific controls will reduce the impacts of the project, including refinement of designs and incentivise contractors to limit vegetation removal where possible, add no-go zones, revegetation and offsets to compensate loss.
- Clearing impacts on fauna habitat: remnant native trees, including large trees, would be removed for some of the nearby projects, including the Edithvale Level Crossing Removal Project (where 13 large trees will be removed). Although tree loss across all projects would be avoided where possible and offset, there would be a cumulative residual high impact in relation to the overall loss of large trees. Additional controls for the project will include refining the design footprint to reduce tree loss and retain where possible, even if tree protection zone impacts exist.
- Clearing and construction resulting in mortality of fauna protected under the *Wildlife Act 1975*: some mortality of protected fauna is likely to result from the identified projects. However, projects including LXRA have assessed fauna mortality risk as minor and therefore assuming they will have standard controls in place to minimise mortality, the cumulative risks are unlikely to be significant. Proposed fauna barriers would assist in minimising these impacts. Standard controls to minimise mortality during clearing and construction, would include the use of a spotter-catcher to conduct pre-clearing surveys and monitoring clearing of habitat trees.
- Operational impacts on fauna protected under the *Wildlife Act 1975*: cumulative impacts from the projects listed in Table 21.2 on protected fauna in the area are likely in relation to connectivity and mortality, although with the recommended mitigation in place (e.g. multi-function fauna barriers and fauna connectivity culverts), the risk is not expected to increase.

Mitigation measures and environmental performance requirements (EPRs) during construction and operation are addressed in Chapter 10: *Biodiversity*. Through the mitigation measures identified for the project and standard controls expected to be implemented by the nearby projects, no significant increase in impacts are expected when considered for the project and surrounding projects.

#### **21.4.4 Noise and vibration**

Cumulative impacts on sensitive receptors for noise and vibration have been assessed as part of the risk assessment and impact assessment. Cumulative impacts may occur where construction works for nearby projects coincide with construction of the project. Where construction occurs concurrently, residents adjacent to these projects may be exposed to noise levels above VicRoads and Environment Protection Authority (EPA) criteria/guidelines as a result of:

- pre-construction activities increasing noise
- vegetation clearing increasing noise
- earthworks increasing noise and vibration
- construction of structures increasing noise and vibration
- general construction activities increasing noise and vibration.

Cumulative impacts would be managed through contractor consideration of surrounding projects under construction at the same time as the project. This will include coordinating traffic routes, volumes and scheduling loud activities appropriately.

A Construction Noise and Vibration Management Plan (CNVMP) would be developed for the project, detailing the conditions under which noisy works can be undertaken in accordance with EPA publications *480 Best Practice Environment Management Environmental Guidelines for Major Construction Sites* and *1254 Noise Control Guidelines* as well as VicRoads, Australian and international standards.

Operationally, cumulative impacts are assessed in the standard assessment process. The traffic numbers used during the noise modelling assumes that proposed roads that are expected to be constructed by 2031 are included in traffic estimates. Meaning, the impacts of additional traffic, or less traffic because of the duplication of the Monash Freeway are inherently included in the impact assessment.

#### **21.4.5 Air quality**

The assessment of cumulative air quality impacts considered large construction projects within 1km of the project alignment which could have the potential to impact on local air quality. LXRA Edithvale and Bonbeach projects are greater than 1km from the project and therefore have not been considered for cumulative construction (dust) impacts. The air impact assessment incorporated the results of detailed traffic modelling which includes major infrastructure projects occurring currently and estimated up to 2031. This includes rail upgrades, which will divert traffic from roads to rail. As such, their contribution to operational road traffic has been included in the transport impact assessment.

During construction, the project has the potential to affect nearby sensitive receptors through the generation of dust. There is potential for a cumulative increase in dust levels if construction of both the Mordialloc Bypass (Freeway) and Hawthorn Football Club development projects occurs concurrently, however standard control measures would limit dust dispersion off-site. The CEMP would include appropriate measures to control dust and air emissions in accordance with relevant legislation and guidance including EPA Victoria Publication 480. The CEMP will also include details of a dust monitoring program during construction at appropriate sensitive receptors and with set trigger limits. This would need to be discussed and agreed with surrounding project contractors should their construction coincide with the bypass construction. This would allow prompt response (by the necessary contractor) when dust suppression controls are required to avoid or minimise the potential for a cumulative increase in dust nuisance.

#### **21.4.6 Surface water**

Any proposed works that have potential impacts on the surface water quality or flow regime within the Mordialloc catchment could combine with the impacts of this project. The surface water assessment of cumulative impacts includes all known proposed works in the upcoming two years within the Mordialloc Creek catchment, including of Kingston's proposed development of Chadwick Reserve (Figure 21.3), and Hawthorn Football Club, that could have an effect on the quantity and quality of surface waters in the water environments.

With the implementation of the State Environment Protection Policy (SEPP) (Waters of Victoria), regulatory control by Melbourne Water and local Councils, each individual project is expected to mitigate its own impacts. Depending on the exact location and timing of each surrounding project, the water-related interaction with the project would be considered and addressed via a Water Management and Monitoring Plan, which will include requirements of the project to be designed to achieve operational compliance with Melbourne Water guidance.

It should be noted that some of these proposed projects, such as Chadwick Reserve development, could be integrated with the proposed Water Sensitive Urban Design assets of this project to optimise the benefits of both projects. This integration could be considered during the detailed design stage of the project.



**Figure 21.3 Chadwick Reserve next to the project**



#### 21.4.7 Groundwater

Groundwater cumulative impacts are assessed at a regional scale with consideration given to projects located within the same aquifer that can impact groundwater availability, groundwater quality or both. Extractive industries like quarries, significant groundwater users like irrigators, or physical barriers such as tunnels or trench structures can act affect groundwater flow.

The area considered when assessing cumulative impacts ranges from Port Philip Bay in the west to Patterson River in the south and Dandenong Creek in the east, all of which form a hydraulic boundary. The northern boundary was set at Heatherton Road, which is sufficiently up gradient from the contact between the Quaternary aquifer and upper Tertiary aquifers.

The only project identified as having potential to affect the regional hydrogeological regime is the Edithvale and Bonbeach Level Crossing Removal project, with potential to impact cumulatively on the Edithvale portion of the Edithvale-Seaford Wetlands. As such Major Road Projects Authority (MRPA) and LXRA established a data sharing and cooperative arrangement, allowing MRPA access to LXRA groundwater bores and water quality data. This has allowed the incorporation of select LXRA monitoring bores into the project groundwater monitoring network. The data obtained to date has assisted in the development and calibration of the project's own numerical groundwater model which has been included in Chapter 17: *Groundwater* and used in this cumulative assessment.

The potential cumulative risk with the Edithvale and Bonbeach Level Crossing Removal project related to compression of shallow unconsolidated aquifers from the loading weight of project embankment structures changing groundwater levels and flow regime. Excavation of the LXRA rail under road construction and final structures have the potential to alter the regional hydrogeological regime. These structures can create flow barriers altering the water levels both up and down gradient of the structure including the Edithvale-Seaford Wetlands.

LXRA have conducted extensive peer reviewed groundwater impact assessment of the proposed development, and included a numerical groundwater model. The LXRA model predictions influenced the design of mitigation measures for potential groundwater impacts. The results have been presented in LXRA's Edithvale and Bonbeach Level Crossing Removal Projects EES documents. LXRA concluded in their key findings that:

*"The proposed trench at Edithvale has the potential to exacerbate existing water logging as a result of groundwater intersecting with the surface. The project would be designed to avoid this impact and ensure no significant impacts to the environment occur"* (LXRA, 2018).

Modelling results show that the slight changes to the groundwater level for the project would not reach beyond the embankments themselves (within the project area), and therefore would not impact groundwater levels adjacent to the Edithvale Wetlands, nor would they significantly change the rate of groundwater discharge to the wetlands.

The Edithvale and Bonbeach Level Crossing Removal project EES findings indicate that changes to the water table elevation as a result of that project would not extend as far as the Edithvale Wetlands, nor the Mordialloc Bypass (Freeway) project area. As such, no cumulative impacts on the wetland are expected as a result of the Mordialloc Bypass (Freeway) and LXRA projects.

#### 21.4.8 Soils and contaminated land

The cumulative impact assessment considered potential sources of contamination within a 150m buffer from the project footprint including former landfills, former waste treatment plant and former commercial/industrial land uses.

The Edithvale and Bonbeach Level Crossing Removal Project was identified as a project with potential impacts from exposure of acid sulfate soils. The EES for that project indicates a negligible to minor residual risk exists for activation of Acid Sulphate Soils (ASS) and contaminant plume migration.

Works for the project are not expected to result in activation of ASS. However, any potential ASS would be managed in accordance with *Best practice guidelines for assessing and managing coastal acid sulfate soils* and would be removed from site for disposal.

A few former landfills exist in the northern section of the project. The Hawthorn Football Club intends to redevelop one of these landfills (located to the east of the project) for their future headquarters and training grounds. Landfill gas and groundwater contamination associated with the surrounding former landfills is known to exist. The management and proposed redevelopment of the former landfills have the potential to impact on the project if contamination is not managed appropriately.

Both the Mordialloc Bypass (Freeway) and Hawthorn Football Club projects would be subject to existing legislation, policy and guidelines in relation to management of contaminated land. These include EPA Victoria requirements for management of contaminated land and waste ASS, and the Industrial Waste Resource Guidelines for soil classification, transport and management. Through compliance with these legislative requirements, cumulative impacts from disturbance of contaminated land are not expected.

There is potential for cumulative impacts in relation to the availability of appropriate landfill sites to deal with waste soils from all relevant projects. The Mordialloc Bypass (Freeway) itself is estimated to generate between 50,000m<sup>3</sup> and 65,000m<sup>3</sup> of "Category C Contaminated Soil" which would require disposal to landfill. Due to the low volumes of spoil expected to be generated by each project, the cumulative impact of contaminated soil to landfill is not expected to be significant.

#### **21.4.9 Social**

The most significant impacts of the project on local communities would occur during the construction phase and would include changed access to social facilities and services (including open space) and disruptions to local access because of traffic diversions and construction traffic. Potential cumulative impacts on the community are similarly anticipated to result from changed traffic conditions associated with the construction of multiple projects.

The LXRA Edithvale and Bonbeach Level Crossing Removal project is most likely to interact with the construction effects of the project. Cumulative impacts on the transport capacity and function of Springvale Road, Wells Road and Mornington Peninsula Freeway could occur if construction of both projects coincide, resulting in potential traffic delays and impacts on local accessibility. These changes may have a temporary impact on the amenity of communities living near project construction. A comprehensive approach to the coordination of construction traffic management between the two projects should be implemented. A Community and Stakeholder Engagement Plan would be implemented to ensure the local community is made aware of the timing and extent of planned disruptions to the local road network, while surrounding projects should have similar plans which would be coordinated with the project.

#### **21.4.10 Economics**

The economic impact assessment considered the potential for the project to have cumulative impacts on the local and regional economy, if considered with the impacts caused by other developments in the area. Although the assessment did not include a specific cumulative benefits analysis, a review of the motivation for the project, together with those of the Edithvale and Bonbeach Level Crossing Removal project, Moorabbin Airport and Hawthorn Football Club projects, indicates that the following cumulative economic benefits are likely:

- The construction phases of the projects would provide local and regional employment benefits.
- Local business would experience an increased demand for products and services during construction.
- The combined traffic network improvements of the project and the Edithvale and Bonbeach Level Crossing Removal project would contribute to increased transport efficiency and improved access to key economic and employment nodes.

In relation to the combined potential land access impacts of the project on the local economy, together with nearby projects, it was concluded that the cumulative land access-related impacts present a low risk to the local economy and would be easily managed through the implementation of a Business Disruption Plan and a Community and Stakeholder Engagement Plan.

The assessment also identified the potential local and regional impact on the availability of labour if these projects proceed simultaneously, with the potential for any cumulative impact assessed to be low. No other negative cumulative impacts were identified.

## 21.5 CONCLUSIONS

The potential for cumulative impacts of the project in combination with nearby projects has been assessed to determine the potential for overall significant adverse impacts on environmental assets. The project was assessed against the Edithvale and Bonbeach Level Crossing Removal project and the Hawthorn Football Club project, while several other likely or potential projects in the area were considered for specific topics.

Cumulative impacts from other projects are not expected to be significant. Project impacts, including those that relate to nearby projects, would be managed by implementing the EPRs listed in Chapter 23: *Environmental management framework*.

Impacts on traffic and active transport users would be managed through coordination with neighbouring project developers and by implementing a Transport Management Plan and Community and Stakeholder Engagement Plan. Biodiversity cumulative impacts are not expected if the project implements the mitigation measures proposed in this EES. Cumulative impacts relating to noise and air quality are also not anticipated with the application of additional controls and would be managed with planned monitoring and the implementation of the Community and Stakeholder Engagement Plan. A Business Disruption Plan would be prepared and implemented with careful consideration of the impacts of other projects.

Surface water flows and water quality may be affected by nearby projects, presenting potential for additional water pollutants or siltation. A Water Management and Monitoring Plan would be implemented and include consideration of any nearby projects that could affect the surface water and groundwater in, or travelling through, the project area. Groundwater monitoring and modelling has concluded that groundwater impacts from this project are not expected to be significant. This includes the potential for impacts on the groundwater flows into the Edithvale Wetlands. As there are not expected to be any groundwater impacts on Edithvale Wetlands from the Edithvale and Bonbeach Level Crossing Removal Project, no cumulative impacts can occur.

The project area shares a boundary with the Hawthorn Football Club project area, as well as other properties that are known to have been used as landfill sites. The project also contains potential ASS. However, with the implementation of EPA requirements for the management of contaminated land and ASS, cumulative impacts from the disturbance of contaminated land are not expected.