

# WEST GATE TUNNEL PROJECT

Independent Reviewer and Environmental Auditor  
Final Report for Submission to the Minister for Planning –  
September 2019 to February 2020

# WEST GATE TUNNEL PROJECT

## Independent Reviewer & Environmental Auditor

Final Audit Report for Minister of Planning

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## EXECUTIVE SUMMARY

### Introduction

This report summarises the environmental audit findings of the Independent Reviewer and Environmental Auditor (IREA) for the West Gate Tunnel Project (the Project) in Melbourne, Victoria. It covers the six-monthly audit of the Environmental Management Strategy (the Strategy), quarterly Construction Environmental Management Plan (CEMP) audits, and monthly audits of the Worksite Environmental Management Plans (WEMPs) which occurred during the construction period from September 2019 to February 2020.

This is the fourth IREA Minister's Report, which is required to be issued every six months to the Victorian Minister for Planning and made available to the public on the Project website.

Construction on the Project has been underway since March 2018. Recent activities have been concentrated on the widening of the West Gate Freeway, preparing to launch the tunnel boring machines and substructure works for the various bridges along the eastern portion of the Project.

### Overview of Findings

Overall, Project Co was found to be meeting their obligations under the Strategy. No non-conformances were raised with Project Co during the Strategy audit. Three (3) opportunities for improvement and two (2) observations were raised.

Project Co / the D&C Subcontractor is generally compliant with the EPRs with the exception of one non-conformance raised against LVP1

During this reporting period the IREA reapproved seven revised environmental management plans, including the Construction Noise and Vibration Management Plan (CNVMP) and Groundwater Management Plan (GWMP). The reapproval of these plans has facilitated close out of five previous audit findings. There is now only a small number of comments outstanding on the Soil and Spoil Management Plan (SSMP). Once the outstanding SSMP is reapproved, this will result in close out of previous audit findings, including one non-conformance.

The IREA's future auditing program will focus on how Project Co and the D&C Subcontractor demonstrate compliance with Project environmental requirements. Project Co and the D&C Subcontractor have improved the close out of audit findings with 42 CEMP findings (three non-conformances and 39 opportunities for improvement) and 37 WEMP findings (10 non-conformances and 27 opportunities for improvement) closed out from September 2019 up to the date of this report (11 May 2020).

A summary of the findings raised during the reporting period is below.

### Environmental Management Strategy

Project Co is generally meeting their obligations under the Strategy. No non-conformances were raised during the reporting period. Five (5) findings were raised overall and these related to the corporate and Project-specific management systems, processes and documents that Project Co rely on to assist them in implementing the Strategy. The findings consisted of:

- Three opportunities for improvement
- Two observations.

These findings are detailed further in Section 3.1 of the report.

### Environmental Performance Requirements

During the last six-month reporting period the IREA formally audited 53 EPRs. The majority of EPRs audited during the reporting period were deemed compliant. The findings raised consisted of:

- One non-conformance raised against LVP1.
- Eight opportunities for improvement. These related to ecology, business, noise and vibration, surface water and transport.

- Three observations were also raised.

The non-conformance raised against LVP1 during the reporting period remains open, as well as one non-conformance from the previous reporting period. There is a total of two non-conformances open at the end of this reporting period.

A full list of EPR findings raised and the status of previous findings are detailed in Section 3.2. Also refer to Appendix A for a summary of EPR compliance status and the upcoming EPR auditing schedule.

### Construction Environmental Management Plan

The last six-month reporting period focused on auditing a range of CEMP elements and sub-plans. A number of these plans were out of date at the beginning of September 2019, which resulted in multiple audit findings being raised against them. Subsequent improvements were made to a number of plans resulting in these being reapproved by the IREA as of the end of February 2020. The D&C Subcontractor held meetings to discuss outstanding management plan comments, which has facilitated reapproval of seven plans, including the CNVMP and the GWMP. The reapproval of the CNVMP and the GWMP has facilitated close out of five previous audit findings. There are now only a small number of comments outstanding on the Soil and Spoil Management Plan (SSMP). Once the outstanding SSMP is reapproved, this will result in close out of further previous audit findings, including one non-conformance (May19\_CEMP\_07). A full list of CEMP sub-plans and their review status can be found in Section 1.2.4.

The CEMP audit findings for the November 2019 quarterly audit are summarised below:

- No non-conformances were raised during this audit.
- Nine opportunities for improvement were raised during this audit. This included four against the CEMP and five against the CEMP sub-plans. These generally related to the business management systems and project-specific processes, training and records.
- Three observations were also raised.

The CEMP audit findings for the February 2020 quarterly audit are summarised below:

- One non-conformance was raised against the Flora and Fauna Management Plan (FFMP) as the D&C Subcontractor removed a portion of native vegetation prior to an offset being secured.
- One observation was also raised

The IREA will continue to work with Project Co / the D&C Subcontractor to close out any outstanding non-conformances and opportunities for improvement. Project Co / the D&C Subcontractor have made an increased effort to close previous findings over the last six-month reporting period.

Details of the CEMP findings are listed in Section 3.3.

### Worksite Environment Management Plans

During the reporting period six WEMP audits were conducted. A total of 37 findings were raised in this reporting period. These consisted of:

- six non-conformances.
- 13 opportunities for improvement.
- 18 observations.

The D&C Subcontractor has improved their system of reporting, communicating and closing out WEMP audit findings to the IREA across all zones and have improved their closure of WEMP findings. In total there are 17 WEMP audit findings which remain open since construction began in March 2018, comprising five non-conformances and 12 opportunities for improvement. This is down from the 38 total open findings (10 non-conformances and 28 opportunities for improvement) reported in the previous audit period.

The WEMP findings are further detailed in Section 3.4.



## **Conclusions**

The findings arising from the reporting period by the IREA have not identified any immediate significant or material risks to the environment.

Audit findings during the period relate to a range of matters, mostly specific to on-site matters, including inadequate stockpile management, inadequate procedures for trade waste management and inadequate assessment of environmental aspects such as ecological consideration prior to clearing or review of actions following exceedance of noise management levels. Two audit findings relate to clearance of native vegetation before the appropriate offset was secured. The majority of audit findings made in the reporting period relate to procedural matters. Some of these procedural findings relate to high risk areas i.e. noise and vibration and groundwater. A small number of findings relate to on-site environmental impacts or risks. While there has been improvement in closing out audit findings, it is noted that a number of the audit findings from previous reporting periods remain open and this continues to be of concern.

## GLOSSARY OF TERMS & ABBREVIATIONS

AQMP	Air Quality Management Plan
BIP	Business Improvement Plan
BOM	Bureau of Meteorology
CPBJH	Design and Construction Subcontractor
CEMP	Construction Environmental Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CD	Certified Design
CHMP	Cultural Heritage Management Plan
CSM	Conceptual Site Model
EES	Environment Effects Statement
EMF	Environmental Management Framework
EMS	Environmental Management Strategy
EPR	Environmental Performance Requirements
FFMP	Flora and Fauna Management Plan
GHG	Greenhouse Gas
GMMP	Ground Movement Management Pan
GWMP	Groundwater Management Plan
HMP	Heritage Management Plan
HSMP	Hazardous Substances Management Plan
IREA	Independent Reviewer and Environmental Auditor
ISCA	Infrastructure Sustainability Council Australia
LMP	Lighting Management Plan
JASANZ	Joint Accreditation System of Australia and New Zealand
NML	Noise Management Levels
NYMS	North Yarra Main Sewer
PPP	Public Private Partnership
PSA	Planning Scheme Amendment
PSR	Project Scope & Requirements (Project Agreement or Contract)
SAQPs	Sampling Analysis and Quality Plans
SEPP	State Environment Protection Policy
SSMP	Soil and Spoil Management Plan
TBM	Tunnel boring machine
WEMP	Worksite Environment Management Plan
WGTP MTIA	West Gate Tunnel Project Major Transport Infrastructure Authority
WMP	Water Management Plan
WstMP	Waste Management Plan

# 1 INTRODUCTION

## 1.1 Purpose of this Report

This report summarises the Independent Reviewer and Environmental Auditor (IREA) audit findings from the fourth six-month period of construction of the West Gate Tunnel Project (the Project) in Melbourne, Victoria.

The IREA has been jointly appointed by West Gate Tunnel Project, Major Transport Infrastructure Authority (WGTP MTIA) and Transurban WGT Co Pty (Project Co) to provide independent oversight of design engineering, construction, program and environmental performance of the Project. The IREA undertakes audits, review of documentation and site surveillance of Project activities to assess whether conformance with Project requirements are being achieved. This includes the Environmental Performance Requirements (EPRs) issued by the Minister for Planning in December 2017.

During the reporting period the IREA audited Project Co (responsible for delivering the Project and future operator of the road) to determine conformance with the Environmental Management Strategy (the Strategy). Similarly, the IREA has audited the CPB John Holland Joint Venture (D&C Subcontractor) to determine conformance with the Construction Environmental Management Plan (CEMP), EPRs, and Worksite Environment Management Plans (WEMPs).

Prior to starting construction, the IREA reviewed the Strategy and approved the CEMP (and associated subplans). The WEMPs are approved by Project Co. The audits considered in this report are identified under the Project's EPRs (specifically EMP3) required by the Project's Planning Scheme Amendment (PSA) (GC93) and the Project Agreement between the State of Victoria (represented by WGTP MTIA) and Project Co.

The IREA is required to provide a six monthly "audit report" for submission to the Minister for Planning which must be made available to the public (this report).

## 1.2 Project Background

### 1.2.1 West Gate Tunnel Project

On 11 December 2017, the Victorian State Government (the State), as part of a Public Private Partnership (PPP), entered into contracts with Project Co for the construction and operation of the Project.

Project Co is responsible for the design, partial financing, construction, tolling, operation and maintenance of the Project. Project Co has ultimate responsibility to the State for delivering the Project to the requirements in the contract and for ensuring the D&C Subcontractor fulfils their obligations including the EPRs.

The D&C Subcontractor has been contracted to complete the detailed design and construction of the Project.

The WGTP MTIA is an administrative office established to manage the delivery of the Project in accordance with the contracts on behalf of the State Government. The Project has three components:

1. West Gate Freeway – upgrade and widening works between the M80 Ring Road interchange and Princes Freeway to the southern portals of the tunnels, including connections to Grieve Parade, Millers Road, Williamstown Road, Hyde Street, and the West Gate Bridge
2. Twin tunnels – two tunnels, one inbound and one outbound, under Yarraville catering for three lanes between the southern and northern portals and connecting to the new bridge over the Maribyrnong River. The outbound tunnel will be approximately 4.0 kilometres long and the inbound tunnel will be approximately 2.8 kilometres long. A tunnel ventilation structure will be located at each exit portal
3. Port, CityLink, and city connections – connects from the northern tunnel portal to the central city and includes the Maribyrnong River crossing, connections to the Port of Melbourne, elevated roads along Footscray Road, and connections to CityLink and the north west of the central city. Connections are also provided to both sides of the Port of Melbourne via MacKenzie Road and Appleton Dock Road. A widened Wurundjeri Way is connected to Dynon Road.

Early (preparatory) works started in December 2017 in preparation for construction. This included for instance, low environmental impact works such as completion of environmental surveys and investigations required prior to construction start. The Project started full construction in March 2018 on approval of the CEMP. Details on the construction progress over the audit period are described in Section 2.3.1

A publicly accessible Project Information Centre located on Whitehall Street in Yarraville (known as the Pivot site) is usually open to the public. However, based on current health advice from the Department of Health and Human Services to introduce social distancing measures, the Project has decided to temporarily close the Project Information Centre until further notice.. There are a number of ways the public can still engage with the Project, including:

- Visiting the Project website at <http://westgatetunnelproject.vic.gov.au/>
- Sending the Project a private message on Facebook Messenger
- Contacting the Project call centre on 1800 105 105 or email [info@wgta.vic.gov.au](mailto:info@wgta.vic.gov.au).

## 1.2.2 Planning and Environment Approvals

The Project was declared ‘public works’ under the *Environment Effects Act 1978* in December 2015, requiring the preparation of an Environment Effects Statement (EES) to inform the Minister for Planning’s assessment of the environmental effects of the Project. The EES was publicly exhibited in late May 2017 and public hearings undertaken between mid-August and late September 2017. The Minister for Planning publicly released his Assessment on 27 November 2017 to complete the EES process – concluding that the Project would deliver substantial transport and related benefits.

Three key (primary) approvals have been granted for the Project under Victorian legislation, including:

- Planning Scheme Amendment (PSA) and Incorporated Document issued by the Victorian Minister for Planning requires the project to be constructed and operated according to the Minister’s requirements. The Minister approved the project under PSA GC65 on 7<sup>th</sup> December 2017. This PSA was revoked by Parliament on 7<sup>th</sup> March 2018 and remade with PSA GC93 on 8<sup>th</sup> March 2018. The PSA has been incorporated into six separate local Planning Schemes: Brimbank, Hobsons Bay, Maribyrnong, (City of) Melbourne, Port of Melbourne and Wyndham.
- Works Approval issued by the Victorian Environment Protection Authority for design and construction of the tunnel ventilation structures.
- Cultural Heritage Management Plan (CHMP) issued by Aboriginal Victoria for works potentially affecting known and potential areas of Aboriginal Cultural Heritage Significance.

These approvals include a range of obligations and conditions, including the PSA which requires the Project to be carried out in accordance with the approved “*West Gate Tunnel Project Environmental Performance Requirements, December 2017*”. The EPRs define the project-wide environmental outcomes that must be achieved during design, construction and operation of the Project (refer Appendix A for a summary list of these EPRs and the Project website for a full version - <http://westgatetunnelproject.vic.gov.au/about/keytopics/planning-approvals>).

The Environmental Management EPRs set out the following requirements:

- EPR EMP1 requires the preparation of an Environmental Management Strategy (the Strategy) to provide an overarching framework to address environmental requirements including relevant environmental laws, key approvals, approval conditions and the EPRs.
- EPR EMP2 requires the preparation and implementation of a CEMP, Worksite Environmental Management Plan (WEMP), Operational Environmental Management Plan (OEMP) and other plans as required by the EPRs in accordance with the Strategy.
- EPR EMP3 requires the appointment of an Independent Reviewer and Environmental Auditor (the IREA) to ensure compliance with the Strategy and EPRs and conduct compliance audits of the approved Strategy, CEMP and WEMPs. The WGTP MTIA must forward the audit reports to the Minister for Planning and other approval agencies as appropriate.

The EPRs set standards for the Project and are put in place to mitigate any adverse local effects of the Project on people and the environment. The EPRs have been incorporated into the Project Agreement

between the State and Project Co and are included in the subcontract between Project Co and the D&C Subcontractor.

The relationship between the various Project parties and key planning and environment documents, including the Strategy, are summarised in Figure 1 below. This diagram shows the role of the Minister for Planning and other regulatory authorities in issuing approvals for the Project while continuing their role as regulator (blue boxes). These requirements, which include regulatory approvals and EPRs, are then incorporated into a series of Project Agreements (contracts) between WGTP MTIA (representing the State of Victoria), Project Co, and the D&C Subcontractor. Project Co delegate the direct responsibility for delivering these environmental requirements to the D&C Subcontractor via the Strategy.

The Strategy lists the Project environmental requirements and minimum requirements for both Project Co and the D&C Subcontractor. In the case of the D&C Subcontractor, this includes the requirements to develop environmental documentation such as a CEMP which outlines how environmental requirements will be met during design and construction, and WEMPs, which are used on the construction site as a practical guide to manage environmental issues. The D&C Subcontractor is also required to maintain an Environmental Management System that complies with the international standard ISO14001 Environmental Management Systems. This requires the D&C Subcontractor to develop and maintain various management systems, procedures and processes that facilitate continual improvements in environmental management.

The responsibility of WGTP MTIA, Project Co and the D&C Subcontractor for delivery of the environmental management framework is summarised in Figure 2. The figure also shows how environmental requirements are incorporated into design and construction documentation. Project Co is responsible for the preparation and implementation of the Strategy in accordance with EPR EMP1. The obligation for the preparation and implementation of the CEMP (including subplans), WEMP and any other project plans required to achieve the EPRs is the responsibility of the D&C Subcontractor. Design and construction documentation is prepared by the D&C Subcontractor in accordance with relevant environmental requirements and EPRs.

Construction on the Project commenced in March 2018 following the approval of the Strategy by the Minister for Planning and the CEMP (and subplans) by the IREA and WGTP MTIA. Further information on the Strategy, CEMP, WEMP, and the audit and review processes is provided in the following sections.

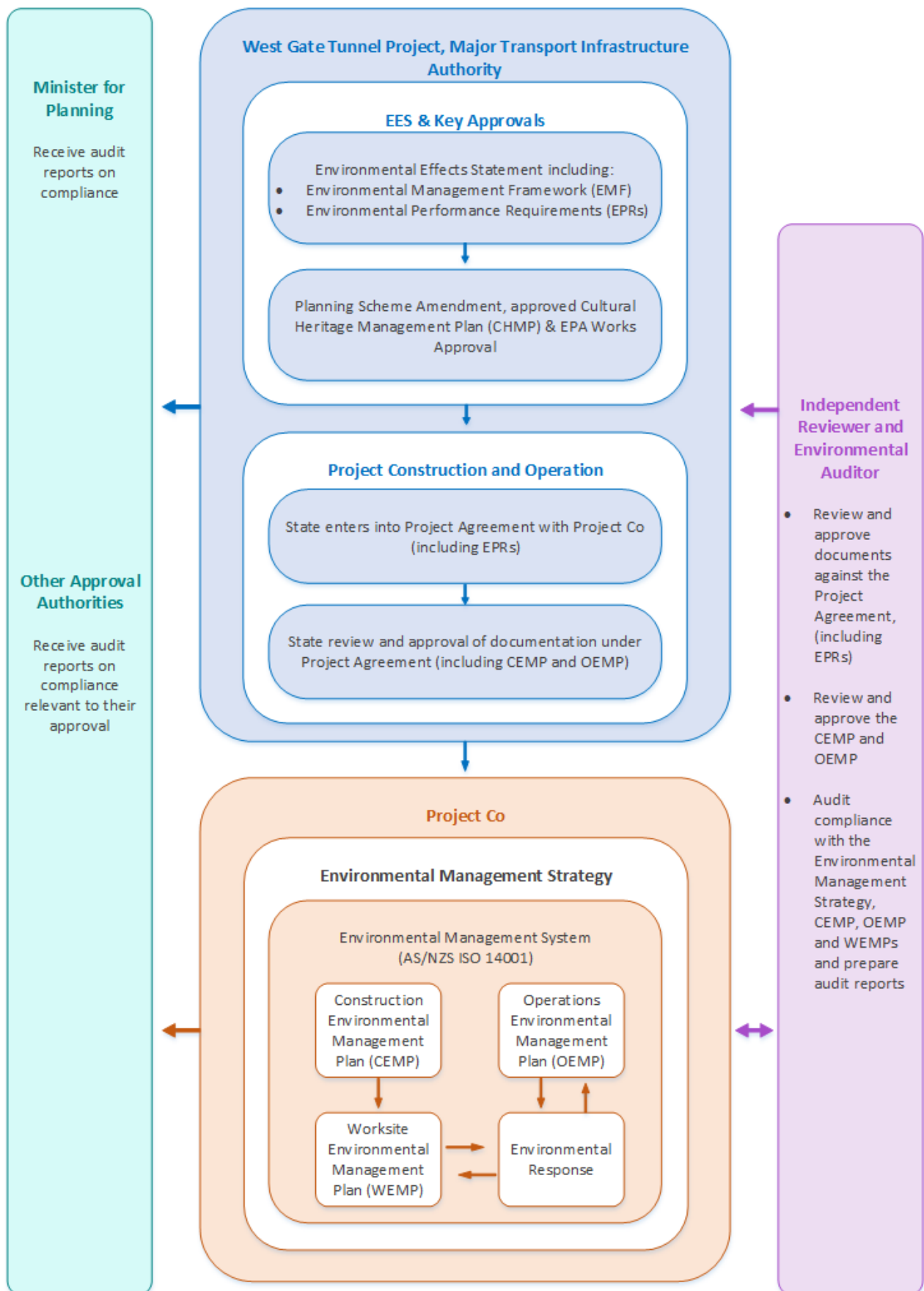


Figure 1 – Governance Framework for the Project (adapted from Strategy 2018) Environmental Management Strategy

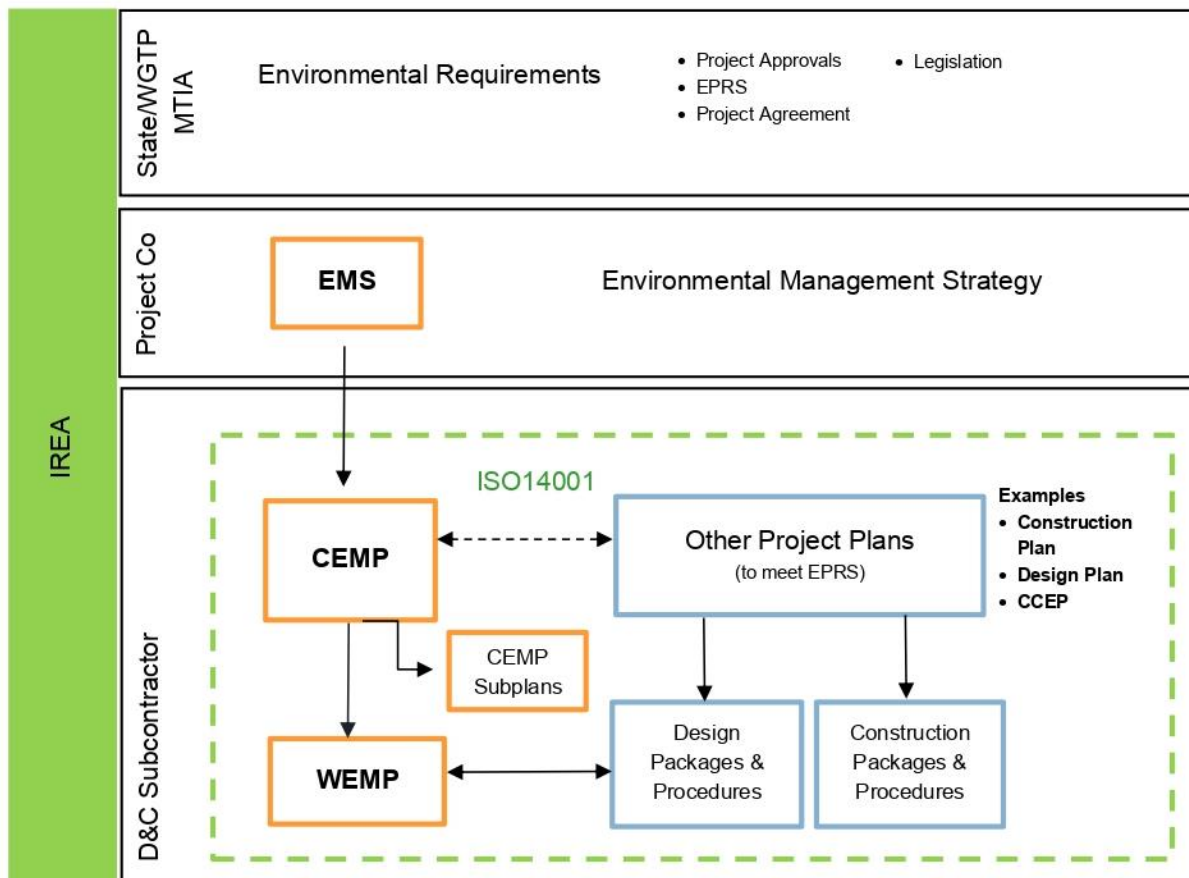


Figure 2 – Relationship between environmental management framework and Project design and construction documentation

### 1.2.3 Environmental Management Strategy

The Strategy provides an overarching framework to address all environmental requirements and manage environmental outcomes for the Project. Project Co is responsible for ensuring compliance with the Strategy which sets out the framework for delivering and complying with the EPRS, CEMP and other environmental requirements.

The Strategy was developed in early 2018, finalised on 31 January 2018, and approved by the Minister for Planning on 20 February 2018 (under PSA GC65). It was prepared in consultation with councils and other key stakeholders and reviewed by the IREA. PSA GC65 was revoked by the Parliament of Victoria on 7 March 2018, a new PSA (PSA GC93) was approved by the Minister for Planning, including re-approval of the Strategy by the Minister for Planning on 8 March 2018 in exactly the same form.

The Strategy outlines the Project's overall Environmental Management System, including responsibilities shared by the WGTP MTIA, Project Co, and the D&C Subcontractor. The Strategy is consistent with the Australian Standard for Environmental Management Systems (AS/NZ ISO 14001), which includes, but is not limited to project legal requirements, environmental management documents, roles and responsibilities, communication requirements, reporting, auditing, and processes for evaluating compliance. It is designed to provide an overarching framework to address the EPRS, which are largely delegated to the D&C Subcontractor to deliver (via the CEMP and Design Management Plans).

### 1.2.4 Construction Environmental Management Plan

The D&C Subcontractor's CEMP and subplans were developed in March 2018 and approved by the IREA and WGTP MTIA for implementation. The CEMP outlines how the D&C Subcontractor will achieve the

environmental requirements for the construction phase of the Project. This includes requirements outlined under the legislation (including permits and approvals), the Project EPRs, and requirements set out under the Project Agreement. The CEMP includes control measures for implementation during construction in order to manage, minimise or avoid environmental impacts in carrying out construction activities. The following subplans have also been developed to manage environmental risk associated with D&C Subcontractor activities and to address the requirements of EPRs:

*Table 1 – Status of CEMP and subplans<sup>1</sup>*

Plan	Update status
Construction Environmental Management Plan Rev 10 – 11 December 2019	current
Air Quality Management Plan Rev 9 – 24 October 2019	current
Water Management Plan Rev 10 – 22 October 2019	current
Groundwater Management Plan Rev 11 – 20 February 2020	current
Ground Movement Management Plan Rev 8 – 21 October 2019	current
Flora and Fauna Management Plan Rev 12 – 25 October 2019	current
Construction Noise and Vibration Management Plan Rev 10 – 15 January 2020	current
Heritage Management Plan Rev 7 – 15 July 2019	current
Soil and Spoil Management Plan Rev 4 – 26 March 2018	Rev 9 – under review
Energy Management Plan Rev 10 – 23 July 2019	current
Hazardous Substances Management Plan Rev 9 – 23 July 2019	current
Lighting Management Plan Rev 10 – 23 July 2019	current
Waste Management Plan Rev 10 – 23 July 2019	current

These sub plans do not address the entire scope of all EPRs for the Project. The CEMP makes reference to a suite of other management plans which are required to demonstrate how these and other EPRs will be complied with e.g. Design Management Plan, Construction Management Plan, Communications and Community Engagement Plan (CCEP). The CEMP (and auditing process) is the main framework document used to audit conformance with the Project EPRs (noting it delegates these requirements to other parts of the D&C Subcontractor Management Systems).

## 1.2.5 Worksite Environmental Management Plans

The D&C Subcontractor's WEMPs are prepared in order to manage discrete construction stages or work packages (by type) that may have an adverse impact on the environment. The WEMPs are subsidiary to the CEMP and are implemented at specific worksites to minimise potential impacts of construction activities on the environment and community. Each WEMP will include a map showing the location and scope of works to be managed and include environmental management measures (controls) required to be implemented. The WEMPs are for use by site personnel, consultants, and subcontractors, and a copy of the relevant WEMP is to be displayed at each site compound. Some EPRs require engagement with regulators (including Councils) where it is considered appropriate e.g. when Council land is affected.

<sup>1</sup> Sub-plan revisions listed in left column are the latest approved revisions by the IREA.



## 1.3 Role of the IREA

The IREA was jointly appointed by WGTP MTIA and Project Co on 30 May 2017 to provide independent oversight of design engineering, construction, and environmental performance of the Project. The IREA undertakes audits and surveillance of Project activities to assess whether compliance with the Project Documents is being achieved. This includes EPR EMP3 which requires the IREA to complete environmental audits of conformance with the approved Strategy (six-monthly), CEMP (quarterly) and WEMPs (monthly).

The IREA started work on the Project in late 2017, through review of design and construction packages associated with “early works” (limited to low impact investigations and site set up), site surveillance of early works, and reviews of draft environmental management documentation.

Following Financial Close and the issuing of key approvals, the IREA and WGTP MTIA approved the CEMP (including subplans) prior to construction starting in March 2018. The IREA and WGTP MTIA are also responsible for reviewing subsequent revisions of the CEMP and subplans.

With construction well under way, the IREA is responsible for undertaking a number of activities, described in the following sections.

### 1.3.1 Regular Site Inspections / Surveillance

The IREA undertakes regular inspections of the construction site (at least daily). IREA representatives are based on site in each of the three construction zones – tunnels, east, and west. The surveillance process is not the same as a formal audit as it may only address (in one inspection) part of an EPR. This information is made available to the D&C Subcontractor and summarised in monthly reports by the IREA. This surveillance assists the IREA in identifying key issues and risks which is used to inform future surveillance and auditing effort. These inspections are designated by “CS” in Appendix A, which summarises the activities that the IREA has undertaken over the last six months in relation to checking compliance with the EPRs. This shows that while not every EPR is formally “audited” by the IREA every day, it is subject to regular surveillance.

### 1.3.2 Design and Construction Documentation Review

The IREA reviews all design and construction packages (designated “DR” and “CR” in Appendix A). This includes, but is not limited to, reviews of documents such as design drawings, technical information packages, design packages (outlining the basis of design), construction packages, and construction procedures. These documents are reviewed by one, or more representatives of the IREA considered a specialist in their field e.g. hydrogeologist, bridge engineer, ecologist. The IREA reviews these documents against all Project environmental requirements. These reviews are sent to all Project parties for consideration and action (by the D&C Subcontractor). The IREA is required to certify design packages which means that these are not signed off until the environmental requirements are addressed. Construction packages are reviewed by the IREA and checked for compliance on site during site surveillance (refer Section 1.3.1). The outcomes of these reviews do not represent a formal audit but can provide (in part or in full) inputs into the quarterly CEMP audit which is the formal mechanism for auditing and reporting on EPR conformance.

### 1.3.3 Management Plan Review

The IREA is responsible for reviewing and/or approving management plans and documentation (designated “MP” in Appendix A). In approving the CEMP and subplans required prior to construction start (in March 2018), the IREA has checked compliance with the EPR linked to these CEMP subplans. Though not a formal audit, these reviews are documented in the EPR compliance table in Appendix A as they go some way to demonstrating conformance. The IREA has also reviewed a number of other plans that do not necessarily need to be included in the CEMP but remain a requirement of the EPR, such as the Communications and Community Engagement Plan (CCEP). The review process for these plans is similar to the process used for design and construction packages, whereby the IREA’s comments are documented and the D&C Subcontractor is obliged to address these in subsequent revisions of the plan before it is issued for use.

Revised versions of the CEMP and subplans were reissued to all project parties in this audit period and the previous auditing period for review and approval. The majority of these have been approved by the project parties, the final subplan requiring approval is the Soil and Spoil Management Plan (refer Table 1).

EPR EMP3 requires formal auditing of the Strategy, the CEMP, and WEMPs (refer Section 2 for further detail on the conduct and scope of auditing). Audits of the CEMP and EPRs are undertaken every quarter (identified under the “Audit” columns in Appendix A). The IREA’s indicative 12-month EPR audit schedule is included in Appendix A. Through this program all applicable EPRs are audited at least once over a twelve-month period via the quarterly CEMP audits.

### **1.3.4 Minister’s Report**

The IREA in its role as independent auditor is responsible for preparing a summary audit report which WGTP MTIA must forward to the Minister for Planning during construction and other approval authorities as appropriate. This audit report draws from audits undertaken over a six-month period, in this case the (fourth) six months of construction between September 2019 – February 2020. The formal audits described in this Minister’s Report have been undertaken by the lead IREA Environment Auditor, Hilary Chapman and Assistant Environment Auditors, Camilla Freestone, Karen Katagiri and Darcy Wall. The Lead Auditor was supported by a team of specialists listed in Appendix B.

## **1.4 Report Structure**

This report is divided into the following sections:

- Section 2: Conduct of Audits – details the scope of the IREA’s audit activities undertaken prior to, during and after the audit.
- Section 3: Audit findings – provides the IREA’s findings from audits of the Strategy, CEMP and WEMPs
- Section 4: Audit Conclusion –on the D&C Subcontractor’s conformance with the requirements of the Strategy, CEMP and WEMPs.
- Appendices
  - Appendix A – EPR Auditing Status
  - Appendix B – IREA Specialist Team
  - Appendix C – Limitations

## 2 CONDUCT OF AUDITS

### 2.1 Audit Objectives

The objective of the audits summarised in this report is to assess conformance with the current Strategy, the CEMP, and the WEMPs based on the requirement of EPR EMP3. This includes conformance with the primary approvals (refer Section 1.2.2 above). The objective of these audits is to sample compliance with requirements over the period of September 2019 to February 2020 (inclusive).

### 2.2 IREA Auditing Process

Figure 3 below details the key steps of the IREA environmental auditing process.

### 2.3 Audit Scope

The IREA determines the scope of these audits, which changes based on which Project issues, activities and environmental risks are considered to be significant at the time of audit. Considerations may include:

- Implementation of the CEMP and associated management system and tools.
- Analyses of environmental monitoring results, focusing on groundwater, noise, vibration, surface water, and air.
- Environmental risks relating to current construction activities.
- Concerns of the community.
- Compliance status of EPRs.

The IREA reviews a sample of environmental requirements (and evidence of compliance) over the auditing period. It is not feasible or necessary to fully audit all requirements in a six-month period (there are thousands of requirements e.g. legislation, EPRs, contract, CEMP, subplans). For example, the IREA excludes requirements, such as operational EPRs, which are not part of the current scope of work.

It should be noted that while all environmental requirements are not formally audited over a six-month period, the IREA is required to “check” compliance with environmental requirements through activities such as formal review of documentation and inspection of the construction site (refer Section 1.3). This means that a much larger set of requirements relevant to the Project period will be checked by the IREA for compliance during this period.

In this six-month reporting period, 53 of the 117 EPRs were audited by the IREA. A further 54 EPRs were audited during the previous reporting period (March 2019 – August 2019), bringing the total EPRs audited for this 12-month period to 107. The remaining EPRs not audited include six operational EPRs that are not relevant to construction, as well as one EPR that has been met and three EPRs relating to blasting which are currently outside of the Project’s scope (refer Appendix A).

The environmental requirements audited and checked by the IREA during this 12-month period are summarised below and shown in Appendix A.

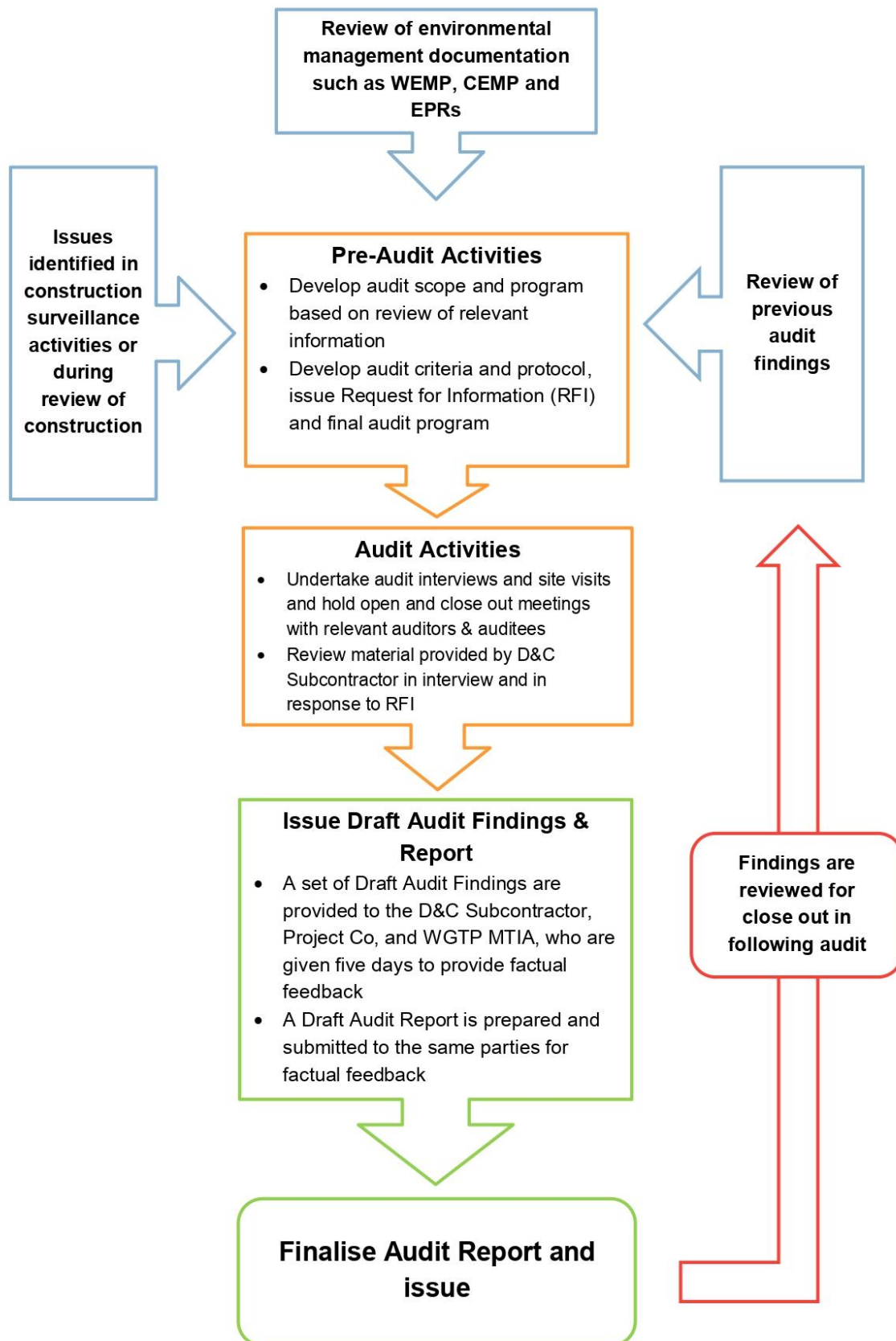


Figure 3 - Overview of environmental audit process

A summary of the scope of the audits conducted by the IREA is provided in Table 2 below.

Table 2 – Summary of Audits Conducted During Reporting Period – September 2019 to February 2020

Audit Type	Date	Scope
Strategy Audit	February 2020	<ul style="list-style-type: none"> <li>Strategy (revision 6) dated 31 January 2018 and the legislation, approvals, consents, guidelines and standards relevant to its implementation.</li> </ul>
CEMP Audit	November 2019 & February 2020	<ul style="list-style-type: none"> <li>Elements 2, 4, 5, 6, 7, 9, 10 and 11 of the CEMP. Revision 6 (dated 28 of March 2018) of the CEMP was audited in the November 2019 audit and Revision 10 was audited in the February 2020 audit (dated 11 December 2019).</li> <li>Relevant documentation including relevant D&amp;C Subcontractor management plans and subplans such as the Flora and Fauna Management Plan and the Soil and Spoil Management Plan was also audited. A full overview of CEMP documentation audited during this reporting period is provided in Section 3.3.</li> <li>A selection of EPRs relevant to the current stage of design and construction (as defined in Appendix A).</li> </ul>
WEMP Audit	September 2019 – Tunnel Zone	<ul style="list-style-type: none"> <li>Site audit at Outbound South Portal.</li> </ul>
	October 2019 – East Zone	<ul style="list-style-type: none"> <li>Site audit at Maribyrnong River site and Footscray Road ramp entry to City Link.</li> </ul>
	November 2019 – West Zone	<ul style="list-style-type: none"> <li>Site audit at Hyde Street Ramps and West Gate Freeway widening works area.</li> </ul>
	December 2019 – Tunnel Zone	<ul style="list-style-type: none"> <li>Site audit at Outbound and Inbound South Portal.</li> </ul>
	January 2020 – East Zone	<ul style="list-style-type: none"> <li>Site audit at Footscray Road Main Viaduct, F-Gate Railyard Modifications and Ramp C2 (exit Ramp from City Link)</li> </ul>
	February 2020 – West Zone	<ul style="list-style-type: none"> <li>Site audit at the M80 area.</li> </ul>

The IREA's view on conformance was informed by interviews with staff from the D&C Subcontractor, and review of relevant systems, tools and documentation developed and implemented. The IREA has reported on findings closed up to the date of this report being written (11 May 2020).

### 2.3.1 Design and Construction Activities – September 2019 to February 2020

The overall design for the Permanent Works is 98.70% complete <sup>2</sup> based on earned value.

Construction activities continue across the Project. Recent key activities include:

- West
  - Construction works are continuing with retaining/noise walls, bridge widenings, pedestrian bridge construction, freeway pavement widening, drainage and utility works. Works are ongoing in the M80 Interchange area with bridge widening works and freeway drainage works and the Summer Blitz occurring between January 2020 and end of February 2020, which had partial and full freeway closures, including the M80 entry ramp to the West Gate Freeway, West Gate Freeway inbound off

<sup>2</sup>WGT-100-000-REP-CJH-100-000-0002 Report Date 03 April 2020



ramp to the Princess Highway and the WGF outbound slow lane underneath Grieve Parade. Works have commenced in the 203 (Hyde Street Ramps) area, including site establishment, spoil removal, and HV relocation works. Relocation of the 22kV has been completed. The City West Water sewer pipe jack underneath the West Gate Freeway and Williamstown Road interchange was completed, with the installation of the junction pits and grouting the redundant sewer conduit remaining.

- Tunnels and Portals

- Both the Outbound and Inbound Tunnel Boring Machines (TBM) have been assembled and have now entered Preservation Mode while spoil disposal issues are being resolved. Roadside barrier works have commenced. At the Inbound South Portal bulk excavation works (30% complete) are on hold pending stockpile testing, whilst rock excavation and support has reached groundwater level at the Outbound South Portal (70% complete) and continues to transition through the TBM retrieval pit into the Metropolitan Fire Brigade ramp. The Southern portal and off-alignment recharge schemes are now commissioned and operational where excavation below groundwater level is occurring.

- East

- The stage 2B traffic switch was completed allowing full access to the Footscray Road centre median and for the Launching Gantry to be assembled. Construction of the Shared User Path relocation scaffold was completed and implemented. The balance of the permanent steel tube marine piles has been driven into the Maribyrnong River and several have been filled with reinforced concrete. Four cast in-situ piers for Bridge 51 have been constructed and the construction of temporary jetty has also commenced. Pile driving and pile cap construction along Footscray Road continues along with construction of the permanent road pavement west of Dock Link Road. Additional match cast column segments (excluding capitals) have been erected for Bridge 60. Utility relocations also continue, including installation of conduits for the 66kV relocation.



Photo 1 – West Gate Freeway Outbound utility works – West Zone (Source: WGTP MTIA, 27 February 2020)

## 2.4 Audit Findings Classification

Audit findings are classified in each audit according to the following definitions which are aligned with classifications provided by AS/NZS ISO14001: 2015, the Joint Accreditation System of Australia and New Zealand (JAS-ANZ), and audit classifications utilised on previous high-profile Victorian infrastructure projects. The definitions of conformance, non-conformance, opportunity for improvement, observation, and not applicable are provided below.

### Conformance

There is suitable evidence to confirm that actions have been undertaken, prepared and/or implemented in full conformance with the requirements of the auditable element. Findings are reported by exception only, and as such conformances are not detailed within this report.

### Non-conformance

An instance, event or occurrence that has not fulfilled a requirement that has been specified in the Strategy, CEMP, WEMP, EPRs, legislation, and approval conditions. A situation, which would, on the basis of available objective evidence raise significant doubt as to the effectiveness of environmental management.

(Note 1: A non-conformance may be an individual non-conformance or a number of minor but related audit findings, which when considered in total are judged to constitute a non-conformance.)

### Opportunity for Improvement

A deficiency in the implementation of the Strategy, CEMP, WEMPs, or associated documentation judged to be a risk to the environment, or to environmental management, without constituting an overall failure in the area concerned.

(Note: The title of this category has been modified from the last report without any change to the definition. The previous title of this finding category was “Area for Improvement”.)

### Observation

An audit finding which may relate to an incidental or isolated system discrepancy, which does not compromise the effectiveness of environmental management, or constitute an actual or potential environmental risk. Observations are also made to note a positive improvement on the Project.

### Not Applicable

The auditable element falls outside the scope of the audit, e.g. work relevant to the element being audited has not yet commenced. Findings are reported by exception only, and as such ‘Not Applicable’ findings are not detailed within this report.

It should be noted that the audit only reports on non-conformances, areas for improvement and observations against the CEMP findings. All other areas within the scope of the audit should be assumed to be compliant. Where EPRs have been audited, compliance findings are also included.

The IREA does not require observations to be formally closed out after they have been issued and therefore will not report these in subsequent audit reports. It is the responsibility of the D&C Subcontractor and Project Co to address these findings.

### Significance of Findings

The nature of findings may vary. In reviewing the results of audit findings, it is necessary to understand the context in which they have been issued. For instance, some findings may be administrative in nature compared with those that pose an immediate and/or significant risk to the environment. An example of an administrative finding might include the requirement for the D&C Subcontractor to use a particular system to record incidents, where this is defined in the CEMP. However, if the D&C Subcontractor has upgraded this system and replaced it with an alternative, this means the CEMP is now out of date and does not reflect current practices. The D&C Subcontractor in this case may not be conforming with the original CEMP (which is captured as a non-conformance in an audit), but it does not necessarily mean that incidents are not being

reported. This requirement is likely to be modified in the next version of the CEMP. Administrative findings therefore do not always pose a significant risk to the environment.

Alternatively, if the D&C Subcontractor was found to have caused an incident resulting in a discharge to the river, this would be viewed as an environmental non-conformance of greater significance.

Similarly, some findings are localised (rather than systemic) in nature. For example, a non-conformance raised against a WEMP may reflect an immediate issue at a particular worksite, which can be addressed and closed out by taking immediate on-site action.



Photo 2 – West Gate Freeway widening works – West Zone (Source: WGTP MTIA, 27 February 2020)



### 3 SIX-MONTHLY AUDIT FINDINGS

The key findings arising from the IREA's third six months of auditing are included in the sub-sections below.

- Section 3.1 summarises audit findings of the Strategy
- Section 3.2 outlines findings of formal auditing and checking of EPRs
- Section 3.3 describes audit findings against the CEMP and subplans
- Section 3.4 provides findings of the WEMP audits.

#### 3.1 Environmental Management Strategy

Audits of the Strategy are conducted six-monthly, with one conducted during the reporting period. Overall, Project Co was found to be meeting their obligations under the Strategy.

No non-conformances were raised against Project Co during the Strategy audit.

Three new opportunities for improvement were raised concerning:

- The need for Project Co to not only approve, but also to review WEMPs. Rather, Project Co has relied on other Project Parties to fulfil the reviewer role.
- Project Co's joint work with the D&C Subcontractor to develop "how each EPR will be implemented, and compliance demonstrated". It is not clear how Project Co has fulfilled this requirement.
- Limitations or gaps in the Management Review conducted in January 2019 by Project Co, and the fact that the second annual Management Review was also overdue.

Two new observations were raised concerning:

- Project Co's review of the D&C Subcontractor's environmental performance. The IREA considers that Project Co's review could be undertaken in a more regular and systematic manner, which would better address the EMS requirement for Project Co to ensure compliance of the D&C Subcontractor.
- The process for closing out Environmental Management Strategy (EMS) audit findings is not documented in the Project Co Environmental Management Plan (EMP). There is no documented process or timeframe for Project Co taking action to close out EMS audit findings.

The three opportunities for improvement raised in the current reporting period remain open.

#### Previous reporting periods

Findings from previous EMS audits in 2018 and 2019 were reviewed to determine whether they could be closed out. Of the six open findings, all were closed out.

#### 3.2 Environmental Performance Requirements

The majority of EPRs formally audited during the reporting period were considered compliant, with the exception of one non-conformance raised against LVP1. A number of opportunities for improvement and observations were also raised. One non-conformance remains outstanding from a previous reporting period (September 2018 – February 2019), namely against NVP10.

Project Co / the D&C Subcontractor is responsible for delivering the majority of EPRs listed below unless otherwise specified as being delivered by the State.

### 3.2.1 Environmental Management

One environmental management EPR was audited during this period, namely EMP3. It was deemed compliant.

#### Previous reporting periods

Three opportunities for improvement remain open from the previous auditing periods. Two of these are against EMP4. The first is from the March 2018 - August 2018 reporting period and regards the limited range of environmental aspects available to categorise complaints against within the D&C Subcontractor's consultation system. This remains open awaiting update of the D&C Subcontractor's Construction Communications and Community Engagement Plan (CCCEP). The second finding relates to the lack of clarity on how enquiries and complaints are defined and classified within the D&C Subcontractor's consultation database.

The third opportunity for improvement remaining open is against EMP2 and relates to delays in updating the CEMP and sub-plans.

Refer also to related CEMP findings in Section 3.3.

### 3.2.2 Air Quality

No air quality EPRs were audited during the reporting period.

#### Previous reporting periods

The two open air quality findings raised in previous reporting periods were closed during this reporting period.

One non-conformance against AQP4 for ambient air quality data not being made available on the West Gate Tunnel Project public website on a monthly basis was closed in January 2020 as a result of the ambient air quality data now being published on the Project website on a monthly basis.

One opportunity for improvement against AQP6, which related to a lack of justification within construction documentation for selecting the locations, frequency and duration of construction air quality monitoring, was closed in December 2019 following the update of the AQMP which addressed this finding.

Refer also to related AQMP findings in Section 3.3.1.

### 3.2.3 Business

Seven business EPRs were audited during this reporting period, namely BP1, BP2, BP3, BP4, BP6, BP8 and BP9.

Two opportunities were raised. One against BP2 due to the D&C Subcontractor providing a lack of evidence to show that the Crime Prevention Through Environmental Design element of the EPR had been addressed. Another was raised against BP3 due to inadequate visual screening of the construction site at Fogarty avenue.

BP1, BP4 BP6, BP8 and BP9 were deemed compliant.

#### Previous reporting periods

Two opportunities for improvement remain open, both are against BP5.

One was raised in the March 2019 – August 2019 reporting period. This finding identified that the Business Involvement Plan (BIP) contains outdated content on the review phase of the consultation framework. Furthermore, it was also identified that the BIP does not adequately address the interface between procedures to minimise impacts on access to business during construction and the land acquisition process - specifically with respect to allocation of roles and responsibility for communicating with impacted businesses.

The other was raised in the March 2018 – August 2018 period. This finding relates to a number of IREA comments on the Business Involvement Plan (BIP) remaining outstanding, namely the lack of detail in the

process for identifying 'impacted' business and no references in the BIP to Sub-zone plans or an action matrix. An opportunity for improvement against BP7 was closed following the D&C Subcontractor recording a non-conformance for a breach of a utility exclusion zone in their system.

### **3.2.4 Cultural Heritage**

Six cultural heritage EPRs were audited during this period, namely CHP2, CHP4, CHP8, CHP10, CHP11 and CHP12. All EPRs were deemed compliant.

#### **Previous reporting periods**

One opportunity for improvement raised against CHP5 in the September 2018 – February 2019 reporting period regarding the unclear process of photo archival recording of heritage items was closed in October 2019 following the update of the Heritage Management Plan (HMP) which addressed this finding.

One opportunity for improvement against CHP1 remains open. It was raised in the March 2019 – August 2019 reporting period and is because there is no process for tracking and recording which works had been checked off and approved by Project's Heritage Advisor.

Refer also to related HMP findings in Section 3.3.8.

### **3.2.5 Contaminated Soil and Spoil Management**

Two contaminated soil and spoil management EPRs were audited during this reporting period, namely CSP3 and CSP4. Both were deemed compliant.

#### **Previous reporting periods**

Of the three opportunities for improvement raised during previous reporting periods, one remains open. The two which were raised in the March 2019 – September 2019 reporting period have been closed since the last reporting period.

One of the findings closed was against CSP1 and was due to the Soil and Spoil Management Plan (SSMP) not providing clear enough guidance on the processes and measures that need to be undertaken to comply with the standards and statutory requirements it references. The other was against CSP2 and resulted from the D&C Subcontractor not adequately justifying whether heavy metals detected in Project soil samples are naturally occurring or not. Both were closed as a result of updates to Soil Work Instructions that are referenced in the SSMP and additional evidence being provided by Project Co / the D&C Subcontractor.

The third opportunity for improvement remaining open was raised in August 2018 and is also against CSP2. This is in relation to the status of the Sampling Analysis and Quality Plans (SAQPs) and outstanding review comments on the SSMP.

Refer also to related SSMP findings in Section 3.3.10.



Photo 3 – South Portal Outbound bulk excavation (Tunnel Zone) (Source: WGTP MTIA, 27 February 2020)

### 3.2.6 Ecology

Three ecology EPRs were audited during the reporting period, namely EP3, EP6 and EP7.

One opportunity for improvement was raised against EP7 and relates to the State and Project Co who are responsible for compliance with this EPR and controlling the D&C Subcontractor respectively. An area of native vegetation at the M80 construction site was cleared by the D&C Subcontractor prior to required offsets being secured by the State. The action of clearing the vegetation prior to the offset being secured is not in accordance with the relevant guideline, and therefore not compliant with this EPR. The offset was secured by the State prior to the CEMP Audit (12 February 2020). This finding has been closed with the State and Project Co agreeing a formal protocol for identifying and obtaining any further offsets which may be required. A non conformance was also raised against the D&C Subcontractor for the incident (refer section 3.3.4)

EP3 and EP6 were deemed compliant.

#### Previous reporting periods

Two opportunities for improvement against EP4 from the previous auditing periods (September 2018 – February 2019 and March 2019 – August 2019) were closed following the update of the FFMP.

Refer also to related FFMP findings in Section 3.3.4.

### 3.2.7 Greenhouse Gas Emissions

No greenhouse gas emissions EPRs were audited during the reporting period.

#### Previous reporting periods

Two opportunities for improvement from the previous reporting periods remain open against GGP2.

One opportunity for improvement was raised against GGP2 in the March 2019 – August 2019 reporting period due to delays in obtaining approval from the Infrastructure Sustainability Council Australia (ISCA) for the D&C Subcontractor's Base Case, as ISCA has issued a number of comments on the draft base case proposal. The comments are yet to be addressed. This has the potential to impact on the Project achieving the mandatory ISCA credits. No evidence has been provided to close this finding.

The other opportunity for improvement was raised against GGP2 in the March 2018 - August 2018 reporting period. Insufficient evidence has been provided from the D&C Subcontractor to show that embodied GHG emissions of Project materials are benchmarked or calculated, or how design decisions responding to GHG emission reduction processes are mapped to GHG reduction targets.

### **3.2.8 Ground Movement**

Two ground movement EPRs were audited during the reporting period, namely GMP2 and GMP6. Both were deemed compliant.

#### **Previous reporting periods**

Two opportunities for improvement raised against GMP3, and GMP5 from a previous reporting period (March 2018 – August 2018) were closed following the update of the Ground Movement Management Plan (GMMP) in October 2019 which addressed comments relating to the findings.

Refer also to related GMMP findings in Section 3.3.5.

### **3.2.9 Groundwater**

Two groundwater EPRs were audited during the reporting period, namely GWP3 and GWP7.

One observation was raised against GWP3 as the D&C Subcontractor could not provide formal records of D&C Subcontractor training for operating the groundwater recharge system.

GWP7 was deemed compliant.

#### **Previous reporting periods**

Four out of five opportunities for improvement from the previous auditing periods were closed following the update of the Groundwater Management Plan (GWMP) (GWP1, GWP3, GWP5 and GWP6).

One opportunity for improvement raised during previous reporting periods remain open (GWP2). The D&C Subcontractor still needs to provide evidence on how this finding has been addressed.

Refer also to related GWMP findings in Section 3.3.6.

### **3.2.10 Land Use**

Two land use EPRs were audited during this period, namely LPP2 and LPP5. Both were deemed compliant.

#### **Previous reporting periods**

No non-conformances or opportunities for improvement were raised in the previous periods.

### **3.2.11 Landscape and Visual**

Five landscape and visual EPRs were audited during this audit period, namely LVP1, LVP2, LVP3, LVP4 and LVP5.

One non-conformance was raised against LVP1 relating to traditional owner consultation on project design. The Environment Effects Statement Development and Urban Design Plan requires the D&C Subcontractor to consult with local Traditional Owner (TO) groups in regards to project detailed design development to ensure that the concept is culturally authentic, sensitive and appropriate. Specific reference to wayfinding is made. Whilst consultation with TO groups has occurred for design across the project, the D&C Subcontractor were



unable to provide sufficient evidence of encompassing the wayfinding design with Aboriginal elements across the project design.

LVP2, LVP3, LVP4 and LVP5 were all deemed compliant.

### **Previous reporting periods**

No non-conformances or opportunities for improvement for landscape and visual EPRs were raised in the previous periods.

## **3.2.12 Noise and Vibration**

Three noise and vibration EPRs were audited during this reporting period, namely NVP7, NVP8 and NVP19. Three opportunities for improvement were raised, two against NVP7 and one against NVP8.

One opportunity for improvement against NVP7 was because the D&C Subcontractor was unable to demonstrate how, when and where mitigation was being implemented to address changes in planned activities. The other opportunity for improvement against NVP7 was due to the D&C Subcontractor using an inconsistent process for offering relocations to residents impacted by noisy works.

The opportunity for improvement raised against NVP8 relates to the D&C Subcontractor being unable to provide evidence on noise management controls being implemented based on modelled (predicted) and monitored (actual) impacts, including when monitoring is showing potential for residents to be highly noise affected.

NVP19 is the responsibility of the State and was deemed compliant and is now closed. The IREA also note that a number of NVP EPRs were not audited in the audit period as they relate to blasting and tunnelling, which are not current activities. These inactive EPRs are NVP9, NVP12, NVP16 and NVP17. The IREA will monitor the relevance of these EPRs and audit them when they are active.

### **Previous reporting periods**

Of the eight findings open from the previous auditing periods, five of these were closed out in this reporting period. This included three non-conformances which were against NVP7, NVP8 and NVP18 and two opportunities for improvement against NVP8 and NVP14.

Four of these findings were closed following the update of the CNVMP in February 2020 and the provision of additional evidence from the D&C Subcontractor as part of the February 2020 CEMP Audit, namely the non-conformances against NVP7, NVP8, NVP18 (raised as opportunities for improvement in August 2018 and escalated to non-conformances in May 2019) and the opportunity for improvement against NVP8 (May 2019).

The opportunity for improvement against NVP14 closed in the reporting period was addressed through the D&C Subcontractor providing sufficient documentation for noise modelling and management of the tunnel ventilation system and evidence that this was developed to the satisfaction of the EPA.

Three findings remain outstanding from previous reporting periods. One non-conformance and two opportunities for improvement. The non-conformance regards NVP10. This relates to vibration (for amenity) and the lack of sufficient documentation to demonstrate compliance. This finding is outstanding.

The two opportunities for improvement remaining open relate to NVP8 and NVP10. The opportunity for improvement against NVP8 is due to deficiencies in construction noise modelling, whilst NVP10 is due to the D&C Subcontractor being unable to provide evidence of implementing mitigation measures for construction activities where exceedances of the vibration amenity guideline have been modelled.

Refer also to CNVMP findings in Section 3.3.2.



Photo 4 – Permanent noise wall installation on West Gate Freeway – West Zone (Source: WGTP MTIA, 27 February 2020)

### 3.2.13 Social

Three social EPRs were audited during the reporting period, namely SP1, SP4 and SP5. All were found compliant

#### Previous reporting periods

Two of the three opportunities for improvement from previous reporting periods remain open.

Both open findings relate to SP2. The first opportunity for improvement relates to the D&C Subcontractor clarifying what environmental monitoring data is to be made publicly available, and how community members are able to access this information. The second opportunity for improvement relates to community notifications lacking details on noise attenuation measures which is a commitment of the CCEP.

The opportunity for improvement against SP5 (responsibility of the State) was closed during the November 2019 audit when the State provided the finalised Community Involvement and Participation Plan (CIPP) and evidence of distribution.

### 3.2.14 Surface Water

Seven surface water EPRs were audited during the reporting period, namely SWP2, SWP3, SWP5, SWP6, SWP8, SWP13 and SWP14. One opportunity for improvement and one observation were raised.

One opportunity was raised against SWP14 as the D&C Subcontractor has not yet received formal approval from Melbourne Water regarding Project works at the Footscray Main Drain.

One observation was raised against SWP8 due to inconsistencies in the sustainable opportunities register used to track the opportunities of using non-potable water on the Project.

EPRs SWP2, SWP3, SWP5, SWP6, and SWP13 were deemed compliant.

### **Previous reporting period**

The two findings remaining open from previous reporting periods were both closed this reporting period. Both were opportunities for improvement.

Both opportunities for improvement against SWP7 and SWP1 related to temporary drainage design at the Pivot site and were closed following the issue of the final design.

Refer also to WMP findings in Section 3.3.12.

## **3.2.15 Transport**

All nine Transport EPRs were audited this reporting period, namely TP1 to TP9. One opportunity for improvement and one observation were raised.

The opportunity for improvement was raised against TP1 as the D&C Subcontractor was not able to provide evidence of the close out of a number of the IREA's comments relating to traffic modelling, therefore potentially compromising the reliability of the modelling output that demonstrates that the M80 interchange design achieves its required level of service.

One observation was raised against TP8 due to the River Navigation Management Plan not having a fully documented process.

EPRs TP2, TP3, TP4, TP5, TP6, TP7 and TP9 were all found compliant.

### **Previous reporting periods**

There are no outstanding non-conformances or opportunities for improvement from previous reporting periods.

## **3.2.16 Waste Management**

Environmental Performance Requirement WMP1 was audited during the reporting period and deemed compliant.

### **Previous reporting periods**

There are no outstanding non-conformances or opportunities for improvement from previous reporting periods.

## **3.3 Construction Environmental Management Plan**

### **Overview**

CEMP audits are conducted on a quarterly basis, with two CEMP audits conducted during the reporting period.

During the November 2019 audit the following management plans and sections were audited:

- CEMP (Element 2 Planning, Element 6 Communication and Consultation, Element 7 Training and Competency and Element 11 Document and Record Management)
- Soil and Spoil Management Plan (Section 4 Management)
- Lighting Management Plan (Section 4 Artificial Lighting Controls and Section 5 Monitoring)
- Landscape Management Plan (Section 3 Implementation).

During the February 2020 audit the following management plans and sections were audited:

- CEMP (Element 4 Risk and Opportunity Management, Element 5 Change Management, Element 10 Emergency Requirements)



- Waste Management Plan (Section 4.1 Waste Management Requirements and Section 4.3 Waste Management Controls)
- Water Management Plan (Section 5.5 Dewatering from Excavations, Section 5.6 Trade Waste Agreements and Section 6.5 Dewatering Monitoring)
- Flora and Fauna Management Plan (Section 5.3 Working Outside the Project Area, Section 5.5 Clearing Management Steps, Section 5.8 Reinstatement and Section 6 Monitoring and Reporting).

### **Current Reporting Period**

There were four findings raised against the CEMP (excluding subplans) during the reporting period, being all four opportunities for improvement.

Four opportunities for improvement were raised against the following:

- CEMP Element 2 Planning due to the use of general correspondence for sharing the environmental monitoring report and the lack of clarity in the D&C Subcontractor Progress Report regarding which version of the environmental monitoring report applies to the reporting period.
- CEMP Element 6 Communication and Consultation regarding an absence of evidence to demonstrate how environmental actions are being identified, tracked and completed.
- CEMP Element 7 Training and Competence raised two opportunities for improvement, including: (1) the D&C Subcontractor could not demonstrate that the training analysis was current, and there was no register detailing who had been trained, and what they had been trained in, and (2) there was no evidence available to demonstrate the competency of trainers or trainees.

Four observations were raised, two against tracking and storing environmental documents, one against lack of accompanying meeting record or document control to confirm site-specific document review, and one against finalising the Risk Management Plan review.

### **Previous Reporting Periods**

Of the previous non-conformances and opportunities for improvement findings raised, two non-conformances were closed during this reporting period. One non-conformance relating to inconsistencies in preparation of construction documentation, specifically WEMPs and the other relating to the absence of a system for capturing and analysing environmental monitoring data. This leaves five findings remaining open. These are opportunities for improvement and relate to:

- The D&C Subcontractor have not provided evidence to demonstrate tracking of objectives, targets, and KPIs (CEMP Element 3.4).
- The Design Management Plan does not address the design development process (CEMP Section 3.6).
- The D&C Subcontractor have not provided evidence to justify the status of EPR and other legal compliance requirements (CEMP Element 2.2.4 and 2.2.5).
- The absence of targeted environmental audits undertaken by the D&C Subcontractor, particularly following an environmental incident or a high-risk subcontractor (CEMP Element 8.7).
- The D&C Subcontractor is required to coordinate meetings with councils and other stakeholders, records of these meetings have been referred to, however no evidence of this has been provided to close the finding out (CEMP Element 6.3).

Findings raised against the subplans are discussed below.

## **3.3.1 Air Quality Management Plan**

The Air Quality Management Plan (AQMP) was not specifically audited during this reporting period.

### **Previous reporting periods**

One opportunity for improvement (outstanding areas of implementation of the AQMP) from previous reporting periods was closed. No findings remain open from the previous reporting period.

Refer to Section 3.2.2 for findings relating to air quality EPRs.

### **3.3.2 Construction Noise and Vibration Management Plan**

The Construction Noise and Vibration Management Plan (CNVMP) was not specifically audited during this reporting period.

#### **Previous reporting periods**

One non-conformance (validation and proactive noise monitoring) and one opportunity for improvement (baseline noise monitoring) from previous reporting periods were closed. Currently two opportunities for improvement remain open from previous reporting periods. At a high level, these outstanding findings relate to how noise modelling and noise monitoring data used to inform mitigation and management actions are documented and communicated.

Refer to Section 3.2.12 for findings relating to noise and vibration EPRs.

### **3.3.3 Energy Management Plan**

The Energy Management Plan (EMP) was not specifically audited during this reporting period.

#### **Previous reporting periods**

One opportunity for improvement (lack of greenhouse gas emission performance in the D&C Subcontractor's Monthly Progress report) and one observation (energy efficiency training not undertaken) from previous reporting periods were closed. No findings remain open from the previous reporting period.

Refer to Section 3.2.7 for findings relating to greenhouse gas emissions EPRs.

### **3.3.4 Flora and Fauna Management Plan**

One non-conformance was raised against the Flora and Fauna Management Plan (FFMP) during the reporting period. The non-conformance related to the D&C Subcontractor having removed a portion of native vegetation prior to an offset being secured.

#### **Previous reporting periods**

Two opportunities for improvement (lack of recent flora and fauna toolboxes being delivered in sensitive areas, and not all fauna relocations being logged in the D&C Subcontractor's system) and two observations (fencing specification in the Tree Management Plan cannot always be achieved, and absence of professional ecologist involvement in relocation of non-native fauna) from previous reporting periods were closed. No findings remain open from the previous reporting period.

Refer to Section 3.2.6 for findings relating to ecology EPRs.

### **3.3.5 Ground Movement Management Plan**

The Ground Movement Management Plan (GMMP) was not specifically audited during this reporting period.

#### **Previous reporting periods**

One opportunity for improvement (GMMP not having been submitted for the mandatory six-monthly update and review) and one observation (GMMP being unclear on what scenarios would require an update of the geotechnical model) from previous reporting periods were closed. No findings remain open from the previous reporting periods.

Refer to Section 3.2.8 for findings relating to ground movement EPRs.

### **3.3.6 Groundwater Management Plan**

The Groundwater Management Plan (GWMP) was not specifically audited during this reporting period.

#### **Previous reporting periods**

Three opportunities for improvement and one observation from previous reporting periods were closed. At a high level, the opportunities for improvement related to baseline data being presented in multiple locations, making review and assessment difficult, and incidents not being reported in the D&C Subcontractor's system for trade waste and groundwater alert levels. The observation related to how the D&C Subcontractor are communicating PFAS levels in trade waste discharge to City West Water. No findings remain open from the previous reporting period.

Refer to Section 3.2.9 for findings relating to groundwater EPRs.

### **3.3.7 Hazardous Substances Management Plan**

The Hazardous Substances Management Plan (HSMP) was not specifically audited during this reporting period.

This subplan has not been audited previously and will be audited in the upcoming audit period.

### **3.3.8 Heritage Management Plan**

The Heritage Management Plan (HMP) was not specifically audited during this reporting period.

#### **Previous reporting periods**

One opportunity for improvement (inconsistencies regarding fencing and flagging within the HMP) from previous reporting periods was closed. No findings remain open for the previous reporting period.

Refer to Section 3.2.4 for findings relating to cultural heritage EPRs.

### **3.3.9 Lighting Management Plan**

No finding was raised against the Lighting Management Plan (LMP) during this reporting period.

This was the first time the LMP had been audited, therefore there are no open findings from previous reporting periods.

### **3.3.10 Soil and Spoil Management Plan**

Four opportunities for improvement were raised during the reporting period. The on-site component of the audit focused on spoil management at the South Portal highlighting a number of issues, including: (1) the materials tracking process at Southern Portal Outbound not being fully developed, (2) the absence of a documented process for how to decide which sites require classification for transferring waste soils across property boundaries, (3) PFAS stockpiles not being fully covered, which required prompt attention and (4) a lack of training being provided to the engineer responsible for materials tracking.

#### **Previous reporting periods**

One opportunity for improvement from previous reporting periods remains open, as the materials tracking register does not identify the site domain (location) of excavated materials.

Refer also to Section 3.2.5 for findings relating to soil and spoil EPRs.



Photo 5 – Excavation at West Gate Freeway Williamstown Road ramp works – West Zone (Source: WGTP MTIA, 27 February 2020)

### 3.3.11 Waste Management Plan

No finding was raised against the Waste Management Plan (WstMP) during this reporting period.

#### Previous reporting periods

No findings remain open from previous reporting periods.

### 3.3.12 Water Management Plan

No finding was raised against the Water Management Plan (WMP) during this reporting period.

#### Previous reporting periods

One opportunity for improvement (construction documentation not outlining increased surface water monitoring frequency) from previous reporting periods was closed. Currently one non-conformance and one opportunity for improvement remain open from previous reporting periods. The non-conformance relates to lack of evidence that post-rainfall surface water monitoring had been undertaken. The opportunity for improvement related to how the D&C Subcontractor are managing any potential risks associated with storing contaminated stockpiles within the 1% AEP flood level.

Refer to Section 3.2.14 for findings relating to surface water EPRs.

### 3.3.13 Landscape Management Plan

One opportunity for improvement was raised against the Landscape Management Plan (LdMP) during the reporting period. The LdMP states that ecological assessments will be conducted prior to construction and will be used to inform detailed design. The audit focused on the Issued for Construction M80 Landscaping

Package (201-810). The D&C Subcontractor confirmed that the most recent survey conducted in the M80 area had not been forwarded on and, therefore, it had not been considered within design.

This was the first time the LdMP had been audited, therefore there are no open findings from previous reporting periods.

### 3.4 Worksite Environmental Management Plan

WEMP audits are conducted on a monthly basis, with six WEMP audits conducted during the reporting period. A total of 37 findings were raised in this reporting period compared to 48 in the previous reporting period. Six non-conformances were raised which is three more than the previous reporting period. The remaining 31 findings from this period are made up of 13 opportunities for improvement and 18 observations.

The six non-conformances identified during this reporting period related to (1) the Project discharging water at pH level lower than permitted under the site's Trade Waste Agreement, (2) the Project not having both up-wind and down-wind dust monitors present on the Project sites, (3) a lack of documented process for the monitoring of compliance with trade waste agreements, (4) the D&C Subcontractor was unable to provide evidence of an ecological assessment of trees that were cleared, (5) inconsistencies around soil and spoil documentation, (6) breach of a tree protection zone (TPZ) by a soil and spoil stockpile and improper installation of TPZs.

Of all WEMP findings, 33% related to environmental management which were administrative in nature, 16% related to noise and vibration and 10% related to both air quality and surface water. The remaining 31% related to a mix of issues such as contaminated soil and spoil, ecology, cultural heritage and groundwater.

The D&C Subcontractor has increased efforts to close out WEMP audit findings in this reporting period, noting that a large number of WEMP findings still remain open. Of the 19 non-conformances and opportunities for improvement raised in this reporting period nine have been closed. Seven non-conformances and opportunities for improvement remain open from the previous reporting periods. Only one of these was raised in the first Minister's Report reporting period (March 2018 – August 2018).

In total there are 17 WEMP audit findings which remain open since construction began in March 2018, comprising five non-conformances and 12 opportunities for improvement. This is down from the 38 total open findings (10 non-conformances and 28 opportunities for improvement) reported in the previous audit period.

#### 3.4.1 East Zone

Refer to Section 2.3.1 for an update on construction activities in the East zone.

Five findings were raised during WEMP audits of the East Zone in this reporting period.

Three were opportunities for improvement against various aspects of the works including, an incomplete noise monitoring report for piling works, the lack of stabilised access at the Parker Street site exit, and a lack of oversight over the environmental performance of activities on the Maribyrnong River barge.

Of the two observations raised, one was due to there being no sign-on sheet being provided with heritage induction and stabilised access not being sufficient for a specific work area, and one for no evidence of noise monitoring occurring in the months of October, November and December for the F-Gate and Ramp C2 WEMPs.

#### Previous reporting periods

All WEMP audit findings from the three previous reporting periods have been closed.

#### 3.4.2 Tunnel Zone

Refer to Section 2.3.1 for an update on construction activities in the Tunnel zone.

Sixteen findings were raised during WEMP audits of the Tunnel Zone in this reporting period.



Four non-conformances were raised, two against issues around trade waste agreement compliance, one due to there being no downwind air quality monitor present at the South Portal sites, and one against TPZs being improperly installed and another TPZ being breached by a soil and spoil stockpile.

Five opportunities for improvement were raised, two against insufficient management controls and covering of contaminated soil and spoil stockpiles, one against a WEMP not displaying vibration monitoring locations and sensitive receptors, one for the lack of signage and onsite tracking of contaminated soil and spoil, one against the D&C Subcontractor's incident report process which was not reporting trade waste agreement exceedances as incidents.

Seven observations were also raised, two against air quality, one against environmental management, one against groundwater, one against noise and vibration, one against surface water and one against waste management.

Of the nine findings raised during this period three remain open, including two non-conformances and one opportunity for improvement.

### Previous reporting periods

None of the 12 non-conformances from the previous reporting periods remain open.

Two of 21 opportunities for improvement from the previous reporting periods remain open.

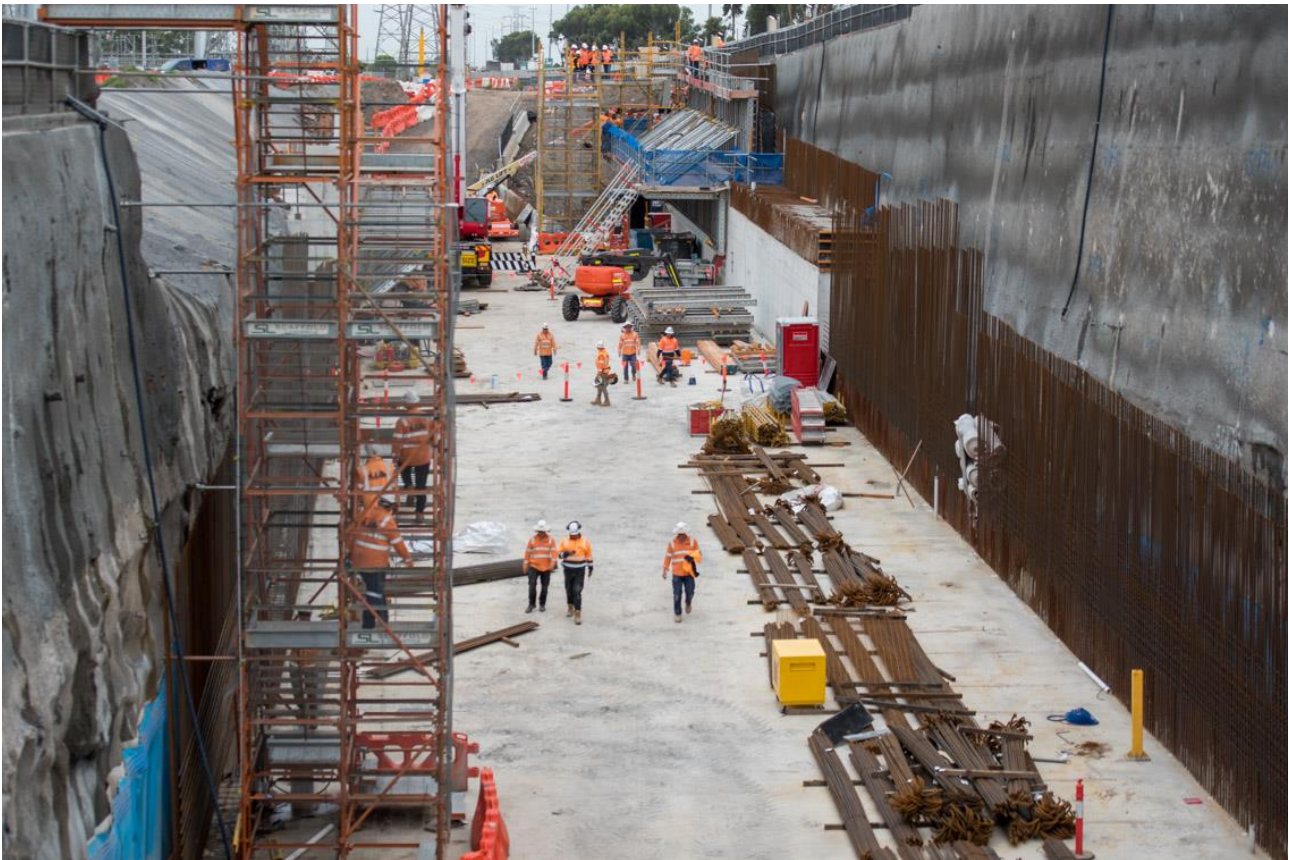


Photo 6 – South Portal Outbound base slab works – Tunnel Zone (Source: WGTP MTIA, 27 February 2020)

### 3.4.3 West Zone

Refer to Section 2.3.1 for an update on construction activities in the West zone.

Sixteen findings were raised during WEMP audits of the West Zone in this reporting period.

Two non-conformances were raised during WEMP audits of the West Zone, one due to the D&C Subcontractor being unable to provide evidence of an ecological assessment of trees that were cleared (this has since been closed) and one against inconsistencies around soil and spoil documentation.



Five areas for improvement were raised, one against the required environmental weekly inspection not consistently occurring on a weekly basis, an out of date WEMP not effectively reflecting a number of site controls, one against noise monitoring reports showing noise management levels being exceeded despite the D&C Subcontractor stating in the WEMP audit there had been no exceedances, one due to there being no documented process on how the D&C Subcontractor are managing and mitigating the risk of impacts from noise, including how modelling and monitoring data is being used, and one against a WEMP not effectively reflecting sediment and erosion controls at Stony Creek.

Nine observations were raised. Six of these related to environmental management issues and one each for cultural heritage, ecology and noise and vibration.

Seven non-conformances and opportunities for improvement raised during the reporting period remain open.

### **Previous reporting periods**

Two of seven non-conformances from the previous reporting periods remain open. Five non-conformances have been closed in this reporting period.

Three of 25 opportunities for improvement from the previous reporting periods remain open. Thirteen opportunities for improvement have been closed since the previous reporting period.

## 4 AUDIT CONCLUSIONS

### Environmental Management Strategy

Project Co is generally meeting their obligations under the Strategy. No non-conformances were raised during the reporting period. Five (5) findings were raised overall and these related to the corporate and Project-specific management systems, processes and documents that Project Co rely on to assist them in implementing the Strategy. The findings consisted of:

- Three opportunities for improvement
- Two observations.

### Environmental Performance Requirements

During the last six-month reporting period the IREA formally audited 53 EPRs. The majority of EPRs audited during the reporting period were deemed compliant. The findings raised consisted of:

- One non-conformance raised against LVP1.
- Eight opportunities for improvement. These related to ecology, business, noise and vibration, surface water and transport.
- Three observations were also raised.

The non-conformance raised against LVP1 during the reporting period remains open, as well as one non-conformance from the previous reporting period. There is a total of two non-conformances open at the end of this reporting period.

Also refer to Appendix A for a summary of EPR compliance status and the upcoming EPR auditing schedule.

### Construction Environmental Management Plan

The last six-month reporting period focused on auditing a range of CEMP elements and sub-plans. A number of these plans were out of date at the beginning of September 2019, which resulted in multiple audit findings being raised against them. Subsequent improvements were made to a number of plans resulting in these being reapproved by the IREA as of the end of February 2020. The D&C Subcontractor held meetings to discuss outstanding management plan comments, which has facilitated reapproval of seven plans, including the CNVMP and the GWMP. The reapproval of the CNVMP and the GWMP has facilitated close out of five previous audit findings. There are now only a small number of comments outstanding on the Soil and Spoil Management Plan (SSMP). Once the outstanding SSMP is reapproved, this will result in close out of further previous audit findings, including one non-conformance (May19\_CEMP\_07). A full list of CEMP sub-plans and their review status can be found in Section 1.2.4.

The CEMP audit findings for the November 2019 quarterly audit are summarised below:

- No non-conformances were raised during this audit.
- Nine opportunities for improvement were raised during this audit. This included four against the CEMP and five against the CEMP sub-plans. These generally related to the business management systems and project-specific processes, training and records.
- Three observations were also raised.

The CEMP audit findings for the February 2020 quarterly audit are summarised below:

- One non-conformance was raised against the Flora and Fauna Management Plan (FFMP) as the D&C Subcontractor removed a portion of native vegetation prior to an offset being secured.
- One observation was also raised

The IREA will continue to work with Project Co / the D&C Subcontractor to close out any outstanding non-conformances and opportunities for improvement. Project Co / the D&C Subcontractor have made an increased effort to close previous findings over the last six-month reporting period.

## Worksite Environment Management Plans

During the reporting period six WEMP audits were conducted. A total of 37 findings were raised in this reporting period. These consisted of:

- six non-conformances.
- 13 opportunities for improvement.
- 18 observations.

The D&C Subcontractor has improved their system of reporting, communicating and closing out WEMP audit findings to the IREA across all zones and have improved their closure of WEMP findings. In total there are 17 WEMP audit findings which remain open since construction began in March 2018, comprising five non-conformances and 12 opportunities for improvement. This is down from the 38 total open findings (10 non-conformances and 28 opportunities for improvement) reported in the previous audit period.

## Conclusions

The findings arising from the reporting period by the IREA have not identified any immediate significant or material risks to the environment.

Audit findings during the period relate to a range of matters, mostly specific to on-site matters, including inadequate stockpile management, inadequate procedures for trade waste management and inadequate assessment of environmental aspects such as ecological consideration prior to clearing or review of actions following exceedance of noise management levels. Two audit findings relate to clearance of native vegetation before the appropriate offset was secured. The majority of audit findings made in the reporting period relate to procedural matters. Some of these procedural findings relate to high risk areas i.e. noise and vibration and groundwater. A small number of findings relate to on-site environmental impacts or risks. While there has been improvement in closing out audit findings, it is noted that a number of the audit findings from previous reporting periods remain open and this continues to be of concern.

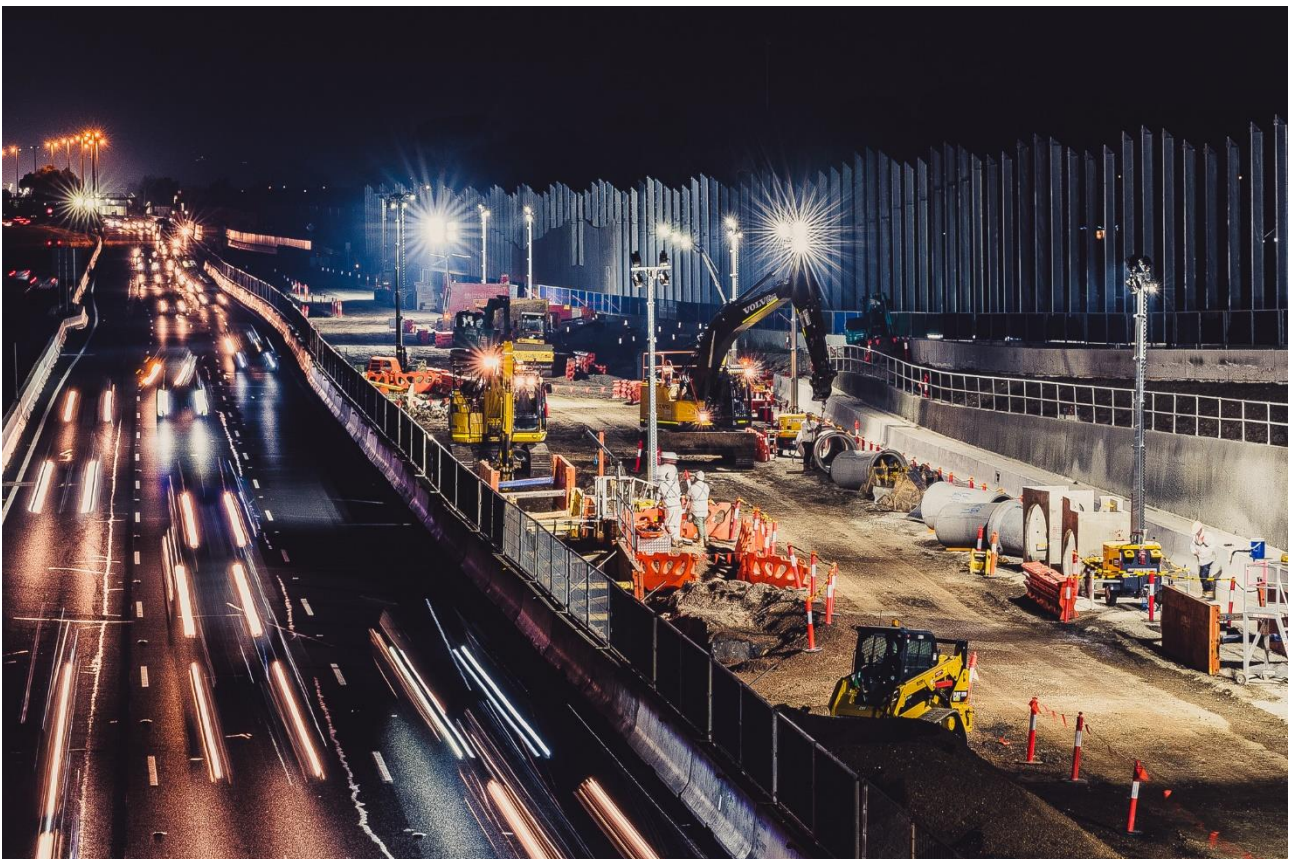


Photo 7 – West Gate Freeway Grieve Parade night works – West Zone (Source: WGTP MTIA, 20 February 2020)



**APPENDIX A- EPR AUDITING STATUS**

**Phase:** D = Design; PC = Pre-construction; C = Construction; PC = Pre-operation; O = Operation

**Type of review and surveillance:** MP = Management Plan; DP = Design Package; CR = Construction Documentation Review; CS = Construction Surveillance

ENVIRONMENTAL PERFORMANCE REQUIREMENTS	REVIEW & SURVEILLANCE				AUDIT				PHASE	PROJECT AND AUDIT STATUS <sup>3</sup> (SEPTEMBER 2019 TO FEBRUARY 2020)	RESPONSIBLE PARTY
	MP	DR	CR	CS	May -19	Aug -19	Nov -19	Feb -20			
ENVIRONMENTAL MANAGEMENT											
EMP1 Environmental Management Strategy	X								All	The IREA audited this EPR in August 2018 and it was deemed compliant. This EPR was not audited again in the 2019/2020 period as it was considered closed when previously audited.	Project Co (WGTP MTIA will publish the Strategy)
EMP2 Environmental Management Plans	X		X	X	X				All	An opportunity for improvement was raised in May 2019 (May-19_EPR_01) and remains open.	D&C / OpCo
EMP3 Environmental Compliance								X	PC, C, O	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C / OpCo (WGTP MTIA will forward audit reports to Minister for Planning and will public audit reports only)
EMP4 Complaints Management System	X				X				PC, C	An opportunity for improvement was raised in August 2018 (Aug-18_EPR_04) and remains open. A new opportunity for improvement was raised in May 2019 (May-19_EPR_02) and remains open.	D&C
AQP1 Tunnel Ventilation System Design		X				X			D, C	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
AQP2 Zero Portal Emissions		X				X			D, O	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C / OpCo
AQP3 In Tunnel Air Quality		X				X			D, O	An observation was raised in August 2019 (Aug-19_EPR_05). As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C / OpCo
AQP4 Ambient Air Quality Monitoring	X			X	X				C, O	A non-conformance was raised in May 2019 (May-19_EPR_03). It was reviewed in February 2020 and closed.	D&C / OpCo
AQP5 In Tunnel Air Quality and Ventilation Structure Emissions Compliance									O	N/A - operational EPR	OpCo
AQP6 Air Quality During Construction	X		X	X	X				C	A non-conformance, an observation and an opportunity for improvement were raised as separate findings in May 2019 (May-19_EPR_04, May-19_EPR_05, May-19_EPR_06). As agreed on 1 February 2019 observations are to be closed once reported on initially. The non-conformance was closed as part of the August 2019 audit. The opportunity for improvement was closed as part of the November 2019 audit.	D&C
AQP7 Roadside Air Quality Mitigation Strategy									O	N/A - operational EPR	WGTP MTIA (OpCo)
BP1 Damage or Impacts on Third Party Property and Infrastructure	X	X	X	X			X		D, C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
BP2 Access and Amenity for Business and Commercial Facilities		X	X	X			X		D, C	The IREA audited this EPR in November 2019 and an opportunity for improvement was raised (Nov-19_EPR_02) and remains open.	D&C
BP3 Screening		X	X	X				X	C	A new opportunity for improvement was raised in February 2020 (Feb-20_EPR_09) and remains open.	D&C
BP4 Impacts on Operation of Community, Private Recreation and Council Facilities and Services		X	X	X			X		All	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C / OpCo
BP5 Business Involvement Plan	X		X	X		X			PC, C	An opportunity for improvement was raised in August 2018 (Aug-18_EPR_07) and remains open. A new opportunity for improvement was raised in August 2019 (Aug-19_EPR_26) and remains open.	D&C
BP6 Utility Assets		X	X	X				X	D, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C

<sup>3</sup> Finding status is as of 11 May 2020



ENVIRONMENTAL PERFORMANCE REQUIREMENTS	REVIEW & SURVEILLANCE				AUDIT				PHASE	PROJECT AND AUDIT STATUS <sup>3</sup> (SEPTEMBER 2019 TO FEBRUARY 2020)	RESPONSIBLE PARTY
	MP	DR	CR	CS	May -19	Aug -19	Nov -19	Feb -20			
BP7 Gas Utilities		X	X	X		X			D, C	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
BP8 Business Disruption		X	X	X				X	D, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
BP9 Business Acquisition Process		X	X	X			X		D, C	The IREA audited this EPR in November 2019 and it was deemed compliant.	WGTP MTIA
CHP1 Cultural Heritage Management Plan	X	X	X	X	X				D, C	An opportunity for improvement was raised in May 2019 (May-19_EPR_07) and remains open.	D&C
CHP2 Design and Construction to Minimise Impacts on Heritage		X	X	X			X		D, PC, C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
CHP3 Archaeological Management Plan	X		X	X	X				PC, C	The IREA audited this EPR in May 2019 and an observation was raised. As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C
CHP4 Monitoring of Heritage Sites and Places		X	X	X			X		C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
CHP5 Archival Photographic Records		X				X			PC	An opportunity for improvement was raised in February 2019 (Feb-19_EPR_01) and this was closed in October 2019 as part of the reapproval of the Heritage Management Plan. The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
CHP6 Port Phillip Monument		X				X			D, C	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
CHP7 Heritage Interpretation Strategy	X	X				X			PC, C	The IREA audited this EPR in August 2019 and an observation was raised. As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C
CHP8 Shipwrecks	X	X	X	X			X		PC, C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
CHP9 Maribyrnong River Front (Footscray)		X	X	X		X			D	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
CHP10 Bluestone Bridge		X					X		C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
CHP11 Rail Turntables		X	X	X			X		D	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
CHP12 Flinders Street								X	C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
CSP1 Contaminated Soil Requirements	X	X	X	X	X				C	An opportunity for improvement was raised in May 2019 (May-19_EPR_10) and was closed in May 2020.	D&C
CSP2 Contaminated Soil and Spoil Management	X	X	X	X	X				PC, C	The IREA audited this EPR in August 2018 and an opportunity for improvement was raised (Aug-18_EPR_06) and remains open. A new opportunity for improvement and an observation were raised in May 2019 (May-19_EPR_10, May-19_EPR_33) and was closed in May 2020.	D&C
CSP3 Acid Sulphate Soil	X		X	X			X		PC, C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
CSP4 Odour Management	X		X	X			X		C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
EP1 Minimise Vegetation Removal and Disturbance		X	X	X	X				D, PC, C	The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C
EP2 Vegetation Protection Measures	X	X	X	X	X				PC, C	The IREA audited this EPR in May 2019 and it was deemed compliant	D&C
EP3 Reinstatement		X	X	X				X	C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C

ENVIRONMENTAL PERFORMANCE REQUIREMENTS	REVIEW & SURVEILLANCE				AUDIT				PHASE	PROJECT AND AUDIT STATUS <sup>3</sup> (SEPTEMBER 2019 TO FEBRUARY 2020)	RESPONSIBLE PARTY
	MP	DR	CR	CS	May -19	Aug -19	Nov -19	Feb -20			
EP4 Fauna Management Measures	X	X	X	X		X			PC, C	An opportunity for improvement was raised in February 2019 (Feb-19_EPR_10) – this was closed as part of the November 2019 audit. A new opportunity for improvement was raised in August 2019 (Aug-19_EPR_22) – this was closed as part of the November 2019 audit.	D&C
EP5 Works on Waterways		X	X	X	X				D, C	The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C
EP6 Landscaping Plan		X					X		D, PC, C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
EP7 Vegetation Offsets	X		X	X				X	C	The IREA audited this EPR in February 2020 and an opportunity for improvement was raised in relation to the State (Feb-20_EPR_29). This finding was closed in May 2020. A separate contributing finding was raised in relation to the D&C Subcontractor (Feb-20_EPR_23) this contributed to a non-conformance raised against the Project's Flora and Fauna Management Plan (Feb-20_FFMP_01).	WGTP MTIA
GGP1 Greenhouse Gas Emissions		X	X	X		X			D	This IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
GGP2 Emissions Reduction		X	X	X		X			D, C	An opportunity for improvement was raised in August 2019 (Aug-18_EPR_12) and remains open. A new opportunity for improvement was raised in August 2019 (Aug-19_EPR_02) and remains open.	D&C
GMP1 Geotechnical Model and Assessment		X	X	X	X				PC, C	The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C
GMP2 Tunnel and Portal Drainage		X	X	X				X	D, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
GMP3 Condition Surveys and Determination of Settlement Criteria for Property and Infrastructure		X	X	X	X				PC, C, O	An opportunity for improvement was raised in August 2018 (Aug-18_EPR_14) – this was closed as part of the November 2019 audit. The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C / OpCo
GMP4 Settlement Criteria for Utilities		X	X	X		X			PC	The IREA audited this EPR in August 2019 and it was deemed complaint.	D&C
GMP5 Ground Movement Monitoring	X	X	X	X	X				PC, C, O	An opportunity for improvement was raised in August 2018 (Aug-18_EPR_16) – this was closed as part of the November 2019 audit. The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C / OpCo
GMP6 Mitigation of Ground Movement Impact	X	X	X	X			X		C, O	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C / OpCo
GWP1 Groundwater Management Measures	X	X	X	X	X				PC, C, O	An opportunity for improvement was raised in May 2019 (May-19_EPR_16) - this was closed as part of the February 2020 audit.	D&C / OpCo
GWP2 Protection of Groundwater Quality	X		X	X	X				C	An opportunity for improvement was raised in November 2018 (Nov-18_EPR_22) and remains open. The IREA audited this EPR in May 2019 and an observation was raised (May-19_EPR_17). As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C
GWP3 Tunnel Drainage Design and Construction Methods		X	X	X	X				D, PC, C	An opportunity for improvement was raised in November 2018 (Nov-18_EPR_23) - this was closed as part of the February 2020 audit. The IREA audited this EPR in May 2019 and it was deemed compliant. It was audited again in February 2020 and an observation was raised. As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C
GWP4 Predictive Groundwater Model		X	X	X	X				PC, C	The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C
GWP5 Groundwater Monitoring			X	X	X				PC, C, O	An opportunity for improvement was raised in August 2018 (Aug-18_EPR_19) - this was closed as part of the February 2020 audit.. A new opportunity for improvement was raised in May 2019 (May-19_EPR_22) – this was closed as part of the August 2019 audit.	D&C / OpCo

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<b>GWP6 Interception of Groundwater</b>	X	X	X	X	X				C	An opportunity for improvement was raised in February 2019 (Feb-19_EPR_13) – this was closed as part of the February 2020 audit. The IREA audited this EPR again in May 2019 and it was deemed compliant.	D&C
<b>GWP7 Impacts on Groundwater Users</b>		X	X	X				X	PC, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>LPP1 Minimise Design Footprint</b>		X				X			D	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>LPP2 Recreation Facilities</b>		X	X	X				X	D, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>LPP3 Future Development Opportunities</b>		X				X			D	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>LPP4 Pedestrian and Bicycle Connections</b>		X				X			D	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>LPP5 Public Land</b>		X	X	X				X	D, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>LVP1 Urban Design Approach</b>		X	X	X				X	D, C	The IREA audited this EPR in February 2020 and a non-conformance was raised (Feb-20_EPR_15).	D&C
<b>LVP2 Reinstatement Following Temporary Works</b>		X					X		D, C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
<b>LVP3 Light Spillage</b>	X	X	X	X			X		D, C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
<b>LVP4 Vegetation Screening</b>		X						X	C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>LVP5 Design Review</b>								X	D	The IREA audited this EPR in February 2020 and it was deemed compliant.	WGTP MTIA (on receipt of relevant design documentation in accordance with the design review process)
<b>NVP1 Traffic Noise Limits</b>		X	X	X		X			D, C	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>NVP2 Traffic Noise Reduction of Open Space</b>		X	X	X		X			D, C	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>NVP3 Maintenance of Noise Mitigation Measures</b>									O	N/A - operational EPR	OpCo (for the maintenance of noise mitigation measures in accordance with sections 18.4 and 18.5 of Part B, otherwise WGTP MTIA)
<b>NVP4 Traffic Noise Reduction of Millers Road North of West Gate Freeway</b>									PO	N/A - operational EPR	State
<b>NVP5 Construction of Noise Barriers</b>		X	X	X		X			C	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>NVP6 Traffic Noise Monitoring</b>		X							PO, O	N/A - operational EPR	OpCo (for the O&M phase in accordance with sections 18.4 and 18.5 of Part B, otherwise WGTP MTIA)

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<b>NVP7 Construction Noise, Vibration Management, and Monitoring</b>	X		X	X	X		X		PC, C	The IREA audited this EPR in August 2018 and an opportunity for improvement was raised (Aug-18_EPR_24). The finding was reviewed in the May 2019 audit, escalated to a non-conformance. It was reviewed in February 2020 and closed. The IREA audited this EPR again in November 2019 and two opportunities for improvement were raised as separate findings (Nov-19_EPR_13, Nov-19_EPR_14) and remain open.	D&C
<b>NVP8 Construction Noise Targets</b>			X	X	X		X		C	The IREA audited this EPR in August 2018 and an opportunity for improvement was raised (Aug-18_EPR_25). The finding was reviewed in the May 2019 audit, escalated to a non-conformance. It was reviewed in February 2020 and closed. Two opportunities for improvement were raised as separate findings in May 2019 (May-19_EPR_24, May-19_EPR_25) and remain open. The IREA audited NVP8 again in November 2019 and an opportunity for improvement was raised (Nov-19_EPR_15), it remains open.	D&C
<b>NVP9 Blasting Trials and Assessment</b>									C	The IREA audited this EPR in February 2019 and it was deemed compliant. It was not audited in the subsequent audit period as it was not relevant the current scope.	D&C
<b>NVP10 Construction Vibration Targets (Amenity)</b>			X	X		X			C	The IREA audited this EPR in February 2019 and a non-conformance was raised (Feb-19_EPR_22) and remains open. An opportunity for improvement was raised in August 2019 (Aug-19_EPR_13) and remains open.	D&C
<b>NVP11 Construction Vibration Targets (Structures)</b>			X	X		X			C	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>NVP12 Ground-borne (Internal) Noise Targets</b>									C	The IREA audited this EPR in February 2019 and it was deemed compliant. It was not audited in the subsequent audit period as it was not relevant the current scope.	D&C
<b>NVP13 Utility Asset Protection</b>		X	X	X		X			PC, C	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>NVP14 Tunnel Ventilation System Noise Design</b>						X			D, O	An opportunity for improvement was raised in August 2019 (Aug-19_EPR_06) – this has been closed as part of the November 2019 audit.	D&C / OpCo
<b>NVP15 Tunnel Ventilation System Noise Monitoring</b>									O	N/A - operational EPR	OpCo
<b>NVP16 Amenity Blast Vibration</b>									C	The IREA audited this EPR in February 2019 and it was deemed compliant. It was not audited in the subsequent audit period as it was not relevant the current scope.	D&C
<b>NVP17 Amenity Blast Overpressure Implement</b>									C	The IREA audited this EPR in February 2019 and it was deemed compliant. It was not audited in the subsequent audit period as it was not relevant the current scope.	D&C
<b>NVP18 Construction Noise Management</b>	X		X	X	X				C	The IREA audited this EPR in August 2018 and an opportunity for improvement was raised (Aug-18_EPR_26). The finding was reviewed in the May 2019 audit, escalated to a non-conformance. It was reviewed in February 2020 and closed.	D&C
<b>NVP19 Traffic Noise of Hyde Street, South of Francis Street</b>								X	C	The IREA audited this EPR in February 2020 and it was deemed compliant and closed.	WGTP MTIA
<b>SP 1 Urban Design Principles and Vision</b>		X					X		D	The IREA audited this in November 2019 and it was deemed compliant.	D&C
<b>SP2 Communications and Community Engagement Plan (CCEP)</b>	X		X	X	X				PC, C, O	The IREA audited this EPR in May 2019 and two areas for improvement were raised (May-19_EPR_27, May-19_EPR_28), and remain open.	D&C / OpCo
<b>SP3 Community Liaison Group Participation</b>					X				C	The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C / WGTP MTIA
<b>SP4 Social and Local Procurement</b>	X							X	PC, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>SP5 Community Involvement and Participation Plan (CIPP)</b>	X						X		PC, C	An opportunity for improvement was raised in February 2019 (Feb-19_EPR_29). It was reviewed in November 2019 and closed. The IREA audited this EPR in November 2019 and it was deemed compliant.	WGTP MTIA



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<b>SWP1 Design of Discharges and Runoff</b>		X				X			D	An opportunity for improvement was raised in February 2019 (Feb-19_EPR_30). It was reviewed in February 2020 and closed. An observation was raised in August 2019 (Aug-19_EPR_23). As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C
<b>SWP2 Water Sensitive Road Design</b>		X					X		D	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
<b>SWP3 Tunnel Waste Water</b>		X	X	X				X	PC	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>SWP4 Water Quality Monitoring</b>	X		X	X					PC	The IREA audited this EPR in August 2018 and it was deemed compliant and closed.	D&C
<b>SWP5 Spill Containment Design</b>		X					X		D	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
<b>SWP6 Management of Chemicals, Fuels, and Hazardous Materials</b>			X	X			X		C	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C
<b>SWP7 Surface Water Management During Construction</b>	X		X	X	X				C	The IREA audited this EPR in May 2019 and an opportunity for improvement was raised (May-19_EPR_30). It was reviewed in February 2020 and closed.	D&C
<b>SWP8 Use of non-potable water</b>		X	X	X				X	C	The IREA audited this EPR in February 2020 and an observation was raised. As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C
<b>SWP9 Bank Stability</b>		X	X	X	X				C	The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C
<b>SWP10 Waterway Modifications</b>		X			X				D, C	The IREA audited this EPR in May 2019 and it was deemed compliant.	D&C
<b>SWP11 Flood Levels, Flows and Velocities</b>		X	X	X		X			D, PC, C	An observation was raised against this EPR in August 2019 (Aug-19_EPR_24). As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C
<b>SWP12 Floodplain Storage Capacity</b>		X	X	X		X			D	The IREA audited this EPR in August 2019 and it was deemed compliant.	D&C
<b>SWP13 Tunnel Portal Flood Risk</b>		X					X		D, O	The IREA audited this EPR in November 2019 and it was deemed compliant.	D&C / OpCo
<b>SWP14 Maintenance of Melbourne water and Other Drainage Assets</b>		X	X	X			X		D	An opportunity for improvement was raised in November 2019 (Nov-19_EPR_06) and it remains open.	D&C
<b>SWP15 North Yarra Main Sewer</b>		X							D	The IREA audited this EPR in February 2019 and it was deemed compliant and closed.	D&C
<b>TP1 Optimise Design Performance</b>		X						X	D	An opportunity for improvement was raised in November 2018 (Nov-18_EPR_32). It was reviewed in November 2019 audit and closed. A new opportunity for improvement was raised in February 2020 (Feb-20_EPR_01) and remains open.	D&C
<b>TP2 Traffic Monitoring</b>			X	X				X	PC, C, O	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C / OpCo
<b>TP3 Traffic Management Plan</b>	X		X	X				X	PC, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>TP4 Public Transport</b>		X	X	X				X	PC, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>TP5 Rail operations</b>		X						X	D, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>TP6 Design Standards</b>		X						X	D, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
<b>TP7 Traffic Management Liaison Group</b>			X	X				X	PC, C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C

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TP8 River Navigation		X	X	X			X		C	The IREA audited this EPR in November 2019 and an observation was raised (Nov-19_EPR_22). As agreed on 1 February 2019 observations are to be closed once reported on initially.	D&C
TP9 Melbourne Metro Rail Authority Interface								X	C	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C
WMP1 Waste Management	X	X	X	X				X	D, C, O	The IREA audited this EPR in February 2020 and it was deemed compliant.	D&C / OpCo



**APPENDIX B - IREA SPECIALIST TEAM**

The formal audits described in this Minister's Report have been undertaken by the lead IREA Environment Auditor, Hilary Chapman and Assistant Environment Auditors, Camilla Freestone, Karen Katagiri and Darcy Wall. The Lead Auditor was supported by a team of specialists, including (but not limited to):

- IREA Construction Lead, Mike Cragg
- IREA Design Lead, Damien Kennedy
- IREA Technical Leads for Groundwater, Sarah Sawyer
- IREA Technical Lead for Air Quality, Dr Iain Cowan
- IREA Technical Lead for Ecology, Fiona Sutton
- IREA Technical Lead for Soil and Spoil, Dr Dave Adams
- IREA Technical Lead for Noise and Vibration, Mike Dowsett
- IREA Technical Lead for Ground Movement, Stuart Oakey
- IREA Stormwater and Hydrology Lead Design Reviewer, Paul Atkinson
- IREA Technical Lead for Sustainability, Bernadette Fitzgerald.

This report has been reviewed by the IREA Representative, Simon O'Hana.

**APPENDIX C - AUDIT LIMITATIONS**

This report was prepared in accordance with generally accepted consulting practice for audit services. The environmental audit requires the IREA to apply a process of “general overview and reasonable checking” of the Project documentation and Design and Construction activities (as required under the contract between the IREA and Project Co / WGTP MTIA). The audit program is risk-based, targeting those Design and Construction activities with a potential for risk to the environment or to environmental management arrangements. Accordingly, it is possible that not all environmental issues will be examined during each audit. However, the IREA maintains a structured program of audits designed to cover all aspects of the Project and to enable the formation of an opinion on whether there is conformance with the requirements of the Strategy, CEMP (and subordinate documentation), WEMPs, and the EPRs (as applicable).