7 Environmental management

The Environmental Management process is based on the environmental factors and management measures identified in the ESR and EA process (Concept and Development phases).

The Environmental Management process continues into the Implementation phase of the project. The Environmental Management process implements the EA process outcomes and requirements through the environmental management plan for construction (EMP(C)).

The Environmental Management processes in this chapter are largely applicable to Medium Level and High Level projects. The findings of the ESR typically provide sufficient assessment and management for Low Level environmental projects.

The environmental management processes described in this manual are designed to be flexible to actual project requirements. Therefore if a formal environmental management response is considered appropriate for a Low Level project, then the processes described in this Chapter 7 Environmental Management may be applied.

7.1 The environmental management process

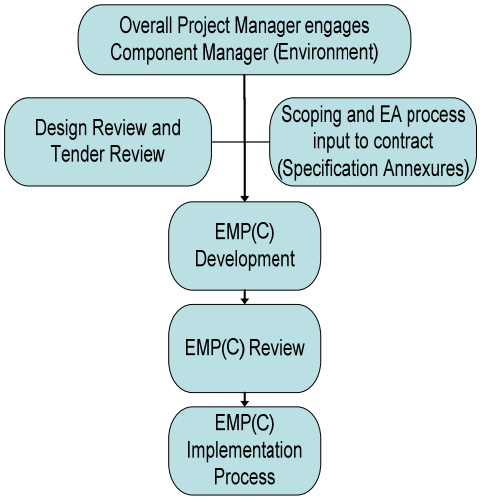
The environmental management process may differ slightly depending on the contract type used for a project however the fundamental process will be the same for all projects. The department has a responsibility to ensure that the project is implemented with the necessary controls to manage environmental risks and comply with legislative requirements.

The department engages contractors to undertake the project construction during the Implementation phase. The management of project environmental requirements is achieved through the project contractor producing and implementing Environmental Management Plans for the project. The project contractor will produce an EMP(C) in accordance with the requirements set out in contract documentation developed by the PM.

The project will have undergone prior analysis and assessment through the project Scoping (refer to Section 5) and Environmental Assessment process (refer to Section 6). Any prior scoping and assessment reports for the project must be considered and referenced throughout the environmental management process.

The environmental management process is depicted below in Figure 7.1

Figure 7.1 - Environmental management process



The information contained in this Chapter 7 Environmental Management is primarily worded to guide the CM(E) through the environmental management process during the implementation phase.

Templates for this process are provided in the departmental EMS.

This manual chapter describes the roles and responsibilities associated with the Environmental Management process. Section 2.2.3 describes that some or all of these roles may require delegation from the CM(E) to a contractor or Contract Administrator.

For instance, work tasks described in sections 7.2.4, 7.2.6, and 7.2.7 have responsibility assigned to the CM(E) however the project may require these tasks to be delegated to a contractor (or Contract Administrator). In such an instance the CM(E) assumes the role of briefing the work and overseeing the work task that would otherwise be conducted by the CM(E).

These instances shall be determined by the PM in conjunction with the CM(E), and in all instances the CM(E) retains responsibility to manage and review the work task. However the CM(E) has no direct responsibility for, or control over, the contractor (or Contract Administrator).

7.2 Completing the environmental management plan (construction) – EMP(C)

The construction of a project occurs through the PM engaging a Contractor under the terms and conditions of a contract.

The MRS51 and MRTS51 state the Milestone requirement for the submission of an EMP(C) by the contractor prior to commencement of works.

An EMP(C) is also a requirement of some departmental manuals and contract types (refer Table 6.8.1).

The EMP(C) is the primary document for the contractor to address the environmental factors as set out in the contract documentation. The environmental requirements established in the contract documentation are based on the environmental factors identified in the Scoping and Environmental Assessment process.

The EMP(C) explains in detail the measures to be undertaken to manage the environmental elements of the project, and also explains in detail the means for addressing departmental administrative requirements.

The objective of the EMP(C) is to enable and ensure contractor compliance with the environmental management requirements stated in the contract documents, and is essentially the contractor's tool for managing environmental risk of a project.

7.2.1 Environmental management initiation

The PM for this Implementation phase is likely to be different to the PM from the previous Concept and Development phases. It is the responsibility of the PMs to communicate relevant hand over information from previous project phases.

The PM in this Implementation Phase engages the services of a CM(E) to provide specialist environmental input to the overall project.

The CM(E) is responsible to manage and review the work of an external expert service provider (contractor).

The environmental management process is initiated when the CM(E) is engaged to the overall project.

7.2.2 Environmental officer input to the EMP(C)

The CM(E) will already have had input to the contract documentation during the Scoping stage for Low Level projects (refer Section 5.2.4), and during the Environmental Assessment (EA) stage (refer Section 6.5.3 and Section 6.6) for Medium and High Level projects.

The Specification Annexures enable the CM(E) to address specific environmental management and design requirements in the contract. The completed Specification Annexures form part of the project contract documentation.

It is the responsibility of the CM(E) to provide advice and recommendations to the PM for input to the contract documentation with relation to project environmental requirements where applicable.

It is the responsibility of the PM to include the environmental advice and recommendations in the contract documentation.

The environmental factors identified in the Scoping (refer to Section 5) and Environmental Assessment process (refer to Section 6) are considered by the CM(E) when completing the Specification Annexures.

7.2.3 EMP(C) development

It is the responsibility of the contractor doing the works to develop and implement the EMP(C). It is not the role or responsibility of department staff to develop the EMP(C).

The content of the EMP(C) requires a high level of detail and understanding of contractor work methods and site activities and therefore is only suitable to be realised and documented in the EMP(C) by the contractor doing the works.

7.2.4 EMP(C) document review

The PM submits the contractors EMP(C) to the CM(E) for review and comment.

It is the role of the CM(E) to check the EMP(C) to ensure it meets the requirements of the contract, and that the contractor's proposed management measures are sufficient and appropriate to prevent, control or mitigate the environmental risk.

The EMP(C) is reviewed against the requirements of the MRS51 and MRTS51 and against the contract documentation issued to the contractor by the PM.

The department's Contract Administration System (CAS) provides a checklist to assess the content of the EMP(C) in accordance with MRS51 and MRTS51. The checklist CAC003M (or equivalent future version) contains provision to assess EMP(C) in accordance with the requirements of MRS51 and MRTS51.

The CAS checklist CAC003M is completed by the CM(E) during the EMP(C) review process.

The CM(E) submits the completed CAS checklist CAC003M to the PM for response to the contractor.

The CAS manual details the administration of Road Construction Contracts (RCC) (refer to Section 4.2 of this manual) however this Environmental Processes Manual recognises that the CAS guidance for completing the EMP(C) documentation is appropriate irrespective of the contract type.

The project is only commenced once the project plan (including the contractor's EMP(C)) has been accepted by the Superintendent (as defined by the RCC).

7.2.5 Interim EMP(C)

In accordance with the Supplementary Conditions of Contract of a Road Construction Contract (RCC) (refer to Section 4.2 of this manual), if the Contractor proposes to commence work before the Superintendent (as defined by the RCC) has given a direction that a Plan is suitable, the Contractor is required to submit an Interim EMP(C).

The Contractor is required to prepare management plans for the first two months of the Contract which deal with specific operational areas including environmental factors and management activities.

It is the responsibility of the contractor doing the works to develop and implement the EMP(C). It is not the role or responsibility of department staff to develop the EMP(C).

The department's Interim Environmental Management Plan (Construction) Guideline has been prepared to aid Contractors with their understanding of the requirement for, and their preparation of an Interim EMP(C).

7.2.6 Tender review phase

The PM may engage the CM(E) to provide specialist advice and technical content review to the tender documentation for the project. This is particularly applicable to High Level projects.

The tendering process is discussed in Section 6.7.

7.2.7 EMP(C) implementation audit

In accordance with the requirements of MRS51 and MRTS51, the contractors EMP(C) will state specific and detailed measures and actions for the contractor to manage the project to meet legislative and departmental requirements.

It is the responsibility of the PM (contract administrator) to engage the CM(E) in the EMP(C) implementation audit. It is the responsibility of the CM(E) to audit the implementation of the contractors EMP(C) and ensure contractor compliance with conditions of the contract and legislative requirements.

The department's Contract Administration System (CAS) provides a checklist to assess whether the measures and actions specified in the EMP(C) have been addressed. The checklist CAC004M (or equivalent future version) contains provision to assess EMP(C) in accordance with the requirements of MRTS51.

7.2.7.1 Environmental inspections, monitoring and reporting

It is the responsibility of the contractor to adhere to the MRS51 and MRTS51 requirements for environmental inspections, monitoring and reporting set out in the EMP(C).

MRS51 and MRTS51 provide guidance on the minimum requirements for this, however the contract documentation may specify more detailed or regular inspections, monitoring and / or reporting depending on the level of risk and detail required. The CM(E) may specify the frequency of environmental inspections, monitoring or reporting using the MRTS51.1 Annexure. Use of the MRTS51.1 Annexure is also discussed in Sections 6.5.3 and 7.2.1.

Environmental inspections, monitoring and reporting occur in accordance with contractual requirements. Additional reporting to external authorities as a result of a breach of license conditions or as a result of material or serious environmental harm (as defined in the Environmental Protection Act 1994) must occur in accordance with legal requirements.

7.2.7.2 Audit of contractor

Environmental inspections, monitoring and reporting are carried out by the project contractor in accordance with contractual and MRS51 and MRTS51 requirements.

It is the responsibility of the CM(E) to audit and document contractor performance in conducting environmental inspections, monitoring and reporting in accordance with contractual and MRS51 and MRTS51 requirements.

The CAS form CAF008M (or equivalent future version) is used by the CM(E) to carry out an audit of the contractors' environmental reporting performance.

The form CAF008M contains provision for the CM(E) to record and assess the contractor's environmental reporting performance.

7.2.7.3 Non conformance reporting and management

Non conformance against the contract documents or the EMP(C) may be observed by the department's contract administrator, a departmental project environmental offer, or an inspector. If a non conformance is observed it is reported and recorded by the observer of the non conformance.

The CAS form CAF038M (or equivalent future version) is used to record issues of project non conformance and submitted to the PM (contract administrator).

In the event that the audit identifies instances of contractor non conformance that do not result in environmental harm, the non conformances are to be recorded by the CM(E).

Instances of non conformance must also be reported by other project staff.

It is the responsibility of the PM to ensure that non-conformances are resolved by the contractor and environmental concerns have been appropriately addressed and recorded.

The CM(E) supports the PM in resolving instances of project non conformance with the contractor.

Where an EMP(C) implementation audit identifies a non conformance which is also an incident, it must be reported through both the CAS Non Conformance Register, and also through the Work Improvement Note (WIN) system.

7.2.8 Environmental harm incident reporting (work improvement note (W.I.N.) system)

Environmental harm may be identified during a project audit or at any time during the project implementation.

In the event that an environmental harm incident occurs, the contractor must report the incident to the department PM (contract administrator). Upon receiving notification of the incident, the PM must notify the Regional Director immediately.

Where the incident is material or serious environmental harm, the contractor must also directly report to the Department of Environment and Heritage Protection (DEHP).

Where the incident is material or serious environmental harm, the Regional Director must notify DEHP. The departmental EMS contains the relevant procedures and technical guidance to incident and event reporting.

It is the responsibility of the contractor to manage and remediate the environmental harm incident.

It is the responsibility of the department to manage the contractor to ensure the measures are appropriate to manage and remediate the environmental harm incident.

The PM must notify the CM(E) of an environmental incidents' occurrence, or potential to occur, as soon as possible once becoming aware of it.

It is the responsibility of the CM(E) to record environmental incidents and non conformance in the W.I.N. system if the incident is recorded during an audit.

In all other instances, it is the responsibility of the PM for recording project related environmental incidents in the WIN system.

Once recorded, all project related W.I.N. entries become the responsibility of the PM to finalise with the support of the CM(E) as required.

Recording environmental incidents and non conformance in the W.I.N. system occurs in addition to the legislative requirements for incident notification.

Work Improvement Notes can also be raised as a result of non conformances, audits, project post implementation reviews, incidents, or complaints for departmental projects.

The entry of a Work Improvement Note into the department's W.I.N. system ensures that action is taken to correct the problem, prevent it recurring in the future, and review at a later stage for effectiveness.