

Environment and Heritage Technical Manual

Introduction

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Government of South Australia
Department for Infrastructure
and Transport

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Glossary

Term / Acronym	Meaning
Aspect	Aspects relevant to this Guideline include: noise, vegetation, air quality, water quality, Aboriginal heritage, contamination etc.
The Department	Department for Infrastructure and Transport
Contract Documentation	Contract Scope and Technical Requirements; Functional and Operational Requirements; Contract or Project Scope
EHTM	Environment and Heritage Technical Manual
Impact	The effect of an action on an aspect.
PPMF	Program and Project Management Framework
Master Specification	The Department's Master Specification sets out the requirements to achieve the quality and/or performance outcomes expected for planning/design, construction projects, maintenance projects and professional services.

Acknowledgement of Country

The Department for Infrastructure and Transport acknowledges and respects Aboriginal people as the State's first people and recognises their traditional relationship with Country.

We acknowledge that the spiritual, social, cultural and economic practices of Aboriginal people come from their traditional lands and waters, and that the cultural and heritage beliefs, languages and laws are still of importance today.

1 Introduction

The Department for Infrastructure and Transport (the Department) is committed to delivering sustainable transport, infrastructure and programs in a manner that balances economic, environmental and social needs. In doing this the Department seeks to minimise the impacts of its activities on, and where practicable enhance, the environment, and deliver lasting benefits to the community. The Department is responsible for delivering fit for purpose transport solutions and valuable social and economic state infrastructure. The Department also manages substantial landholdings and oversees the facilities management arrangements for other South Australian Government (Government) assets including schools, hospitals and government offices.

The Department will work to achieve the above by:

- Assessing environment and heritage risks at all phases of a project and implementing appropriate adaptation and mitigation actions;
- Raising the awareness of the Department's staff to integrate environment and heritage considerations into decision making processes;
- Ensure that Contractors acting for or undertaking works on behalf of the Department are aware of their environmental and heritage obligations;
- Continually improving Departmental standards and guidelines in environment and heritage management.

The Environment and Heritage Technical Manual (EHTM) is a compilation of the Department's key guidelines and standards, administered by/for the Department, relating to the assessment and management of environmental/ heritage components of a program or project for road, rail, marine and other infrastructure, as required. Departmental building projects are generally assessed under other processes, although some elements of the EHTM may be applicable.

The Department does not legislatively require an Environmental Management System (EMS). The EHTM together with the Master Specifications and Program and Project Management Framework (PPMF) and Engineering Design Management Framework provides in itself the key elements of an EMS relevant to Departmental requirements, thereby ensuring that the Department and those that deliver on the Department's behalf are aware of required legislative compliance, approval pathways and risk identification and management.

Whilst it is expected that all assessments commissioned by the Department meet legislative requirements, the EHTM sets the framework for processes and approvals pathways that are specific to Departmental projects, programs and/ or maintenance activities. The EHTM identifies the minimum requirements, performance outcomes and processes for individual environment and heritage assessments. It applies to employees of the Department (direct or contracted) and others operating under the direction of the Department.

It is expected that, unless otherwise approved by the Department, Contractors undertaking the assessment of impacts to environment and heritage aspects of a project are suitably qualified professionals, listed on, or eligible to meet the requirements of the Department's Professional and Technical Services Prequalification for the appropriate category.

The processes and tools that guide sustainable decision making throughout a project or program (for example, with respect to circular economy, greenhouse gas emission reduction and climate change resilience) are outside of scope for the EHTM and are detailed in the Department's Sustainability Manual. The EHTM does interface with some sections of the Department's Sustainability Manual and reference to these sections is made throughout the EHTM.

2 Integration of Environment and Heritage Process

This section details how the assessment of environment and heritage considerations is integrated with the Department's project management systems. Details regarding the Department's Program and Project Management Framework (PPMF) and how it is supported by the Department's Master Specification and the EHTM are provided below with an overview presented as Figure 2-1.

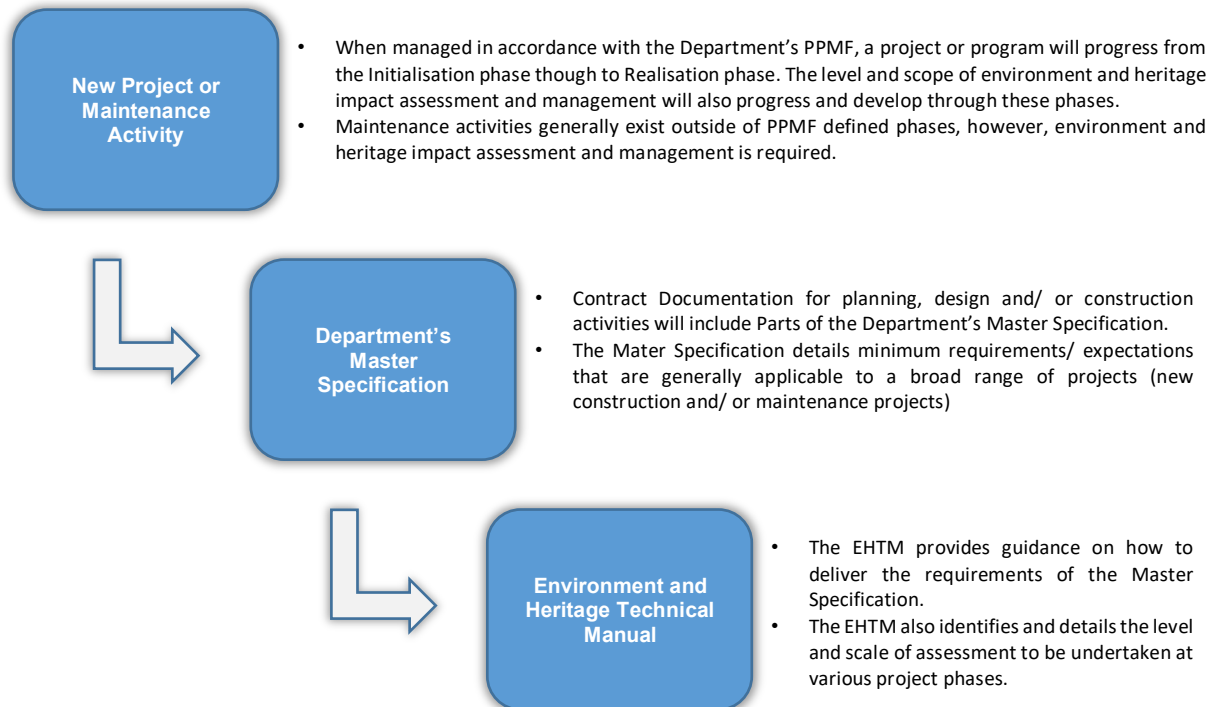


Figure 2-1 Integration of the EHTM with the Department's Project Management System

2.1 Program and Project Management Framework and Maintenance Activities

The assessment and management of impacts to environment and heritage aspects of a project is incorporated into the Department's Program and Project Management Framework (PPMF). The PPMF outlines how Departmental programs and projects should be developed. It provides guidance on the key activities, minimum deliverables, decisions and approvals within each phase of the Project lifecycle. Descriptions of the PPMF phases of a program/ project are outlined in Table 2-1.

Each Part of the EHTM will make reference to key PPMF or project phases and may detail the differing level and stages of assessment and/ or deliverables required throughout the project lifecycle. The scaling of assessments for the different PPMF/ project lifecycle phases ensures that environment and heritage impacts are identified within a reasonable timeframe to facilitate adaptive management.

The Department is responsible for undertaking maintenance activities on operational infrastructure. These activities generally fall outside of the PPMF Framework, however, the same principles and progression of environment and heritage assessment apply from the planning through to delivery phases of the maintenance works.

Table 2-1 PPMF Phase Description

PPMF Phase	Phase description
Initialisation	Building the foundation for the program or project through establishing the need, engaging the team, and identifying and assessing options.
Proving	Proving the option identified in the initialisation phase is suitable and ensuring the way forward is achievable. <i>This phase will usually involve the development of a long list of options to a short list of options.</i>
Pre-Delivery	Firming up the scope and approach for delivery, identifying and addressing any remaining information gaps and ambiguities, and ensuring commitment to delivery of a project or program prior to going to market. <i>This phase will usually involve the selection of a preferred design (option) and result in a concept design, reference design or detailed design (where a Design only contract model is used).</i>
Procurement	Delivery strategy is implemented and the delivery is put to the market for tender. Final preparation to ensure readiness for delivery.
Delivery	Asset is constructed by the delivery contractor, handed over and put into operation. <i>This phase may also involve the detailed design of a preferred design as selected in the Pre-delivery phase where an Alliance or Design and Construction contract model is used.</i>
Realisation	The benefits of the project or program are realised during operation.

2.2 The Department's Master Specification

The Department's Master Specification sets out the requirements to achieve the quality and/ or performance outcomes expected for planning/ design, construction projects, maintenance and professional services. Individual parts of the Master Specification are included in Contract Documentation for a project and will differ depending on the scope of works.

The requirements for planning, technical investigations and environmental management are included throughout the Master Specification. Consideration of the EHTM is required when project works are to be undertaken in accordance with any Master Specification parts that reference environment and heritage related assessments, the most common of which are detailed in Table 2-2.

The Department's Master Specification can be found at:

https://www.DIT.sa.gov.au/contractor_documents/masterspecifications

Table 2-2 Departmental Master Specification Parts Relevant to Environment and Heritage Aspects

Master Specification	Specification name
Project Controls: Transport Planning	PC-PL1 - Framework for Planning Studies
	PC-PL2 - Planning Investigations
	PC-PL3 - Concept Design Development
	PC-PL4 - Constructability Assessment
Project Controls	PC-ENV1 - Environmental Management
	PC-ENV2 - Environmental Protection Requirements
	PC-ENV3 - Environmental Design
	PC-ENV4 - Noise Assessment Treatment Design and Implementation
	PC-H1 – Aboriginal Heritage and Native Title
	PC-H2 – Non-Aboriginal Heritage
	PC-SC1 – Site Contamination
	PC-SI2 - Site Investigations
	PC-ST1 – Sustainability in Design
	PC-ST2 – Sustainability in Construction
	PC-EDM3 - Independent Design Certifier

Master Specification	Specification name
Roads	PC-EDM4 - Construction Verification
	RD-BP-S2 – Supply of Asphalt
	RD-DK-D1 – Road Drainage Design
	RD-DK-D2 - Hydrology
	RD-PV-S1 – Supply of Pavement Materials
Maintenance	M7 – Environmental Management
	M8 – Environmental Protection
	M14 – Maintenance (Vegetation)
	M15 – Vegetation Maintenance Controls
Marine	MA-DR-C1 – Dredging Works

2.3 The Environment and Heritage Technical Manual

The EHTM brings together the Department's key environment and heritage standards and guidelines and sits alongside the Department's Sustainability Manual. It has been structured into a series of parts, representing the standard environment and heritage aspects, and attachments (representing either a key process or the assessment and management of impacts). The various parts of the EHTM are detailed in Table 2-3. Some attachments are supported by other documents, such as templates or additional information, and are available via the Department's website.

The individual parts and attachments of the EHTM include reference to Master Specification parts as well as key project phases, where relevant.

The EHTM and supporting documentation is available at: <http://www.dpti.sa.gov.au/standards/home>

Table 2-3 Structure of EHTM - Parts and Attachments

Part	Part Name	Attachments
1	Environment and Heritage Impact Assessment	Attachment 1A - Environment and Heritage Impact Assessment Guideline
2	Aboriginal Heritage and Native Title	Attachment 2A - Aboriginal Objects, Sites and Remains Discovery Procedure Attachment 2B - Native Title Assessment Procedure
3	Air Quality	Attachment 3A - Air Quality Assessment Guidelines
4	Vegetation	Attachment 4A - Vegetation Survey Guideline Attachment 4B - Vegetation Impact Assessment Guideline
5	Fauna	Attachment 5A - Fauna Impact Assessment Guideline
6	Water	Attachment 6A - Protecting Waterways Guideline Attachment 6B - Water Affecting Activities Best Practice Operating Procedure
7	Noise	Attachment 7A - Road Traffic Noise Guidelines Attachment 7B - Operational Rail Noise [EPA: Guidelines for the Assessment of Noise from Rail Infrastructure] Attachment 7C - Noise Treatment Implementation Guideline Attachment 7D - Guideline for the Management of Noise and Vibration: Construction and Maintenance Activities Attachment 7E - Underwater Piling and Dredging Noise Guideline
8	Non-Aboriginal Heritage	Attachment 8A - Non-Aboriginal Heritage Assessment Guideline

Part	Part Name	Attachments
9	Contamination	Attachment 9A - Guideline for the Beneficial Reuse of Solid Waste
		Attachment 9B - Guideline for the Assessment and Management of Acid Sulfate Soils
10	Construction/ Maintenance Environmental Management	Attachment 10A - Guideline for the Preparation of a Contractor's Environmental Management Plan
		Attachment 10B - Guideline for Environmental Audits in Construction