Regional Maintenance

Environmental Management System Manual

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Document information

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RM-EMS	Environmental Management System Manual	http://roms.rta.nsw.gov.au/2010/documents/environmental/rmd_ems_env_system_manual.pdf

Approval

Position	Name	Date
RM Operational Environment & Safety Manager	Scott Black	11/09/2020

Change history

Issue	Date	Description of change	Author
1	Apr 2000	First issue	Eve Tusa of Manidis-Roberts consultants
2	June 2004	Second Issue	Rokeya Sabur
2.1	8 July 2004	Format corrections	Bede Sunter
2.2	25 Aug 2005	Form RS-EMS-F02 withdrawn: all relevant information now included on form 109	Bede Sunter
3.0	25 Feb 2008	Third Issue	Sally Durham
4.0	18 Dec2009	Minor updates from recommendations of certification process.	Sally Durham
4.1	11 Nov 2013	Rebranding for RMD; adjustments to titles, doc numbers	Bede Sunter
5	13 Mar 2017	Alignment to ISO14001:2015 Organisational reform	Jill Croome
6.0	5 Oct 2017	Rebranding for RM; adjustments to titles and links Cl 4.4.3 update to include reference to QP-10 Improvements	Kirstin Barrie
7.0	07 Nov 2018	Removal of references to RMD Environmental Handbook. Reference links updated.	Scott Black
8.0	10/07/2019	1.2 Reworded and reference changed 1.3 Procurement added to lines of business 1.4 Heading change 2.1 Reference to QP-01 added 2.1.1 Continually improve changed to Continual improvement 3.1 Rewording to include interested parties and risks and opportunities. Reference to QP-15 added 3.2 Added link to EP-07 Aspects and Impacts guideline 4.4.3 Table 1. added Team Brief to communication table	Scott Black

		4.6.3 Added Environmental Safeguards Action Plan 4.6.5 Added link to EB factsheets and reference to Form-420MW Environmental Safeguards Action Plan App 1 deleted stakeholder matrix and replaced with a reference to QP-16 Context of interested parties Several minor numbering and wording changes	
9.0	14/05/2020	Added or amended dot points to EMS section 4.6.3 with: • Construction projects normally require the development an Erosion Sediment Control Plan (ESCP). For detailed information on the development of ESCP's see EP-05 Installing temporary ESC structures. • Where the disturbed area on a project exceeds 2500m2 or there is a high risk of polluting waters downstream, a Soil and Water Management Plan (SWMP) must be prepared. For detailed information on the development of SWMP's see EP-04 Developing plans for soil and water management. • Waste management plans are normally required for both construction and maintenance projects. EP-02-Waste management, give detailed guidance in the identification of waste streams and the development of waste management plans • Added links to EP-02, EP-04 and EP-05 to a new box in 4.6.3 • Added link to Form-421waste minimisation & management plan in the link box in 4.6.5	Scott Black
10.0	25/09/2020	Removal of the requirement to use *Form-422 Environmental assessment for routine and minor works certification*. This form has been archived and references removed from this manual.	Scott Black

Printed copies of this document are uncontrolled.

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Appendices

Standard definitions/acronyms used in this document

DWM	District Works Manager
EAPRMW	Environmental Assessment Procedure for Routine and Minor Works
EFS	Environmental Fact Sheet
EMS	Environmental Management System
EMR	Environmental Management Representative (for specific projects)
EP	Environmental Procedure
EPL	Environmental Protection Licence
ESR	Environmental Site Representative (on Project sites)
EWMS	Environmental Work Method Statements
ISO 14001	AS/NZS ISO 14001:2015 Environmental Management Systems
KPI	Key Performance Indicator
LEO	Local Environment Officer: regional environmental staff providing environmental advice to RM
OCP	Operational Control Procedure
OESM	Operational Environment and Safety Manager
PE	Project Engineer
PIRMP	Pollution Incident Response Management Plan
PSP	Project Specific Plan
QMS	Quality Management System
QP	Quality Procedure
REF	Review of Environmental Factors
REM	Regional Environment Manager
RES	Regional Environmental Staff
RMCC	Road Maintenance Council Contract
RM	Regional Maintenance
RMS Corporate	RMS Corporate Environment Section (Environment Branch)
RSMP	RM Project Management System
ROMS	RM Online Management System
SEQC	Safety Environment & Quality Coordinator
SEQO	Safety Environment & Quality Officer
SMS	Safety Management System
SMT	Senior Management Team
SPR	Systems Performance Report
SWMS	Safe Work Method Statements
TfNSW	Transport for NSW

1 Organisational Context

1.1 About RM

Regional Maintenance (RM) is the branch of the NSW Roads and Maritime Services (RMS) Regional and Freight Division that delivers road and bridge development, construction and maintenance services, ferry maintenance, fleet management and traffic facilities services. This work is undertaken by a combination of direct delivery (RM personnel), works by industry partners and NSW local government councils under the Road Maintenance Council Contract (RMCC).

RM is committed to managing its impacts on the environment and undertaking its activities so as to avoid, minimise or mitigate environmental impacts. Customer and community focus is a core value of RMS and RM. RM seeks to understand and plan for internal and external environmental factors affected by, or capable of affecting, the organisation. This includes activities by Members of the Public (such as illegal dumping in the road corridor, and traffic accidents or emergencies), as well government and policy changes, and internal RMS organisational reforms and staff changes. The process for identifying these factors is included in the identification of aspects and impacts, further described in Section 3.2.

1.2 Needs and expectations of interested parties

Regional Maintenance delivers work predominately in regional NSW. In developing this EMS, the needs and expectations of interested parties has been considered. See Appendix 1.

1.3 EMS scope

This EMS has been developed exclusively for RM. The scope boundaries of the EMS are included in Figure 1.

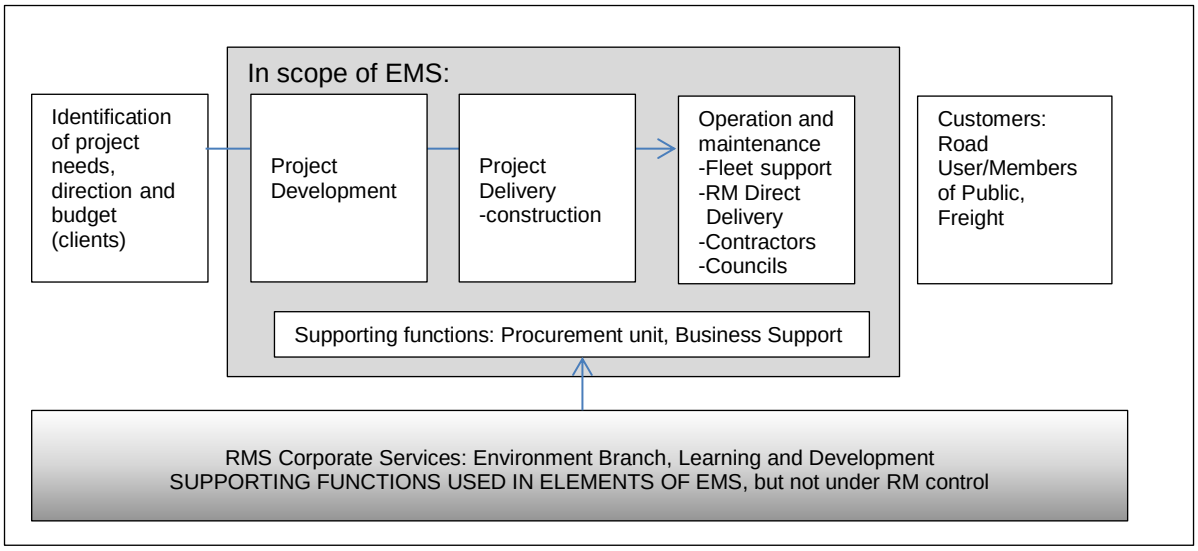

Figure 1: Scope boundaries of RM EMS

All of RM's Lines of Business are included in the scope of this EMS. The lines of business are:

- Asphalt works
- Bitumen spray sealing
- Bridge franchise
- Construction
- Fleet services
- Line marking
- Maintenance
- RMCC
- Traffic Signals.
- Procurement.

Each line of business has a page on ROMS (the online management system/RM intranet site) with further information. The lines of business included in the RM EMS scope may change as a result of internal reform and reorganisational processes. For the current listing, view the Lines of Business page on ROMS.

1.4 Outline of RM EMS - Context

This manual is the basis of the RM EMS. The manual describes how RM manages its environmental impacts and describes relationships between the EMS and other systems documentation such as the RM Quality Management System and RMS corporate environmental documents. This manual is intended to reference out to other documentation where applicable, rather than duplicating information, and is consequently brief in some sections. Links are provided in these sections for quick access to procedures that describe the process in further detail.

This manual is intended to:

- Be a guide for RM personnel in understanding and applying the EMS
- Collate various diverse documents that comprise the EMS in a central guidance document for operational and auditing purposes
- Demonstrate how the RM EMS meets ISO14001:2015/AS14001:2016, by organising applicable information into sections directly aligned with the Standard, to facilitate ongoing third-party certification of the EMS
- Not require frequent update in response to changed subordinate documentation (resulting from improvement processes), as a result of the document linkage format.

This manual is supported by the RM Online Management System (ROMS). Standard procedures, documents and forms referred to throughout this EMS can be found on ROMS and specific links are provided where relevant. Each applicable section of this EMS manual includes a box with links and/or references.

The RM EMS references elements and functions that are undertaken by the RMS corporate environment team. This manual provides linkages and references to those elements where applicable. Where a part of the EMS is managed by Corporate RMS, it is not duplicated by the RM system, instead the RM EMS draws in corporate documents and processes where they exist.

This EMS manual includes sections that are applicable to all lines of business. In some sections, e.g. *Section 4.6 Operational Planning and Control*, there is specific content delineated for certain lines of business. In other sections, unless specified, the content is applicable to all lines of business.

Links:

ROMS, Environment Management page

RMS Environment page

ISO14001:2015/AS14001:2016: https://www.saiglobal.com/online/autologin.asp

2 Policy and Leadership

2.1 Leadership and Commitment

The Senior Management Team (SMT) of RM have reviewed and endorsed this EMS manual. RM management demonstrate leadership and commitment to protection of the environment via implementation of this EMS, and inclusion of environmental objectives and targets in the annual Business Plan.

RM Management positions have specific responsibilities regarding environment, including:

- Conducting GreenSAFE engagements
- Attending audit closing meetings
- Attending toolbox meetings
- Participating in risk assessments
- Participating in management reviews.

The process for these activities are detailed in the below linked documents. Specific roles and responsibilities for leaders in relation to the environment are further discussed in *Section 2.2.*

QP-01 Management responsibility provides an overview of all management responsibilities

Links:

QP-01 Management responsibility

OCP-10 GreenSAFE Management participation in safety and environment

2.1.1 Environmental Policy

Regional Maintenance works under the Transport Environment and Sustainability Policy. The Policy is the driver for implementing RMS's environmental management framework and the RM EMS, and for continual improvement in environmental performance. The Policy is available to both the public and RMS employees, on the internet and intranet respectively.

RM is committed to working within RMS's policy and ensuring that the principles and direction of the policy are met. All RM activities are undertaken in accordance with the requirements of the Policy, which include commitments to:

- Ensure protection of environment
- Meet compliance obligations
- Delivering sustainable outcomes.

Link:

TfNSW Environment and Sustainability Policy 2020

2.2 RM organisational structure

The RM organisational structure is available through Equip. The linkages between RM and other parts of the RMS organisation can also be viewed on the intranet organisational chart page.

The RM Operational Environment and Safety Manager (OESM) is responsible for the implementation of this EMS and for the overall coordination of environmental management within RM. RMS Corporate Environment branch roles fulfil several specific functions associated with this EMS. The roles and responsibilities delineation between RMS corporate environment branch and the RM OESM manager are described in *Appendix 2.*

For other key roles in RM, their roles and responsibilities in relation to environmental management are set out in Appendix A of the RSMP (RM project management system[1]). Roles and responsibilities for key positions are also included in the applicable PSP-Ms and PSP-Cs (Project Specific Plans for maintenance and construction).

Link:

RMS Organisational chart

RSMP (RM Project Management System)

3 Planning

3.1 Planning overview

Environment is taken into consideration in all stages of the business planning cycle, outlined in *Figure 2* below. The specific environmental objectives and targets may change on an annual basis in response to the management review, organisational context, expectations of interested parties and aspects and impacts. Therefore, specific objectives and targets are not included in this manual, but can be viewed in the annual Business Plan and associated reports. Environmental KPI targets are agreed to by the Senior Management Team (SMT) and OESM Manager, and then cascaded into PSPs. Projects may choose to include additional targets as appropriate based on the specific environment considerations for the project, and/or set a higher standard than the organisation-wide targets, but are not permitted to set targets below the RM-wide annual targets.

The environmental objective (focus area) actions plans are defined in the annual RM Business Plan and represent strategic actions to address risks and opportunities. The objectives and focus areas are also aimed at preventative action to control emerging environmental aspects and impacts.

Refer to QP-15 RM business planning, which refers to RMS risk profile summary register

[1] *Note: Although the RSMP is subtitled Project management system, it is the companion document to all bridge and road construction and maintenance, therefore does not solely apply to projects.*

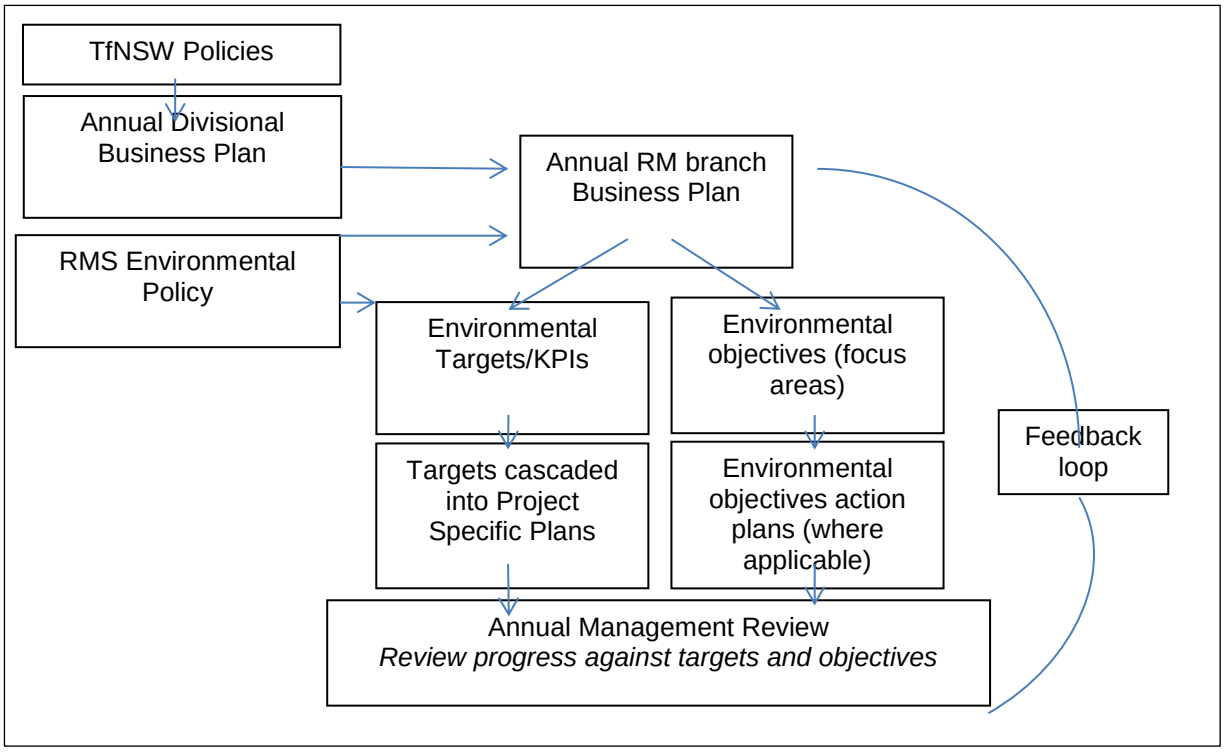

Figure 2: Environment incorporated into the annual business planning cycle.

Link:

RM Business Plan

3.2 Environmental aspects

RM Environmental Aspects and Impacts (risk) registers were comprehensively reviewed in 2016, in consultation with representatives from each line of business and region. The RM Aspects and Impacts guideline outlines this task. A risk ranking was assigned to potential impacts from each of RM's activities based on the severity of the environmental consequence and the likelihood of the event occurring. Consequence and likelihood descriptors for environment, as well as criteria for further action, are described in EP-07 *Aspects and Impacts Guideline*, which is aligned to the *OCP-03 RM Risk Management Procedure*.

The RM Aspects and Impacts registers are intended to be live documents, updated on an as-needs basis in response to incidents, changing legislation and verification activities. The registers may be used as a reference (along with the specific environmental assessment for the Project, refer *Section 3.2.1*) for EnSites, SWMS (Safe Work Method Statements), EWMS (Environmental Work Method Statements) and GreenSAFE engagements. A full review and update of the Aspects and Impacts registers is triggered by a significant change, such as comprehensive organisation reform, or a new version of ISO14001.

Link:

OCP-03 Risk Assessment Procedure

EP-07 Aspects and Impacts Guideline

Form-425 Aspects and Impacts Register

3.2.1 Project-level aspects and impacts

Under the requirements of the *Environmental Planning and Assessment Act 1979*, project level aspects and impacts are identified through the preparation of environmental impact assessment documentation.

Prior to the commencement of any project undertaken by RM, including maintenance and construction works, a suitable environmental impact assessment must have been completed and made available to RM project staff. The assessment differs based on the scope of the Project, and may be in the form of an Environmental Impact Statement, Review of Environmental Factors (REF), Assessment Report for Minor Works or other suitable assessment document (for further information refer to the RMS Environmental Assessment intranet site). Within RM this practise is known as '*No REF – No Start on Site*'. This direction is formalised in Section 1.3 of the *QP-21 RM Project Start-up Procedure*. The environmental assessment document includes environmental sensitivities and controls specific to that project.

In addition, RM undertakes its own project-level risk assessment through the EnSite procedure for construction and minor works projects, and through Toolbox meetings for maintenance works. "Facilitation of EnSite Meetings" and "Site Risk Assessment for Maintenance and Routine Works" are procedures whereby staff programmed to work on construction or maintenance projects respectively, undertake a pre-works risk assessment.

Links:

RMS Environmental Assessment intranet page

OCP-08 EnSite Facilitation Procedure

OCP-13 Site Risk Assessment for Maintenance and Routine Works Procedure

QP-21 Project Start-up Procedure

Form-307 EnSite Assessment and Record form

3.3 Compliance Obligations

RM operates within the legal framework determined by the Commonwealth and State governments.

Links to environmental legislative requirements and planning policies relevant to RMS's activities and operations can be found on the Environment Page of the RMS intranet, *Environment Legislation.*

Legal and other requirements specific to individual projects are transferred into each project environmental management plan via the template Schedule of Environmental Legislative Requirements provided in the RM PSP. This table is designed to be modified for each project to remove the non-applicable legislation, and provide details of how compliance is achieved for applicable obligations.

References:

RMS Environment Branch intranet page

Form 419 Schedule of Environmental Legislative Requirements

Form 419C Schedule of Environmental Legislative Requirements - RMCC

Legislation and other applicable requirements are maintained through dissemination of information in accordance with the Communications and Reporting *Table 1* (via ROMS Release). In addition, legal updates are received from RMS Corporate and adopted by the OESM Manager into relevant sections of the RM management system. The schedule of environmental legislative requirements is updated on an as needs basis as legislation is modified or added.

3.4 Environmental Objectives

Specific environmental objectives (focus areas) are developed each year and incorporated into the RM Business Plan. The objectives are developed for consistency with the Divisional Business Plan, Environmental Policy, other Transport for NSW (TfNSW) policies and strategies, and results and feedback from the management review.

Due to the varying nature of these focus areas, some of the objectives may extend beyond one year, while some may aim to be completed within the year. An action plan and/or strategy may be developed to plan and track completion of the environmental objectives. This process is managed by the RM OES Manager.

Link:

RM Business Planning

4 Support

4.1 Resources

RM management, as part of their demonstrable commitment to the EMS, ensure that adequate resources are available to maintain and implement this EMS. The OESM Manager has primary responsibility for maintenance of this EMS, supported by the Information Resources Manager, and working closely with the Quality and Risk Manager. SEQCs are responsible for advising personnel on the implementation of the EMS in each region. The RMS specification for environmental management, G36, specifies the requirements for the roles of Environmental Site Representatives (ESRs) and Environmental Management Representatives (EMRs).

Internal resources are supplemented with external resources where required, for example, a panel of professional services contractors is established that can be called upon for audits and REFs.

Adequate infrastructure resources, e.g. at Depots, are provided by the applicable manager of the area. This includes environmental protection equipment, such as bunds, spill kits, and sumps.

Activity-based working (ABW) resources are aimed at maximising collaboration while reducing the need for personnel to travel, which represents a reduction of environmental impacts.

Link:

G36 Specification for Environmental Protection

4.2 Competency

All personnel receive an induction into their activity (i.e. construction, maintenance, fleet) which includes a summary of the environmental policy, risks and controls. The induction is reviewed and re-issued to all personnel on an annual basis.

For each project, the Project Engineer (PE) is responsible for developing a project specific training plan that takes into account the scope of the project, the EnSite outcomes and existing competencies held by the Project team and includes environmental training.

Training needs and records for each person are managed in the Equip learning management system, by designated training administrators in each region. An

annual performance development and review process is in place across TfNSW, which includes identification of further training needs.

A regional environmental training plan is developed by Regional Environment Staff (RES) in consultation with the managers of each region, to focus training activities based on needs at the time, in view of upcoming projects and risks, changed procedures and policies, and existing competencies of that work group.

Link:

QP-13 Training

Reference:

Equip learning and development

Regional Training Plans (owned by RES)

Form 234 Project Specific Training Plan

4.3 Awareness

All persons working for and on behalf of RM are required to have awareness of the Environmental Policy, compliance obligations and significant aspects and impacts, as it applies to their work. This is primarily achieved via:

- Induction (site or maintenance information package) – templates are modified to be project specific, but all include standard environmental information as a baseline
- Tool-boxing of applicable environmental fact sheets, as identified in the Project Specific Training Plan
- Tool-boxing of ad-hoc environmental messages, such as lessons learned from incidents
- Representative consultation on aspects and impacts, work-team participation in EnSites
- Consultation on, and induction into, SWMS and EWMS.

Link:

Environmental Fact Sheets

References:

Form-702 Site Information Package (construction projects, SIP)

Form-702M Maintenance Information Package (MIP)

4.4 Communication

4.4.1 General

The communications and reporting methods in RM is described in Table 1. In general terms, the RM communications and reporting structure follows the organisation structure which comprises:

- Projects, including construction and maintenance (see *RSMP* Sections 2.21 and 2.22)
- Districts from which projects are managed
- Regions from which districts are managed

- State-wide management of regions and RM management (senior management team, SMT)
- RMS Corporate.

4.4.2 Internal Communication

Changes to the EMS and associated documents and processes are communicated internally via “ROMS Releases” – a memo in email format that notifies personnel of new or changed documents, and a summary of those changes. The ROMS Release email is cascaded in each region in accordance with the communication processed in *Table 1*. More significant changes may also be subject to tool-boxing, inclusion in Team Briefs, or a specific training session.

People conducting work under RM’s control are empowered to contribute to continual improvement, facilitated via two way communication. Environmental objectives and targets are visible to all personnel via the Business Planning page on ROMS, and discussed at the annual induction days. Additionally, any staff member is welcome to submit improvement requests.

4.4.3 External Communication

RMS Corporate determines which environmental information to externally communicate on the RMS internet page. This includes procedures, policies and REFs.

RMS Corporate Environment branch is responsible for communication with environmental regulatory bodies, both proactively and reactively, i.e. environmental protection licence enquiries, and incident notifications.

In accordance with G36, a designated Environment Site Representative (ESR) is the authorised contact with the EPA for specific projects.

Due to the nature of RM’s work being in close proximity to members of the public (MOP), work team members may receive enquiries or feedback from MOP. The process for complaints management is described in section 2 the RSMP Section 18 of the PSP-C and Section 7 of the PSP-M. The process for seeking feedback from clients in addressed in *QP-03 Customer Related Processes.* The procedure for managing customer complaints, enquiries, feedback and compliments is described in *QP-09 Nonconformance, corrective action and improvement*.

Links:

- QP-03 Customer related processes
- QP-09 Nonconformance, corrective action and improvement
- G36 Specification for Environmental Protection
- RSMP (RM Project Management System)

Table 1: Environmental Communication and Reporting

Organisational level:	Project	Region	State	Corporate
Communications	• Project induction • Annual maintenance induction	• Team brief	• ROMS releases • TechInfo alerts • Business Plan • Team brief	• Compass news • Message from the Chief Executive • Lessons learned • Environmental ideas and initiatives
Meetings	• Toolbox meetings • EnSite meeting and reviews • Project review meetings (selected projects)	• Section managers meetings • Annual systems management review (region specific content)	• SMT meeting • SEQC and System managers meeting • SEQC annual forum • Annual leadership forum • Annual systems management review • Regional operations coordination meeting	• Environment forum • Monthly environment managers meeting • Executive environment committee meeting
Reports	• Audit reports • Accomplishment record • Works verifications • Incident reports • Project performance reports (selected projects) • Environmental inspection reports • SPR report-project	• SPR report- region specific charts	• SMT report • SPR report • Annual management review summary report	• Monthly environment report (divisional) • RMS Annual report

4.5 Documented information

4.5.1 General

Environmental information associated with the EMS is documented at several levels, as shown in the document map in Appendix C of the *RM Quality System Manual*. In addition to Environmental Procedures that are included in the document map, the EMS also contains the below additional document types:

- Environmental Fact Sheets (EFS): intended to be a succinct, easy to read summary of the requirements relating to a particular aspect and are included in site PSPs and can be used as a toolbox resource
- RMS Corporate Environment branch documents (procedures, technical guides).

Links:

RM Quality System Manual

Environmental Procedures and Fact Sheets

RMS Environment page

4.5.2 Creating and updating documents

Creation of new documents, or the update of existing documents associated with this EMS are reviewed and controlled to ensure suitability and adequacy, correct format and inclusion of document control information. RM Management system documents may be created or updated by a range of personnel, including the OES Manager, the Quality and Risk Manager, the Information Resources Manager, members of the SEQ function, or collaboratively in working parties. The OES Manager is responsible for checking the validity of the content of the RM environmental documents. Documents may only be published on ROMS by the Information Resources Manager, who is responsible for checking formatting, version control and document control information.

Creation, update and document control of RMS Corporate Environmental documents are outside of the control of RM, however RM stakeholders are invited to participate in reviews of corporate environment documents.

Creation of records to demonstrate conformance to the EMS and the collation of data to evaluate performance, occurs via various parties; and the PQR (Project Quality Representative) has primary responsibility for this in construction and maintenance projects. The PSP and CEMP detail where records are required, and the format of recording the information.

4.5.3 Control of documented information

The process for document control is described in the *RM Quality Management System* and subordinate procedure *QP-05*.

Links:

RM Quality System Manual

QP-05 Control of documents and records

Form-420 CEMP

4.6 Operational Planning and Control

An outline of operation planning and control for each line of business follows in this section.

4.6.1 Development

RM is responsible for development of minor projects to be delivered by RM. Environment planning is considered at an early stage, and throughout the process, in accordance with *MinorProject* and the *RM Project Development Procedure*.

Links:

MinorProject intranet page

ILC-MP-TP0-401 Technical Procedure, Assessment of Environmental Impacts for Minor Projects

EP-06 Environmental Requirements for Project Development

PRD-01 RM Project Development procedure

4.6.2 Construction

The environmental management of construction activities is shown diagrammatically in *Figure 3*. As construction activities can range in environmental risk from low to very high, depending on geographical and project specifics, a range of processes and procedures have been developed to manage risk and minimise impacts at all stages in the project lifecycle.

4.6.3 Project planning and risk assessment

Various risk assessments and risk inputs are undertaken at the project planning stage including:

- Application of relevant environmental planning and assessment processes
- Completion of a Review of Environmental Factors (REF)
- Review of contract specifications
- Site risk assessment.

The requirements of the relevant environmental planning and assessment documentation and contract specifications are incorporated into individual projects via the RM Management Plan (RSMP) for Construction and the Project Specific Plan (PSP). The RSMP is the base document for all roadworks and related activities undertaken by RM or any of its individual business units. Section 4 of the *RSMP* describes environmental management. It addresses the need for environmental safeguards and the adoption of environmentally sensitive work practises. For certain projects (governed by project value as well as level of environmental impact assessment), a *CEMP* (contractors or construction environmental management plan) is also required.

The EnSite meeting is RM's primary site environmental risk assessment process. An EnSite meeting is designed to consult with and involve representatives of the project delivery team in clearly identifying the environmental hazards and risks involved in delivery of project works, and discussing and agreeing appropriate environmental controls to be put in place for the project. Depending on the size and complexity of the project, there may be a number of EnSite meetings held throughout the project at the start of different activities. Implementation of the actions devised to manage project hazards and risks identified during the project EnSite are reviewed each month.

These processes and procedures feed into and form part of the PSP, which contains environmental management considerations specific to the project. Relevant Conditions of Approval, safeguards from the REF, requirements of the Decision Report, as well as environmental controls agreed during the EnSite meeting are included in the PSP (and/or CEMP or ESAP).

The presentation of environmental management controls in the PSP may be in several forms including:

- Environmental Management Plan or Environmental Safeguards Action Plan, which are issues-based tables providing an overarching account of the necessary environmental considerations and safeguards for the environmental issues relevant to the project, arranged in a pre, during and post-work format. A template for the preparation of the Environment Management Plan table or ESAP, which takes into consideration all requirements of RMS environmental specifications, is included in the PSP. The *templates are* available on ROMS, and;
- Dedicated Environmental Work Method Statements which are activity-based and provide a step-by-step account of the necessary environmental considerations for each major environmental aspect of the project. These may take the format of the EnSite Assessment and Record Form, or;
- Combined Environmental Work Method / Safe Work Method Statements where environmental controls may be listed next to safety controls or within the same work method statement. Again, these may take the format of the EnSite Assessment and Record Form; and
- Environmental Site Plan. Site plans are useful in visually describing environmental risk on site, such as environmentally sensitive areas or the locations of specific environmental controls and; Erosion and Sedimentation Control Plans are usually required for construction projects and should be based upon the design drawings for the project or detailed aerial photography, or both. For detailed information on ESCP's see EP-05 Installing temporary ESC structures.
- Where the disturbed area on a project exceeds 2500m2 or there is a high risk of polluting waters, a Soil and Water Management Plan (SWMP) must be prepared. For detailed information on the development of SWMP's see EP-04 Developing plans for soil and water management.
- Waste amangement plans are normally required for both constuction and maintenance projects. EP-02-Waste management, give detailed guidence in the identificattion of waste streams and the development of waste management plans.

Links:

EP-02 Waste management

EP-04 Developing soil and water management plans

EP-05 Installing temporary ESC structures.

4.6.4 Pre-start activities

Environmental risk prior to the commencement of work is discussed and conveyed to the workers through a series of processes including:

- EnSites, as discussed above
- Site inductions
- Toolbox talks.

Form 412 Project Environmental System Requirements Checklist is completed by the Project Engineer to ensure all necessary environmental steps have been taken for the project.

4.6.5 Site management

Environmental management on site is guided mostly by the requirements of the RSMP and PSP. A range of inspection and reporting procedures and documents comprise the site management tools. Internal site inspections using checklists are conducted weekly as well as after larger rain events. Regular inspections are conducted by RES in accordance with the guideline for environmental inspections, with internal or external audits conducted on an as-needs basis as determined in the project audit schedule.

Ongoing site environmental management requirements relating to daily activities are discussed in Toolbox meetings. RM EFS that address a variety of specific activities may be used to aid discussions.

Additional EnSite meetings may be conducted as the project progresses and further risk reduction planning is required.

Site records are forwarded as per the Communications process (see *Table 1)* to the SEQO and issues are entered into the monthly Systems Performance Report. Upon the completion of the project, a project debrief meeting is held in accordance with *QP-24.*

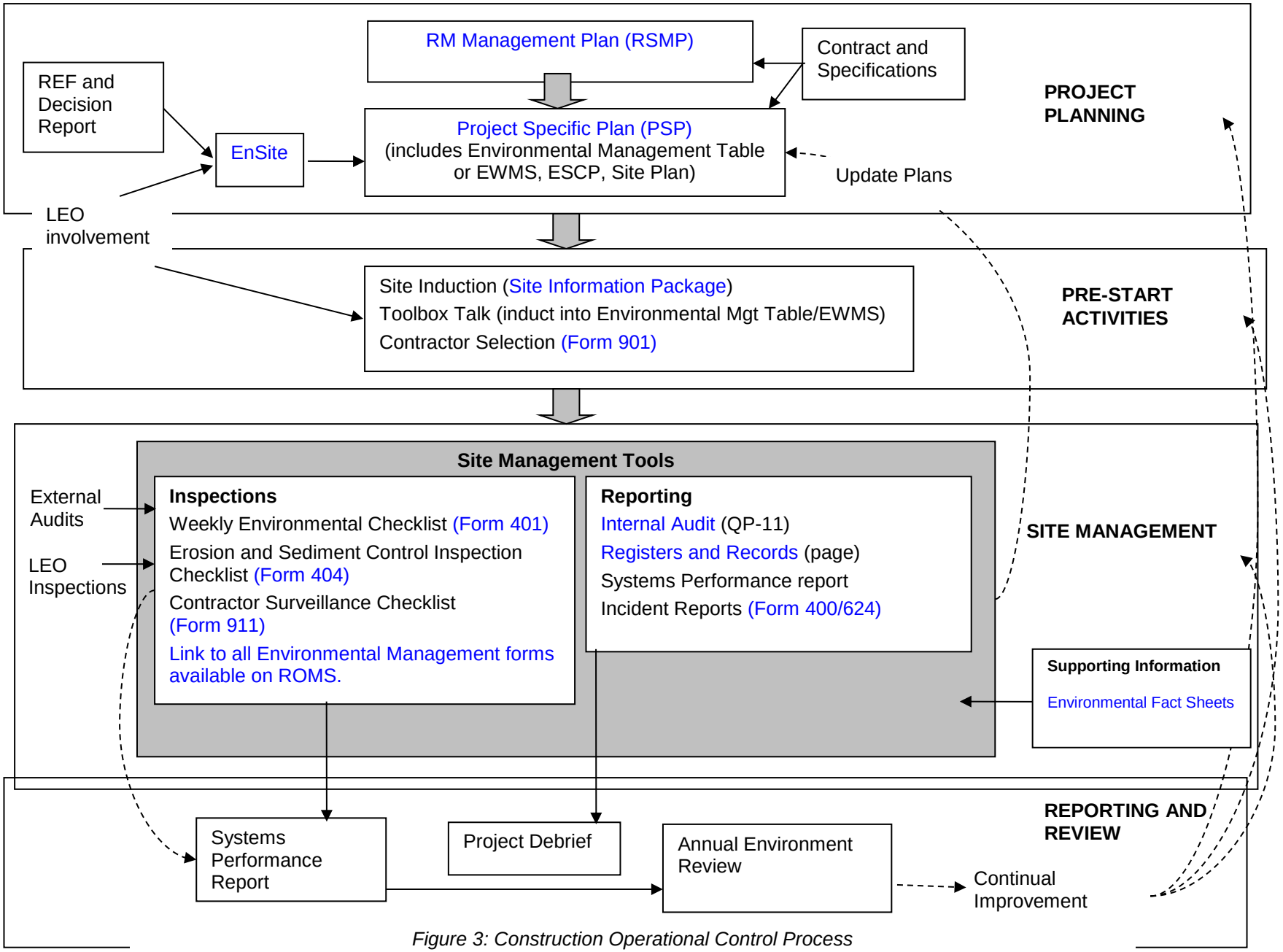

Figure 3: Construction Operational Control Process

Links:

RM Environmental Fact Sheets

EB Factsheets

RMS Corporate Environmental Inspections Guidance Note

Reference:

RSMP

PSP-C Template

QP-11 Internal audit

QP-24 Project review

OCP-08 EnSite procedure

Form-307 EnSite assessment and record

Form-400 Environmental incidents report

Form-401 Weekly environmental checklist

Form-404 Erosion and sediment control inspection checklist

Form-412 Project environmental system requirements checklist

Form-420 CEMP

Form-420MW Environmental Safeguards Action Plan

Form-421 Waste mininimisation and management plan

Form-702 Site Information Package

Form-901 Contractor pre-engagement questionnaire

Form-911 Contractor verification and surveillance checklist

4.6.6 Maintenance

An outline of the procedures, processes, documents and records involved in the planning, undertaking and reporting of maintenance activities is provided in *Figure 4.*

Maintenance works can be divided into two broad categories:

1. Routine Maintenance (e.g. pothole repair, brush-cutting)
2. Minor Works (e.g. heavy patching, tree removal).

Assessment of the potential environmental impacts of routine and minor works is via the corporate *Routine and Minor Works Environmental Assessment Procedure (EAPRMW)*. This procedure enables users to determine if environmental assessment in consultation with RES is required, or alternatively if the work can proceed without further assessment, but in accordance with the Standard Safeguards. Refer to the *EAPRMW* for further description.

The environmental management of routine maintenance is documented in the maintenance Project Specific Plan (PSP-M). The requirements of the PSP-M are communicated to staff through the Annual Maintenance Induction. Copies of the PSP-M area available and accessible to field personnel. An environmental management plan for minor works may also be required if the *Step 2 Memo* resulted in a Minor Works REF (refer *EAPRMW*).

Routine maintenance activities are documented in Maintenance Activity Procedures (MAPs) which outline the broad steps required to undertake each activity and the

relevant quality, safety and environmental considerations at each step. The environmental considerations align with the standard safeguards listed in the EAPRMW referred to above. Site risk assessments are undertaken according to the *OCP-13 Site Risk Assessment for Maintenance and Routine Works Procedure.*

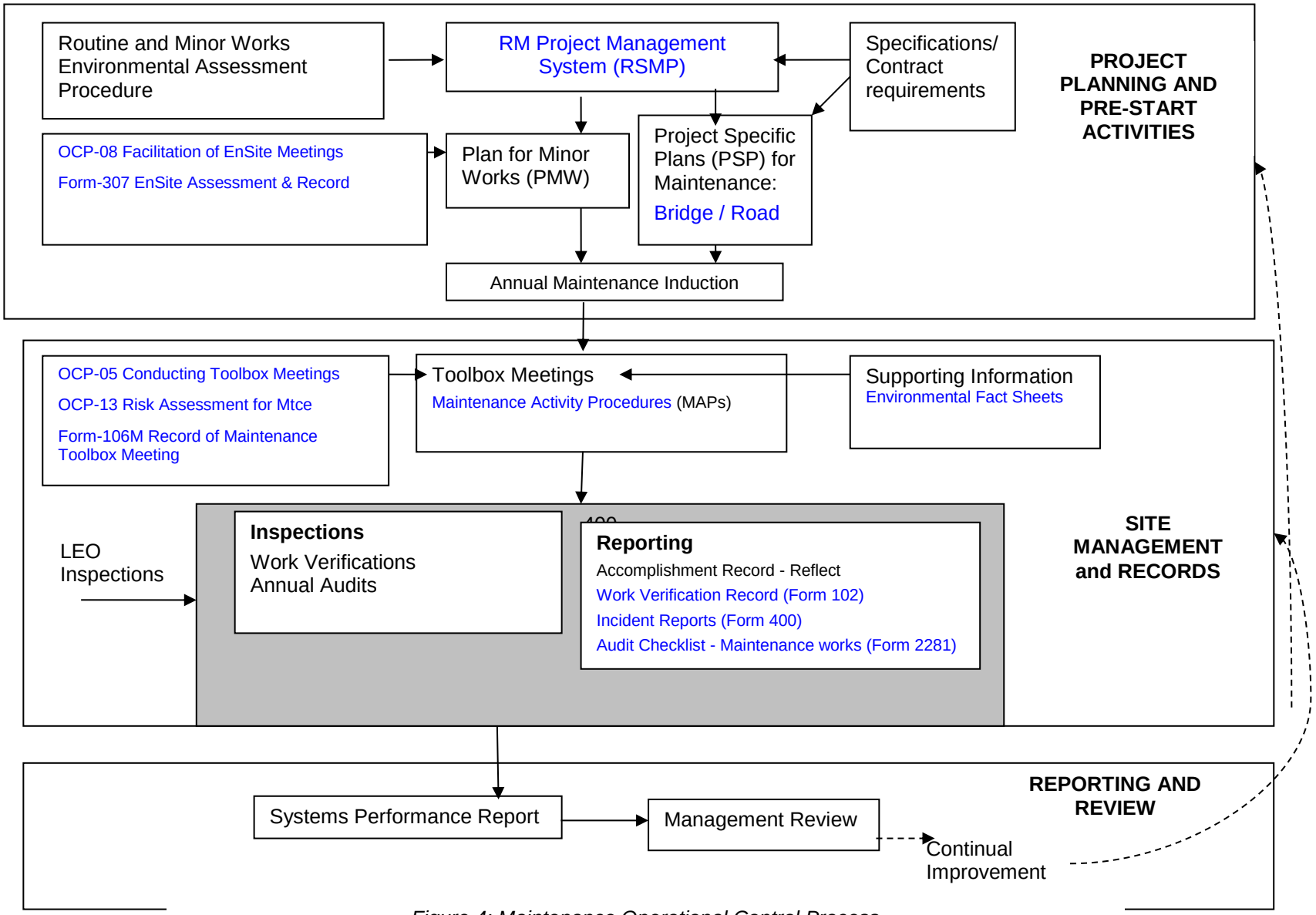

Figure 4: Maintenance Operational Control Process

The Environmental Fact Sheets may be tool-boxed to provide information on specific activities to be undertaken as part of maintenance works. Works are carried out in accordance with the MAP and the outcomes of the Toolbox meeting.

As per Figure 4, inspections and reporting are done by project staff and by Environmental Officers where appropriate. All site reports are submitted for inclusion in the monthly Systems Performance Report.

Relevant issues are discussed on site at inductions or weekly toolboxes as per the communications processes in Table 1.

Links:

Maintenance Activity procedures

RM Environmental Fact Sheets

Reference:

RSMP

OCP-05 Toolbox meetings

OCP-08 EnSite meetings – Project risk assessment

OCP-13 Site risk assessment for maintenance and routine works procedure

Form-102 Work verification record

Form-106M Record of maintenance toolbox meeting

Form-228-1 Internal audit checklist – Road Maintenance

Form-307 EnSite assessment and record

Form-400 Environmental incident report

Corporate Environmental Reference documents:

EIA-P05-1 Environmental Assessment Procedure for routine and minor works (EAPRMW)

EIA-P05-G01-T01 Activity Checklist for routine and minor works

EIA-P05-G01-T02 Standard Safeguards List for Routine and Minor Works

4.6.7 Fleet

Fleet Services occupy a number of depots and ferry facilities across the State. Environmental Management at Fleet Workshops is via the overarching Fleet Services Project Specific Plan and the Fleet Environmental Control Processes (ECPs) for individual workshops and ferry facilities. The ECP lists each activity undertaken at the workshop/ferry facility and allocates environmental actions (controls) for each activity along with a person responsible for carrying them out.

Link to:

Fleet PSP and ECPs

4.6.8 Depots

RM occupies and works out of a large number of depots across the state. Depots are typically used for a range of activities including office-based project management, work crew training, storage of materials and plant, refuelling and vehicle wash-down.

Many depots are co-shared with other RMS tenants including Fleet workshops and stores. Management of work depots is determined by the *Depot Management Plans*

(DMP). Each depot has a specific DMP outlining responsibilities, communications and reporting procedures, management of materials including hazardous goods, training and safety, and environment controls. Monitoring of environmental performance at depots is undertaken using the *Form 402 Depot-compound Environmental Checklist*.

Links:

Depot Management Plans (DMP)

Form 402 Depot-compound Environmental Checklist

4.6.9 Contractor Management

Contractors may be engaged by RM to provide project development, delivery and maintenance services. The *Contractor Management Procedure OCP-04* describes how RM engages, manages and monitors contractors to ensure RM's environmental obligations and performance objectives are upheld.

Reference:

OCP-04 Contractor Management Procedure

4.6.10 RMCC

Local Government Area Councils complete works on state roads in local government areas on behalf of RM under the Road Maintenance Council Contract (RMCC). Councils are required to demonstrate an EMS and/or EMP that meets the requirements of the G36 specification issued for their contract. The process for managing council partners is outlined in the RMCC Management Guideline.

Reference:

RMCC Management Guideline (under development).

4.7 Emergency preparedness and response

Potential emergencies for each project are identified in the EnSite. Reasonably foreseeable emergencies for maintenance activities are identified in the PSP-M and fleet PSP. Corresponding emergency drills are scheduled and recorded throughout the year. *OCP-16 Emergency Preparedness* details this process.

Actual on-site environmental incidents and emergencies are managed according to *EFS 20 Environmental Incident Management*. All incidents are reported using the *Form-400 Environmental Incident Report*, and sent to the REM and RM OESM, who can advise on any further remedial actions if required.

Links:

OCP-16 Emergency Preparedness

Environmental Fact Sheet #20 Environmental Incident Management

Form 400/624: Environmental Incident report form

5 Performance evaluation

5.1 Monitoring, measurement, analysis and evaluation

RM determines aspects to be monitored and measured based on the Business Plan, compliance obligations and significant environmental aspects. The annual environmental priorities are included in the Business Plan.

Analysis of environmental metrics occurs via the monthly systems performance report (SPR). The SPR compiles data from all districts and regions, and provides summary data to feed into the Senior Management Team (SMT) report.

At the project level, specific aspects to be monitored, e.g. erosion and sediment control devices, are identified and documented in the PSP and/or *CEMP*.

Feedback is sought from clients in accordance with the process detailed in *QP-03 Customer related processes*. Customer feedback, included complaints, is addressed as described in *QP-09* Nonconformance, corrective action and improvement.

5.2 Evaluation of compliance

Evaluation to determine if RM is meeting its compliance obligations occurs at a corporate and RM project level.

At an RMS Corporate level, a formal system is established whereby each compliance obligation is assigned to an executive manager, who is responsible for assuring compliance on a regular basis. This process is outlined the RMS Compliance Framework – owned by RMS Legal Division (not under the control of RM).

At a more detailed level within RM, a check that applicable compliance obligations are known and addressed in Project documentation and training is undertaken during the development of the PSP (and annually for the maintenance PSP). *Environmental Legislation Requirements* is reviewed for the scope of the project. Non-applicable requirements are removed. For applicable requirements, the Project team must include text in the right hand column of the document to specify how the requirement will be met. RMS Corporate Environment Branch, and/or RMS Legal Counsel can be consulted where required. Adherence to the project specific legal register is verified via RES environmental inspections and RM internal audits. If a non-compliance or potential non-compliance is identified, corrective action shall be undertaken in accordance with Section *6.1*.

Links:

RMS Compliance Framework - Governing Procedures

Form 419 Schedule of Environmental Legislative Requirements

Form 419C Environmental Legislation requirements – Councils

Guidance note: Environmental Inspection Report

References:

QP-03 Customer related processes

QP-10 Improvement

Form-420 CEMP

5.3 Internal audit

An annual Assurance Plan is developed to identify and endorse audit priorities in-line with significant projects from the business plan, and taking into account the scope of RM's activities. Cascading from this plan is an annual audit schedule developed by the SEQC for each region. Progress against the plan is reported monthly by the SEQC in the Systems Performance Report (SPR).

Internal auditors maintain competency via external training in management system auditing, and regular participation in audits as a lead auditor or audit team member.

The audit process, including communication and close out of findings, is detailed in *QP-11 Internal Audit Procedure*.

Link:

- QP-11 Internal Audit

References:

- RM Annual Assurance Plan Project Development and Delivery
- Form-229 Audit Schedule form

5.3.1 EMS audits

External EMS audits are conducted regularly by auditors independent to the development and implementation of the EMS, for the purpose of maintaining RM's certification to ISO14001. Findings and recommendations from the external audits are managed in accordance with *QP-11*.

5.3.2 Project audits

Project audits assess implementation of the CEMP, environmental elements of the PSP and adherence to RMS's Environmental Specifications.

Project audits are planned for a risk-based selection of Projects in each region by the SEQC. Audits are undertaken by SEQ team members and/or regional environment staff independent of the Project.

5.3.3 Maintenance audits

Routine Maintenance audits assess implementation of environmental elements of the PSP and adherence to RMS's Environmental Specifications. Audits of Routine Maintenance programs are included in the annual schedule prepared by the SEQC.

5.4 Management review

Management review of the EMS is undertaken annually, in accordance with procedure *QP-01 Management Responsibility*.

An Annual Environmental Review is facilitated by the RM OESM Manager. The management review of the EMS may be combined with the QMS and SMS review, and may look at overall performance, as well as regional and/or line of business performance. Issues, incidents, audit results, NCRs, CARs and contractor performance are reviewed.

The annual review process is described in *QP-01 Management Responsibility*. The outcomes of the regional environmental reviews are collated and taken into consideration for the next annual business planning cycle.

Additional management reviews of specific Projects may be undertaken at regular intervals in accordance with G36 Specification for Environmental Protection, and *QP-24 Project Review*.

References:

QP-01 Management responsibility

QP-11 Internal audit

QP-24 Guidelines for project performance review

6 Improvement

6.1 Non-conformity and corrective action

Environmental non-conformity and associated corrective actions are identified via various means:

- Internal weekly environmental inspections
- RES environmental inspections
- Systems audits
- Incidents.

Corrective actions are addressed via *QP-09 Nonconformance, corrective action and improvement.* Non-conformances and subsequent actions taken are documented in the local NCR databases.

A review of the effectiveness of corrective action taken shall be included in internal audits, for a representative sample of environmental non-conformances.

Links: QP-09 Nonconformance, corrective action and improvement.

6.2 Continual improvement

RM management is committed to innovation and continual improvement, including in the EMS. *QP-09 Nonconformance, corrective action and improvement* details the various means of identifying and actioning improvements.

Link:

QP-09 Nonconformance, corrective action and improvement

Reference:

Form-226 Improvement request

7 References and related documents

7.1 References

References
Environmental Planning and Assessment Act 1979
ISO14001:2015/AS14001:2016
TfNSW Environment and Sustainability Policy
G36 Specification for Environmental Protection
RMS Compliance Framework - Governing Procedures
Guidance note: Environmental Inspection Report
Review of Environmental Factors (REF)
RM Business Plan

7.2 Related documents

Doc ID	Title
EIA-P05-1	Environmental Assessment Procedure for routine and minor works (EAPRMW)
EIA-P05-G01-T01	Activity Checklist for routine and minor works
EIA-P05-G01-T02	Standard Safeguards List for Routine and Minor Works
EIA-P05-G01-T03	Step 2 Memo
ILC-MP-TP0-401	Technical Procedure, Assessment of Environmental Impacts for Minor Projects
DMP-01	Depot Management Plans (DMP)
RSMP	RM Project Management Plan
RM-QMS	RM Quality Management System
RM-SMS	RM System Management System
PSP-C	Project Specific Plan - Construction
PSP-M	Project Specific Plan - Maintenance
EFS	Environmental Fact Sheets
MAPs	Maintenance Activity Procedures
PRD-01	RM Project Development procedure

Doc ID	Title
QP-01	Management responsibility
QP-03	Customer related processes
QP-05	Control of documents and records
QP-09	Nonconformance, corrective action and improvement
QP-11	Internal audit
QP-13	Training
QP-15	RM business planning
QP-16	Context of the organisation
QP-21	RM Project Start-up Procedure
QP-24	Guidelines for Project Performance Review
OCP-03	Risk Assessment Procedure
OCP-04	Contractor management procedure
OCP-05	Conducting Toolbox Meetings
OCP-08	EnSite meetings: Project Risk Assessment
OCP-10	GreenSAFE Management participation in safety and environment
OCP-13	Site Risk Assessment for Maintenance and Routine Works Procedure
OCP-16	Emergency Preparedness
EP-01	Managing acid sulphates
EP-02	Waste management
EP-03	Using herbicides to control weeds
EP-03.1	Integrated vegetation management guide
EP-04	Developing soil and water management plans
EP-05	Installing temporary ESC structures.
EP-06	Environmental Requirements for Project Development
EP-07	Aspects and Impacts Guideline
Form-102	Work Verification Record
Form-106	Record of Toolbox Meeting
Form-106M	Record of Maintenance Toolbox Meeting
Form-226	Improvement request

Doc ID	Title
Form-228-1	Internal audit checklist – Road Maintenance
Form-229	Audit Schedule form
Form-234	Project Specific Training Plan
Form-307	EnSite Assessment and Record form
Form-400/624	Environmental incidents report
Form-401	Weekly Environmental Checklist
Form 402	Depot-compound Environmental Checklist.
Form-404	Erosion and Sediment Control Inspection Checklist
Form 412	Project Environmental System Requirements Checklist
Form 419	Schedule of Environmental Legislative Requirements
Form 419C	Schedule of Environmental Legislative Requirements - RMCC
Form-420	Contractor Environmental Management Plan (CEMP)
Form-420MW	Environmental Safeguards Action Plan
Form-420GNMW	Environmental Safeguards Action Plan Guidance Notes
Form-421	Waste minimisation and management plan
Form-425	Aspects and Impacts Register
Form-702	Site Information Package (construction projects, SIP)
Form-702M	Maintenance Information Package (MIP)
Form-901	Contractor pre-engagement questionnaire
Form-911	Contractor verification and surveillance checklist

Appendix 1 See QP-16 Context of the organisation – interested parties

QP-16 Context of the organisation

Appendix 2 Environmental roles and responsibilities (RMS RES and RM OES Manager)

Regional Environmental Staff	RM OESM Manager
Environmental Protection Licences – applications, returns and EPA formal correspondence	Coordination of plans to meet environmental objectives in RM Business Plan
Development and delivery of environmental training (EB packages), in line with the regional training plans	Environmental training – RM management system specific
Completion of environmental inspections (Red, Orange, Green ratings)	Monthly performance reporting – environmental metrics and commentary within RM SMT report
Systems audits (additional resource for RM audits, not responsible)	Systems audits (can also be outsourced to audit panel professional services contractors)
Incidents – classification, external reporting, distribution of lessons learned	Incidents – review/sign off of ICAMs, tracking of completion and lessons learned
Maintenance of RMS environmental policy, procedures and guidelines	Maintenance of RM environmental management system: manual, aspects and impacts register, procedures, fact sheets, templates
REF decision reports and advice for public display	Functional leadership of environment function of RM system personnel (SEQ group)
Technical advice/liaison on RMS Environmental guidelines and procedures	Technical advice on RM management system procedures and processes
Regulator liaison – EPA and OEH	