

Master Specification Part PC-ENV1

Environmental Management

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PC-ENV1 Environmental Management

1 General

- a) This Master Specification Part specifies the requirements for the Contractor's environmental management and Environmental Management Systems (EMS) requirements, including:
 - i) the documentation requirements, as set out in section 2;
 - ii) the Contractor's environmental obligations, as set out in section 3;
 - iii) the Environmental Authorisations requirements, as set out in section 4;
 - iv) the environmental objectives requirements, as set out in section 5;
 - v) the Contractor's Environmental Management System requirements, as set out in section 6;
 - vi) the Contractor's personnel requirements, as set out in section 7;
 - vii) the training and induction requirements, as set out in section 8;
 - viii) the inspection, auditing and reporting requirements, as set out in section 9;
 - ix) the environmental emergency response requirements, as set out in section 10; and
 - x) the Hold Point and Witness Point requirements, as set out in section 11.
- b) The Contractor's Activities must be undertaken in accordance with all Laws including all applicable environmental legislation, including:
 - i) *Aboriginal Heritage Act 1988 (SA)*;
 - ii) *Environment Protection Act 1993 (SA)*;
 - iii) *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*;
 - iv) *Heritage Places Act 1993 (SA)*;
 - v) *Landscape South Australia Act 2019 (SA)*;
 - vi) *Native Title (South Australia) Act 1994 (SA)*;
 - vii) *Native Vegetation Act 1991 (SA)*; and
 - viii) *Planning, Development and Infrastructure Act 2016 (SA)*.
- c) The Contractor's Activities must comply with all environmental related Reference Documents, including:
 - i) AS/NZS ISO 14001 Environmental management systems - Requirements with guidance for use;
 - ii) AS/NZS ISO 19011 Guidelines for auditing management systems; and
 - iii) Department Environment and Heritage Technical Manual (EHTM), including all attachments and supporting documentation (available from: <https://dit.sa.gov.au/standards/manuals>).
- d) The Contractor acknowledges and agrees that it, except to the extent prohibited by Law, indemnifies the Principal against any loss that the Principal suffers or incurs arising out of a failure by the Contractor to comply with any of its environmental obligations under the Contract Documents.
- e) If any damage to the environment occurs as a result of non-compliance with the Contract Documents, the Contractor must, at its own expense reinstate or rectify the damaged or impacted area to the condition existing prior to the commencement of the Works or Temporary Works (as applicable), or as otherwise directed by the Principal. This includes damage to

vegetation and contamination of soil or water. If the damage is not satisfactorily reinstated or rectified, the cost incurred by the Principal for the reinstatement or rectification of the damage (or the loss in value where the damage cannot be adequately reinstated or rectified) is a debt due from the Contractor to the Principal.

- f) If the Contractor impacts vegetation without the required Approvals (that are required to be obtained prior to impact), the Contractor will be liable to pay the offset amount in accordance with:
- i) the *Native Vegetation Act 1991 (SA)*, for native vegetation;
 - ii) the *Planning, Development and Infrastructure Act 2016 (SA)*, for regulated and significant trees; or
 - iii) the Department EHTM Attachment 4B - Vegetation Impact Assessment Guideline, for amenity vegetation,

and the Contractor must obtain any retrospective Approvals as required.

2 Documentation

2.1 Contractor's Environmental Management Plan (CEMP)

- a) The Contractor must establish, implement, and maintain a Contractor's Environmental Management Plan (CEMP), which:
- i) addresses the management of the environmental issues for the Project;
 - ii) complies with the Department EHTM Attachment 10A - Guideline for the Preparation of a Contractor's Environmental Management Plan (available from: <https://dit.sa.gov.au/standards/manuals>);
 - iii) includes Construction Methodologies for activities identified as high risk or above (pre-treatment) in the environmental risk assessment;
 - iv) includes details of the Contractor's Activity Zone (refer PC-SM2 "Site and Access Management");
 - v) includes issue-specific sub-plans, where required (refer PC-ENV2 "Environmental Protection Requirements");
 - vi) includes all other requirements of the CEMP as set out in the Contract Documents including PC-ENV2 "Environmental Protection Requirements";
 - vii) includes where relevant, methods used to address the environmental objectives set out in section 5; and
 - viii) incorporates any delivery recommendations, mitigation, or requirements from the review of any previous Environment and Heritage Impact Assessment Report (EHIAR) (in accordance with section 2.1d).
- b) The CEMP must be prepared, submitted, and updated in accordance with the requirements of PC-PM1 "Project Management and Reporting".
- c) Unless otherwise specified in the Contract Documents, at a minimum the Contractor must review and update the CEMP and associated sub-plans, identifying amendments to the previous version, every 6 months from the time of first submission until Completion.
- d) The Contractor must review any EHIAR and investigations undertaken in the previous project phases, and ensure that delivery recommendations, mitigation or requirements are incorporated into the CEMP.
- e) Prior to commencement of any work on Site, the Contractor must submit an electronic controlled copy of the CEMP and associated sub-plans, including all supporting documentation.

2.2 Quality Management Records

In addition to the requirements of PC-QA1 “Quality Management Requirements” or PC-QA2 “Quality Management Requirements for Major Projects” (as applicable), the Quality Management Records must include:

- a) evidence of environmental induction content and induction attendance records, as required in section 8.2b);
- b) completed environmental inspection checklist, as required in section 9.2f); and
- c) a register and plan of all vegetation that has been removed, as required in section 9.4b).

3 Contractor’s environmental obligations

- a) The Contractor’s Activities must meet or exceed all environmental requirements specified in the Contract Documents.
- b) Where the Contractor’s design or construction activities vary from that contemplated in the Contract Documents (including the Design Documentation, Construction Documentation and environmental documentation provided by the Principal), the Contractor must:
 - i) undertake all additional environmental assessments to ensure compliance with all relevant Laws (including environmental legislation) and the Contract Documents, resulting from the Contractor’s design;
 - ii) bear all risks associated with complying with all Laws (including environmental legislation) and the Contract Documents, associated with a varied design;
 - iii) obtain any additional Approvals necessary; and
 - iv) update the CEMP to address all environmental protection matters resultant from the varied design or construction activities.

4 Environmental Authorisations

- a) “Environmental Authorisation” includes environmental and planning Approvals (including licences, permits or exemptions).
- b) The Contractor must:
 - i) obtain all Environmental Authorisations required to carry out the Contractor’s Activities, to the extent required by Law or as specified by the Principal in the Contract Documents, other than those already obtained by the Principal;
 - ii) comply with the requirements of all Environmental Authorisations, including those obtained by the Principal;
 - iii) identify any required amendment or variance to the Environmental Authorisations obtained by the Principal, and prepare all relevant documentation and resubmit an amended / varied application for the Environmental Authorisation, unless otherwise agreed with the Principal;
 - iv) allow for and program the appropriate authority or statutory assessment and approval timeframes; and
 - v) document the Environmental Authorisations in the CEMP.
- c) Prior to submission of any final Environmental Authorisation, the Contractor must provide a draft version of the Environmental Authorisation documentation for review, which will constitute a **Hold Point**. The Contractor must not submit the final version of the Environmental Authorisation obtained until this Hold Point has been released.
- d) The Contractor must provide all Environmental Authorisations obtained by the Contractor to the Principal, which will constitute a **Witness Point**.

- e) Where an Environmental Authorisation is required to be amended or varied as required by section 4b)iii), the Contractor must provide an updated version to the Principal, and the Hold Point and Witness Point under section 4c) and 4d) respectively must re-apply.

5 Environmental objectives

- a) The Contractor's planning, design and Construction Methodology must be undertaken to maximise the achievement of the following environmental objectives set out in this section 5.
- b) Methods used to address the environmental objectives in this section 5 must be documented in the appropriate planning documentation or Design Documentation (as applicable), and the CEMP.
- c) The following environmental objectives apply to the Contractor's Activities:
 - i) avoid mobilisation of contaminants and where feasible or required by the Contract Documents, remediate contaminated land on the Site;
 - ii) avoid acid sulfate soils where possible or mitigate impacts;
 - iii) manage pollutants generated from the operation and maintenance of the infrastructure and incorporate water sensitive urban design (WSUD) / water sensitive road design (WSRD) elements;
 - iv) prevent pollution of surface, ground and marine waters;
 - v) protect and avoid damage or disturbance to, or interfere with Aboriginal archaeological / anthropological sites, objects or remains, in accordance with the *Aboriginal Heritage Act 1988* (SA);
 - vi) avoid where possible areas where Native Title has been determined not to be extinguished, unless otherwise authorised by the *Native Title (South Australia) Act 1994* (SA);
 - vii) protect and prevent disturbance of non-Aboriginal heritage sites;
 - viii) minimise the destruction or disturbance of native vegetation and other High Value Vegetation (refer PC-ENV2 "Environmental Protection Requirements");
 - ix) protect and prevent disturbance of non-target vegetation;
 - x) eliminate and prevent the spread of declared and environmental weeds;
 - xi) minimise the destruction or disturbance of fauna habitat and provide safe fauna passage and habitat connection, where feasible during construction and operation of the Project (e.g. fish passage, koala ladders, etc.);
 - xii) prevent the spread or eradicate declared plants or animals on and adjacent to the Site, in accordance with the *Landscape South Australia Act 2019* (SA);
 - xiii) protect sensitive receivers from transport and construction noise, vibration and air quality impacts; and
 - xiv) implement the principles of the waste hierarchy and dispose of waste to an appropriately licensed waste or recycling facility.
- d) The sustainability objectives provided in PC-ST1 "Sustainability in Design" and PC-ST2 "Sustainability in Construction" (as applicable), also apply to the Contractor's Activities.

6 Contractor's Environmental Management System

- a) The Contractor must establish, implement, and maintain an Environmental Management System (EMS) in accordance with the requirements of AS/NZS ISO 14001 "Environmental management systems - Requirements with guidance for use", for the duration of the Project

(which at a minimum extends until the end of the Defects Liability Period). The Contractor's EMS must make provision for the work of all Subcontractors.

- b) No part of the Contractor's EMS can be used to pre-empt, preclude or otherwise negate the requirements of the Contract Documents.
- c) Prior to commencement of any work on Site, the Contractor must submit evidence of a certificate certifying the Contractor's accreditation to AS/NZS ISO 14001 "Environmental management systems - Requirements with guidance for use", for the duration of the Project (which at a minimum extends until the end of the Defects Liability Period). The certification must be provided by an appropriately qualified accredited organisation. Provision of the EMS certification will constitute a **Hold Point**. Works or Temporary Works (as applicable) must not commence on Site until this Hold Point has been released.

7 Contractor's personnel

7.1 Environmental Management Representative

- a) The Contractor must provide an Environmental Management Representative (EMR) for the duration of the Project who:
 - i) is directly responsible to the Contractor's senior management;
 - ii) has responsibility for ensuring that the requirements of the EMS and the environmental requirements of the Contract Documents are complied with; and
 - iii) is appointed in accordance with PC-PM3 "Contractor's Personnel and Training".
- b) At all times, the duties of the EMR in regard to ensuring compliance with the environmental requirements of the Contract Documents must take precedence over any other activity undertaken by the EMR.
- c) The EMR must:
 - i) possess a recognised tertiary environmental qualification and have at least 5 years of recent relevant experience to the position;
 - ii) be available to attend the Site at any time that work is in progress; and
 - iii) be on Site whenever activities are in progress that are identified in the CEMP as being of high risk to the environment.

8 Training and induction

8.1 Environmental awareness training

- a) Prior to any works commencing on Site, the Contractor must ensure that at least 2 of its staff who will be based on Site have attended Department Environmental Awareness Training or equivalent training within the last 5 years (refer to: https://dit.sa.gov.au/contractor_documents/contractor_environmental_training_programs).
- b) The Contractor's Site representative / supervisor must attend the Department Environmental Awareness Training.
- c) Where the Contractor proposes to undertake equivalent training in place of the Department Environmental Awareness Training, the Contractor must seek prior approval from the Principal.
- d) The Contractor must provide copies of the training certificates, demonstrating compliance with section 8.1a), to the Principal prior to any work commencing on Site, which will constitute a **Hold Point**. Works or Temporary Works (as applicable) must not commence on Site until this Hold Point has been released.

8.2 Induction

- a) The Contractor must ensure that the Contractor's (and any Subcontractor's) personnel attend an environmental induction before they commence work on Site. The induction must be delivered by the EMR and must address all environmental issues that are relevant to the person's activities on Site as identified in the CEMP.
- b) The Contractor must provide evidence of environmental induction content and induction attendance records, demonstrating compliance with section 8.2a), as part of the Quality Management Records within 5 Business Days of such training, and to the Principal upon request.

9 Inspections, auditing and reporting

9.1 General

- a) The Contractor must monitor its environmental performance, and that of its Subcontractors, for the duration of the Project. Environmental performance must be measured against the Contractor's EMS and CEMP, and the requirements of the Contract Documents.
- b) Any non-compliance of environmental performance will be deemed a Non-Conformance or System Non-Conformance (as applicable).

9.2 Inspections

- a) The EMR must undertake environmental inspections of the Contractor's Activities being carried out, to assess compliance with the environmental requirements of the Contract Documents and the CEMP(s).
- b) The environmental inspections required by section 9.2a) must be carried out no less than weekly, with a greater frequency during activities or events that have potential to cause environmental harm throughout the duration of the Project.
- c) The Contractor's EMR must inspect and maintain records / register of any temporary and permanent siltation and erosion control devices:
 - i) before, during and immediately after a rain event; and
 - ii) once per week during dry weather.
- d) Where a Defect is revealed during an inspection, the Contractor must:
 - i) raise a Non-Conformance in accordance with PC-QA1 "Quality Management Requirements" or PC-QA2 "Quality Management Requirements for Major Projects" (as applicable); and
 - ii) rectify the Defect immediately and in accordance with the relevant Construction Documentation unless otherwise agreed with the Principal.
- e) For each inspection required by section 9.2a), the Contractor must produce an environmental inspection report which as a minimum, includes a summary of:
 - i) environmental issues identified and the date they were initially identified;
 - ii) environmental incidents;
 - iii) Non-Conformances, System Non-Conformances, corrective actions raised and associated timeframes;
 - iv) monitoring results and summary report (noise, vibration, water quality, air quality) including any exceedances of related limits / criteria;
 - v) details of any Aboriginal heritage monitoring and reported outcomes undertaken by Aboriginal groups or representatives;

- vi) outcomes from inspections required by section 9.2c);
 - vii) outcomes of inspections on siltation and erosion control devices;
 - viii) evidence of weekly inspections being undertaken; and
 - ix) other relevant data (including as outlined in the CEMP).
- f) The completed environmental inspection report, must be provided to the Principal upon request, and as part of the Quality Management Records within 5 Business Days of completion of the inspection.

9.3 Audits

- a) The Contractor must ensure that environmental audits of all Contractor's Activities are conducted:
 - i) at intervals of no less than 3 months;
 - ii) at the completion of the Works and Temporary Works on Site; and
 - iii) for activities or events that have potential to cause environmental harm throughout the duration of the Project.
- b) Environmental audits must be conducted in accordance with AS/NZS ISO 19011 Guidelines for auditing management systems.
- c) In addition to the Contractor's own audit schedule, the Contractor must allow external audits of the Contractor's environmental performance to be undertaken at any time. The Contractor must make available relevant staff to be involved in the audit.
- d) Where a Non-Conformance or System Non-Conformance (as applicable) is detected during an audit, the Contractor must take immediate action to rectify the Non-Conformance or issue the System Non-Conformance Report (as applicable).

9.4 Vegetation removal register

- a) Every 3 months, or as requested by the Principal, the Contractor must provide to the Principal a register and plan of all vegetation (including individual areas of native vegetation and regulated / significant trees) that has been removed as a result of the Works and Temporary Works.
- b) The final vegetation removal register must be provided as part of the Quality Management Records.
- c) The register and plan required in section 9.4a) must show all vegetation removed using the associated number in the vegetation survey(s) and approval documentation.
- d) The register required in section 9.4a) must include:
 - i) a summary of vegetation impacted during the reporting period;
 - ii) cumulative impact since the Commencement Date;
 - iii) any significant environmental benefit (SEB) payments made under the *Native Vegetation Act 1991* (SA); and
 - iv) any payments made in support of the Planning, Development and Infrastructure Act 2016 (SA) regulated tree applications.

9.5 Monthly environmental performance status report

- a) Within 7 days after the end of the month, the Contractor must submit a monthly environmental performance status report to the Principal as part of the monthly project report required in PC-PM1 "Project Management and Reporting", which as a minimum includes:

- i) a register showing status of all environmental and heritage related Witness Points and Hold Points;
- ii) a summary of all environmental inspections and audits, including an action list with timeframes for rectification of issues identified;
- iii) details of any Non-Conformances, System Non-Conformances, environmental incidents and corrective actions taken;
- iv) the current vegetation removal register and measures taken to minimise impacts to remaining vegetation;
- v) details of all resource use and waste transfers inclusive of soil disposal and all other waste streams controlled by the Contractor; and
- vi) a summary of any environmental monitoring / investigations undertaken by the Contractor or other documentation submitted to the Principal. Raw data for monitoring activities must be provided to the Principal upon request.

10 Environmental emergency response

- a) The Contractor must develop and maintain an Emergency Response Plan which is based on an environment-related risk assessment of all Site activities. This plan may form part of the Project's broader emergency response plan (where an emergency response plan is required).
- b) The Emergency Response Plan required in section 10a) must ensure that all personnel are able to identify and respond to environmental emergencies or incidents and ensure that relevant authorities are notified.
- c) For the purposes of this section 10, environment incidents / accidents must include those which:
 - i) lead to a warning, notice or order being issued by the EPA;
 - ii) contravene applicable environmental legislation or an Environmental Authorisation (including the Principal's internal approvals process);
 - iii) cause environmental harm or nuisance (as defined by the *Environment Protection Act 1993* (SA), or other applicable legislation); or
 - iv) result in the spillage / release of noxious or hazardous substances (such as hydrocarbons or any other machinery fluids) into sea or watercourses.
- d) In the event of an environmental incident or accident, the Contractor must:
 - i) take whatever remedial action is necessary as soon as practicable;
 - ii) immediately notify the Principal and the EPA if the spill could cause serious and material environmental harm or other relevant authority;
 - iii) provide an initial written notification report to the Principal within 24 hours of the incident occurring; and
 - iv) provide a full written investigation report within 72 hours of the incident occurring.
- e) In the event of a chemical spill in the marine environment, the Contractor must:
 - i) dial 000 if there is a fire or injury requiring medical attention or if the size of the spill or nature of the spilled material makes it readily apparent that the situation is dangerous;
 - ii) control access to the spill area and, if possible without risking injury, control the source of the spill and limit the spread of contamination;
 - iii) not apply dispersant / detergent or other substance;
 - iv) contain the spill and ensure the safety of those on site and in the vicinity;

- v) report the spillage (no matter how small) to the Outer Harbour Signal Station on (08) 8248 3505 (who will contact the on-duty Department incident controller);
- vi) comply with the direction of the Department incident controller;
- vii) inform the signal station and the Principal of the circumstance, type and volume of the contamination as soon as possible after the occurrence along with contact details; and
- viii) bear any cost to the Principal in cleaning up the spillage or clean up the spillage to the satisfaction of the Department incident controller.

11 Hold Points and Witness Points

- a) Table PC-ENV1 11-1 details the review period or notification period, and type (documentation or construction quality) for each Hold Point referred to in this Master Specification Part.
- b) Table PC-ENV1 11-2 details the review period or notification period, and type (documentation or construction quality) for each Witness Point referred to in this Master Specification Part.

Table PC-ENV1 11-1 Hold Points

Section reference	Hold Point	Documentation or construction quality	Review period or notification period
4c)	Draft (including amended / varied) Environmental Authorisation documentation prior to submission	Documentation	10 Business Days review
6c)	Contractor's EMS certification	Documentation	5 Business Days review
8.1d)	Evidence of completion of Department Environmental Awareness Training	Documentation	5 Business Days review

Table PC-ENV1 11-2 Witness Points

Section reference	Witness Point	Documentation or construction quality	Review period or notification period
4d)	Environmental Authorisations obtained by the Contractor	Documentation	5 Business Days review