

standard specification for environmental management

version
2.0

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this document specifies the minimum standards of
environmental controls and workmanship required for
civil and buildings works projects managed by the department

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ABOUT THIS SPECIFICATION

This document was prepared by the Department of Infrastructure, Planning and Logistics, and specifies the minimum environmental management requirements for Northern Territory Government projects.

The Department has a commitment to undertaking all of its activities in an environmentally responsible manner and effectively managing risks that may lead to an impact on the environment. The Department seeks to be recognised as the expert in government infrastructure programming, procurement and construction.

Environmental management is an integral part of providing a high level of service delivery, continual improvement of processes, and quality project outcomes that meet legislative requirements

This is the second edition of the Standard Specification for Environmental Management.

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STANDARD SPECIFICATION FOR ENVIRONMENTAL MANAGEMENT V 2.0 REFERENCE TEXT

REFERENCE: Read this Standard Specification in conjunction with project specific requirements and drawings, if any. This document may be used as a blanket, overarching, reference specification referring generally to the standards of materials and workmanship of environmental management required by the Department for all projects. It is a contractual obligation to comply with this specification. Only parts of this Standard Specification which refer to the works being carried out apply.

PROJECT SPECIFIC REQUIREMENTS: The selection of specific items or materials for the works being carried out are specified in project specific requirements or shown as notes on the drawings.

OR

If there are no separate project specific requirements, refer to the drawings or scope of work if any, for specific items or materials for the works being carried out.

HOLD POINTS AND WITNESS POINTS; Hold Points and Witness Points apply to the project whether Project Control or Quality Assurance are included in the project or not. Tables of Hold Points and Witness Points are available in a stand-alone Word document available via:

<https://transport.nt.gov.au/infrastructure/specification-services/technical-specifications/environmental-management>

The tables should be edited to suit the requirements of the project. The tables can be copied and pasted in to the RFT.

HOLD POINTS: A Hold Point is a mandatory verification point. Work cannot proceed beyond this point until the Superintendent is able to verify the quality of the completed work and releases the Hold Point.

WITNESS POINTS: A Witness Point is an identified point in the project where the Superintendent may review, witness, inspect or undertake tests on any component, method or process of works. The Contractor is required to give notice in advance to the Superintendent who may or may not take the opportunity. The project however, may proceed.

SITE COPY: Retain a copy of this document on site for the duration of works.

ELECTRONIC COPY: An electronic copy of this document is available through Specification Services website: <https://transport.nt.gov.au/infrastructure/specification-services/technical-specifications/environmental-management>

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STANDARD SPECIFICATION FOR ENVIRONMENTAL MANAGEMENT V 2.0

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1. GENERAL

1.1 GENERAL

Conduct all project activities in an environmentally responsible manner and effectively manage risks to minimise any impact on the environment.

Obtain required approvals before commencing works. Identify and implement relevant controls.

This specification outlines requirements for:

- Environmental approvals,
- Cultural approvals,
- Mineral and water extraction approvals,
- Environmental management of projects including general environmental controls,
- Environmental Management Plans and any sub-plans required,
- Site specific requirements such as soil erosion control, weed and waste management.

Use this document on all Northern Territory Government (NTG) construction and demolition works managed by the department, including civil and building construction and maintenance works. Only clauses applicable to the environmental risk of the project will apply to works being carried out.

This Standard Specification is supported by guidance material, available via (<https://dipl.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications>).

A reference to the Superintendent includes a reference to the Superintendent's Representative, and to any nominee of the Superintendent, and to any nominee of the Superintendent's Representative.

1.2 TIME ALLOWED FOR ASSESSMENT OF SUBMITTED DOCUMENTS

This clause is related to documents which are to be submitted by the Contractor to the Superintendent for assessment and/or acceptance and/or approval.

The documents subject to this clause include, but are not limited to:

- Traffic Management Plan,
- Inspection and Test Plans,
- Project Control Plan,
- Quality Assurance Plan,
- Work Health and Safety Plan, which includes, but is not limited to,
 - Risk assessment and mitigation measures proposed
 - Project targets and how they will be achieved
 - Induction training sessions for all site personnel, including sub-contractors, suppliers, and the Principal's

- representatives
- Cultural Heritage inductions by Cultural Monitors
- Indigenous Development Plan,
- Contractor's Environmental Management Plan which includes, but is not limited to,
 - Erosion and Sediment Control Plan,
 - Acid Sulfate Soils Management Plan,
 - Weed Management Plan,
 - Asbestos Management Plan,
 - Waste Management Plan,
 - Cultural Heritage Management Plan.

The Superintendent will provide a response in respect to the submitted documents to the Contractor within a reasonable time. The length of time considered reasonable will depend on the complexity of the documents, the amount of information in the documents and the workload of the Department's personnel who will assess, accept or approve the documents. The length of time considered reasonable can be negotiated between the Contractor and the Superintendent. Any such negotiated time must be fair to both parties.

If the documents are rejected, not accepted, not approved, or returned for modification, the Superintendent will have an additional reasonable time period to assess the amended documents.

The time taken by the Superintendent to assess submitted documents, or to assess re-submitted documents, and to respond to the Contractor will not be accepted as a reason for the Contractor to claim an extension of time, nor to claim a variation for costs related to the preparation of, or modification to, documents to be submitted or re-submitted.

These time frames do not apply in emergency situations where faster responses are appropriate.

Re-submitted documents must be sent with the changes made clearly marked. Changes should only be made to the documents to the extent required by the Superintendent. Any changes not explicitly requested by the Superintendent but made in the re-submitted documents must be clearly visible in the documents and the reasons for making the changes must be explained in a separate document or the covering email. Changes not made obvious and not explained, or made obvious but not explained, will not be accepted under the contract whether this is advised to the Contractor or not. Changes which were not requested but are made obvious and which are explained will be assessed during the re-assessment process.

Documents required in respect to works in specialised facilities such as health care facilities and secure facilities will be subject to responses in time frames to be negotiated.

2. RESPONSIBILITY

Comply with the provisions of this specification and any other environmental protection provisions in the Contract and observe the requirements of any applicable statute, by-law, standard etc. related to environment protection.

The environment protection requirements in this Standard Specification, together with the Conditions of Contract, are complementary to, and not in substitution for, any statutory requirements, nor in substitution for any of the technical requirements shown in the specifications and on the drawings. The accuracy of these legal obligations, including all approvals licences and all ancillary documentation, is the responsibility of the Contractor and should be checked for relevance and currency.

Comply with environmental statutory requirements and with procedures defined within the Contractor's Environmental Management Plan (CEMP) and supplementary plans.

3. REFERENCES

Read this document in conjunction with those documents listed below which apply to the project:

- Request for Tender (RFT) or Request for Quotation (RFQ) for the project,
- *Standard Specification for Roadworks* (<https://dipl.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications/roads>),
- *Standard Specification for Road Maintenance* (<https://dipl.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications/roads>),
- *Standard Specification for Small Building Works* (<https://dipl.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications/buildings>),
- *NT EPA Environmental Guidelines* <https://ntepa.nt.gov.au/waste-and-pollution/waste-and-pollution-guidelines/guidelines>,
- *Land Clearing Guidelines and NT Land Suitability Guidelines*, Northern Territory Planning Scheme, available via <https://nt.gov.au/property/building-and-development/northern-territory-planning-scheme/referenced-documents-guidelines>, and
- Any other Specification, Code of Practice (COP), Guideline, or other cited document, applicable to the project.

The edition of the Standard Specification current on the day tenders close is the version which applies to the Contract.

4. STATUTORY AND OTHER REQUIREMENTS

Comply with the following where applicable:

- Northern Territory legislation (Acts and Regulations),
- Federal legislation (Act and Regulations),
- Australian Standards,
- Other International Standards where Australia does not have a relevant Standard,
- Australian and New Zealand Environmental and Conservation Council Publications (ANZECC),
- Codes of Practice,
- Interstate and other Publications,
- NTG Guidelines.

Use Australian Standards, and their amendments, current 3 months before the date for the close of tenders except where different editions and/or amendments are required by statutory authorities, including, but not limited to, NATA and the National Construction Code including the Building Code of Australia.

Refer to ENVIRONMENTAL LEGISLATION AND REGULATIONS, AND STANDARDS.

5. CONTRACTOR'S ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

5.1 SUBMISSION OF CEMP - HOLD POINT

Hold Point - Submit for assessment a copy of a site specific and project specific Contractor's Environmental Management Plan (CEMP) prior to establishment and commencement of work on site.

This Hold Point will only be released after the Superintendent has been provided with, and endorses as fit for purpose, the CEMP, or any required revised CEMP, and relevant sub-plans, or any required revised sub-plans, that meet the conditions of the Contract and the specifications for the contract.

Refer to **Time Allowed for Assessment of Submitted Documents** in this work section.

Refer to the Environmental Management Project Specific Requirements clause in ENVIRONMENTAL MANAGEMENT in the RFT/RFQ. Refer to the Environmental Risk Assessment and/or to the Notice of Intent.

5.2 WHEN A CEMP IS REQUIRED

Unless specified otherwise, a CEMP is required for all contracts.

Supporting material is available via the Department's internet page <https://transport.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications/roads>

[specifications/technical-specifications/environmental-management.](#)

Submit the completed CEMP for the project within 5 days of the awarding of the contract and before any work commences on site.

5.3 PURPOSE OF THE CEMP

The CEMP must identify potential adverse environmental effects, describe environmental protection practices, resources, sequence of activities required to comply with relevant environmental legislation, conditions of any applicable licence, approval and permit and all the requirements of this Specification. Appropriate environmental protection measures proposed to keep environmental effects within compliance limits must be documented and must show the responsibility for implementation in each case.

The CEMP must be project and site specific and identify, address and mitigate all environmental risks associated with the execution of the works.

Before commencement of works, the CEMP and associated relevant documents will be reviewed by the Superintendent and comment provided to the Contractor.

After endorsement of the CEMP is given, the Contractor must submit one controlled copy of the CEMP to the Department for use by the Superintendent during the Contract.

5.4 DETAILS REQUIRED IN THE CEMP

The following are to be addressed in the CEMP:

- Description of the works,
- Legislative obligations,
- Approvals, licences and permits,
- Assignment of responsibility for environmental controls,
- Assessment of potential environmental impacts and operational control measures to be implemented,
- A site diagram showing the location(s) and extent(s) of:
 - no-go zones,
 - site camp, compound and workshop areas,
 - works areas,
 - cleared areas,
 - access tracks and turn-around areas,
 - stockpiles,
 - laydown areas,
 - environmental controls, and
 - any environmentally sensitive areas.
- Non-conformance control and corrective action procedures for all of the control measures that are to be implemented,

- Details of how the environment will be protected for each and every Contractor and Subcontractor activity,
- Hours of work,
- Communication procedures,
- Complaints handling procedures,
- Emergency response procedures,
- Environmental incident notification and reporting,
- Environmental training and inductions,
- Environmental monitoring,
- Audit program,
- Waste and recycling reporting,
- Reporting requirements,
- Water extraction quantities.

Environmental aspects that may be relevant to a project include:

- Air pollution,
- Flora and fauna disturbance,
- Weed management,
- Soil erosion and sediment control,
- Acid Sulfate Soils (if there is a risk of occurrence in the project area),
- Asbestos handling and disposal (if there is a risk of exposure in the project area),
- Water pollution,
- Waste management,
- Hazardous materials and dangerous goods,
- Fuels and chemicals,
- Heritage – cultural and historical,
- Sacred site protection,
- Noise and vibration,
- Community consultation,
- Social aspects,
- Environmentally sensitive areas,
- Fire management.

NOTE: Environment Services Branch can provide assistance in the development of the CEMP.

More information is available at:

<https://dipl.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications/environmental-management>

and

https://ntepa.nt.gov.au/data/assets/pdf_file/0003/284880/draft_guideline_for_emp.pdf .

5.5 LIABILITY OF PRINCIPAL LIMITED

Receipt of the CEMP will in no way relieve the Contractor of responsibility under the Contract to ensure compliance with environmental legislation and any approvals issued by other authorities as may be required in respect to work under the Contract.

Endorsement of the CEMP is provided on the basis that the Contractor (including Sub-contractor(s)) is not absolved from full responsibility for the correctness and accuracy of the design and/or documents provided and the implementation of effective environmental management.

6. EROSION AND SEDIMENT CONTROL PLAN (ESCP)

6.1 WHEN AN ESCP IS REQUIRED

Provide a copy of a site specific and project specific Erosion and Sediment Control Plan (ESCP), in accordance with best practice guidelines and before commencing works, when:

- Stated in the Environmental Management Project Specific Requirements clause in ENVIRONMENTAL MANAGEMENT in the RFT/RFQ. and/or in the Environmental Risk Assessment and/or in the Notice of Intent, and/or
- Works are to be undertaken during the Top End Wet Season (1 October to 30 April), and/or
- Works are to be undertaken in a drainage line / waterway, and/or
- Rainfall is likely to occur during the works and/or,
- Runoff is likely over the works area.

An ESCP is a supplement of the CEMP.

The ESCP is to be produced and submitted by electronic means to the Superintendent.

6.2 ESCP DESIGNER QUALIFICATIONS

To enable Northern Territory Government endorsement of the ESCP, it is to be designed by a professional with one of the following qualifications:

- Certified Professional in Erosion and Sediment Control (CPESC), or
- Certified Professional Soil Scientist (CPSS), or
- A suitably qualified and experienced professional, having completed an advanced specialised training course in erosion and sediment control, provided under the auspices of a reputable body such as the International Erosion Control Association (IECA) Australia, Australian Society of Soil Science, or equivalent, and be able to give evidence of training in erosion and sediment control principles, and experience in implementing and designing erosion and sediment control plans and controls on site.

For projects where there is a high risk of erosion and sedimentation and/or sensitive receptors downstream, there may be the requirement for an ESCP to be designed by a CPESC or CPSS only.

The ESCP designer must monitor the performance of the ESCP throughout the duration of the contract, modifying the plan as required to meet the changing conditions and non-performance issues identified.

The ESCP is to be designed in conformance with the requirements set out in best practice guidelines of the IECA Australia Best Practice Erosion and Sediment Control documents available via

<http://www.austieca.com.au/publications/best-practice-erosion-and-sediment-control-bpesc-document> .

6.3 ESCP MANAGEMENT PRINCIPLES

The IECA Australia Best Practice Erosion and Sediment Control documents provide an overview of principles of best practice erosion and sediment control. The principles broadly apply to the planning, design, construction and maintenance of all types of erosion and sediment control for construction works including roads, buildings, barge landings and other projects. The principles can be paraphrased as:

- Assess the implications of a project for soil loss and water quality at the planning stage,
- Plan to control erosion and sediment during the design phase and before any earthworks begin,
- Minimise the area and duration of soil disturbed and exposed to erosion,
- Conserve topsoil for later site rehabilitation / regeneration,
- Control water flow from the top of and through the project area – divert up-slope ‘clean’ water away from disturbed areas and ensure concentrated flows are below erosive levels,
- Maximise sediment retention on the site,
- Rehabilitate disturbed lands quickly,
- Maintain erosion and sediment control measures appropriately.

Some long-term erosion and sedimentation from works is inevitable given the climatic conditions of the Northern Territory. However, construction works and the subsequent operation of assets should at all times minimise the potential for erosion. The above principles provide a basis for minimising these problems with construction projects in the Northern Territory. They also provide a framework to account for the influence of factors such as climate, topography and soil types. These principles should be adopted in any construction project and incorporated into any environmental management plan and/or ESCP.

There are a number of Australian publications that detail what is required for effective erosion and sediment control including information on the Northern Territory Government’s website at <https://nt.gov.au/environment/soil-land->

[vegetation](#). The Northern Territory Government references and bases its standards on the IECA Australasia Best Practice Erosion and Sediment Control documents.

7. ACID SULFATE SOILS MANAGEMENT PLAN (ASSMP)

7.1 WHEN AN ASSMP IS REQUIRED

Provide a copy of a site specific and project specific Acid Sulfate Soil Management Plan (ASSMP), prepared in accordance with best practice guidelines, when works are to occur in areas where Potential Acid Sulfate Soils or actual Acid Sulfate Soils are present, or suspected to be present, before commencing works.

Unmanaged disturbance of areas containing Acid Sulfate Soils (ASS) can consequently result in acidic drainage potentially causing adverse impacts to the terrestrial and inter-tidal environment including infrastructure.

Where Potential Acid Sulfate Soils (PASS) and actual ASS are likely to be present in sediments on the site, the Contractor shall develop and implement procedures through an ASSMP to prevent acidic discharge and odour from any exposed soils within the construction site and/or from soils removed from the site.

The ASSMP is a supplement of the CEMP. Refer to the Environmental Management Specific Requirements clause in ENVIRONMENTAL MANAGEMENT in the RFT/RFQ.

A copy of the plan is to be submitted to the Superintendent. No excavation of known PASS or ASS is to commence before submission of the ASSMP to the Department.

7.2 DETAILS REQUIRED IN AN ASSMP

The ASSMP is to address the requirements of the [Queensland Acid Sulfate Soil Technical Manual, Soil Management Guidelines Version 4.0](#), for handling, treatment and disposal of ASS.

The ASSMP is to be developed, implemented, and monitored by a suitably qualified independent organisation.

8. WEED MANAGEMENT PLAN (WMP)

8.1 WHEN A WMP IS REQUIRED

Provide a copy of a site specific and project specific Weed Management Plan (WMP) in accordance with Australian Government and Northern Territory Government guidelines. A WMP is required if Declared Weeds or Weeds of National Significance (WoNS) are known to be present or have potential to be established and/or spread on site.

Land managers, including the Department and its Contractors, are legally responsible for the prevention of spread and control of Declared

Weeds in accordance with the *Weeds Management Act* regardless of the size of project.

For all projects, Contractors must:

- Survey for declared weeds and assess risk of spread,
- Consult with Local Council and the Department of Environment and Natural Resources (DENR) Weed Management Branch about management procedures to be implemented by the Contractor,
- Eliminate the seed source where possible,
- Establish weed control protocols to prevent spread of weeds and their seeds, and
- Practise on-going weed hygiene.

If DECLARED WEEDS (plants identified by DENR requiring control, eradication or prevention), and/or ALERT WEEDS (to be immediately reported to DENR), and/or Weeds of National Significance (WoNS), are identified on site, a detailed WMP is to be submitted with the CEMP.

In addition, if the RFT/RFQ specifically relates to weed management, the response schedule is to outline the development of a WMP.

A list of declared species and their Weed Management Plans can be found at <https://nt.gov.au/environment/weeds/weeds-in-the-nt/A-Z-list-of-weeds-in-the-NT>.

A list of WoNS is at

<https://www.environment.gov.au/biodiversity/invasive/weeds/weeds/lists/wons.html>

Some declared weeds also need to be reported immediately to the DENR Weed Management Branch and expert help is required for disposal and control of the weeds. Alert weeds are listed under

<https://nt.gov.au/environment/weeds/current-alert-weeds-how-to-report>.

The WMP is to supplement the CEMP.

DENR Weed Management Branch can also help with information on weed management. Contact weedinfo@nt.gov.au.

8.2 DETAIL REQUIRED IN A WMP – WITNESS POINT

Detail required in a WMP must:

- Prioritise declared weed species and locations for control based on previous mapping and any site survey (if available),
- Detail chemical type, rates, method of application and process to collect data for priority species. Refer to (<https://nt.gov.au/environment/weeds/how-to-manage-weeds/weed-management-handbook>),

- Address seasonal restrictions to access and weed reproductive cycles to prevent weed seeding,
- Integrate chemical control with slashing and burning requirements,
- Incorporate monitoring so control effectiveness and spread prevention can be evaluated,
- Enforce weed hygiene protocols.

The reuse of weed contaminated topsoil by surface spreading is not permitted.

Witness Point - The use of hay bales on site can only occur if written approval is received from the Superintendent.

In general, the use of hay bales for environmental control is not permitted.

8.3 PREVENTION OF WEED SPREAD WHEN USING MACHINERY

The main methods to ensure that weeds are not spread are:

- Clean machines before moving between sites,
- Don't use or move materials contaminated with weeds and/or their seeds,
- Avoid travelling through weeds that are seeding.

The use or movement of topsoil or vegetation waste contaminated with a Declared Weed is not permitted under the *Weeds Management Act*. If there are weeds present above ground there will also be seeds in the soil. Seek advice from DENR Weed Management Branch if you are unsure. Collect and dispose of the soil by burying or stockpiling in an accessible area identified in the WMP, and then control any germinating weeds. An alternative way of reducing germination is to use a residual pre-emergent herbicide.

An easy way to prevent weed spread is to identify flowering or seeding weeds and avoid driving through them. If this is not possible, cut seed heads off and dispose of them appropriately. Treatment of weeds on or adjacent to roads or thoroughfares will reduce the probability of moving weed seed. Modifications to machines such as canopies over slasher decks can reduce seed spread.

8.4 CLEANING OF VEHICLES AND PLANT – WITNESS POINT

Comply with the weed spread prevention aspects of the Statutory Weed Management Plans for the weeds listed on the web site <https://nt.gov.au/environment/weeds/weed-management-planning>.

Comply with the weed spread prevention aspects of the Regional Weed Management Plans for works in the regions listed on the web site

<https://denr.nt.gov.au/land-resource-management/rangelands/guidelines-and-management-plans/weed-management-plans>.

Ensure that vehicles and plant are steam cleaned or high pressure water cleaned removing all earth/soil to prevent the spread of weeds and pest animals before moving them on to and off the works site. The undertaking of cleaning processes will be enforced in high risk sites with weed infestations or in areas of high ecological significance such as National Parks. Cleaning is not mandatory for weed free areas but it is encouraged for best practice.

Witness Point - Provide evidence that the area is weed free or provide advice of the weeds present in the areas of the works.

Witness Point - Provide evidence that the vehicles and plant brought on to the site of the works are free of weeds and their seeds and are soil free.

Witness Point - Provide evidence that organic matter transported to site is free of weeds and/or their seeds.

Witness Point: Provide the Superintendent with a signed statement certifying that cleaning took place.

The statement certifying that cleaning took place should include the following information:

- Vehicle or Plant Identification Number,
- Method of Cleaning,
- The time and date carried out,
- The location of cleaning operations,
- The name of the cleaning operator.

Collect and dispose of the removed earth and organic material by a method that will ensure that it does not infest any river, stream, wetland or property.

If declared weeds are present within the work area ensure vehicles, machinery, plant and equipment are free of weeds and their seeds, and free of earth and organic matter before those vehicles, machinery, plant and equipment are moved from one area to another.

Use high pressure water, compressed air or a stiff brush and leaf blower before leaving the designated infested area and/or transportation of vehicles, machinery, plant and equipment from the site.

Clean down vehicles, machinery plant and equipment into an accessible, flat area from which wash-down water or rain water will not run into a waterway.

Check clean down area after rain and treat emerging weeds.

9. ASBESTOS MANAGEMENT PLAN (AMP)

9.1 WHEN AN AMP IS REQUIRED

An Asbestos Management Plan (AMP) is required if Contractors are engaged to conduct works at locations where the nature of their works will, or are likely to, disturb any asbestos or asbestos containing material (ACM). An AMP will also be required in the event asbestos or ACM is unexpectedly exposed during works.

The AMP is a supplement of the CEMP.

9.1.1 Asbestos Management for Assets Controlled by the Department

Asbestos management plans and asbestos registers have been prepared for assets under the Department's direct management and control.

Prior to commencement of work on assets controlled by the Department, Contractors must:

- Complete a Work Request form, available via <https://dipl.nt.gov.au/infrastructure/infrastructure-nt/asbestos-management> AND
- Submit the completed form to officeservices.DIPL@nt.gov.au

A list of sites controlled by the Department is shown at

<https://dipl.nt.gov.au/infrastructure/infrastructure-nt/asbestos-management>.

9.2 STATUTORY REQUIREMENTS FOR ASBESTOS MANAGEMENT

For all works, irrespective of ownership of, control over, or the assets subject to the works, comply with:

- *Work Health and Safety (National Uniform Legislation) Act 2011* and its Regulations,
- *Public and Environmental Health Act*,
- *Waste Management and Pollution Control Act 1998* and its Regulations,
- NT WorkSafe Code of Practice How to manage and control asbestos in the workplace
- NT WorkSafe Code of Practice How to safely remove asbestos,
- The Northern Territory Government's Asbestos Management Policy for the built environment, available via <https://dipl.nt.gov.au/infrastructure/infrastructure-nt/asbestos-management>,
- NT EPA requirements for the Disposal of Asbestos in the Northern Territory which are available via <https://ntepa.nt.gov.au/waste-pollution/guidelines/guidelines> .

9.3 DETAIL REQUIRED IN AN AMP

An AMP must include details of:

- Any asbestos and/or ACM known to exist in the site of the works,
- The location of, or a copy of, any existing Asbestos Register for the site of the works,
- Any asbestos and/or ACM recorded in an existing asbestos register for the site of the works,
- Legislative and/or statutory requirements,
- Evidence of permits, approvals, licences having been obtained to enable the execution of the works in relation to asbestos and/or ACM,
- Organisational responsibilities for the control and management of the processes and procedures for dealing with asbestos and/or ACM,
- Proposed work activities and safe work method statements for dealing with asbestos and/or ACM,
- Occupational hygiene practices which will be followed for dealing with asbestos and/or ACM,
- Proposed methods for transport and disposal of asbestos and/or ACM waste,
- Emergency procedures for accidental damage to, or discovery of, asbestos and/or ACM,
- Signage and labelling on site and on asbestos and/or ACM packaged, stored and/or transported. Refer to the *Code of Practice: How to manage and control asbestos in the workplace* and to AS 1319 *Safety Signs for the Occupational Environment*.

Asbestos removal work is to be carried out only by a licensed asbestos removalist who is appropriately licenced to carry out the work, unless specified in the *Work Health and Safety (NUL) Regulations* that a licence is not required.

The licenced Asbestos Removalist must prepare an Asbestos Management Plan/Asbestos Removal Control Plan for any licenced asbestos removal work they are commissioned to undertake.

Asbestos and ACM waste must be disposed of legally at a waste disposal site licenced to accept asbestos and ACM.

Failure to comply with these requirements may result in remedial action being taken at your cost and may result in legal action being taken.

10. OTHER MANAGEMENT PLANS

The project risk assessment will indicate if other pollutants may be present. These may require management plans. These include, but are not limited to; PFAS compounds, heavy metals,

and/or hydrocarbon compounds. Details to be included in the plans will be outlined in the Risk Assessment.

11. CLEARANCES AND APPROVALS

The Department will usually obtain the following clearances and approvals:

- Aboriginal Areas Protection Authority (AAPA) Certificate for the protection of sacred sites,
- Consent from the relevant Land Council that allows for works on Aboriginal land (if applicable),
- Clearances from the relevant Land Council for the extraction of gravel and water on Aboriginal land (if applicable).

The clearances and approvals that are obtained by the Department will be for areas nominated by the Project Manager during project planning. If additional areas require AAPA or Land Council clearance/approval, then these may be obtained by the Department where relevant. The time required to obtain clearances/approvals must be taken into account and cannot be used by the Contractor to vary the contract with respect to time and associated costs.

It is the responsibility of the Contractor to check that all clearances and approvals have been obtained, that they have copies of all clearances and approvals, and that they comply with the conditions associated with all clearances and approvals.

12. LICENCES, PERMITS AND PERMISSIONS

Ascertain which licences, permits and permissions are required and obtain, and comply with, the licences and permits required to conduct works for the duration of the contract.

These include, but are not limited to:

- Permission to access pastoral, private or Aboriginal owned land,
- Permissions to extract water and/or minerals from pastoral or private land,
- Swipe card or Power and Water Corporation (PWC) Meter number for use,
- Permits from the relevant Land Council that allows for Contractors to enter and remain on Aboriginal land,
- Permits from the entities with jurisdiction over the land to carry out the works, and/or activities associated with the works, on that land.
- Approval from Department of Health (DoH) for on-site effluent disposal system. For remote areas certification from a licenced plumber is acceptable.

- Registration with DoH for a camp commercial food preparation area in accordance with the *Food Act*,
- The Department's Environment Services Branch endorsement of Contractor's Environmental Management Plan (CEMP).

13. LAND ACCESS

13.1 SUBMISSION OF PERMISSION TO ENTER LAND - HOLD POINT

Hold Point - Provide a copy of the written permission to enter land prior to entering land not owned by the Northern Territory Government or land outside a road reserve, unless permission is provided by the Superintendent.

Obtain the written permission from the owner, the lessee, the government operator, or, in the case of Aboriginal Land, a permit from the relevant Land Council.

14. CULTURAL AND HERITAGE CLEARANCES

14.1 CLEARANCE FROM LAND COUNCIL – HOLD POINT

Hold Point - Provide a copies of written clearance(s)/consent(s) from Aboriginal Land Council(s) with jurisdiction over the site(s) of the works for all works on Aboriginal Land before commencing works.

This Hold Point does not apply if the Principal or Superintendent has obtained and provides the required clearance(s).

Under the *Aboriginal Land Rights (Northern Territory) Act 1976* (ALRA) access to Aboriginal Land will require clearances from the relevant Land Council. These may include the area of proposed works, nominated extraction areas, nominated workers camp location and water points.

The Principal will generally obtain Land Council clearances for the project. If the Contractor elects to work outside the areas covered by the clearances it is the responsibility of the Contractor to apply for and obtain a Land Council Clearance under the ALRA before commencing works.

Hold Point - Provide copies of permits to access Aboriginal Land(s) issued by the Aboriginal organisation(s) with jurisdiction over the land(s) to which access is required for execution of the works.

The four Land Councils in the Northern Territory are:

- Northern Land Council
- Central Land Council
- Tiwi Land Council
- Anindilyakwa Land Council (Groote Eylandt).

14.2 ABORIGINAL AREAS PROTECTION AUTHORITY CERTIFICATE – HOLD POINT

Hold Point - Provide copies of AAPA Certificate(s) prior to commencing works. This Hold Point does not apply if the Principal or the Superintendent has obtained and provides the required AAPA Certificate(s).

The Principal has obtained or will obtain AAPA Certificate(s) under the *Northern Territory Aboriginal Sacred Sites (NTASS) Act*. The certificate(s) provide the Principal and it's Contractor, including sub-contractors, with indemnity from prosecution under the NTASS Act as long as the following are adhered to:

- All works are confined to the 'subject land' identified on the Certificate,
- All activities conducted by the Contractor are covered in the 'Proposed Work or Use' on the Certificate,
- All conditions on the certificate,
- All Contractors, employees and sub-contractors are aware of the conditions of the Certificate.

If the Contractor elects to work outside the areas covered by the Certificate provided, it is the responsibility of the Contractor to apply for and obtain an AAPA Certificate under the NTASS Act before commencing works. Approval of the Superintendent will also be required.

14.3 APPROVAL FROM HERITAGE BRANCH

Any construction work or proposed development on a heritage-listed property in the Northern Territory is regulated and controlled under the *Heritage Act*.

Some temporary work or routine maintenance on a heritage property does not need approval.

All Aboriginal and Macassan archaeological places and sites are automatically protected under the *Heritage Act*, whether they are recorded or not.

Where an *Environmental Risk Assessment* or *Notice of Intent* has been undertaken by the Department, any known/registered cultural and heritage items or places will be listed in the document. Any conditions relevant to the sites are to be adhered to at all times.

Contact the Department of Tourism and Culture (DTC), Heritage Branch on (08) 8999 5039 for more information. Information is also available at <https://nt.gov.au/property/building-and-development/heritage-properties-building-works-and-development>.

15. PROTECTION OF CULTURAL AND HERITAGE ITEMS AND PLACES

15.1 GENERAL - HOLD POINT

European Heritage and Aboriginal Cultural areas and items are protected under the *Heritage Act 2011* and *Northern Territory Aboriginal Sacred Sites Act 1989* (NTASS Act) respectively. Listed Matters of National Environmental Significance are protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Where an Environmental Risk Assessment or Notice of Intent has been undertaken by the Department, any known/registered cultural and heritage items or places will be listed in the document. Any conditions relevant to the items and places are to be adhered to at all times.

Hold Point - Should any item or artefact or material or relic be encountered which might be of heritage value or any item or relic or artefact or material which might be of Aboriginal origin, cease all construction work that might affect the item or artefact or material or relic and protect the item or artefact or material or relic from damage or disturbance. Notify the Superintendent immediately. The Superintendent will arrange for appropriate specialists and community representatives to inspect the site.

In the event any potential archaeological sites are encountered, works in the immediate area should cease and the Heritage Branch of Department of Tourism and Culture be contacted for advice. Advise the Superintendent that this has occurred.

Ensure that all personnel working on site have received training regarding their responsibilities regarding cultural heritage and are made aware of any sites/areas which must be avoided or protected including Sacred Sites identified on the AAPA Certificates.

Sites or areas which must be avoided or protected during works must be identified on a site map. The map must be made available to all relevant personnel during the works.

The protection of sites may require the installation of temporary protection fencing and maintenance of that fencing. Provide the temporary protection fencing and maintain it for the duration of the contract.

15.2 BREACH OF THE NT ABORIGINAL SACRED SITES ACT OR HERITAGE ACT

If AAPA, Aboriginal Land Council, or Department of Tourism and Culture notifies the Superintendent that a Certificate condition or any other condition applying to the protection of a sacred site or cultural heritage site has allegedly been breached, the Superintendent will instruct

the Contractor to stop work at or near the affected site.

The Superintendent will arrange for a meeting for the following purposes:

- To view the affected site,
- To discuss when work might resume in the vicinity of the sacred site or heritage site,
- Agree to any restorative measures that may be needed.

The parties that attend that meeting may include traditional custodians, the Contractor, AAPA representatives, representatives of the Principal, the Superintendent or a nominee of the Superintendent, and representatives of the Heritage Branch.

Works cannot recommence in the affected area until notification that works may recommence is given by the Superintendent.

If restorative measures are required the Superintendent will document the requirements and issue a letter to all parties specifying the restorative measures which are to be implemented together with a timetable for implementation. All parties are to respond to the letter to confirm agreement. The Superintendent will give instructions on the restorative measures which are to be implemented.

Meet the reasonable costs of:

- AAPA representatives and the custodians to attend the site meeting in accordance with Section 19G of the *NTASS Act*, and with the *NTASS Regulations*, and
- Any restorative measures agreed upon between AAPA and the custodians, or Heritage Branch, and
- The Principal, if any.

AAPA will independently investigate whether a prosecution should also be pursued under the *NTASS Act*.

16. PERMIT TO CLEAR NATIVE VEGETATION

16.1 SUBMISSION OF PERMITS / PERMISSIONS TO CLEAR NATIVE VEGETATION - HOLD POINT

Hold Point - Provide a copy/copies of permit(s) to clear native vegetation, for the execution of the works, from the permit authority under the *Planning Act* and/or the *Pastoral Land Act*, before commencing works.

Hold Point - Provide a copy/copies of written permission to clear native vegetation from the owner(s) or lessee(s) of the land, proposed to be cleared for the execution of the works, before commencing works.

Freehold land, which includes most rural areas of Darwin, Katherine and Alice Springs, as well as

Aboriginal land and Crown land, is controlled by the *Planning Act*.

Land clearing on pastoral land is controlled by the *Pastoral Land Act*.

A permit to clear native vegetation may be required in accordance with the *Planning Act* or *Pastoral Land Act*.

Refer to the DENR webpage for more information <https://nt.gov.au/property/land-clearing/application-process-and-legislation>.

Refer to VEGETATION MANAGEMENT.

17. SITE CONTROL APPROVAL

17.1 APPROVAL FOR ANCILLARY AREAS - WITNESS POINT

Witness Point - Obtain written approval from the Superintendent for the establishment and use of any detours, turnarounds or equipment lay down areas. Use existing cleared areas where possible.

Site works and facilities must be located and managed to minimise impacts on the environment and on the community.

Do not form any new tracks, alter any existing tracks, erect any camps, remove any trees or shrubs, cut any fences or water, sewer, power or telecommunications lines or perform other activities not specified or indicated on the drawings or otherwise required under the Contract without the prior written approval of the Superintendent.

17.2 SITE STAFF FOR ENVIRONMENTAL MANAGEMENT

For Tier 4 and Tier 5 contracts, have at least one representative on-site at all times when works are being undertaken who has relevant experience and/or a Certificate level Qualification in Environmental Management for construction sites.

17.3 STAGING OF WORKS

All works are to be staged appropriately to minimise potential risks and impacts to the environment. Staging of the works must be addressed in the project timeline.

All works within waterways/drainage lines are to be completed and the site stabilised prior to the start of the Wet Season, nominally 1st October. If this is not possible and works will continue in the Wet Season, appropriate controls to manage environmental impacts are required to be established by 30th September.

18. CAMP SITE / COMPOUND / WORKSHOP PERMISSION

Pay all costs associated with the use of the site(s).

Maintain all facilities in good condition.

Maintain buildings in relation to fire protection in accordance with the Northern Territory *Building Act 1993* and Northern Territory *Fire and Emergency Act 1996* and associated Regulations.

18.1 SUBMISSION HEALTH DEPARTMENT PERMITS - HOLD POINT

Refer to the *Department of Health - Health Requirements for Mining and Construction Camps*

<https://nt.gov.au/property/building-and-development/health-and-safety/health-requirements-mining-construction-projects>.

Hold Point - Provide a copy of written approval from DoH for any proposed on-site effluent disposal system, before commencing works. For remote areas certification by a licensed certifying plumber is acceptable.

Hold Point - Provide a copy of written approval from DoH for any proposed kitchen and/or food handling facility.

18.2 APPROVAL OF REHABILITATION - HOLD POINT

On completion of the works remove all facilities, unless otherwise agreed in writing with the owner or lessee of the land and restore the site to a clean and tidy condition.

Rehabilitate the site to its condition prior to conducting site works for establishing the camp ground, compound and/or workshop unless another course of action is approved by the Superintendent. Where the camp site/compound/workshop is located within an extraction area, rehabilitation as per REHABILITATION OF EXTRACTION AREAS DETOURS AND ACCESS TRACKS is to be undertaken and approved by Superintendent prior to final demobilisation.

Assume all responsibility for any current and consequential damage caused to the site as a result of occupation and pay for all remedial action required.

Refer to ENVIRONMENTAL LEGISLATION, REGULATIONS AND STANDARDS.

Hold Point - Obtain approval from the Superintendent for the completed rehabilitation of the camp site/compound/workshop before final demobilisation.

19. MATERIALS EXTRACTION APPROVAL/CLEARANCE

19.1 SUBMISSION OF APPROVALS AND CLEARANCES - HOLD POINT

Hold Point - Provide documented evidence that the appropriate approvals and clearances have been obtained, for extraction of materials/minerals including sand, and/or gravel,

and/or fill, prior to commencing any work on or in material extraction areas, either new or existing.

The types of approvals include, but are not limited to, those from:

- Aboriginal Areas Protection Authority (AAPA),
- Northern Territory Environment Protection Authority (NT EPA),
- Heritage Branch - Department of Tourism and Culture,
- Relevant Land Councils,
- Land owner (freehold) or lessee of any land affected,
- Service Authorities,
- The Department's Environment Services Branch endorsement of Pit Management Plans,
- Any other relevant approving authority.

Creation or use of existing extraction areas for fill or gravel within the road reserve not supplied/nominated by the Department require the written approval from the Superintendent before use. Use of extraction areas will be allowed provided that all applicable requirements listed in this Specification are fulfilled and all permits and permissions are obtained.

Comply with the requirements stated in (Material) Extraction Areas and Water Sources clauses in the MISCELLANEOUS PROVISIONS and/or GENERAL REQUIREMENTS sections of the applicable project specification(s) which may be one or more of the following; the Standard Specification for Road Maintenance, and/or the Standard Specification for Roadworks, and/or the RFT/RFQ.

The Department's standard requirements for the operation of extraction areas are as follows:

Access

- Construct only one access road to each pit. Additional access roads require written approval from the Superintendent prior to construction,
- Confine all transport operations to the access road, the extraction area, the site of the works and/or existing public roads,
- Provide and maintain adequate road drainage to the access road.

Limit of excavation

- Not within 6m of any fence line or utility service line or point,
- Not within any gas pipeline easement,
- Not within 125m of any road or railway centre line,
- Not within 25m of a water course (refer to [Northern Territory Land Clearing Guidelines 2010](#) for water course buffers),
- Not within 200m of a defined waterway crossing,
- Not within vegetative buffers,

- Pit should be 1ha maximum.

Hold Point – Obtain Superintendent approval to exceed 1ha pit size.

Extraction

- Stockpile cleared vegetation for use in pit rehabilitation,
- Strip 100mm depth top layer throughout the extraction area of operation and stockpile,
- Stockpiled material to be clear of drainage lines, and other vegetated areas, to a maximum height of 2m,
- Side slopes of sand or gravel to be no steeper than one vertical to two horizontal at any time when the excavation is unattended,
- Remove or bury by-products of the excavation operation unless otherwise specified,
- Progressively rehabilitate extraction areas i.e. rehabilitate one pit before moving to the next.

No deviation from the above requirements will be permitted without written approval from the Superintendent to proceed.

The Department may require a Pit Management Plan be developed for large or high risk projects. The Pit Management Plan is to provide detail as to how the Contractor plans to clear, work and rehabilitate pits during the life of the project. The Pit Management Plan is to include, as a minimum, diagrams showing the pits to be used, location of stockpile sites, drainage lines and location and type of erosion and sediment controls, and details regarding pit staging and rehabilitation.

Rehabilitation of extraction areas is to be undertaken to REHABILITATION OF EXTRACTION AREAS, DETOURS AND ACCESS TRACKS.

20. REQUIREMENTS FOR EXTRACTIVE OPERATIONS IN NORTHERN LAND COUNCIL AREAS

These conditions take precedence over any conflicting provision in this specification for mineral extraction operations taking place in land under the jurisdiction of the Northern Land Council and its Aboriginal Land Trusts.

These conditions apply to all personnel who enter the site of the extractive area.

Extractive operations are only permitted for gravel and sand.

The extracted minerals are to be used only for the works subject to the contract.

The rights to extract minerals, and the rights to the minerals extracted, cannot be assigned to any other person or entity. Any extracted minerals cannot be sold.

Use the extracted gravel and sand for roads and associated drainage, aerodromes, barge

landings and essential services infrastructure only.

Top soil and rock are not to be removed from the site of the extractive area but may be relocated within the extractive area.

The quantities of gravel and sand removed must be measured in compacted cubic metres.

Record quantities of gravel and sand removed, in compacted cubic metres, and send this information to the Superintendent on a monthly basis.

Allow a Land Trust nominee access to the site of the extractive operations provided at least 7 days' notice is given by the Land Trust or its nominee.

Do not take firearms, alcohol or animals onto the extractive area.

Do not enter a building area, a living area or an occupied or currently in use camp site unless invited to do so by the occupier.

Do not enter or disturb a sacred site or a recorded site of significance or human remains or an archaeological site.

Do not disturb, interfere with, photograph or otherwise record any sacred object, Aboriginal painting or Aboriginal ritual or ceremony.

Do not commit an offence under the laws of the Northern Territory.

Do not act in a manner which offends against the rights of others, including Traditional Owners, with rights of access to the extractive area.

Provide a list of the names of all personnel who will enter the extractive area. This list can be provided in the application for a permit to work made under the *Aboriginal Land Rights Act*.

Do not take up residence in the extractive area.

Extractive areas must be at least 50m away from any watercourse.

Extractive areas must have a buffer zone of at least 50m width of native vegetation from adjacent land, existing roads, and water courses.

Provide an Environmental Management Plan which details the measures in place for sediment and erosion control.

Do not carry out, or allow to be carried out, any activity which is noisome, dangerous or offensive and which may become a nuisance to the Land Trust or persons living in the vicinity of the Extractive area, having regard to the nature of Extractive Operations, including the use of heavy plant and equipment.

Comply with any restrictions or conditions stated in any AAPA clearances related to the works.

21. STOCKPILE MANAGEMENT

Install all necessary erosion and sediment control measures to effectively manage sediment laden runoff or wind erosion from stockpile areas.

Do not place stockpiled materials inside vegetation protection areas or within 10m of retained trees or within the drip line of any trees. Comply with *AS 4970 Protection of trees on development sites*.

Do not place stockpiles within 50m of any drains, drainage lines, creeks or other waterways.

Locate the stockpiles so that any slump of the stockpile would not affect erosion and sediment control measures or infringe upon specified minimum clearance requirements.

Top soil stockpiles are not to be more than 2m in height. All other stockpiles should not be more than 3m in height.

21.1 SUBMISSION OF APPROVALS – HOLD POINT

Hold Point - Obtain approval from the Principal or Superintendent for the stockpiling of material more than 2m in height. The approval is to include the reason for stockpiling at this height and also provide measures to mitigate dust, erosion and sedimentation.

Topsoil that is not contaminated by declared weeds must be stockpiled for later spreading on batters and other disturbed areas. Other material may also be stockpiled but separated from the topsoil stockpiles.

Stockpiles in residential areas or adjacent to sensitive receivers are not to exceed 2m in height.

Maintain the stockpiles to prevent the growth of weeds on the stockpiles.

22. WATER EXTRACTION LICENCE

Pay all fees and costs associated with the extraction of water.

22.1 SUBMISSION OF WATER EXTRACTION LICENCE - HOLD POINT

Hold Point - Provide a copy of a Water Extraction Licence for the taking of groundwater and/or surface water outside urban areas for the works subject to the contract unless a permit has been obtained by the Superintendent. This Hold Point does not apply to the extraction of water to be used for road works on Northern Territory Government owned public roads.

Obtain a Water Extraction Licence under the *Water Act 1992* from Department of Environment and Natural Resources (DENR) to extract water for all works, including building construction, outside the urban areas.

The Northern Territory Administrator signed an exemption to Section 45 of the *Water Act* for extraction of water for the purpose of road works on public roads. This exempts the Department and its Contractors from the requirement to obtain a water extraction licence when undertaking water extraction associated with road works on public roads.

NOTE: Although a licence from DENR to extract water for road works is not required, approvals to use or extract water from a waterway may still be required as specified below.

23. WATER EXTRACTION APPROVAL

23.1 SUBMISSION OF WATER EXTRACTION APPROVAL - HOLD POINT

Hold Point - Obtain written permission from the owner or lessee if water extraction is proposed from a private bore, dam, Power and Water Corporation (PWC) hydrant or stand pipe, or waterway, for all works. Provide a copy of the written permission, or a copy of the PWC swipe card, to the Superintendent. Include this information in the CEMP.

For projects other than roadworks, including civil and building projects, apply to the relevant authority for approval to use and draw water from any surface or subsurface body. Generally this is either Water Resource Branch DENR <https://nt.gov.au/environment/water/apply-for-water-extraction-licence> or PWC. Allow at least 3 weeks for this process.

Water extraction procedures must include regular testing of the source if water from a sewage treatment works or another source other than a town water supply or natural water source is to be used. Testing must ensure that the water is suitable for the purpose and is not hazardous to health and the environment.

23.2 EXTRACTION FROM HYDRANTS AND STANDPIPES

Where water extraction is required within an urban or peri-urban area for projects, the relevant PWC permit, swipe card or meter number is to be provided to the Superintendent and included in the CEMP.

23.3 EXTRACTION FROM BORES - HOLD POINT

Hold Point - Provide documentary evidence of approvals and clearances to extract water from any bore which is not an NTG Road Bore and for which the Principal or Superintendent has not provided an approval. Provide these before commencing any water extraction activities.

Hold Point - Provide copies of written permission to gain access to the land where the water bodies or bores which are to be used for extraction of water are located.

Where possible the Principal will nominate bores for projects. NTG Road Bores are to be utilised where possible, but where this is not practical, private bores may be nominated. Any approval to access private or leasehold land to extract water from a bore is the responsibility of the Contractor.

If the Principal nominates a bore for water extraction on Aboriginal Land, the Principal will provide the relevant clearances. If the Contractor nominates a bore other than those provided in the tender documentation, it is the responsibility of the Contractor to obtain all relevant approvals, including AAPA and Land Council clearances.

Resources are available to assist the Contractor in locating suitable locations to extract water. e.g., the DENR internet page for bore locations. These services should be used where possible to find appropriate bores to service works.

Where the extraction from a bore within 1 km of PWC production bores, in close proximity to a remote community, is required for project works, the PWC Remote Operations Senior Hydrogeologist is to be contacted on 1800 245 092 during normal business hours. PWC needs to ensure that the taking of groundwater from aquifer systems developed for Remote Community water supply will not place unsustainable stress on that water supply during the works.

23.4 SURFACE WATER EXTRACTION - HOLD POINT

Hold Point - Provide copies of approvals and clearances to extract surface water before commencing water extraction activities.

Hold Point - Do not form sumps or dams in water courses or water bodies unless permission is given by the Superintendent.

Surface water may be used for projects where groundwater sources are unavailable. If a project requires the extraction of water from a water body, where available the Principal will nominate the water point and provide the relevant cultural clearances.

Obtain approval to access the water point where a water point on Private or Leasehold Land is nominated.

If the Contractor nominates a water point other than those provided in the tender, approval from the Department may be granted provided the following conditions are adhered to:

- Notify the Superintendent of the location, expected water use and how it will be extracted for each and every proposed occasion. This must be done prior to extracting any water. The Superintendent will review the information prior to providing approval. Do not extract water until permission to extract water is granted.

- All relevant cultural clearances are to be valid and allow for access to and extraction of water.
- For all water bodies, ensure that any water extraction will not reduce the supply utilised by local landholders to the point where such users are adversely affected. For all water bodies, ensure that any water extraction will not reduce the supply to the natural environment to the point where the natural environment is adversely affected. The general guideline is that only 20% of any flow in a river or 20% of any standing water body should be used in the Top End and 5% for Southern Regions. Generally, construction of sumps or dams is not permitted.
- Where a standing water body is less than 500mm deep or extraction from the water body (river or waterhole) is likely to exceed 20% as detailed above, source an alternative water supply. Should alternative water supply not be available contact the Department's Environment Services Branch for advice and guidance.
- Protect the banks and beds of any waterhole or river, including soaks used from seasonally dry river beds, used for water extraction. Any damage is to be repaired immediately. Pads and tracks likely to contribute to erosion must be rehabilitated.
- No fuels, lubricants or equipment, other than pumping equipment are permitted to enter or remain at the water body.
- Non-permeable bunding in accordance with AS 1940 is to be provided around pump and generator equipment.

24. WATER QUALITY

Comply with all relevant legislative requirements and requirements of local water authorities and all other relevant laws and by-laws in force in the Northern Territory.

Provide controls, including soil erosion and sediment controls, to ensure that all water leaving the site complies with any water quality criteria nominated by DENR and/or NT EPA and/or as specified under the Environmental Management Specific Requirements clause in ENVIRONMENTAL MANAGEMENT in the RFT/RFQ.

Water quality of the downstream environment is to remain as close as possible in quality as those upstream environments above the designated works area.

In the urban environment measures are to be implemented to prevent contaminated water leaving the worksite and entering stormwater infrastructure.

Where specified under the Environmental Management Specific Requirements clause in ENVIRONMENTAL MANAGEMENT in the RFT/RFQ water quality monitoring is to follow basic scientific methodology as detailed in the ANZECC publication *National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting* (October 2000) available via

<http://webarchive.nla.gov.au/gov/20130904202327/http://www.environment.gov.au/water/publications/quality/nwqms-monitoring-reporting.html>

Baseline measurements of, as a minimum, upstream and downstream flow rates, turbidity and pH levels, are to be undertaken prior to commencement of the works.

During construction monitoring is to occur at the same locations upstream and downstream at approximately 100m away from either side of the boundary of the works area and at the same time weekly to ensure consistency. A proposed time of the day and day of the week for testing to be carried out is to be approved by the Superintendent prior to works commencing (for example: Wednesday 10.00am each week). Test results are to be provided to the Department within 24 hours of the test having been carried out.

The water testing is to include the upstream and downstream flow rates, turbidity and pH levels.

The weekly reporting is to include:

- The date and time the monitoring was undertaken at each location,
- The details of the person undertaking the monitoring (name, title and contact phone number),
- The GPS location of the sampling site,
- The flow rate in m³/s,
- The quantity of water extracted from the waterway during the previous week (if any),
- The turbidity in Nephelometric Turbidity Units (NTUs),
- The pH level.

24.1 POTABLE WATER PIPEWORK COMMISSIONING MANAGEMENT

Standard to PowerWater requirements.

Flush the pipework to clear dirt and debris.

Disinfect the pipework.

De-chlorinate the pipework.

Test the pipework for residual chlorine levels and for the presence of bacteria.

If the pipework fails a test the process is to be repeated as often as necessary to achieve a pass on the test.

The environment to which the chlorinated water is to be discharged must be inspected and approved by the relevant authorities.

Flushing/discharge must be managed to prevent damage/impacts to the environment. If chlorinated discharge may damage/affect the environment, neutralising chemicals must be used.

Disinfection and de-chlorination of water service connections larger than 20mm is required for all new reticulated pipework.

After successful completion of chlorination process, adequately flush the new water main at high flow using mains water through an approved PWC meter with the appropriate backflow prevention device to remove debris until chlorine residuals are equivalent to town water (less than 1mg/L). PWC must be notified a minimum of 24 hours prior to flushing. The certifying consultant shall collect and deliver the water sample for bacteriological test.

Engage a Consultant to undertake pressure, chlorination and bacteriological tests. If the tests indicate that the pressures or chlorination or bacteria levels in the tested water do not meet PWC requirements undertake rectification actions and re-test, at no cost to the Principal, until the required levels are achieved. The consultant shall provide the pressure, chlorination and bacteriological test results from all tests to the Superintendent. The consultant shall provide the final, compliant, pressure, chlorination and bacteriological test results to PWC prior to the handover meeting. The chlorine results will only remain valid for a maximum period of 14 days from date of testing.

Once tests have been completed to the satisfaction of PWC requirements, the chlorinated water shall be discharged to prevent damage to pipe lining or prevent corrosion to the new pipework. The environment to which the chlorinated water is to be discharged must be inspected and approved by the relevant authorities. If chlorinated discharge may damage or affect the environment, neutralising chemicals must be used.

24.2 SURFACE WATER MANAGEMENT

The natural channel geometry and meander form of perennial and non-perennial streams must not be altered, nor riparian vegetation disturbed except where written approval is given by the Superintendent.

Temporary hydraulic structures such as open channels, drainage lines, batter chutes, release points into streams, and vehicle crossings, are to be designed to carry flows and remain stable, without causing erosion damage, in at least the 5-year Average Recurrence Interval (ARI) event of critical duration.

Flow in channels and drainage lines must be managed to non-erosive velocities, or channels lined with suitable protective material as necessary to prevent scouring.

Works in waterways and stormwater drainage lines are to be timed to minimise the potential for exposure to rain or flood events, have minimal disruption with disturbed areas and be rehabilitated within 10 days following completion of works in these areas.

Table drains are to be top-dressed with stripped topsoil from the project to promote the re-establishment of grasses along batters. Where specified in the project RFT/RFQ the batters are to be hydro-mulched with native or exotic species as listed in the document.

25. CONSTRUCTION SITE DEWATERING

25.1 APPROVAL OF DEWATERING ACTIVITIES - HOLD POINT

Hold Point - Superintendent to approve any proposed dewatering activities prior to commencement of the activity.

25.2 DEWATERING REQUIREMENTS

Dewatering includes any activity that involves the removal of clean ponded stormwater or infiltrated groundwater from any location on site and the subsequent reuse or discharge of that clean water.

Conduct all dewatering activities in a manner that does not pollute the environment.

Water quality is to be adequately and continuously protected through all phases of development and construction of the project. Water discharged from the site is to be of a standard to ensure no detrimental impacts on water quality and the environment occur during the construction phase. An increase in suspended solids within surface waters discharged from a work site is not to exceed a 10% increase from upstream to downstream of the site, where water quality up stream of the site has not been impacted on by other soil disturbing activities.

The NT EPA has developed the *Guidelines to Prevent Pollution from Building Sites* (NT EPA 2015) available via

<https://ntepa.nt.gov.au/waste-pollution/guidelines/guidelines> .

According to the NT EPA Guidelines, on-site dewatering water quality release criteria are:

Indicators	Criteria
Turbidity	<20NTU
Total suspended solids	<50mg/L
pH	6.5 - 8.5

Dissolved Oxygen	90th percentile > 80% saturation or 6 mg/L
Litter	No visible litter washed from site
Oil and Grease	No visible oil or grease

Ensure water released from site conforms to these criteria as a minimum. Water released from site must also conform to PWC requirements. Water released from site must conform to the more stringent requirements if there are differences in the two sets of requirements.

26. VEGETATION MANAGEMENT

26.1 OVERVIEW

Do not destroy, remove or clear vegetation to an extent greater than is necessary for the execution of works.

Minimise environmental risks by following vegetation management strategies such as:

- Excluding access to significant vegetation areas,
- Excluding access to sacred sites, sacred trees, sacred features, sacred areas and the like in accordance with PROTECTION OF CULTURAL AND HERITAGE ITEMS AND PLACES,
- Selecting appropriately sized clearing machinery and equipment,
- Minimising worksite area,
- Protecting vegetation drip lines,
- Locating ancillary activities, such as stockpile sites, camps, parking locations, vehicle hardstands and the like, within existing disturbed areas.

Where trees are to remain on site within the construction zone, meet the requirements of AS 4970 *Protection of trees on development sites*. The radius of the Tree Protection Zone (TPZ) is determined using the formula TPZ = Trunk Diameter at Breast Height (1.4m above ground) x 12.

26.2 ACTION REQUIRED IF A THREATENED SPECIES IS DISCOVERED - HOLD POINT

Hold Point - Should a threatened species be identified onsite, in addition to those identified in the relevant Environmental Risk Assessment, Notice Of Intent, or other Department gained approval, stop works in the immediate area, notify the Principal and the Superintendent, and install a temporary protective barrier to protect the species. Do not recommence works in that area until protection measures required by the appropriate authority have been implemented and the Superintendent advises that work can resume in that area.

26.3 SITE CLEARING – WITNESS POINT

Witness Point - Prior to clearing any area, it is to be demarcated with fencing, flagging tape, spray paint or other method approved by the Superintendent. Provide documented advice of the proposed methods for demarcation of areas to be cleared.

Do not install any demarcation indicators (tapes, spray paint or other) outside the clearing limits shown on the drawings, and do not install any demarcation indicators outside any other clearing limits approved in writing by the Superintendent. Contain the extent of site clearing to within the limits specified or indicated on the drawings or otherwise approved in writing by the Superintendent. Ensure that all site personnel observe the limits of clearing.

Should works or disturbance be proposed in areas outside the previously approved works boundaries, permission must be obtained in writing from the Superintendent. Justify the need to enter any areas outside of the previously approved site boundaries and detail the works proposed within the new limits on plans.

If any areas of vegetation within the limits of clearing are to be retained, fence off with temporary fencing.

Clearing should be staged so that land disturbance is confined to minimum areas of manageable size, thereby limiting the extent and duration of exposure. Control measures should be applied progressively as each stage is cleared.

All areas to be cleared must be identified on clearing plans. These clearing plans must be approved by the Superintendent. These approved clearing plans must be provided to the personnel undertaking the clearing works. The areas to be cleared must be clearly demarcated on the ground prior to any clearing activities commencing.

Methods and timing of clearing is to be implemented in a manner that minimises the potential for erosion to occur. All machinery operators should be trained in best practices for clearing to minimise erosion.

Cleared vegetation, excluding weeds and their seeds, may be stockpiled and reused on site for rehabilitation of disturbed areas such as, extraction areas, vehicle turn around areas, detours etc.

Where applicable, cleared vegetation, excluding weeds and their seeds, can also be mulched on site and re-used on site where appropriate as ground cover or environmental control measures, if suitable.

Storage of cleared vegetation and stripped topsoil is not to impact on areas outside of that documented as the site area for project works.

Clearing of native vegetation, particularly within extraction areas, is to adhere to the buffer requirements to waterways stated in the *NT Land Clearing Guidelines 2010* available via <https://nt.gov.au/property/building-and-development/northern-territory-planning-scheme/referenced-documents-guidelines>.

Any variation to the buffers distances outlined in the *NT Land Clearing Guidelines* will require prior written approval from the Superintendent.

Remove excess or unwanted material from the site and dispose in accordance with local authority requirements and guidelines.

Refer to REFERENCES and to PERMIT TO CLEAR NATIVE VEGETATION.

26.4 PRUNING OF AMENITY TREES

Carry out tree pruning operations in accordance with AS 4373. Include at least one qualified arborist in each tree pruning team.

Tree lopping or heavy pruning practices are not acceptable, except on the written recommendation of a qualified arborist. Obtain written approval from the Superintendent if tree lopping and/or heavy pruning is required.

Tree removal operations do not require a qualified arborist to be included in the work team.

26.5 LIGHTING OF FIRES

The lighting of fires for clearing of vegetation or disposal of rubbish is not permitted under any circumstances.

Where fires are accidentally started, extinguish the fires immediately if safe to do so. Camp fires are not permitted on site without written consent from the Superintendent. Where campfires are permitted, control of campfires are strictly the Contractor's responsibility. Fires are not permitted during fire bans.

The provision of containers or sand buckets are required around workers' compounds and camp sites and, where practical, in the worksite, for the disposal of cigarette butts.

27. FAUNA MANAGEMENT

All native wildlife must be protected.

All trees to be removed are to be inspected to establish whether nesting native fauna are present. If present, disturbance should only proceed after approval from the Superintendent.

Fauna spotters/handlers are required where projects require the clearing of mature trees that have a high risk of nesting or roosting opportunities for wildlife and/or where greater than 1 hectare of native vegetation is required to be cleared.

27.1 NOTICE OF THREATENED OR NESTING FAUNA - HOLD POINT

Hold Point - Advice must be sought from DENR or the Department's Environment Services Branch if nesting fauna are sighted. Ensure sufficient time is available to allow any required specialist to make a determination and give advice to the Superintendent.

Hold Point - Should a threatened species be identified onsite, stop works in the immediate area, notify the Superintendent, and install temporary protective barriers to protect the species.

28. ANIMAL MANAGEMENT

All necessary measures are to be implemented to prevent the establishment of suitable environments for mosquito breeding habitat. Where works are undertaken in areas known for biting insects, personal protective measures are to be made available to workers and visitors.

Ensure that all necessary measures are undertaken to prevent the introduction and spread of pest animals. No domestic pets, including dogs, are to be brought to the construction site by construction personnel without written approval from the Superintendent. If approved, pets must be under control and safely secured at all times.

28.1 NOTICE OF PETS - WITNESS POINT

Witness Point - Provide evidence that pets will be under control and safely secured at all times.

29. COMMUNITY LIAISON

29.1 NOTIFY RESIDENTS AND BUSINESSES

Notify local residents and businesses, including Aboriginal communities, about new or changed construction activities which will affect access to their properties or otherwise significantly disrupt residents or occupiers use of their premises.

Unless the work is of an urgent nature for safety reasons, notification of residents must be at least 5 working days before commencing the work and must advise of the following:

- The nature of the work,
- Why it is necessary,
- The expected duration,
- Changes to arrangements for traffic or property access,
- The name and contact telephone number of the Contractor's representative who can respond to resident concerns and who can be contacted 24 hours a day, 7 days a week.

The Superintendent will provide the Contractor with a contact point for Aboriginal communities.

29.2 COMPLAINTS

Within 1 working day of receiving a complaint about any environmental issue, including pollution, supply a written report to the Superintendent detailing the complaint and action taken to alleviate the problem. Keep a register of all such complaints, together with the following records:

- Date and time of complaint,
- The method by which the complaint was made (telephone, letter, meeting, etc.),
- Name, address, contact telephone number of complainant (if no such details were provided, a note to that effect),
- Details of complaint,
- Action taken in response including follow up contact with the complainant,
- Any monitoring to confirm that the complaint has been satisfactorily resolved,
- If no action was taken, the reasons why no action was taken.

30. AIR QUALITY

Construction facilities are to be designed and operated to minimise the emission of smoke, dust, pesticides and other substances into the atmosphere.

Comply with the requirements of the WMPC Act and any conditions of licences, notifications, approvals or permits in relation to maximum air pollutant levels.

Where monitoring is required, the monitoring must comply with the NT EPA air quality guidelines.

Employ construction methods that will keep the air pollution to a minimum. Apply appropriate measures to ensure that airborne pollutants from all activities do not cause undue disruption or inconvenience in the vicinity of the Site.

The following measures, where applicable, are to be conducted to minimise this risk to the environment:

- Spraying of earthwork formations and roads with water or other suitable liquids approved by the Superintendent,
- Removal of mud from the wheels and bodies and undercarriages of haulage equipment before it enters public roads or other sealed pavements,
- Quick removal of mud spilt or deposited by the transport of materials on to public roads or other sealed pavements,
- Limit vehicle speeds on unsealed roads/surfaces to control the generation of dust by vehicles,

- Establishment of suitable cover crop or provision of other covering over topsoil stockpiles,
- Erection of dust screens around stockpiles, and/or spraying of stockpiles with suitable stabilising agents,
- Stopping dust generating activities which cannot be adequately controlled by water or other means,
- Transportation of materials which are suitably covered and loaded in a manner that will prevent dropping of materials,
- Maintaining dust control equipment so that this equipment is available when required, including periods of dust generating activities or high wind speed,
- Maintaining exhaust systems of construction plant, vehicles and machinery in accordance with manufacturer's specifications and undertaking periodic visual checks of exhaust systems' emissions,
- Treating topsoil stripped areas with no scheduled activities within two weeks to prevent dust generation.

31. NOISE CONTROL

Operate within the requirements of the *NT EPA Noise Guidelines for Development Sites* in the Northern Territory available via <https://ntepa.nt.gov.au/waste-pollution/guidelines/guidelines>, and the *WMPC Act*, or where operation outside of these guidelines is required obtain approval from the Superintendent.

Take all practical precautions to minimise noise resulting from the work activities. Fit noise suppressors to all construction equipment so that noise is minimised.

Do not use loud hailers in built up areas.

Where applicable the following measures should be applied to minimise the impact of noise:

- Substitution by an alternative process,
- Restricting times when noisy work is carried out,
- Placement of work compounds, parking areas, equipment and material stockpile sites away from noise-sensitive locations,
- Where noise barriers/walls are to be constructed, programming this as early as possible to reduce noise impacts from other construction work on neighbouring residents,
- Screening or enclosures,
- Consultation with affected residents.

31.1 COMPRESSOR SILENCING

Fit all compressor sets used in the performance of this work with effective acoustic canopies and

engine exhaust silencers of a type as recommended by the compressor manufacturer. Alternatively, compressor sets specially designed for quiet operation may be used. Keep compressor sets and canopies in effective operating condition at all times. Keep any access panels in acoustic canopies closed at all times while the sets are running.

31.2 JACKHAMMER SILENCING

Fit all jackhammers used in the performance of this work with effective silencers of a type as recommended by the jackhammer manufacturer. Service and maintain all tools to manufacturers recommendations at all times.

31.3 GROUND VIBRATION AND AIR BLAST

Take due care in all construction activities to prevent damage to adjacent public utilities, structures and buildings resulting from construction vibration and air blast. To protect the amenity of the occupiers of buildings, the activities must be carried out to meet appropriate standards and guidelines such as AS 2436 and AS 2187.2, British Standards BS ISO 4866 and BS 7385.2 and ANZECC publication *Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration, September 1990*, available via

<http://www.nepc.gov.au/resource/anzecc-reports>

Consider measures to minimise the impact of vibration and air blast, such as:

- Substitution by an alternative process,
- Restricting times when work is carried out,
- Screening or enclosures.

Consult with affected residents before commencing any activities likely to cause ground vibration or air blast.

32. PRESERVE VISUAL VALUES

Maintain the visual amenity of adjacent land owners at all times during the construction. Keep the site neat and tidy at all times.

Design and erect temporary lighting, including compound security lighting, in such a way that it minimises nuisance to residents, but conforms to the safety requirements for the illumination of the site. Ensure that adjoining residents or passing traffic is not affected by glare.

Rehabilitate land disturbed during the course of works as soon as possible.

33. CONTAMINATION MANAGEMENT

Comply with the WMPC Act in relation to disturbance or treatment of potentially contaminated land.

Immediately implement any control measures needed to divert surface runoff away from

contaminated land and to capture and manage any surface runoff contaminated by exposure to contaminated land.

33.1 CHEMICALS, DANGEROUS GOODS AND OTHER POTENTIAL CONTAMINANTS

Transportation of chemicals and dangerous goods is to be undertaken in accordance with relevant NT and National legislation, codes and standards including *Transport of Dangerous Goods by Road and Rail (National Uniform Legislation) Act 2010*.

Plan and execute all works to minimise the possibility of pollution of the Site and adjoining areas from chemicals, dangerous goods and other potential contaminants.

Use, store and handle chemicals and dangerous goods in accordance with all relevant legislation, manufacturer's instructions and the relevant Safety Data Sheets (SDS). Employ transporting, handling, storage and application methods that will prevent chemical, fuel and lubricant spillage on the site and adjoining areas.

Do not pollute or permit pollution of land or waterways by a chemical, fuel or lubricant, or any waste material or imported fill.

Failure to comply with these requirements may result in remedial action being taken at your cost and may result in legal action being taken.

33.2 SPILLAGE PREVENTION AND CONTAINMENT

Storage of chemicals and fuels is to meet requirements under AS 1940 *The Storage and Handling of Flammable and Combustible Liquids*. As a minimum the capacity of the bunded area (spillage containment compound) shall be at least 100% of the volume of the largest package plus 25% of the storage capacity up to 10,000 Litres (L), together with 10% of the storage capacity between 10,000L and 100,000L, and 5% above 100,000L.

The bunded storage area shall be sufficiently impervious to retain spillage and to enable recovery of any such spillage.

Do not locate storage areas within 50m of natural or built drainage lines, flood prone areas, or on slopes steeper than 1:10.

Do not leave refuelling operations unattended.

Do not refuel or maintain plant and equipment, mix cutting oil with bitumen, or carry out any other activity which may result in the spillage of a chemical, fuel or lubricant on any location with direct drainage to a waterway or environmentally sensitive areas without appropriate temporary bunding.

Vehicles and machinery are to be maintained to manufacturers specifications to reduce the risk of

fuel, oil or hydraulic fluid spills into the surrounding environment.

Do not use vehicles, machinery, plant or equipment which have fuel or oil leaks.

Where possible, workshops are to have impermeable floors to prevent hydrocarbon spills into the soils. If not, contaminated soils from the workshop area are to be disposed of in accordance with the WMPC Act.

Before discharging any water from bunded areas, verify that the water complies with any applicable legislation or water quality criteria nominated by the NT EPA and/or DENR. Arrange appropriate treatment if the water quality is not suitable for discharge.

Spill clean-up equipment and materials, appropriate for the type and quantities of chemicals used on site, must be kept on site at all times during the works and in a readily accessible location.

The equipment and materials for spill clean-up and containment must be maintained and replenished as needed.

All site personnel must be trained in the use of spill clean-up equipment, and containment of materials, including appropriate storage of chemicals if materials must be on site whilst any works are conducted on site. All site personnel must be aware of the location of spill kits on sites.

Clean up all chemical spills immediately. This may require the excavation of contaminated soil and appropriate remediation or disposal at a waste disposal facility. Dispose of contaminated materials in a legal site using legal methods.

Failure to comply with these requirements may result in remedial action being taken at your cost and may result in legal action being taken.

If spills result in an environmental incident, ensure that the incident is reported in accordance with reporting procedures and legislative requirements.

Do not dispose of liquid paint materials or other hazardous materials by flushing down any sewer, stormwater system or natural waterway.

Keep records of all water quality checks, discharges and any remedial actions.

Report all chemical spills to the Superintendent. Where appropriate, also report spills to the NT Pollution Hotline, phone 1800 064 567.

34. WASTE MANAGEMENT

Comply with the requirements of the WMPC Act.

Remove from the site and dispose of all waste materials, including green waste, food scraps and other putrescible wastes, construction waste, chemicals and effluent in an appropriate manner, in approved legal waste disposal sites or facilities.

Failure to comply with these requirements may result in remedial action being taken at your cost and may result in legal action being taken.

Recycle waste materials where appropriate.

34.1 WASTE MANAGEMENT REGISTER

Maintain a Waste Management Register for the duration of the Contract, to record the types, amounts and locations of waste reused, recycled, stockpiled and / or disposed of. The Waste Management Register must include the following details:

- Type of waste and its classification according to the WMPC Act and/or Regulations. A list of wastes in Schedule 2 of the WMPC Regulations can be seen via <https://ntepa.nt.gov.au/waste-pollution/approvals-licences/listed-waste>
- or via http://www.austlii.edu.au/au/legis/nt/consol_r eg/wmapcr659/. See also Waste Classification Codes in the NT EPA documents titled *Completing a Waste Transport Certificate* and *Controlled Waste Consignment Authorisation (CWCA) Form*, both accessible via <https://ntepa.nt.gov.au/waste-pollution/guidelines/guidelines> ,
- Tonnes of waste,
- How and where the waste was reused, recycled, stockpiled or disposed,
- Date when the waste was reused, recycled, stockpiled or disposed,
- Name of the transporter used (Person or Business name),
- Be able to produce receipt of commercial disposal if requested.

34.2 MATERIALS WITH RECYCLED CONTENT

Implement measures to reduce, re-use and recycle waste products/materials including soil, road pavement materials, concrete, oils and vegetation.

Demonstrate the priority use of materials and products that maximise the use of recycled content wherever these are cost and performance competitive, and are at least the environmental equivalent of the non-recycled alternative. Assess the cost competitiveness of a product or material on a project lifecycle basis, considering issues such as impacts on construction practices, future maintenance and disposal requirements.

34.3 HAZARDOUS WASTE AND MATERIALS

There is the potential, within a variety of workplaces, for persons to be exposed to

hazardous waste materials and viruses. Exposure to these hazards can be managed by following the principles of a three-step risk management process:

1. Hazard identification,
2. Risk assessment,
3. Risk control.

Notify the Superintendent of any occurrence of any persons having been exposed to hazardous waste.

Exposure to asbestos and/or asbestos containing material (ACM) is identified as a risk to projects involving new construction associated with, demolition of and refurbishment of buildings in the Northern Territory.

Exposure to asbestos and/or ACM is an identified risk to projects involving excavation works, especially near areas where buildings were demolished after Cyclone Tracy.

34.4 EFFLUENT DISPOSAL

Ensure that all effluent from amenities is discharged into an approved facility or, if permitted by the controlling authority, the local sewerage system. Effluent disposal direct to ground or water is NOT permitted.

Septic tanks and portable self-contained toilets of suitable capacity may be used subject to suitable arrangements for the disposal of effluent.

Do not create new pit toilets. Do not use existing pit toilets.

All septic tank installations or alternative septic systems servicing buildings both within and outside of declared building control areas, apart from installations subject to the *Building Act*, must be approved by the Chief Health Officer (CHO) or the CHO's delegate for the area in which the works are to be carried out, or, in remote areas, by a licensed certifying plumber. Further information may be obtained from the relevant Environmental Health Officer in whose area the works are to be located. Regional contacts are contained within the *Code of Practice for On-Site Waste Water Management* accessible via

<https://nt.gov.au/property/building-and-development/wastewater-management/codes-and-guidelines> .

34.5 ILLEGAL DUMPING

Illegal dumping is not permitted.

Do not litter, dump or dispose of unwanted waste or dispose of surplus construction materials including bitumen, asphalt or concrete or permit such activities, on any land on or around the site.

All waste must be removed from site and disposed legally at a licenced, legal waste facility.

34.6 NOTIFICATION OF THE TRANSPORTING AND DEPOSITING OF WASTE – HOLD POINT

Hold Point - Written approval from the Superintendent is required prior to transporting wastes generated by or for the Principal to an area that is not a licensed waste facility or a place owned by the Principal. This includes waste transported for reuse, recycling, disposal or stockpiling.

Hold Point - The transport and disposal of prescribed waste specified in Schedule 2 of the Waste Management and Pollution Control (Administration) Regulations will require prior approval from the NT EPA.

35. REHABILITATION OF EXTRACTION AREAS, DETOURS AND ACCESS TRACKS

Progressively rehabilitate extraction areas to reduce the area of exposed soil during construction works.

Following excavation of the required material, any unused rock and gravel material is to be spread back over the extraction area. The extraction area “floor” is to be ripped using dozer or grader tynes to a depth of 100mm to 200mm to loosen the floor to encourage new plants to establish. Ripping is to be carried out along contour lines to reduce erosion.

The previously stripped and stockpiled material including topsoil and overburden is to be pushed back over the excavation, detour or access track. The stockpiled topsoil is to be spread over the disturbed areas to encourage regrowth from the soil’s seed store. The surface of the topsoil is to be scarified along the contours which will further enhance the ability of the material to trap mobile seeds, dust and moisture.

Where specified in the RFT/RFQ native seed will be broadcast either by hand or machine across disturbed areas.

Cleared vegetation from the project areas, detours, access tracks, and extraction areas is to be spread over areas being rehabilitated prior to demobilisation to assist the re-colonisation of flora and fauna across the site.

36. ENVIRONMENTAL MONITORING

Comply with the requirements of this Specification for document, and any Environmental Management sections in the RFT/RFQ, and any requirements specified in the approved CEMP. Carry out continuous environmental monitoring throughout the duration of the Contract. This is in addition to other monitoring requirements detailed elsewhere.

Monitoring is to be tailored to the specific project and may include a daily or weekly site walk-over

inspection, through to detailed air quality monitoring for dust particles or exhaust fumes from machinery, in stream water quality monitoring, sediment basin water release testing for turbidity, mapping and measuring weed growth, spread and control, and the like.

Records of environmental monitoring are to be maintained, including the effectiveness of any corrective action taken.

Copies of records of environmental monitoring are to be made available to the Superintendent on request.

37. AUDITS

Develop and implement a risk-based self-auditing program to verify that all works are in compliance with this Specification.

The Contractor self-audits are to be based on the key risks identified in the Environmental Risk Assessment as provided in the tender documentation and the CEMP developed by the Contractor.

Maintain records of the results of the self-audits including non-conformances and the effectiveness of any remedial action taken.

Copies of records of the self-audits are to be made available to the Superintendent on request.

Contractor self-audits need not be carried out by a qualified Auditor, but can be conducted by a competent person.

The Superintendent, or representatives of the Superintendent, will undertake scheduled and unscheduled environmental audits. These are to determine if the Contractor is conforming to contract requirements as outlined in tender documents and to determine if the Contractor is meeting minimal requirements in environmental management as described in this document.

Environmental audits may be scheduled for every calendar month with 5 working days’ notice being given to the Contractor.

Unscheduled environmental audits may be conducted with 1 working days’ notice.

Scheduled environmental audits will be conducted following the start of the works.

Provide access and co-operation and all necessary documentation to allow the audit team to conduct the environmental audits.

38. NON CONFORMANCE

A failure to comply with, or a breach of, any condition will result in the issue of an Instruction to Contractor, or a Corrective Action Request or a Non-Conformance Report or any combination of these.

Non-conformances will be recorded and taken into account in the Contractor’s Performance Report rating.

39. ENVIRONMENTAL LEGISLATION AND REGULATIONS

Comply with, but do not be limited to, the following as applicable.

39.1 NORTHERN TERRITORY LEGISLATION

- *Aboriginal Land Act*
- *Bushfires Act*
- *Building Act*
- *Dangerous Goods Act*
- *Environmental Assessment Act*
- *Environmental Offences and Penalties Act*
- *Fire and Emergency Act*
- *Food Act*
- *Heritage Act*
- *Northern Territory Aboriginal Sacred Sites Act*
- *Soil Conservation and Land Utilisation Act*
- *Territory Parks and Wildlife Conservation Act*
- *Transportation of Dangerous Goods by Road and Rail (National Uniform Legislation) Act*
- *Waste Management and Pollution Control Act*
- *Water Act*
- *Weeds Management Act*
- *Work Health and Safety (National Uniform Legislation) Act*

39.2 NORTHERN TERRITORY REGULATIONS

- Building Regulations
- Dangerous Goods Regulations
- Environmental Offences and Penalties Regulations
- Fire and Emergency Regulations
- Heritage Regulations
- Territory Parks and Wildlife Conservation By-Laws
- Territory Parks and Wildlife Conservation Regulations
- Transportation of Dangerous Goods by Road and Rail (National Uniform Legislation) Regulations
- Waste Management and Pollution Control (Administration) Regulations
- Water Regulations
- Weeds Management Regulations
- Work Health and Safety (National Uniform Legislation) Regulations

39.3 FEDERAL LEGISLATION

- *Aboriginal and Torres Strait Islander Act*
- *Aboriginal and Torres Strait Islander Commission Amendment Act*
- *Aboriginal and Torres Strait Islander Heritage Protection Act*
- *Aboriginal Land Rights (Northern Territory) Act*
- *Aboriginal Land Rights (Northern Territory) Amendment Act*
- *Environment Protection and Biodiversity Conservation Act*
- *Native Title Act*

39.4 FEDERAL REGULATIONS

- Aboriginal and Torres Strait Islander Heritage Protection Regulations
- Aboriginal Land Rights (Northern Territory) (Land Description) Regulations
- Aboriginal Land Rights (Northern Territory) Regulations
- Environment Protection and Biodiversity Conservation Regulations

40. STANDARDS

40.1 AUSTRALIAN STANDARDS

Use Standards, and their amendments, current 3 months before the date for the close of tenders except where different editions and/or amendments are required by statutory authorities, including, but not limited to, NATA and the National Construction Code including the Building Code of Austral		
Dates entered like this (R2013) indicate that a Standard was reviewed and re-issued unaltered in the year cited in the parentheses.		
<i>Entries in Times New Roman italics indicate Standards not cited in this document but which may be useful references.</i>		
AS 1319	1994 (R2018)	Safety signs for the occupational environment
<i>AS 1692</i>	<i>2006 (R2016)</i>	<i>Steel tanks for flammable and combustible liquids</i>
AS 1940	2017	The storage and handling of flammable and combustible liquids
AS 2187	-	Explosives – Storage and use
AS 2187.1	1998	– Storage (Includes Amendment 1:2000)
AS 2187.2	2006	– Use of explosives
AS 2436	2010 (R2016)	Guide to noise and vibration control on construction, maintenance and demolition sites
AS 4373	2007	Pruning of Amenity Trees
AS 4970	2009	Protection of trees on development sites
<i>AS/NZS ISO 14001</i>	<i>2016</i>	<i>Environmental management systems - Requirements with guidance for use</i>
BS 7385.2	1993	Evaluation and measurement for vibration in buildings - Part 2: Guide to damage levels from groundborne vibrations
BS ISO 4866	2010	Mechanical vibration and shock - Vibration of fixed structures - Guidelines for the measurement of vibrations and evaluation of their effects on structures

40.2 OTHER STANDARDS

- ASTM D 2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- ASTM D 7208-6 - Standard Test Method for Determination of Temporary Ditch Check Performance in Protecting Earthen Channels from Stormwater-Induced Erosion
- Code of Practice for Small On-Site Sewage and Sullage Treatment Systems and the Disposal or Reuse of Sewage Effluent also known as The Code of Practice for On-Site Waste Water Management <https://nt.gov.au/property/building-and-development/wastewater-management/codes-and-guidelines>
- The Australian Dangerous Goods Code Edition 7.6 (2018) <https://www.ntc.gov.au/heavy-vehicles/safety/australian-dangerous-goods-code/>

41. PUBLICATIONS

41.1 ANZECC PUBLICATIONS

- Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration, 1990 <http://www.nepc.gov.au/resource/anzecc-reports>
- ANZECC Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Document 4) <http://webarchive.nla.gov.au/gov/20130904113854/http://www.environment.gov.au/water/publications/quality/index.html>
- ANZECC Australian Guidelines for Water Quality Monitoring and Reporting (Document 7) <http://webarchive.nla.gov.au/gov/20130904113854/http://www.environment.gov.au/water/publications/quality/index.html> or <http://webarchive.nla.gov.au/gov/20130904202327/http://www.environment.gov.au/water/publications/quality/nwqms-monitoring-reporting.html>

41.2 OTHER PUBLICATIONS

- International Erosion Control Association (IECA) Australasia Best Practice Erosion and Sediment Control. <http://www.austieca.com.au>
- Queensland Maroon Book for urban storm water management - Manual for Erosion & Sediment Control, Version 1.2, Sunshine Coast Regional Council <https://www.sunshinecoast.qld.gov.au/en/Environment/Rivers-and-Coast/Erosion-and-Sediment-Control/Erosion-and-Sediment-Control-Manual-Version-12>
- Blue Book – Managing Urban Stormwater: Soils and Construction, Volume 1, 4th edition, Volume 2a – Installation of services, Volume 2b Waste Landfills, Volume 2c Unsealed Roads, Volume 2d Main Road Construction and Volume 2e Mines and Quarries <https://www.environment.nsw.gov.au/stormwater/publications.htm>
- [Queensland Acid Sulfate Soil Technical Manual, Soil Management Guidelines, Version 4](#), SE Dear, LE O'Brien, AE McElnea, NG Moore, SK Dobos, KM Watling and CR Ahern -
- RTA Code of Practice for Water Management <http://www.rms.nsw.gov.au/about/environment/soil-water-quality/index.html>
- Environmental Noise Management Manual - <http://www.rms.nsw.gov.au/about/environment/reducing-noise/index.html>
- Soil Survey Standard Test Method, Unified Soil Classification System: Field Method - <http://www.environment.nsw.gov.au/resources/soils/testmethods/usc.pdf>
- Spray drift fact Sheet-APVMA - http://www.apvma.gov.au/use_safely/spray_drift/index.php
- Why do fish need to cross the road? - NSW DPI - http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0004/202693/Why-do-fish-need-to-cross-the-road_booklet.pdf
- QLD standard work method for the assessment of the lawfulness of releases to waters from construction sites- SEQ <https://environment.des.qld.gov.au/licences-permits/business-industry/pdf/lawful-water-release-construction-sites-em1135.pdf>
- Australian Rainfall and Runoff – Flood analysis and design – www.arr.org.au
- Declared weeds of the Northern Territory - <https://nt.gov.au/environment/weeds/weeds-in-the-nt/A-Z-list-of-weeds-in-the-NT>
- Weeds of National Significance (WONS) - <http://www.environment.gov.au/biodiversity/invasive/weeds/weeds/lists/wons.html>
- DLRM Land Clearing Guidelines NT Planning Scheme 2010 – https://nt.gov.au/_data/assets/pdf_file/0007/236815/land-clearing-guidelines.pdf
- NT EPA - Noise Guidelines for Development Sites in the Northern Territory - <https://ntepa.nt.gov.au/waste-pollution/guidelines/guidelines>
- NT EPA - Keeping our Stormwater clean – a Builder's Guide <http://www.ntepa.nt.gov.au/waste-pollution/guidelines/guidelines>
- NT EPA – Prevent Pollution from Building Sites https://ntepa.nt.gov.au/_data/assets/pdf_file/0005/284684/noise_guidelines_for_development_sites.pdf
- NT WorkSafe – How to Safely remove asbestos – Code of Practice <http://www.worksafe.nt.gov.au/SafetyAndPreventions/Asbestos/Pages/default.aspx>
- Power and Water Corporation – Disinfection Procedures for Water Mains and Services https://www.powerwater.com.au/_data/assets/pdf_file/0008/162674/Disinfection_procedure_for_water_mains_and_services_and_including_water_test_report.pdf

42. DEFINITIONS AND ACRONYMS

References to Acts include any amendments to those Acts, and the Acts' Regulations, and instruments made under the Acts and under the Regulations.

Reference to something in the singular includes a reference to it in the plural, and reference to something in the plural includes a reference to it in the singular, unless the context clearly indicates otherwise.

Reference to something in the masculine includes a reference to it in the feminine, and reference to something in the feminine includes a reference to it in the masculine, unless the context clearly indicates otherwise.

The following definitions apply;

AAPA - Aboriginal Areas Protection Authority

Aboriginal - a person who is a member of the Aboriginal race of Australia.

Aboriginal tradition - the same meaning as in the Aboriginal Land Rights Act.

Acid Sulfate Soils (ASS) - Coastal and near-coastal soils, sediments or other materials containing iron sulfides. They are environmentally benign when left undisturbed in an aqueous, anoxic environment, but when exposed to oxygen the iron sulfides break down, releasing sulfuric acid and soluble iron. Both substances have considerable ability to degrade the natural and built environment, and the acid may additionally mobilise other pollutants (e.g. aluminium, lead, zinc) if present in the soil (Source: Queensland Acid Sulfate Soil Technical Manual: Soil Management Guidelines). Refer to Actual Acid Sulfate Soils and to Potential Acid Sulfate Soils.

ACM - Asbestos containing material.

Actual Acid Sulfate Soils (AASS) - Partly or fully oxidised ASS with very low pH is commonly referred to as actual ASS (AASS) (Source: Queensland Acid Sulfate Soil Technical Manual: Soil Management Guidelines). Refer to Acid Sulfate Soils and to Potential Acid Sulfate Soils.

Alert Weeds - Weeds, the presence of which are to be immediately reported to DENR, Weed Management Branch. Refer to <https://nt.gov.au/environment/weeds/current-alert-weeds-how-to-report>.

Approved - Approved by the Superintendent unless otherwise specified.

Aquifer - a geological structure or formation, or an artificial land-fill, permeated or capable of being permeated permanently or intermittently with water.

Archaeological object - a relic pertaining to the past occupation by Aboriginal or Macassan people of any part of Australia which is now in the Northern Territory, being:

- an artefact or thing of any material given shape to by man;
- a natural portable object of any material sacred according to Aboriginal tradition;
- human or animal skeletal remains; or
- such objects, or objects of a class of objects, as are prescribed; but does not include an artefact made for the purposes of sale or an object, or objects of a class of objects, excluded by the Regulations from the ambit of this definition.

Archaeological place - a place pertaining to the past occupation by Aboriginal or Macassan people that has been modified by the activity of such people and in or on which the evidence of such activity exists, and includes such places, or place of a class of places, as are prescribed, but does not include a place, or a place of a class of places, excluded by the Regulations from the ambit of this definition.

ARI - Average Recurrence Interval

Authority Certificate - a certificate issued under section 22(1) of the *Northern Territory Aboriginal Sacred Sites Act*.

Bore - a bore, hole, well, excavation or other opening in the ground, or a natural or artificially constructed or improved underground cavity, which is or could be used for the purpose of intercepting, collecting, obtaining or using ground water or for the purpose of disposing of water or waste below the surface of the ground, or which extends to an aquifer.

CEMP - Contractor's Environmental Management Plan

Clearance – Permission, licence, and/or consent to do something. Usually provided in writing. Issued by a person or entity with authority to do so.

Contaminant means a solid, liquid or gas or any combination of such substances and includes:

- noise, odour, heat and electromagnetic radiation;

- a prescribed substance or prescribed class of substances; and
- a substance having a prescribed property or prescribed class of properties.

Contaminated land - land with the presence of a substance in, on or under the land at a concentration above that which it is normally found in that locality, such that there presents a risk of harm to human health or to the environment.

Construction site - a place at which construction work is undertaken, and any other area in the vicinity where plant or other material used or to be used in connection with the construction work is located or kept during the construction work. It does not include a place where elements are manufactured 'off site' or where construction material is stored as stock for sale or for hire.

Construction project - a project involving construction work, and includes design, preparation, and planning.

Contractor - as defined in the contract

Corrective action - Measures, including preventative measures, taken to rectify conditions which have caused or might cause nonconformity.

Corrective action request (CAR) - A formal advice/instruction from the Administrating authority regarding departures from the Quality system or methods as approved in the Quality plan.

CPESC - Certified Professional in Erosion and Sediment Control.

CPSS - Certified Professional Soil Scientist

Custodian – An Aboriginal person who, by Aboriginal tradition, has responsibility for a sacred site.

Dangerous goods- the same meaning as within the *Dangerous Goods Act* meaning substances or things:

- declared by the Competent Authority under section 6; or
- prescribed by the Regulations, to be dangerous goods.

Day(s) - Normal business working days. Does not include Saturdays, Sundays or Public Holidays.

Declared Weed (and plant) - is a plant species that is declared under Section 7 of the *Weeds Management Act*. The presence of these weeds is to be immediately reported to DENR, Weed Management Branch. Refer to <https://nt.gov.au/environment/weeds/weeds-in-the-nt/A-Z-list-of-weeds-in-the-NT> .

DENR - Department of Environment and Natural Resources

Dewatering- any activity that involves the removal of ponded stormwater or infiltrated groundwater from any location on Site and the subsequent reuse or discharge of that water.

Disposition - Action to be taken to resolve non-conformance.

DIPL or the Department (without a department named) - Department of Infrastructure, Planning and Logistics

DoH - Department of Health

DTC - Department of Tourism and Culture

Ecologically sustainable development- development that improves the total quality of life both in the present and in the future in a way that maintains the ecological processes on which life depends.

Emergency - An unexpected situation where life or property are at risk or where major disruption to regular community activities occur caused by events such as vehicle collision, unanticipated fire or unanticipated flood.

Environment - land, air, water, organisms, ecosystems and the built environment and includes:

- external factors which affect the well-being of humans;
- structures made or modified by humans;
- the physical and visual amenity values of an area; and
- economic, cultural and social conditions.

Environmental incident - a discrete (one-off) occurrence that may result in an adverse impact (or impacts) on the environment or a breach of legislation.

Environmental harm - As defined by the *Waste Management and Pollution Control Act*, including nuisance, serious and material environmental harm, environmental harm means:

- any harm to or adverse effect on the environment; or
- any potential harm (including the risk of harm and future harm) to or potential adverse effect on the environment, of any degree or duration and includes environmental nuisance.

Environmental nuisance - means:

- An adverse effect on the amenity of an area that:
 - a) Is caused by noise, smoke, dust, fumes or odour; and
 - b) Unreasonably interferes with or is likely to irrationally interfere with the enjoyment of the area by persons who occupy a place within the area or are otherwise lawfully in the area; or
 - c) An unsightly or offensive condition caused by contaminants or waste.

EPA - Environment Protection Authority

EPBC - *Environment Protection and Biodiversity Conservation Act 1999*

ESCP - Erosion and Sediment Control Plan

Excavation - includes any earthwork, trench, well, shaft, tunnel or underground work.

Exclusion zone - an area not to be entered by any person or machine for the duration of the contract or otherwise designated period of time.

GPS – Global Positioning System

Groundwater - water occurring or obtained from below the surface of the ground (other than water contained in works, not being a bore, for the distribution, reticulation, transportation, storage or treatment of water or waste) and includes water occurring in or obtained from a bore or aquifer.

Hazard - anything (including an intrinsic property of a thing), or situation with the potential to cause harm to people, property or the environment. Hazardous material means a substance or thing that is a dangerous good, within the meaning of the *Dangerous Goods Act*, or a product or substance that has the potential to harm life, health, property or the environment.

Heritage item - an object declared under section 18 of the *Heritage Act* to be a heritage object.

Heritage site - a place in the Northern Territory (whether or not covered by water) declared under section 17 of the *Heritage Act* to be a heritage place.

Hold Point - A Hold Point is a mandatory verification point beyond which a work process cannot proceed without authorisation by the Superintendent. The work cannot proceed until the Superintendent is able to verify the quality of the completed work and releases the Hold Point.

IECA - International Erosion Control Association

Land - includes water and air on, above or under land.

Licensed Certifying Plumber - A plumber registered and licensed to be a Certifying Plumber in the NT under the NT Building Act.

Material environmental harm - environmental harm that:

- is not trivial or negligible in nature;
- consists of an environmental nuisance of a high impact or on a wide scale;
- results, or is likely to result, in not more than \$50,000 or the prescribed amount (whichever is greater) being spent in taking appropriate action to prevent or minimise the environmental harm or rehabilitate the environment; or
- results in actual or potential loss or damage to the value of not more than \$50,000 or the prescribed amount (whichever is greater).

Monitor - Observe, check and record the progress and quality of environmental management measures implemented over the duration of the project.

Non-conformance report (NCR) - A mandatory (standard format) report submitted by the contractor that details the nonconforming work and the contractor's proposed disposition of the non-conformance.

NT EPA - Northern Territory Environment Protection Authority

NTU - Nephelometric Turbidity Units

Pipework - Pipes, connectors, valves and the like which form a water reticulation system or part of a water reticulation system.

Peri-urban - The area of transition between urban and rural areas. For the purpose of this document peri-urban areas are areas where reticulated water supply is provided by the public utility entity, currently Power and Water Corporation.

Permit - Permission, licence, clearance, and/or consent to do something. Usually provided in writing. Issued by a person or entity with authority to do so.

Pesticide - the same meaning as within the Waste Management and Pollution Control regulations.

PFAS - Per- and poly-fluoroalkyl substances.

Pollution - means:

- a contaminant or waste that is emitted, discharged, deposited or disturbed or that escapes; or
- a contaminant or waste, effect or phenomenon, that is present in the environment as a consequence of an emission, discharge, deposition, escape or disturbance of a contaminant or waste.
- in relation to water (from the Water Act), means directly or indirectly to alter the physical, thermal, chemical, biological or radioactive properties of the water so as to render it less fit for a prescribed beneficial use for which it is or may reasonably be used, or to cause a condition which is hazardous or potentially hazardous to:
 - a) public health, safety or welfare;
 - b) animals, birds, fish or aquatic life or other organisms; or
 - c) plants.

Potential Acid Sulfate Soils (PASS) - Unoxidised ASS is commonly referred to as potential ASS (PASS), due to its potential to produce acid if disturbed. (Source: Queensland Acid Sulfate Soil Technical Manual: Soil Management Guidelines) Refer to Acid Sulfate Soils and to Actual Acid Sulfate Soils.

Principal – As defined in the Contract

Provide - Supply, transport, install, connect, commission, test and leave ready for use.

PWC – Power and Water Corporation of the Northern Territory

Remote Area - Any area of the NT considered as remote or very remote by the Australian Bureau of Statistics, Accessibility/Remoteness Index of Australia.

RFQ - Request For Quotation. Conditions in this document applicable to an RFQ are equally applicable to an RFT.

RFT - Request For Tender. Conditions in this document applicable to an RFT are equally applicable to an RFQ.

Sacred Site - that defined with the *Northern Territory Aboriginal Sacred Sites Act* and the *Land Rights Act*.

SDS Safety Data Sheets - formerly known as Material Safety Data Sheets (MSDS)

Sensitive Receiver / Receptor – Anything which can be adversely affected by exposure to any pollutants. The receivers / receptors include, but are not limited to, people, animals, plants, sites, objects, air, water, buildings and structures, and eco-systems and habitats.

Serious environmental harm - environmental harm that is more serious than material environmental harm and includes environmental harm that:

- is irreversible or otherwise of a high impact or on a wide scale;
- damages an aspect of the environment that is of a high conservation value, high cultural value or high community value or is of special significance;
- results or is likely to result in more than \$50,000 or the prescribed amount (whichever is greater) being spent in taking appropriate action to prevent or minimise the environmental harm or rehabilitate the environment; or
- results in actual or potential loss or damage to the value of more than \$50,000 or the prescribed amount (whichever is greater).

Shall - Is indicative of a mandatory requirement unless the context clearly indicates otherwise.

Southern Regions - The regions designated in the BCA as Climate Zone 3 - roughly south of latitude 17° South, but at least 150km inland from the coast of the Gulf of Carpentaria.

Structure - means:

- any building, steel or reinforced concrete construction, railway line or siding, tramway line, dock, ship, submarine, harbour, inland navigation channel, tunnel, shaft, bridge, viaduct, waterworks, reservoir, pipe or pipeline (whatever it contains or is intended to contain), structural cable, aqueduct, sewer, sewerage works, gasholder, road, airfield, sea defence works, river works, drainage works, earthworks, constructed lagoon, dam, wall, mast, tower, pylon, underground tank, earth retaining construction, fixed plant, construction designed to preserve or alter any natural feature, and any other similar construction, and
- any formwork, false work, scaffold or other construction designed or used to provide support or access during construction work.

Superintendent - As defined in the Contract.

Top End, The - The regions designated in the BCA as Climate Zone 1 - roughly north of latitude 17° South but up to 150 km inland from the coast of the Gulf of Carpentaria.

TPZ - Tree Protection Zone – As determined under Section 3 and Appendix A of AS 4970-2009 Protection of trees on development sites. Generally determined as TPZ = Trunk Diameter at 1.4 m above ground level (DBH) x 12.

Urban Areas Urban area for Darwin region is nominated as – North of Cox Peninsula Road (Stuart Highway), West of Trippe Road (Arnhem Highway) and the end of seal on Gunn Point Road.

Other urban areas are nominated as being within, and extending to, town boundaries.

Waste - as defined by the *Waste management and Pollution Control Act*:

- a solid, a liquid or a gas; or
- a mixture of such substances, that is or are left over, surplus or an unwanted by-product from any activity (whether or not the substance is of value) and includes a prescribed substance or class of substances.

Water - includes:

- surface water, ground water and tidal waters;
- coastal waters of the Territory, within the meaning of the *Coastal Waters (Northern Territory Powers) Act 1980* of the Commonwealth; and
- water containing an impurity.

Weed (and Declared plant) - is a plant species that is declared under Section 7 of the *Weeds Management Act*.

Weeds of National Significance (WoNS) - Thirty two Weeds of National Significance (WoNS) have been agreed by Australian governments based on an assessment process that prioritised these weeds based on their invasiveness, potential for spread and environmental, social and economic impacts. Consideration was also given to their ability to be successfully managed. Refer to <http://www.environment.gov.au/biodiversity/invasive/weeds/weeds/lists/wons.html> .

Witness Point - A Witness Point is an identified point in the process where the Superintendent may review, witness, inspect or undertake tests on any component, method or process of works. The contractor is required to notify the Superintendent who may or may not take the opportunity. The project however, may proceed.

WMPC - *Waste Management and Pollution Control Act*

WoNS - Weeds of National Significance as declared by the Australian governments

Working Day – Means the same as **Day**.

Worksite(s) / works area(s) - the areas in which any works take place including the works to be undertaken under the contract and any associated side tracks, hardstands, extraction areas, access tracks, vehicle turn around areas, camps, compounds, stockpile sites, locations of plant and equipment etc.

43. HOLD POINTS AND WITNESS POINTS SCHEDULES

43.1 SCHEDULE 1 - HOLD POINTS

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	SECTION	PAGE	INITIALS	DATE
<p>5. - CONTRACTOR'S ENVIRONMENTAL MANAGEMENT PLAN (CEMP) - 5.1 - SUBMISSION OF CEMP Submit for assessment a copy of a site specific and project specific Contractor's Environmental Management Plan (CEMP) prior to establishment and commencement of work on site.</p>	5.1	7		
<p>13. - LAND ACCESS - 13.1 - SUBMISSION OF PERMISSION TO ENTER LAND Provide a copy of the written permission to enter land prior to entering land not owned by the Northern Territory Government or land outside a road reserve, unless permission is provided by the Superintendent.</p>	13.1	13		
<p>14. - CULTURAL AND HERITAGE CLEARANCES - 14.1 - CLEARANCE FROM LAND COUNCIL Provide a copies of written clearance(s)/consent(s) from Aboriginal Land Council(s) with jurisdiction over the site(s) of the works for all works on Aboriginal Land before commencing works. These are in addition to any AAPA Certificates applicable to the site(s) of the works. This Hold Point does not apply if the Principal or Superintendent has obtained and provides the required clearance(s)</p>	14.1	13		
<p>14. - CULTURAL AND HERITAGE CLEARANCES - 14.1 - CLEARANCE FROM LAND COUNCIL Provide copies of permits to access Aboriginal Land(s) issued by the Aboriginal organisation(s) with jurisdiction over the land(s) to which access is required for execution of the works.</p>	14.1	13		
<p>14.2 - ABORIGINAL AREAS PROTECTION AUTHORITY CERTIFICATE Provide copies of AAPA Certificate(s) prior to commencing works. This Hold Point does not apply if the Principal or the Superintendent has obtained and provides the required AAPA Certificate(s).</p>	14.2	14		
<p>15. - PROTECTION OF CULTURAL AND HERITAGE ITEMS AND PLACES - 15.1 - GENERAL Should any item or artefact or material or relic be encountered which might be of heritage value or any item or relic or artefact or material which might be of Aboriginal origin, cease all construction work that might affect the item or artefact or material or relic and protect the item or artefact or material or relic from damage or disturbance. Notify the Superintendent immediately. The Superintendent will arrange for appropriate specialists and community representatives to inspect the site</p>	15.1	14		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	SECTION	PAGE	INITIALS	DATE
16. - PERMIT TO CLEAR NATIVE VEGETATION - 16.1 - SUBMISSION OF PERMITS/PERMISSIONS TO CLEAR NATIVE VEGETATION Provide a copy/copies of permit(s) to clear native vegetation, for the execution of the works, from the permit authority under the Planning Act and/or the Pastoral Land Act, before commencing works.	16.1	15		
16. - PERMIT TO CLEAR NATIVE VEGETATION - 16.1 - SUBMISSION OF PERMITS/PERMISSIONS TO CLEAR NATIVE VEGETATION Provide a copy/copies of written permission to clear native vegetation from the owner(s) or lessee(s) of the land, proposed to be cleared for the execution of the works, before commencing works.	16.1	15		
18.- CAMP SITE/COMPOUND/WORKSHOP PERMISSION - 18.1 - SUBMISSION HEALTH DEPARTMENT PERMITS Provide a copy of written approval from DoH for any proposed on-site effluent disposal system, before commencing works. For remote areas certification by a licensed certifying plumber is acceptable.	18.1	16		
18. - CAMP SITE/COMPOUND/WORKSHOP PERMISSION - 18.1 - SUBMISSION HEALTH DEPARTMENT PERMITS Provide a copy of written approval from DoH for any proposed kitchen and/or food handling facility.	18.1	16		
18. - CAMP SITE/COMPOUND/WORKSHOP PERMISSION - 18.2 - APPROVAL OF REHABILITATION Obtain approval from the Superintendent for the completed rehabilitation of the camp site/compound/workshop before final demobilisation.	18.2	16		
19. - MATERIALS EXTRACTION APPROVAL/CLEARANCE - 19.1 - SUBMISSION OF APPROVALS AND CLEARANCES Provide documented evidence that the appropriate approvals and clearances have been obtained, for extraction of materials/minerals including sand, and/or gravel, and/or fill, prior to commencing any work on or in material extraction areas, either new or existing.	19.1	16		
19. - MATERIALS EXTRACTION APPROVAL/CLEARANCE - 19.1 - SUBMISSION OF APPROVALS AND CLEARANCES Obtain Superintendent approval to exceed 1ha pit size.	19.1	16 & 17		
21 - STOCKPILE MANAGEMENT - 21.1 - SUBMISSION OF APPROVALS Obtain approval from the Principal or Superintendent for the stockpiling of material more than 2m in height. The approval is to include the reason for stockpiling at this height and also provide measures to mitigate dust, erosion and sedimentation.	21.1	18		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	SECTION	PAGE	INITIALS	DATE
<p>22. - WATER EXTRACTION LICENCE - 22.1 - SUBMISSION OF WATER EXTRACTION LICENCE Provide a copy of a Water Extraction Licence for the taking of groundwater and/or surface water outside urban areas for the works subject to the contract unless a permit has been obtained by the Superintendent. This Hold Point does not apply to the extraction of water to be used for road works on Northern Territory Government owned public roads.</p>	22.1	18		
<p>23. - WATER EXTRACTION APPROVAL - 23.1 - SUBMISSION OF WATER EXTRACTION APPROVAL Obtain written permission from the owner or lessee if water extraction is proposed from a private bore, dam, Power and Water Corporation (PWC) hydrant or stand pipe, or waterway, for all works. Provide a copy of the written permission, or a copy of the PWC swipe card, to the Superintendent. Include this information in the CEMP.</p>	23.1	18		
<p>23. - WATER EXTRACTION APPROVAL - 23.3 - EXTRACTION FROM BORES Provide documentary evidence of approvals and clearances to extract water from any bore which is not an NTG Road Bore and for which the Principal or Superintendent has not provided an approval. Provide these before commencing any water extraction activities.</p>	23.3	18		
<p>23. - WATER EXTRACTION APPROVAL - 23.3 - EXTRACTION FROM BORES Provide copies of written permission to gain access to the land where the water bodies or bores which are to be used for extraction of water are located.</p>	23.3	18		
<p>23. - WATER EXTRACTION APPROVAL - 23.4 - SURFACE WATER EXTRACTION Provide copies of approvals and clearances to extract surface water before commencing water extraction activities.</p>	23.4	19		
<p>23. - WATER EXTRACTION APPROVAL - 23.4 - SURFACE WATER EXTRACTION Do not form sumps or dams in water courses or water bodies unless permission is given by the Superintendent.</p>	23.4	19		
<p>25. - CONSTRUCTION SITE DEWATERING – 25.1 - APPROVAL OF DEWATERING ACTIVITIES Superintendent to approve any proposed dewatering activities prior to commencement of the activity</p>	25.1	21		
<p>26. - VEGETATION MANAGEMENT - 26.2 - ACTION REQUIRED IF A THREATENED SPECIES IS DISCOVERED Should a threatened species be identified onsite, in addition to those identified in the relevant Environmental Risk Assessment, Notice Of Intent, or other Department gained approval, stop works in the immediate area, notify the Principal and the Superintendent, and install a temporary protective barrier to protect the species. Do not recommence works in that area until protection measures required by the appropriate authority have been implemented and the Superintendent advises that work can resume in that area.</p>	26.2	21		

SCHEDULE 1 – HOLD POINTS				
CLAUSE TITLE	SECTION	PAGE	INITIALS	DATE
27. - FAUNA MANAGEMENT - 27.1 - NOTICE OF THREATENED OR NESTING FAUNA Advice must be sought from DENR or the Department's Environment Services Branch if nesting fauna are sighted. Ensure sufficient time is available to allow any required specialist to make a determination and give advice to the Superintendent.	27.1	23		
27. - FAUNA MANAGEMENT - 27.1 - NOTICE OF THREATENED OR NESTING FAUNA Should a threatened species be identified onsite, stop works in the immediate area, notify the Superintendent, and install temporary protective barriers to protect the species.	27.1	23		
34. - WASTE MANAGEMENT - 34.6 - NOTIFICATION OF THE TRANSPORTING AND DEPOSITING OF WASTE Written approval from the Superintendent is required prior to transporting wastes generated by or for the Principal to an area that is not a licensed waste facility or a place owned by the Principal. This includes waste transported for reuse, recycling, disposal or stockpiling.	34.6	27		
34. - WASTE MANAGEMENT - 34.6 - NOTIFICATION OF THE TRANSPORTING AND DEPOSITING OF WASTE The transport and disposal of prescribed waste specified in Schedule 2 of the Waste Management and Pollution Control (Administration) Regulations will require prior approval from the NT EPA.	34.6	27		

43.2 SCHEDULE 2 - WITNESS POINTS

SCHEDULE 2 – WITNESS POINTS				
CLAUSE TITLE	SECTION	PAGE	INITIALS	DATE
8. - WEED MANAGEMENT PLAN (WMP) - 8.2 - DETAIL REQUIRED IN A WMP The use of hay bales on site can only occur if written approval is received from the Superintendent.	8.2	10 & 11		
8. - WEED MANAGEMENT PLAN (WMP) - 8.4 - CLEANING OF VEHICLES AND PLANT Provide evidence that the area is weed free or provide advice of the weeds present in the areas of the works.	8.4	11		
8. - WEED MANAGEMENT PLAN (WMP) - 8.4 - CLEANING OF VEHICLES AND PLANT Provide evidence that the vehicles and plant brought on to the site of the works are free of weeds and their seeds and are soil free.	8.4	11		
8.- WEED MANAGEMENT PLAN (WMP) - 8.4 - CLEANING OF VEHICLES AND PLANT Provide evidence that organic matter transported to site is free of weeds and/or their seeds.	8.4	11		
8. - WEED MANAGEMENT PLAN (WMP) - 8.4 - CLEANING OF VEHICLES AND PLANT Provide the Superintendent with a signed statement certifying that cleaning took place.	8.4	11		
17.- SITE CONTROL APPROVAL - 17.1 - APPROVAL FOR ANCILLARY AREAS Obtain written approval from the Superintendent for the establishment and use of any detours, turnarounds or equipment lay down areas. Use existing cleared areas where possible.	17.1	15		
26.- VEGETATION MANAGEMENT - 26.3 - SITE CLEARING Prior to clearing any area, it is to be demarcated with fencing, flagging tape, spray paint or other method approved by the Superintendent. Provide documented advice of the proposed methods for demarcation of areas to be cleared.	26.3	22		
28.- ANIMAL MANAGEMENT - 28.1 - NOTICE OF PETS Provide evidence that pets will be under control and safely secured at all times.	28.1	23		

44. UPDATES OVERVIEW

The significant updates to the Standard Specification for Environmental Management 2019 are shown below.

FEEDBACK

If you have any suggestions for improvement, such as additional or modified text for the Roadworks specification, please contact the Manager Specification Services, e-mail specification.services@nt.gov.au

UPDATES

Table – Overview of Updates to Standard Specification for Environmental Management - March 2019		
CLAUSE		CHANGE
Major reorganization of the order of the sections in the specification. Major and minor editorial changes, updates to web page URLs, updates to Australian Standards and other cited documents and organizations.		
1. GENERAL		
1.2	Time Allowed for Assessment of Submitted Documents	New clause
3. REFERENCES		
		New section
6. EROSION AND SEDIMENT CONTROL PLAN (ESCP)		
6.1	When an ESCP is Required	New clause
6.2	ESCP Designer Qualifications	Clause relocated. Significant changes.
7. ACID SULFATE SOILS MANAGEMENT PLAN (ASSMP)		
		New section
8. WEED MANAGEMENT PLAN (WMP)		
		Significant changes
8.3	Prevention of Weed Spread When Using Machinery	New clause
9. ASBESTOS MANAGEMENT PLAN (AMP)		
		New section
10. OTHER MANAGEMENT PLANS		
		New section
11. CLEARANCES AND APPROVALS		
		New section
12. LICENCES, PERMITS AND PERMISSIONS		
		New section
13. LAND ACCESS		
		New section
14. CULTURAL AND HERITAGE CLEARANCES		
		Significant changes
15. PROTECTION OF CULTURAL AND HERITAGE ITEMS AND PLACES		
15.1	General	Significant changes
16. PERMIT TO CLEAR NATIVE VEGETATION		
		New section

HOLD POINTS AND WITNESS POINTS

Table – Overview of Updates to Standard Specification for Environmental Management - March 2019		
CLAUSE		CHANGE
17. SITE CONTROL APPROVAL		
17.2	Site Staff for Environmental Management	New clause
18. CAMP SITE/COMPOUND/WORKSHOP PERMISSION		
18.2	Approval of Rehabilitation	New clause
19. MATERIALS EXTRACTION APPROVAL/CLEARANCE		
		Significant changes
20. REQUIREMENTS FOR EXTRACTIVE OPERATIONS IN NORTHERN LAND COUNCIL AREAS		
		New section
23. WATER EXTRACTION APPROVAL		
		Significant changes
24. WATER QUALITY		
		Significant changes
24.1	Potable Water Pipework Commissioning Management	New clause
25. CONSTRUCTION SITE DEWATERING		
		Significant changes. Additional content.
26. VEGETATION MANAGEMENT		
26.3	Site Clearing	Additional content
27. FAUNA MANAGEMENT		
27.1	Notice of Threatened or Nesting Fauna	New clause
28. ANIMAL MANGEMENT		
		Additional content
31. NOISE CONTROL		
		Additional content
33. CONTAMINATION MANGEMENT		
		Significant additional content
34. WASTE MANAGEMENT		
		Additional content
34.4	Effluent Disposal	Significant changes
34.6	Notification of the Transportation and Depositing of Waste	Significant additional content
35. REHABILITATION OF EXTRACTION AREAS, DETOURS AND ACCESS TRACKS		
		New section
36. ENVIRONMENTAL MONITORING		
		Significant additional content
37. AUDITS		
		Significant additional content

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