

Preston  
Consulting

# ASHBURTON SALT PROJECT

## WASTE MANAGEMENT PLAN

9 NOVEMBER 2022  
DOCUMENT NUMBER: K+S\_ASH\_EMP\_001

PREPARED FOR K PLUS S SALT AUSTRALIA PTY LTD  
BY PRESTON CONSULTING



Document prepared for:

## K PLUS S SALT AUSTRALIA PTY LTD

**Contact Person:** Gerrit Gödecke – Managing Director  
**Email:** [gerrit.goedecke@ks-salt.com](mailto:gerrit.goedecke@ks-salt.com)  
**Phone:** (08) 6316 4500  
**Street Address:** Level 27, 44 St Georges Terrace, Perth WA 6000

Document developed by:

## PRESTON CONSULTING PTY LTD

**Contact Person** Gavin Edwards – Director  
**Email:** [gedwards@prestonconsulting.com.au](mailto:gedwards@prestonconsulting.com.au)  
**Website:** [www.prestonconsulting.com.au](http://www.prestonconsulting.com.au)  
**Phone:** +61 488 737 273  
**Street Address:** Level 3, 201 Adelaide Terrace, East Perth WA 6004  
**Postal Address:** PO Box 3093, East Perth WA 6892

Disclaimer:




This Report has been prepared on behalf of and for the exclusive use of K plus S Salt Australia Pty Ltd and is subject to and issued in accordance with the agreement between Preston Consulting Pty Ltd and K plus S Salt Australia Pty Ltd.

Preston Consulting Pty Ltd accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this Report by any third party.

Copying of any part of this Report without the express permission of Preston Consulting Pty Ltd and K plus S Salt Australia Pty Ltd is not permitted.



## DOCUMENT CONTROL

<b>Document Title</b>	Waste Management Plan – Ashburton Salt Project		
<b>Document Number</b>	K+S_ASH_EMP_01		
<b>Revision Number</b>	1		9/11/2022
<b>Status</b>	FINAL		
<b>Author</b>	Brad Sterling – Preston Consulting		9/11/2022
<b>Checked</b>	Gavin Edwards – Director, Preston Consulting		9/11/2022
<b>Authorisation</b>	Gerrit Gödecke – Managing Director, K Plus S Salt Australia Pty Ltd		9/11/2022



## EXECUTIVE SUMMARY

K plus S Salt Australia Pty Ltd (K+S) propose to construct and operate a 4.7 Million tonne per annum (Mtpa) Solar Salt Project (the Proposal) approximately 40 kilometres (km) southwest of Onslow, within the Shire of Ashburton, Western Australia (WA). On 30 September 2016, K+S referred the Proposal to the WA Environmental Protection Authority (EPA) under section 38 of the *Environmental Protection Act 1986* (WA) (EP Act). In November 2016, the EPA determined that the Proposal would require assessment via a Public Environmental Review.

An Environmental Scoping Document (ESD) outlining the requirements of the proposed Environmental Impact Assessment studies was released for public comment in September 2017. The ESD was revised in December 2017, taking into account public feedback, and was subsequently approved by the EPA in January 2018.

The ESD contained the following commitment:

“Undertake a Waste Disposal Risk Assessment and develop an appropriate Waste Management Plan”.

This Waste Management Plan has been prepared to provide monitoring and management measures to demonstrate how K+S will manage wastes generated by the Proposal to mitigate potential impacts to terrestrial environmental quality in accordance with the EPA’s objectives.

Table ES1: Summary

<b>Proposal name</b>	Ashburton Salt Project
<b>Proponent name</b>	K plus S Salt Australia Pty Ltd
<b>Ministerial Statement number</b>	Not yet issued
<b>Purpose of the WMP</b>	To address ESD commitment to undertake a Waste Disposal Risk Assessment and develop an appropriate Waste Management Plan. To provide monitoring and management measures to demonstrate how K+S will manage wastes generated by the Proposal in accordance with the EPA’s objectives
<b>Key environmental factors, outcomes and / or objectives</b>	<b>Terrestrial Environmental Quality</b> <u>Objectives:</u> To maintain the quality of land and soils so that environmental values are protected
<b>Condition clause</b>	N/A – Ministerial Statement not yet issued
<b>Key components in the WMP</b>	Refer to table in Section 2.2
<b>Construction date</b>	TBD
<b>WMP required pre-construction?</b>	Yes



---

# CONTENTS

---

DOCUMENT CONTROL .....	II
EXECUTIVE SUMMARY.....	III
CONTENTS.....	IV
LIST OF TABLES .....	IV
LIST OF FIGURES.....	V
<b>1</b> <b>CONTEXT, SCOPE AND RATIONALE.....</b>	<b>1</b>
<b>1.1</b> <i>The Proposal.....</i>	<i>1</i>
<b>1.2</b> <i>Purpose of this Management Plan.....</i>	<i>4</i>
<b>1.3</b> <i>Key Environmental Factors.....</i>	<i>4</i>
<b>1.4</b> <i>Scope and Association with Other Management Plans.....</i>	<i>4</i>
<b>1.5</b> <i>Condition Requirements .....</i>	<i>4</i>
<b>1.6</b> <i>Rationale and Approach .....</i>	<i>5</i>
<b>1.6.1</b> <i>Management Objectives.....</i>	<i>5</i>
<b>1.6.2</b> <i>Survey and Study Findings.....</i>	<i>6</i>
<b>1.6.3</b> <i>Key Assumptions and Uncertainties .....</i>	<i>6</i>
<b>1.6.4</b> <i>Risk-Based Approach.....</i>	<i>6</i>
<b>1.6.5</b> <i>Rationale for Choice of Provisions.....</i>	<i>6</i>
<b>2</b> <b>COMPONENTS .....</b>	<b>8</b>
<b>2.1</b> <i>Waste Risk Assessment .....</i>	<i>8</i>
<b>2.2</b> <i>Objective-Based Management Actions.....</i>	<i>9</i>
<b>3</b> <b>ADAPTIVE MANAGEMENT AND REVIEW.....</b>	<b>11</b>
<b>3.1</b> <i>Adaptive Management .....</i>	<i>11</i>
<b>3.2</b> <i>Review Requirements .....</i>	<i>11</i>
<b>4</b> <b>STAKEHOLDER CONSULTATION .....</b>	<b>11</b>
GLOSSARY .....	12
REFERENCES .....	13
ATTACHMENTS .....	14
<i>Attachment 1.....</i>	<i>15</i>

---

# LIST OF TABLES

---

Table 1: Potential risks, impacts and controls.....	8
Table 2: Management actions.....	9
Table 3: Changes to the WMP .....	15





---

## LIST OF FIGURES

---

Figure 1: Regional Location of Proposal.....	2
Figure 2: Proposal Layout .....	3
Figure 3: Waste Management Hierarchy.....	5



---

# 1 CONTEXT, SCOPE AND RATIONALE

---

## 1.1 THE PROPOSAL

K plus S is an international resources company with headquarters in Germany. It has a long history of mining and processing mineral raw materials and is the world's largest salt producer and one of its top potash providers. K plus S is considering, through its Australian entity K plus S Salt Australia Pty. Ltd. (K+S), the possibility of developing and operating the Ashburton Salt Project (the Proposal), a greenfield solar salt project on the Western Australian (WA) coast, approximately 40km (kilometres) southwest of the township of Onslow, within the Shire of Ashburton (Figure 1).

If developed, Ashburton Salt will produce 4.7 Million tonnes per annum (Mtpa) of salt by evaporating sea water using the sun and wind (a process known as solar salt farming). The salt would be sold to buyers, for example in Asia, for use in industrial processes and transshipping would occur directly from site from a jetty. Low-draft barges would collect salt from the jetty and transport it out to sea for loading onto seagoing vessels, avoiding the need for a shipping channel to be dredged.

The Proposal includes the construction of solar salt evaporation and crystallisation ponds and associated infrastructure/activities (Figure 2; seawater intake pumps/channel/pipeline(s); seawater concentration ponds and salt crystallisation ponds; internal site roads; electricity generation and reticulation; fuel storage sites; a jetty and product loading facilities; a salt wash plant and associated ponds; salt stockpiles and conveyors; onsite buildings such as offices, storage, workshops and possibly accommodation; sewage treatment facilities and landfill; water supply bore(s); an airstrip; equipment parking and laydown areas; bitterns discharge infrastructure which may include a channel, dilution pond, pipeline and diffuser; drainage diversion(s); an access road; a haul road for construction materials; service corridor(s); quarry and borrow pit areas for rock, clay and other construction materials; and potentially dredging and dredge spoil disposal).

On 30 September 2016, K+S referred the Proposal to the WA Environmental Protection Authority (EPA) under section 38 of the *Environmental Protection Act 1986* (WA) (EP Act). In November 2016, the EPA determined that the Proposal would require assessment via a Public Environmental Review (PER).

An Environmental Scoping Document (ESD) outlining the requirements of the proposed Environmental Impact Assessment studies was released for public comment in September 2017. The ESD was revised, taking into account public feedback in December 2017, and was subsequently approved by the EPA in January 2018.



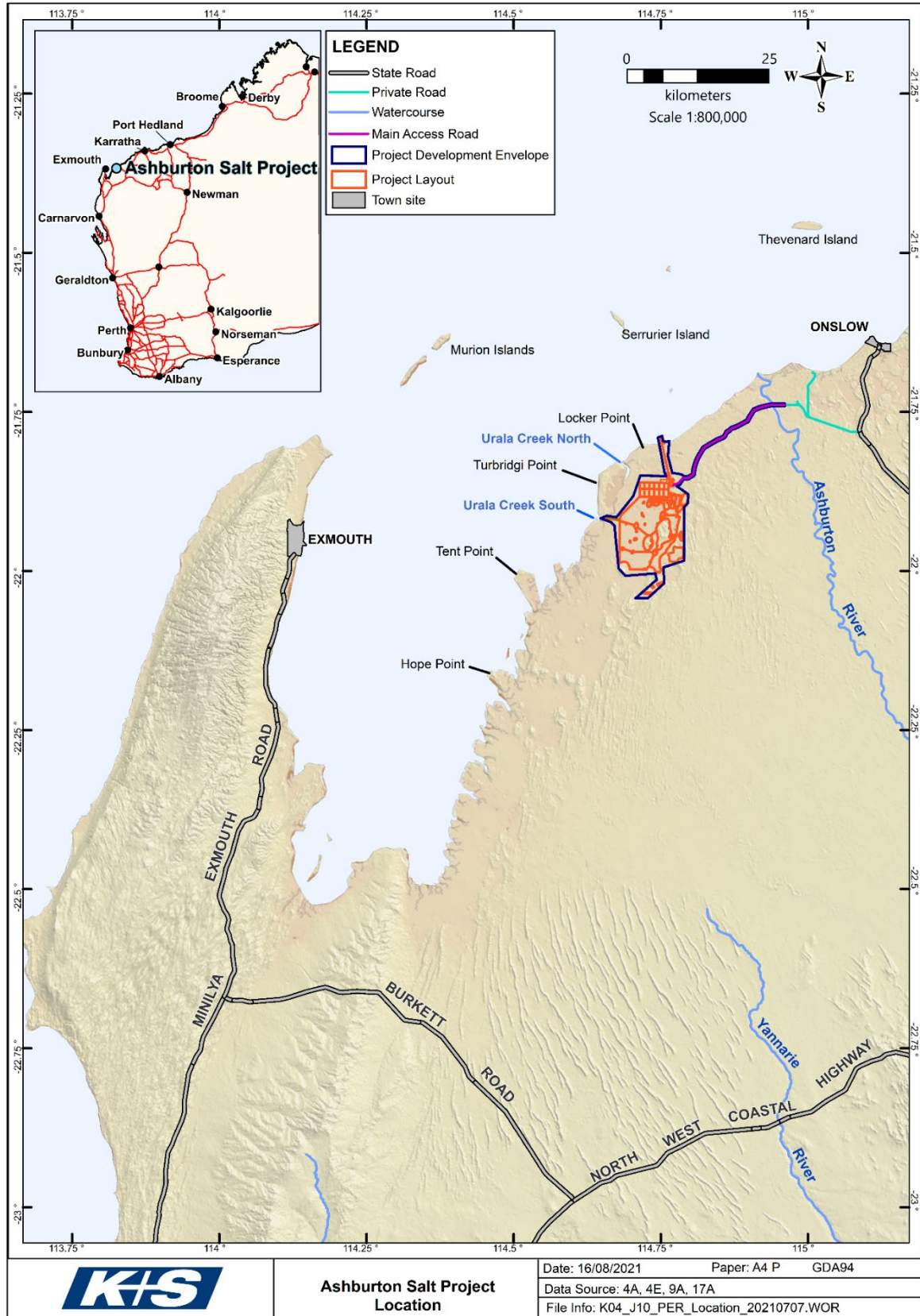


Figure 1: Regional Location of Proposal





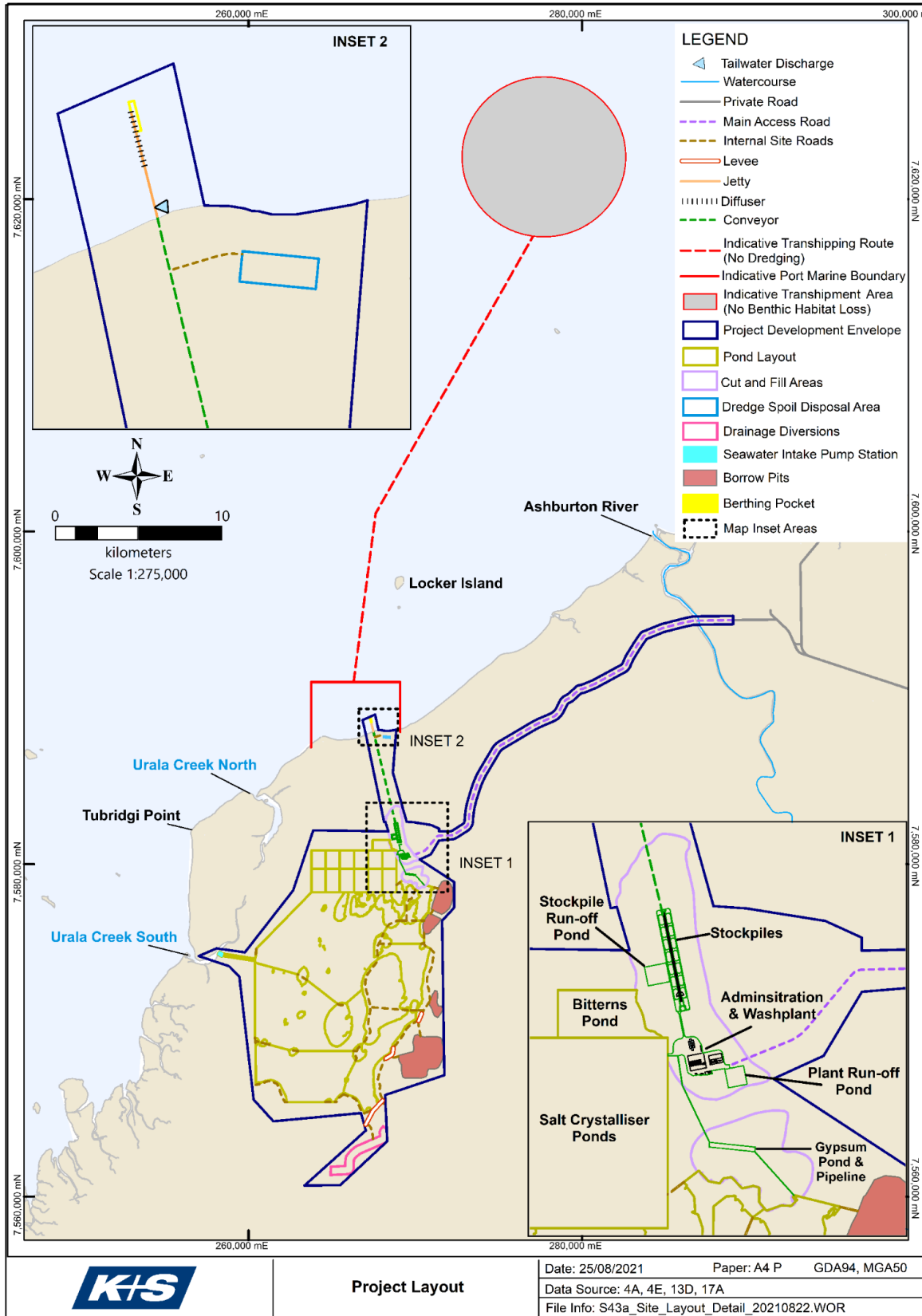


Figure 2: Proposal Layout



## 1.2 PURPOSE OF THIS MANAGEMENT PLAN

The implementation of the Proposal will generate a variety of wastes that require appropriate management to ensure environmental impacts are avoided. Waste management is a complex and multidimensional issue that inherently presents both risks and opportunities. Waste management solutions must effectively and appropriately manage risks to human health and the environment, but solutions need to be both practicable and economically viable to be successful.

The development of this Waste Management Plan (WMP) has considered the EPA document entitled '*Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans*' and intends to develop a management strategy that corresponds with the *Waste Avoidance and Resource Recovery Strategy 2030 (WARR 2030)*.

The purpose of the WMP is to:

- Provide monitoring and management measures to be implemented to manage wastes generated by the Proposal in a manner that will mitigate potential impacts to terrestrial environmental quality, and in accordance with the EPA's objectives.

This WMP addresses the commitment described in Item 81 of the ESD:

"Undertake a Waste Disposal Risk Assessment and develop an appropriate Waste Management Plan".

## 1.3 KEY ENVIRONMENTAL FACTORS

The EPA's Key Environmental Factor relevant to this WMP is Terrestrial Environmental Quality. The EPA's objective for Terrestrial Environmental Quality is "*to maintain the quality of land and soils so that environmental values are protected*".

## 1.4 SCOPE AND ASSOCIATION WITH OTHER MANAGEMENT PLANS

This WMP has been prepared to align with other Proposal Management Plans and avoid repetition. To that extent, this WMP provides monitoring and management actions for waste impacts, with the exception of monitoring and management actions associated with:

- Dredging and dredge spoil disposal activities, which will be covered in a *Dredging and Dredge Spoil Placement Management Plan (DDSPMP)*,
- Bitterns disposal and leaks or spills of hydrocarbons, chemicals or hypersaline brine which will be covered in a *Marine Environmental Quality Monitoring and Management Plan (MEQMMP)*,
- Mine closure, which will be covered in a *Mine Closure Plan (MCP)*, and
- Management of leaks or spills of hydrocarbons or chemicals will be covered in a *Hydrocarbon and Spill Management Plan*.

## 1.5 CONDITION REQUIREMENTS

A Ministerial Statement has not yet been issued for the Proposal.

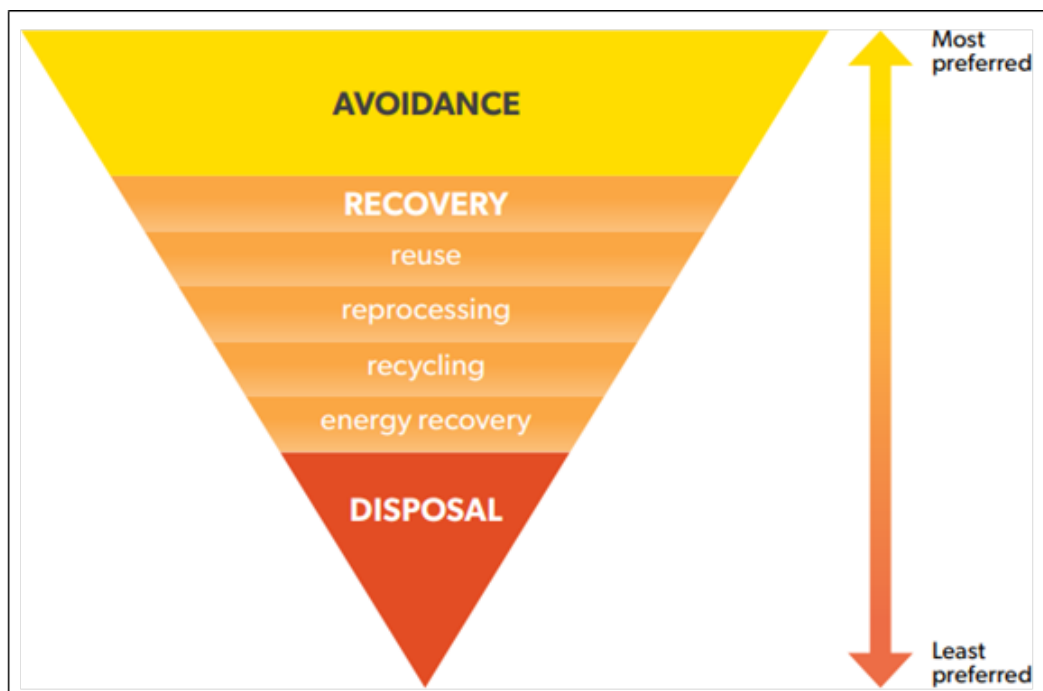


## 1.6 RATIONALE AND APPROACH

The management approach for the WMP is risk-based using a mitigation hierarchy to ensure that impacts have been avoided or reduced to appropriate levels through the application of risk controls, ranging from avoidance/prevention to mitigation/minimisation. Where practicable and to be conservative, the “highest level” management measures have been applied (i.e., the *precautionary principle* has been applied).

The management actions within the WMP are objective-based and aim to control activities or conditions that can negatively impact the environment through identifying significant environmental aspects, reporting on environmental performance, implementing remedial actions, and striving for continuous improvement.

The hierarchical approach to waste management described in the *Waste Avoidance and Resource Recovery Act 2007* (WA) (WARR Act) supports the concept of a circular economy by prioritising the options for the sustainable and efficient use of resources. The Waste management hierarchy ranks waste management options in order of their general environmental desirability, as shown in Figure 3.



Extract from WARR 2030

Figure 3: Waste Management Hierarchy

### 1.6.1 MANAGEMENT OBJECTIVES

The monitoring and management objectives of this WMP are to:

1. Ensure that all reasonable and practicable measures have been undertaken to minimise the generation of waste;
2. Ensure that all reasonable and practicable measures have been undertaken to identify and maximise recovery, reuse, and recycling of waste; and
3. Ensure that all reasonable and practicable measures have been undertaken to minimise the environmental impacts associated with the disposal of waste.



## 1.6.2 SURVEY AND STUDY FINDINGS

No specific studies were required to develop this WMP however, as described in Section 2.2, K+S will develop and maintain a Waste Register in order to identify all potential waste types generated by the Proposal to ensure that appropriate management strategies for all waste types are implemented.

## 1.6.3 KEY ASSUMPTIONS AND UNCERTAINTIES

The waste management practices in this WMP have been developed based on assumed generic waste types known to be generated on projects of a similar size and nature:

### Non-hazardous wastes

- Putrescible waste i.e.,
  - Food waste;
  - Paper and cardboard;
  - General mixed waste;
- Inert wastes i.e.,
  - Scrap metal;
  - Rubber; and
  - Wooden pallets.

### Hazardous wastes

- Controlled wastes i.e.,
  - Thinners/paint;
  - Waste oil;
  - Oily water;
  - Used chemicals;
- Other hazardous wastes i.e.,
  - Batteries; and
  - Oil filters.

No specific studies were undertaken to determine a comprehensive list of anticipated waste types however it is considered likely that waste types generated by the Proposal will have a viable and available management or disposal option.

## 1.6.4 RISK-BASED APPROACH

To ensure that all reasonably foreseeable potential risks and impacts associated with waste management on the Proposal have been considered, a Waste Risk Assessment has been undertaken as part of the development of this WMP (Section 2.1). A risk-based approach ensures that management targets are identified and prioritised accordingly.

## 1.6.5 RATIONALE FOR CHOICE OF PROVISIONS

The rationale for the choice of provisions (Indicators and/or Management Actions) described in this WMP is based on implementing the management approach described above to avoid and minimise the potential impacts of the Proposal on terrestrial environmental quality. Monitoring and management actions have been selected to ensure the development and operation of the Proposal aligns with EPA objectives.





The objective-based waste management targets, actions, monitoring and reporting that will be implemented during construction, operation, and closure of the Proposal are detailed in Table 2. These initiatives and management actions have been developed to manage the risks identified within Table 1.

This WMP specifies the proposed objectives, management targets, management actions, monitoring and reporting. Each objective has a management target set to ensure each objective is measurable, and the key actions required to meet the targets. Monitoring requirements have also been specified to check progress and ensure the actions are implemented successfully. This WMP also includes any reporting requirements relating to each objective.

This WMP aims to align with the waste management hierarchy and the relevant objectives of WARR 2030 and the EPA's objective for terrestrial environmental quality.



## 2 COMPONENTS

### 2.1 WASTE RISK ASSESSMENT

Table 1: Potential risks, impacts and controls

Risk category	Risk example	Impact	Consequence	Likelihood	Risk Rating
<b>Waste generation and its potential discharge into the environment.</b>	Storage and handling of waste and related materials results in release of hazardous materials to the environment.	• Potential impacts to terrestrial environmental quality i.e., soil contamination.	Moderate	Possible	Medium
		• Off-site and/or regional/cumulative contamination and/or pollution.	Major	Rare	Medium
		• Regulatory non-compliance due to inappropriate waste management.	Major	Possible	High
<b>Application of the Waste Management Hierarchy.</b>	Source, types and quantities of waste streams and their operational risks are not fully understood.	• Potential impacts to terrestrial environmental quality i.e., soil contamination.	Moderate	Possible	Medium
		• Potential health risks from exposure to hazardous waste materials.	Major	Unlikely	Medium
		• Insufficient storage capacity for waste types generated.	Moderate	Possible	Medium
		• Regulatory non-compliance due to inappropriate waste management.	Major	Possible	High
	Waste management options available for the waste types generated are not well understood.	• Build-up of excess wastes onsite.	Major	Unlikely	Medium
		• Regulatory non-compliance due to inappropriate waste management.	Major	Possible	High
		• Opportunities for resource recovery (waste management hierarchy) are lost.	Insignificant	Possible	Low
		• Opportunities for more environmentally sustainable products and service inputs are not realised.	Insignificant	Possible	Low
		• Incidents/non-compliances related to waste management are high and/or recurring.	Major	Unlikely	Medium
		<b>Compliance and Reporting.</b>	Waste data collection and tracking information is insufficient to demonstrate effective waste management.	Build-up of excess wastes onsite.	Major
Regulatory non-compliance due to inappropriate waste management.	Major			Possible	High
Opportunities for resource recovery (waste management hierarchy) are lost.	Insignificant			Possible	Low
Opportunities for more environmentally sustainable products and service inputs are not realised.	Insignificant			Possible	Low
Incidents/non-compliances related to waste management are high and/or recurring.	Major			Unlikely	Medium
<b>Sustainable practices.</b>	Procurement practices do not consider waste minimisation opportunities.	Build-up of excess wastes onsite.	Major	Unlikely	Medium
		Regulatory non-compliance due to inappropriate waste management.	Major	Possible	High
		Opportunities for resource recovery (waste management hierarchy) are lost.	Insignificant	Possible	Low
		Opportunities for more environmentally sustainable products and service inputs are not realised.	Insignificant	Possible	Low
		Incidents/non-compliances related to waste management are high and/or recurring.	Major	Unlikely	Medium
<b>Training and competency.</b>	Organisational communications on waste management are ineffective.	Build-up of excess wastes onsite.	Major	Unlikely	Medium
		Regulatory non-compliance due to inappropriate waste management.	Major	Possible	High
		Opportunities for resource recovery (waste management hierarchy) are lost.	Insignificant	Possible	Low
		Opportunities for more environmentally sustainable products and service inputs are not realised.	Insignificant	Possible	Low
		Incidents/non-compliances related to waste management are high and/or recurring.	Major	Unlikely	Medium



## 2.2 OBJECTIVE-BASED MANAGEMENT ACTIONS

Table 2: Management actions

<b>EPA factors and objectives:</b>		<b>Terrestrial environmental quality:</b> "to maintain the quality of land and soils so that environmental values are protected".		
		<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Ensure that all reasonable and practicable measures have been undertaken to minimise the generation of waste;</li> <li>• Ensure that all reasonable and practicable measures have been undertaken to identify and maximise recovery, reuse, and recycling of waste; and</li> <li>• Ensure that all reasonable and practicable measures have been undertaken to minimise the environmental impacts associated with the disposal of waste.</li> </ul>		
<b>WMP Key environmental values:</b>		• Soil quality.		
<b>Key impacts and risks:</b>		• Table 1, Column 1 ( <i>Risk category</i> ).		
<b>Proposed construction date:</b>		TBD		
<b>EMP required pre-construction?</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Objective-based				
Management Targets	Management Actions	Monitoring	Timing/frequency of actions	Reporting
Achieve zero breaches of waste management conditions during construction, commissioning, and operations.	<ul style="list-style-type: none"> <li>• Purpose-built storage and handling areas and the use of appropriate receptacles are established and maintained for all waste types.</li> <li>• All waste management receptacles will be fit for purpose and colour coded, with appropriate waste streams clearly identified on the outside of the receptacles as per guidance and training provided by the appointed waste management service provider/contractor.</li> <li>• Develop, implement, and maintain risk identification procedures and operational controls through an EMS aligned to the ISO 14001:2015 Standard.</li> <li>• Develop and implement a site environmental monitoring and measurement programme as part of an EMS aligned to the ISO 14001:2015 Standard.</li> <li>• Develop and implement environmental auditing and inspection; incident reporting; and implementation of corrective/preventative actions as part of an EMS aligned to the ISO 14001:2015 Standard.</li> </ul>	<b>Operational monitoring:</b> <ul style="list-style-type: none"> <li>• Waste data recorded, analysed, and communicated to department managers.</li> <li>• Scheduled inspections of waste storage and handling areas.</li> <li>• Internal Audit Programme.</li> </ul> <b>Environmental monitoring:</b> <ul style="list-style-type: none"> <li>• Groundwater quality monitoring programme.</li> <li>• Surface water quality monitoring.</li> <li>• Dust monitoring programme.</li> </ul>	<ul style="list-style-type: none"> <li>• Actions to continue through all phases of the Proposal.</li> <li>• Monitoring to occur in accordance with waste management approval conditions.</li> <li>• Quarterly.</li> <li>• Quarterly.</li> <li>• Quarterly.</li> </ul>	<b>Internal:</b> <ul style="list-style-type: none"> <li>• Incident reporting (as required).</li> <li>• Operations Reporting (Weekly).</li> </ul> <b>External:</b> <p>Routine regulatory reporting as required by approvals under Part IV and Part V of the EP Act (DWER, Annual).</p> <b>Contractor:</b> <p>Waste management service provider / contractor:</p> <ul style="list-style-type: none"> <li>• Monthly reports that include, but are not limited to: <ul style="list-style-type: none"> <li>○ Waste streams, volumes and treatment.</li> <li>○ Resource recovery rate.</li> <li>○ Safety statistics including reportable incidents, near misses, and interventions.</li> <li>○ Collection issues / innovations.</li> </ul> </li> </ul>
Ensure all waste is taken to appropriate facilities - 100% compliance.	<ul style="list-style-type: none"> <li>• Ensure the requirement for treatment or disposal of waste at licensed facilities is specified within the contract.</li> <li>• Maintain records of treatment locations within the Waste Register.</li> <li>• Ensure onsite landfill is appropriately Licenced and is constructed and operated in accordance with Licence conditions.</li> </ul>	<b>Contractor management:</b> <ul style="list-style-type: none"> <li>• Monitor Waste Management Contractor obligations in accordance with the contract.</li> <li>• Monitoring in accordance with Licence conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Actions to continue through all phases of the Proposal.</li> <li>• Monitoring to occur in accordance with Licence conditions.</li> </ul>	<b>Internal:</b> <ul style="list-style-type: none"> <li>• Incident reporting (As required).</li> <li>• In accordance with commercial contract.</li> </ul> <b>External:</b> <p>Routine regulatory reporting as required by approvals under Part V of the EP Act (DWER, Annual).</p>
Ensure zero health impacts from exposure to hazardous waste materials	<ul style="list-style-type: none"> <li>• Purpose-built storage and handling areas and the use of appropriate receptacles are established and maintained for all waste types.</li> <li>• All waste management receptacles will be fit for purpose and colour coded, with appropriate waste streams clearly identified on the outside of the receptacles as per guidance and training provided by the appointed waste management service provider/contractor.</li> <li>• Develop, implement, and maintain risk identification procedures and operational controls through an EMS aligned to the ISO 14001:2015 Standard.</li> <li>• Develop and implement a site environmental monitoring and measurement programme as part of an EMS aligned to the ISO 14001:2015 Standard.</li> <li>• Develop and implement environmental auditing and inspection; incident reporting; and implementation of corrective/preventative actions as part of an EMS aligned to the ISO 14001:2015 Standard.</li> </ul>	<b>Operational monitoring:</b> <ul style="list-style-type: none"> <li>• Waste data recorded, analysed, and communicated to department managers.</li> <li>• Scheduled inspections of waste storage and handling areas.</li> <li>• Internal Audit Programme.</li> </ul> <b>Occupational health monitoring:</b> <ul style="list-style-type: none"> <li>• In accordance with Health &amp; Safety Management System (HSMS).</li> </ul>	<ul style="list-style-type: none"> <li>• Actions to continue through all phases of the Proposal</li> <li>• Monitoring to occur in accordance with waste management approval conditions.</li> <li>• In accordance with HSMS.</li> </ul>	<b>Internal:</b> <ul style="list-style-type: none"> <li>• Incident reporting (as required).</li> <li>• Operations Reporting (Weekly).</li> </ul> <b>External:</b> <p>Routine regulatory reporting as required by approvals under Part IV and Part V of the EP Act (DWER, Annual).</p> <b>Contractor:</b> <p>Waste management service provider / contractor:</p> <ul style="list-style-type: none"> <li>• Monthly reports that include, but are not limited to: <ul style="list-style-type: none"> <li>○ Waste streams, volumes and treatment.</li> <li>○ Resource recovery rate.</li> <li>○ Safety statistics including reportable incidents, near misses, and interventions.</li> <li>○ Collection issues / innovations.</li> </ul> </li> </ul>



<b>EPA factors and objectives:</b>		<b>Terrestrial environmental quality:</b> "to maintain the quality of land and soils so that environmental values are protected".		
<b>WMP Key environmental values:</b>		<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Ensure that all reasonable and practicable measures have been undertaken to minimise the generation of waste;</li> <li>• Ensure that all reasonable and practicable measures have been undertaken to identify and maximise recovery, reuse, and recycling of waste; and</li> <li>• Ensure that all reasonable and practicable measures have been undertaken to minimise the environmental impacts associated with the disposal of waste.</li> </ul>		
<b>Key impacts and risks:</b>		• Soil quality.		
<b>Proposed construction date:</b>		TBD		
<b>EMP required pre-construction?</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Objective-based				
Management Targets	Management Actions	Monitoring	Timing/frequency of actions	Reporting
Limit potential increases in waste production to <5%/annum within the first three years of consistent operations.	<ul style="list-style-type: none"> <li>• Develop and implement this WMP to ensure adequate management, measurement, and reporting.</li> <li>• Identify opportunities for avoidance of waste generation.</li> <li>• Assess feasibility of sending residual wastes to a Waste to Energy facility.</li> </ul>	<b>Operational monitoring:</b> <ul style="list-style-type: none"> <li>• Monitor waste quantities generated using the Waste Register.</li> <li>• Contractor management.</li> <li>• Manage Waste Management Contractor in accordance with the contract.</li> </ul>	Quarterly assessment and review during first three years of consistent operations.	<b>Internal:</b> <ul style="list-style-type: none"> <li>• Operations Reporting (Daily).</li> <li>• Waste Management Report (Monthly).</li> <li>• Waste Management Review (Quarterly).</li> <li>• Sustainability Report (Annual).</li> <li>• Contractor Management (Monthly).</li> </ul> <b>External:</b> <ul style="list-style-type: none"> <li>• Routine regulatory reporting as required by approvals under Part IV and V of the EP Act (DWER) and the <i>Mining Act 1978</i> (DMIRS, Annual).</li> <li>• National Pollution Inventory reporting (DWER, Annual).</li> <li>• As per commercial contract.</li> </ul>
Maximise diversion of waste from landfill – 75% within the first three years of operation.	<ul style="list-style-type: none"> <li>• Identify and assess all potential waste streams through the Waste Classification System and Waste Register.</li> <li>• Identify, assess, and engage potential markets for resource recovery and re-use.</li> <li>• Assess feasibility of sending residual wastes to a Waste to Energy facility.</li> <li>• Establish and implement contracts for waste management by appropriately licensed operators/facilities.</li> </ul>	<b>Operational monitoring:</b> <ul style="list-style-type: none"> <li>• Process monitoring system in place during operations.</li> <li>• Process data recorded tracked through EMS Procedure: and communicated to department managers.</li> <li>• Waste Management Review Meetings.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous.</li> <li>• Monthly.</li> <li>• Quarterly.</li> </ul>	<b>Internal:</b> <ul style="list-style-type: none"> <li>• Incident reporting (As required).</li> <li>• Operations Reporting (Weekly).</li> <li>• Waste Management Report (Monthly).</li> <li>• Waste Management Review (Quarterly).</li> </ul> <b>Contractor:</b> Waste management service provider/contractor: <ul style="list-style-type: none"> <li>• Monthly reports that include, but are not limited to: <ul style="list-style-type: none"> <li>○ Waste streams, volumes and treatment.</li> <li>○ Resource recovery rate.</li> <li>○ Safety statistics including reportable incidents, near misses, and interventions.</li> <li>○ Collection issues/innovations.</li> </ul> </li> </ul>
Develop and implement sustainable procurement practices within two (2) years of operations.	<ul style="list-style-type: none"> <li>• Develop and implement procurement practices in line with the DAWE (2021) Sustainable Procurement Guide.</li> <li>• Procurement practices consider sustainability at an early stage of procurement decision-making to identify opportunities to; avoid or reduce consumption; identify whether there is a more sustainable alternative; readily available rethink and revise specifications to improve sustainability outcomes at the concept or design stage of the procurement.</li> </ul>	<b>Operational monitoring:</b> <ul style="list-style-type: none"> <li>• Sustainable Procurement Policy.</li> <li>• Environmental Assessment of Products and Services.</li> <li>• EMS Management Review.</li> <li>• Internal Audit Program.</li> </ul>	Within 2 years of the commencement of operations.	<b>Internal:</b> <ul style="list-style-type: none"> <li>• EMS Management Review – Quarterly.</li> <li>• Internal Audit Programme Reports – Annual.</li> </ul>





---

## 3 ADAPTIVE MANAGEMENT AND REVIEW

---

### 3.1 ADAPTIVE MANAGEMENT

K+S is committed to improving environmental performance and management practices throughout the implementation of the Proposal and therefore will use an adaptive management approach for this WMP. Adaptive management practices will include:

- Annual review and comparison of monitoring data and information gathered against established baseline data;
- Annual evaluation of monitoring and management outcomes against management targets and the objectives of this WMP; and
- Review of management actions throughout the implementation of the Proposal, and identification of potential new management measures and technologies that may be more effective.

### 3.2 REVIEW REQUIREMENTS

The WMP will be reviewed annually through the construction phase and every two years during operation. It will also be updated based on review outcomes. The review will take into account whether management targets are being achieved or are likely to be achieved and will identify any updates required to realise the targets.

---

## 4 STAKEHOLDER CONSULTATION

---

The Proposal ERD (including this WMP as an Appendix) will be released for public comment and this WMP will be revised to address any relevant comments received. K+S will continue to consult with key stakeholders regarding the Proposal, including (but not limited to) the following:

- Environmental Protection Authority;
- Department of Water and Environmental Regulation;
- Department of Biodiversity, Conservation and Attractions (DBCA);
- Department of Primary Industries and Regional Development (DPIRD);
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) – Cth,
- Pilbara Ports Authority (PPA);
- Shire of Ashburton;
- Shire of Exmouth;
- Gascoyne Development Commission (GDC);
- Pilbara Development Commission;
- Buurabalayji Thalanyji Aboriginal Corporation (BTAC);
- Cape Conservation Group (CCG);
- Onslow Town Community;
- Exmouth Town community;
- Australian Gas and Infrastructure Group (AGIG) – holder of Urala Pastoral Lease;
- Neighbouring Pastoral Stations (Koordarrie);
- Recreational Fishing Groups; and
- Exmouth and Onslow Prawn Fisheries.

## GLOSSARY

Term	Meaning
AGIG	Australian Gas and Infrastructure Group
BTAC	Buurabalayji Thalanyji Aboriginal Corporation
CCG	Cape Conservation Group
DBCA	Department of Biodiversity, Conservation and Attractions
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DDSPMP	Dredging and Dredge Spoil Placement Management Plan
DPIRD	Department of Primary Industries and Regional Development
DWER	Department of Water and Environmental Regulation
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EPA	Environmental Protection Authority
ERD	Environmental Review Document
ESD	Environmental Scoping Document
GDC	Gascoyne Development Commission
HSMS	Health & Safety Management System
K+S	K plus S Salt Australia Pty Ltd
MCP	Mine Closure Plan
MEQMMP	Marine Environmental Quality Monitoring and Management Plan
Mtpa	Million tonnes per annum
N/A	Not Applicable
PER	Public Environmental Review
PPA	Pilbara Ports Authority
Proposal	Ashburton Salt Project
TBD	To Be Determined
WA	Western Australia
WARR 2030	<i>Waste Avoidance and Resource Recovery Strategy 2030</i>
WARR Act	<i>Waste Avoidance and Resource Recovery Act 2007</i>
WMP	Waste Management Plan

---

## REFERENCES

---

Department of Agriculture, Water and the Environment (DAWE; now DCCEEW) (2021). *Sustainable Procurement Guide*. Australian Government, Canberra. November 2021

Environmental Protection Authority (2020a). *Statement of Environmental Principles, Factors and Objectives*. EPA, Western Australia, April 2020.

Environmental Protection Authority (2020b). *Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans*. Government of Western Australia, September 2020.

K plus S Australia Pty. Ltd., (2021). *Ashburton Salt Project Environmental Review Document*, September 2021.

Waste Authority (2012). *Waste Avoidance and Resource Recovery Strategy 2030*. Government of Western Australia, 2012.





---

# ATTACHMENTS

---





# ATTACHMENT 1

Table 3: Changes to the WMP

<b>Complexity of changes:</b>				<b>Minor revisions</b>	<b>Moderate revisions</b>	<b>Major revisions</b>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Number of Key Environmental Factors</b>				<b>One</b>	<b>2 - 3</b>	<b>3+</b>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Date revision submitted to EPA: DD/MM/YYYY</b>							
<b>Proponent's operational requirement timeframe for approval of revision</b>				<b>&lt; One Month</b>	<b>&lt; Six Months</b>	<b>&gt; Six Months</b>	<b>None</b>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Reason for Timeframe:</b>							
<b>Item no.</b>	<b>EMP Section no.</b>	<b>EMP pg no.</b>	<b>Summary of change</b>	<b>Reason for change</b>			
1.							
2.							
3.							

