

# Six Mile Creek Dam Safety Upgrade Project

Hazardous Substances Management Plan

Document number: LMDIP-05829-GNL-ENV-MPL-00007



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#### **Definitions & Abbreviations**

| Term                                 | Definition/ Abbreviation  |
|--------------------------------------|---|
| Appropriately qualified person / AQP | A person having the qualifications, experience or standing appropriate to undertake the work required |
| CSM                                  | Community & Stakeholder Manager   |
| CLR                                  | Contaminated Land Register  |
| CGCR                                 | Coordinator-General's change report - Construction  |
| DG                                   | Dangerous Goods   |
| DETSI                                | Department of Environment, Tourism, Science and Innovation  |
| EMP                                  | Environmental Management Plan   |
| EMR                                  | Environmental Management Register   |
| EP Act                               | Environmental Protection Act 1994   |
| EPBC Act                             | Environment Protection & Biodiversity Conservation Act 1999 (Cth)                                     |
| ESM                                  | Environment and Sustainability Manager  |
| HSM                                  | Health and Safety Manager   |
| PM                                   | Project Manager   |
| SDS                                  | Safety Data Sheet   |



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## Scope

The Hazardous Substances Management Plan (this Management Plan) is applicable to all construction phase works associated with the Lake Macdonald Dam Improvement Project (the Project). This Management Plan is to be read in conjunction with the:

- Site Environmental Management Plan (ref: LMDIP-05829-GNL-ENV-MPL-00001)
- SMEC Impact Assessment Report including the Draft Environmental Management Plan (Ref: Appendix B of the SMEC Impact Assessment Report)

This Management Plan has been prepared to address the relevant imposed conditions outlined in the Coordinator-General's change report 2025 (CGCR) – Construction and recommendations (the addressable items).

#### 1.1. Objectives

The objectives of this Hazardous Substances Management Plan are to:

- Prevent adverse environmental impacts from hazardous substances and dangerous goods
- Protect human health, and aquatic and terrestrial ecological process in and around Lake Macdonald and Six Mile Creek
- Ensure all fill imported to the Project site is clean and free from any contaminants
- Ensure materials moved within or exported from site are managed to avoid harm to the environment and/or human health

#### 1.2. Stakeholder Consultation

In preparing this Management Plan, the following stakeholders were consulted and feedback considered in the development of management measures:

- The Office of Coordinator General (OCG) through the review of the draft Management Plans provided in May
- John Holland Group on the proposed mitigation measures



# 2. Specific Performance Measures

The specific performance measures relevant to the implementation of this Management Plan have been detailed in Table 1.

**Table 1 Performance measures** 

| Specific Performance Measure  | Measurable Target(s)  |
|---|---|
| Prevent or minimise adverse environmental impacts from hazardous substances and | No incidents of environmental harm from storage and handling of hazardous substances and/or dangerous goods   |
| dangerous goods   | All personnel complete a workplace induction  |
|   | Bunds are appropriately sized and fit for purpose   |
|   | Containment and effective clean-up of all spills involving materials that may cause environmental harm, and measures taken to prevent the incident from recurring |
|   | All spills are reported   |
| Prevent or minimise soil contamination  | All fill used on-site is 'inert' and free from contaminants   |

# 3. Roles and Responsibilities

Roles and responsibilities applicable to the implementation of this Management Plan have been detailed in Table 2. These roles and responsibilities are in addition to those described in Table 9 of the SEMP.

**Table 2 Roles and responsibilities** 

| Role                            | Responsibility  |  |  |
|---------------------------------|---|--|--|
| Seqwater                        | Manage the construction process as the Project proponent.   |  |  |
|                                 | <ul> <li>Allocate sufficient resources to prepare, review and update this Management<br/>Plan.</li> </ul>   |  |  |
|                                 | <ul> <li>Ensure that the requirements of any statutory approvals, legislation and this<br/>Management Plan are included in the contract documentation and implemented.</li> </ul> |  |  |
|                                 | <ul> <li>Undertake audits of the contractor to verify compliance with any legislative<br/>requirements and this Management Plan.</li> </ul>                                       |  |  |
| Contractor Project Manager (PM) | <ul> <li>Maintain a master copy of this Management Plan, a record of the completion of<br/>management measures, monitoring records and reports.</li> </ul>                        |  |  |
|                                 | <ul> <li>Provide sufficient resources to ensure the effective implementation of this<br/>Management Plan.</li> </ul>  |  |  |
|                                 | Participate in any audits initiated by Seqwater.  |  |  |
|                                 | Coordinate required monitoring.   |  |  |
|                                 | <ul> <li>Provide relevant and timely information about construction activities that may<br/>impact on the amenity of stakeholders.</li> </ul>                                     |  |  |

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| Role   | Responsibility   |
|--|--|
| Contractor Construction<br>Manager (CM)                    | Ensure all hazardous substances are stored, handled and maintained in accordance with this Management Plan.  |
|  | <ul> <li>Report any incidents, non-compliances and complaints to the Contractor Project<br/>Manager.</li> </ul>  |
|  | <ul> <li>Participate in any investigations of complaints or non-conformances.</li> </ul>   |
|  | Ensure all staff are trained/inducted to the Project.  |
| Contractor Environment and<br>Sustainability Manager (ESM) | <ul> <li>Primary responsibility for implementation and compliance with this Management<br/>Plan, statutory approvals and legislation.</li> </ul>   |
|  | <ul> <li>Undertake regular inspections of work activities to ensure adherence to this<br/>Management Plan.</li> </ul>  |
|  | <ul> <li>Participate in toolbox talks as required to ensure staff are aware of key concerns<br/>associated with the handling, storage and potential accidental spill of hazardous<br/>substances.</li> </ul>   |
|  | Report any incidents, non-compliances and complaints to Seqwater.  |
|  | <ul> <li>Lead any investigations of complaints or non-conformances and report any<br/>findings and corrective actions to Seqwater.</li> </ul>  |
| Healthy and Safety Manager<br>(HSM)                        | <ul> <li>Liaise with the ESM to ensure minimum management measures around the<br/>storage and handling of bulk hazardous substances meet the Work Health and<br/>Safety Regulations.</li> </ul>  |
| Community & Stakeholder<br>Manager (CSM)                   | <ul> <li>Ensure community members are appropriately notified of any potential accidental<br/>spills that may impact the receiving environments (i.e. drinking water).</li> </ul>   |
|  | Manage the project enquiries and responses.  |
|  | <ul> <li>Register and report community complaints and ensure adherence to the<br/>complaint's procedure.</li> </ul>  |
| Supervisors  | <ul> <li>Ensure the requirements of this Management Plan are communicated to all<br/>personnel and are being fully implemented on site.</li> </ul>   |
|  | <ul> <li>Undertake any rectifications as required by the Contractor Environment and<br/>Sustainability Manager.</li> </ul>   |
| Principal Contractor                                       | Implement this Management Plan in accordance with their own Environmental Management Systems (EMS), processes, and procedures.   |
|  | <ul> <li>Ensure all construction works are conducted in accordance with approvals, the<br/>contract, relevant legislation, and local laws.</li> </ul>  |
|  | <ul> <li>Maintain for the duration of the construction phase, open and effective<br/>communication with the communities in the vicinity of the Project about the<br/>construction program, scale, duration and nature of the proposed work, and details<br/>of proposed impact mitigation measures.</li> </ul> |
| All Project personnel (including Subcontractors)           | <ul> <li>Comply with reasonable directions given by the Principal Contractor regarding<br/>environmental matters.</li> </ul>   |
|  | <ul> <li>Comply with the requirements of this Management Plan as relevant to the<br/>subcontracted works.</li> </ul>   |
|  | <ul> <li>Environmental incidents, non-conformances and near misses are to be reported to<br/>the Supervisor.</li> </ul>  |



# 4. Hazardous Substances & Dangerous Goods

The inventory of hazardous materials expected to be stored onsite is provided in Table 3. Any additional hazardous substances or dangerous goods to be used on site that are not currently listed in the plan will be added and approved prior to use on site.

**Table 3 Inventory of hazardous materials** 

| Hazardous<br>Material                                      | Storage vessel                       | Volume   | Reagent<br>Form | Dangerous<br>Goods (DG)<br>Class | Comment   | Location<br>Storage                               |
|--|--------------------------------------|--|-----------------|----------------------------------|-----------|---|
| LPG  | 9 Litres (L) gas<br>cylinders        | 4 x 36 L   | Liquefied gas   | 2.1                              | Hazardous | Workshop  |
| Diesel &<br>Petrol   | 2,000 L Double-<br>skinned container | 100 L of<br>Petrol<br>200 L of<br>Diesel   | Liquid          | 4                                | Hazardous | Mobile<br>service truck /<br>Bulk Fuel<br>Storage |
| Oxygen /<br>acetylene                                      | VIE45000<br>vessel                   | 2 x oxygen<br>2 x acetylene  | Compressed gas  | 2.2                              | Hazardous | Workshop  |
| Paints & solvents  | Up to 20 L<br>containers             | 40 x spray<br>cans marking<br>paint<br>500 mL of<br>plumbing glue  | Liquid          | 3                                | Hazardous | DG Container                                      |
| Cleaning<br>products<br>including<br>acids and<br>bleaches | Up to 20 L<br>containers             | Commercial cleaner to supply when cleaning - will not be left onsite   | Liquid          | 8                                | Hazardous | DG Container                                      |
| Contaminated<br>soil from any<br>hydrocarbon<br>spills     | 3 cubic metre (m³)<br>skip bin       | No permanent<br>onsite storage<br>bin - will be<br>ordered as<br>needed and<br>taken offsite<br>within 3 days<br>once loaded | Soil / solid    | 2.2                              | Hazardous | Reagent Store                                     |

## 5. Legislative and Other Compliance Requirements

#### 5.1. CGCR Addressable Items

Details of the applicable CGCR addressable items and how these have been addressed in the Management Plan have been detailed below in Table 4.

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Table 4 CGCR addressable items relevant to this Management Plan

| CGCR Reference  | Туре               | Addressable Items  | How addressed in this<br>Management Plan   |
|---|--------------------|--|--|
| Appendix A. Imposed Conditions, Schedule 1, Condition 1 (c) Site Environmental Management Plan (SEMP) | Imposed conditions | The SEMP must include the following construction EMPs:  (G) hazardous substances management plan | This Management Plan has been developed to comply with this condition and includes performance criteria, mitigation measures, monitoring reporting, responsibility and corrective action.  Performance criteria are described in Section 2 and Table 1  Mitigation measures are provided in Section 7, Table 7, MM1-MM35  Monitoring is described in Section 9 and Table 10  Reporting is described in Section 11 and Table 11  Roles and responsibilities are described in Section 3 and Table 2  Corrective actions are described in Section 10 and Table 11 |

## 5.2. Legislation

Details of relevant legislation applicable to this Management Plan have been detailed below in Table 5.

Table 5 Other legislation applicable to this Management Plan

| Legislation  | How it Applies to this Management Plan   |
|--|--|
| Environment Protection &<br>Biodiversity Conservation Act 1999<br>(EPBC Act) | The project was deemed a controlled action for impacts on matters of national environmental significance (MNES). Therefore, the project has an EPBC Approval (ref EPBC 2017/8078) for impacts to Listed Threatened Species and Communities.                              |
|  | Under the EPBC Approval Seqwater must avoid where possible impact on threatened species listed under the EPBC Act. The Giant Barred Frog and Mary River Turtle are both listed fauna species that may be impacted by potential accidents/spills of hazardous substances. |
| Environment Protection Act 1994 (EP Act)                                     | Under the EP Act the project must not cause unreasonable environmental harm to the receiving environment. The handling and storage of hazardous  |

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| Legislation  | How it Applies to this Management Plan   |
|--|--|
|  | substances if not managed appropriately may impact soil and water posing a risk to ecosystems and wildlife.  |
|  | Seqwater has an obligation to uphold their general environmental duty, duty to notify, and duty to restore the environment under the EP Act to prevent environmental harm, nuisance and contamination occurring from project activities.   |
| Nature Conservation Act 1992 (NC Act)                      | The object of the NC Act is the conservation of nature while allowing for the involvement of Aboriginal peoples and Torres Strait Islander peoples. The NC Act lists threatened flora and fauna species, which are species that are considered at risk of extinction. Three threatened fauna species listed under the NC Act as have been identified on the project and may also be impacted by accidental spills from hazardous substances used and stored on site. |
| Work Health and Safety Act 2011<br>(WHS Act)               | The WHS Act provides the framework for managing risks in the workplace, promote work health and safety and improve health and safety standards, including storage and handling of hazardous chemicals and dangerous goods.   |
| Work Health and Safety Regulation<br>2011 (WHS Regulation) | The WHS Regulation ensures the health and safety of workers and others in the workplace by setting out specific requirements and standards on how to prevent or minimise workplace risks, including risks associated with the storage and handling of hazardous chemicals and dangerous goods.   |

# 6. Potential Impacts

The construction activities, aspects and potential impacts relevant to this Management Plan have been detailed in Table 6.

Table 6 Potential impacts - hazardous substances

| Construction Activity  | Potential Impact<br>No. | Potential Impact – Hazardous Substances   |
|--|-------------------------|---|
| The use of hazardous substances for demolition and construction activities | PI1                     | Storing and handling of hazardous substances may have the potential to lead to accidental spills causing environmental harm to the receiving environment. |
| Importation of fill to<br>Project site                                     | PI2                     | Introduction of contaminated fill to Project site causing environmental harm  |



## 7. Management Measures

The management measures that will be implemented to minimise the potential impacts with hazardous substances have been detailed in Table 7.

#### **Table 7 Management measures**

| No. | Hold<br>Point | Actions   | Related<br>Potential<br>Impact | Staff Responsible | When                  |
|-----|---------------|---|--------------------------------|-------------------|-----------------------|
| MM1 |               | The source of the imported fill must not be listed on the Environmental Management Register (EMR) or Contaminated Land Register (CLR) unless documented evidence demonstrating the material is free of contamination can be provided and is verified by a suitably qualified person (as defined by the EP Act contaminated land provisions)   | PI2                            | СМ                | Workplace<br>Planning |
| MM2 | Y             | Conduct visual inspections of the imported fill material to ensure that it contains no waste material including:  Signs of hydrocarbon contamination  Plastics or other wastes  Vegetative materials  Concrete wastes  Scrap metal  Any signs of potential contamination would require validation sampling and testing as per AS 4482 Guide to the investigation and sampling of sites with potentially contaminated soil | PI2                            | Supervisors       | Project<br>Delivery   |
| ММЗ | Y             | Obtain documentation from the fill provider, which includes:  Date of arrival on site  Volume / quantity of fill material  Provider  Source of fill material  | PI2                            | Supervisors       | Project<br>Delivery   |

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| No.   | Hold<br>Point | Actions  | Related<br>Potential<br>Impact | Staff Responsible | When                |
|-------|---------------|--|--------------------------------|-------------------|---------------------|
|       |               | Certification that the material is contaminant free  |                                |                   |                     |
|       |               | <ul> <li>Documentation that confirms the site of the fill material is not listed on the EMR/CLR (unless verified clean – see item 1 above).</li> </ul>   |                                |                   |                     |
|       |               | Clean fill will be sourced from licensed suppliers. Potential suppliers include:   |                                |                   |                     |
|       |               | Kin Kin Quarry – 250 Sheppersons Lane, Kin Kin, Qld  |                                |                   |                     |
|       |               | Boral Quarry – 720 Moy Pocket Road, Moy Pocket, Qld  |                                |                   |                     |
|       |               | Curra Quarry – 1 Bruce Highway, Curra, Qld     Image Flat Quarry – 170 Image Flat Dood Northern Old  |                                |                   |                     |
|       |               | <ul> <li>Image Flat Quarry – 178 Image Flat Road, Nambour, Qld</li> <li>Anderleigh Quarry – 270 Sorrenson Road, Gunalda, Qld</li> </ul>  |                                |                   |                     |
| 14144 | V             |  | PI1                            | ESM               | Workplace           |
| MM4   | Υ             | Prepare a Hazardous Chemicals Management Procedure that details the following:   | ' ' '                          | LOW               | Planning            |
|       |               | List of hazardous chemicals used for the Project   |                                |                   |                     |
|       |               | Hazard Chemicals Risk assessment   |                                |                   |                     |
|       |               | Control measures     Sefectores and handling   |                                |                   |                     |
|       |               | Safe storage and handling     Emergency response plan  |                                |                   |                     |
|       |               | Health monitoring  |                                |                   |                     |
|       |               | Documentation and record keeping   |                                |                   |                     |
|       |               | During development of the Hazardous Chemicals Procedure and preparing the list of hazardous chemicals used for the Project, consideration will be given to whether a similar, less hazardous product can be used to substitute the hazardous chemical. |                                |                   |                     |
| MM5   | Υ             | Prior to procurement of hazardous chemicals, verify that they have been approved for use and consider information in the Hazardous Chemicals Risk Assessment.  | PI1                            | CM/ESM/HSM        | Project<br>Delivery |

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| No.  | Hold<br>Point | Actions  | Related<br>Potential<br>Impact | Staff Responsible | When                  |
|------|---------------|--|--------------------------------|-------------------|-----------------------|
|      |               | A risk characterisation is to be undertaken where no data is available and must be approved prior to using the hazardous substance on site where deemed to be of high risk.  |                                |                   |                       |
| MM6  |               | Ensure that potential incidents or emergencies involving hazardous chemicals are identified and investigated. Implement appropriate procedures to respond to and mitigate incidents and emergencies to the fullest extent practicable. | PI2                            | ESM/HSM           | Workplace<br>Planning |
| ММ7  | Υ             | Develop and implement a Workplace Emergency Response plan that includes, at a minimum:   | PI1 & PI2                      | ESM/HSM           | Workplace<br>Planning |
|      |               | Containment of the hazardous chemical and any solid or liquid effluent   |                                |                   |                       |
|      |               | Notification of relevant authorities and third parties   |                                |                   |                       |
|      |               | Disposal of containment materials  |                                |                   |                       |
|      |               | Protection of persons involved in the clean-up operations  |                                |                   |                       |
|      |               | Spill over water emergency procedures  |                                |                   |                       |
|      |               | The Workplace Emergency Response Plan will reflect possible emergencies arising from the full range of hazardous chemicals on the site, including spills.  |                                |                   |                       |
| MM8  |               | A copy of the manufacturer's Safety Data Sheet for chemicals will be obtained prior to delivery to the Project and kept onsite.  | PI2                            | ESM               | Project<br>Delivery   |
| ММ9  |               | A Register of all chemicals in the workplace will be established and maintained.   | PI2                            | ESM<br>/HSM       | Project<br>Delivery   |
| MM10 | Y             | Before any hazardous chemicals are accepted on site, a Hazardous Chemical Risk Assessment form must be completed and the Chemicals Register updated.   | PI1                            | All personnel     | Project<br>Delivery   |
| MM11 | Υ             | Hazardous chemical containers will be inspected to ensure they are in a sound condition, can be safely stored onsite and cannot be mistakenly identified as containing food or beverages.  | PI1                            | All personnel     | Project<br>Delivery   |

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| No.  | Hold<br>Point   | Actions   | Related<br>Potential<br>Impact | Staff Responsible   | When                |
|------|---|---|--------------------------------|---------------------|---------------------|
| MM12 |   | When planning the location of facilities, plant lay down areas, refuelling areas, stockpiles or chemical storage, areas that drain towards surface water or stormwater systems must be avoided in order to minimise risk of pollution.  | PI1                            | All personnel       | Workplace           |
| MM13 |   | Chemicals and fuel must be labelled and stored in bunded areas in accordance with the safety data sheet (SDS).  | PI1                            | All personnel       | Project<br>Delivery |
| MM14 | Spill kits and fire response equipment must be located where chemicals and plant or equipment containing fuel is being stored, operated or maintained. Spill kits are to be replenished immediately following use and maintained in good order, including a checklist stating contents. Only spill clean-up materials are to be placed inside the kits and they will not be used for storing rubbish. |   | ESM/HSM                        | Project<br>Delivery |                     |
| MM15 |   | All chemical storage containers will display the appropriate placarding, labelling and markings.  When decanting a hazardous chemical into a temporary container, the product name will be clearly marked and other relevant information will be included AS1940 - Storage and Handling of Flammable and Combustible Liquids.  Appropriate signage using HAZCHEM coders will be provided and remain visible at all times. Signage must also | Pl1                            | All personnel       | Project<br>Delivery |
|      |   | provide contact details for the Environmental Representative and Safety Officer in case of an emergency.  |                                |                     |                     |
| MM16 |   | Each bulk container or packaged storage area is to be uniquely identifiable, e.g. 'Store 1', 'Tank 105'. This identifier will be recorded in the 'Storage Location' column of the Chemicals Register.   | PI1                            | ESM/HSM             | Project<br>Delivery |
| MM17 |   | Storage areas and containers will be checked regularly to ensure they comply with Australian Standard AS 1940 Storage and Handling of Flammable and Combustible Liquids.  | PI1                            | ESM                 | Project<br>Delivery |
| MM18 | All chemicals will be stored with the appropriate SDS sheet available. Records of the existing inventory, storage location, personnel training, and waste disposal for all chemicals, fuel and dangerous goods used on site will be maintained.   |   | PI1                            | All personnel       | Project<br>Delivery |

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| No.  | Hold<br>Point   | Actions   | Related<br>Potential<br>Impact | Staff Responsible | When                |
|------|---|---|--------------------------------|-------------------|---------------------|
| MM19 |   | All chemicals and dangerous goods will be stored in accordance with the Hazardous Chemicals Management Procedure and segregated as required. Quantities will be appropriate for the storage environment.  | PI1                            | All personnel     | Project<br>Delivery |
| MM20 |   | Quantities of chemicals are to be monitored against the placard and manifest requirements under the WHS Regulation and in accordance with the Hazardous Chemicals Management Procedure.   | PI1                            | ESM/HSM           | Project<br>Delivery |
| MM21 | Υ   | Bulk containers and bulk storage units will comply with the requirements of AS 1940 – The Storage of Flammable and Combustible Liquids.   | PI1                            | ESM /HSM          | Project<br>Delivery |
| MM22 |   | Hoses, nozzles and connectors on bulk containers/tanks will be appropriate for the application and free of damage.  | PI1                            | ESM/HSM           | Project<br>Delivery |
| MM23 |   | Integral spill containment will be provided with truck, skid and trailer mounted bulk storage tanks/bowsers. In the absence of integral spill containment, sufficient spill containment equipment and material will be available.   | PI1                            | ESM/HSM           | Project<br>Delivery |
| MM24 |   | For bulk storage of portable containers at work sites and depots, dangerous goods approved storage cabinets with spill containment will be used. Ventilated freight containers will also be acceptable. Portable containers in bulk storage units will be stored upright and separated and protected from other items in the same storage unit. | PI1                            | ESM/HSM           | Project<br>Delivery |
| MM25 |   | All bulk containers will be appropriately bunded. The bunded area must have a minimum capacity equal to the capacity of the bulk container. If more than one bulk container is held within a single bunded area, the bund must have a minimum capacity equal to the largest container and 10% of the next largest container.                    | PI1                            | ESM/HSM           | Project<br>Delivery |
| MM26 |   | Incompatible hazardous chemicals will not be stored within the same bund.   | PI1                            | ESM/HSM           | Project<br>Delivery |
| MM27 | Fuel handling and storage will be managed in accordance with AS1940 -The Storage and Handling of Flammable and Combustible Liquids. |   | PI1                            | ESM/HSM           | Project<br>Delivery |

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| No.  | Hold<br>Point | Actions  | Related<br>Potential<br>Impact | Staff Responsible     | When                |
|------|---------------|--|--------------------------------|-----------------------|---------------------|
| MM28 |               | The appropriate SDS will be available wherever fuels are being transported, stored or handled.   | PI1                            | All personnel         | Project<br>Delivery |
| MM29 |               | Refueling areas will be positioned at least 20m from any waterway edge/entry point (drain).  Where refueling must be conducted adjacent to water, the task specific procedure in the Hazardous Chemicals  Management Procedure will be implemented to manage the associated risks.   | PI1                            | All personnel         | Project<br>Delivery |
| MM30 |               | Fuel storage areas will be located outside of overland water flow paths.   | PI1                            | All personnel         | Project<br>Delivery |
| MM31 |               | Refueling will occur in designated hardstand areas or over appropriate bund/spill tray.  | PI1                            | All personnel         | Project<br>Delivery |
| MM32 |               | Large volume refueling will use a refueling bund collar or blow back collar.   | PI1                            | ESM/HSM               | Project<br>Delivery |
| MM33 |               | Hydrocarbon spill kits and appropriate fire extinguishers will be positioned near all refueling or storage locations. Regular checks of firefighting equipment will be conducted to ensure it is well-maintained. Spill kits are to be replenished immediately following use and maintained in good order, including a checklist stating contents. Only spill clean-up materials are to be placed inside the kits and they will not be used for storing rubbish. | PI1                            | ESM/HSM               | Project<br>Delivery |
| MM34 |               | The transport and disposal of hazardous chemicals is to be undertaken in accordance with relevant manufacturer SDS disposal requirements and disposed of as Regulated Waste to ensure the protection of human health and the environment.  | PI1                            | ESM                   | Project<br>Delivery |
| MM35 |               | In the event that any hazardous material is discovered such as asbestos, buried waste, hydrocarbons etc. the following steps will be undertaken (It is noted that the probability of encountering hazardous asbestos material is very low).  | PI1                            | All personnel/ESM/HSM | Project<br>Delivery |
|      |               | <ul> <li>Stop all work immediately and notify the supervisor for the area</li> <li>Barricade off the area to minimise access</li> </ul>  |                                |                       |                     |

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| No. | Hold<br>Point | Actions  | Related<br>Potential<br>Impact | Staff Responsible | When |
|-----|---------------|--|--------------------------------|-------------------|------|
|     |               | <ul> <li>Supervisor to notify the ESM and HSM</li> <li>ESM and HSM will attend the scene and advise on the appropriate course of action</li> </ul> |                                |                   |      |
|     |               | Where external agencies or the regulator attend the incident, work will not recommence until authorised by the relevant administering authority.   |                                |                   |      |

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## 8. Hold Point

The hold points that will be adopted have been detailed in Table 8.

#### **Table 8 Project hold points**

| Hold<br>Point<br>Number | Related<br>Management<br>Measure | What  | When does it<br>occur  | Staff<br>Responsible | Construction<br>activities<br>restricted until<br>Hold Point<br>completed |
|-------------------------|----------------------------------|---|--|----------------------|---|
| 1                       | MM1, MM2                         | Inspection of fill brought onsite. Any signs of potential contamination will require validation sampling and testing as per AS 4482 Guide to the investigation and sampling of sites with potentially contaminated soil | During Project<br>Delivery   | CM/Supervisors       | Acceptance of fill<br>delivery  |
| 2                       | ММЗ                              | Obtain documentation from the fill provider to ensure it is free from contaminants  | During Project<br>Delivery   | Supervisors          | Acceptance of fill delivery   |
| 3                       | MM4                              | Hazardous Chemicals<br>Management Procedure   | Project<br>Planning  | ESM                  | Mobilisation on site  |
| 4                       | MM5                              | Verify hazardous chemicals<br>have been approved for use  | During Project Planning and throughout the Delivery of the Project | CM/ESM/HSM           | Use of hazardous<br>substances<br>onsite                                  |
| 5                       | MM7                              | Workplace Emergency<br>Response Plan  | During Project<br>Planning   | ESM/HSM              | Mobilisation on site  |
| 6                       | MM10                             | Hazardous Chemical Risk<br>Assessment form  | During Project<br>Delivery   | All personnel        | Acceptance of deliveries of hazardous substances                          |
| 7                       | MM11                             | Inspect deliveries of hazardous chemicals   | During Project<br>Delivery   | All personnel        | Acceptance of deliveries of hazardous substances                          |
| 8                       | MM21                             | Hazardous substances are appropriately stored and bunded  | During Project<br>Delivery   | ESM /HSM             | Mobilisation on site  |

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|             |               | EDIC                                   |                               |          |



# 9. Monitoring

To verify this Management Plan is achieving its performance measures the following monitoring program has been proposed in Table 9.

**Table 9 Monitoring program** 

| No. | What  | Who        | When<br>/Frequency |
|-----|---|------------|--------------------|
| 1.  | Handling and storage of hazardous substances will be monitored daily, with observations documented in site diaries.   | Supervisor | Daily              |
|     | Daily inspections will include storage areas for any defects with bunding, floor, cover, structure, hoses, valves and pumps or associated infrastructure.   |            |                    |
| 2.  | Regular equipment checks by operators for evidence of leaks and fitness of hydraulic hoses and seals. Maintenance or repairs completed as necessary to prevent drips, leaks or likely equipment failures. | ESM        | Daily              |
| 3.  | Inspection of hazardous substances management and storage areas, and spill kits to be undertaken as part of a weekly environment management inspection checklist.   | ESM        | Weekly             |
| 4.  | Quarterly (internal) and annual (external) audits of this Management Plan will be undertaken as part of the SEMP auditing process.  | ESM        | Quarterly/Annual   |

#### 10. Corrective Actions

Corrective actions that will be implemented in the event that a performance measure has not been achieved, have been detailed in Table 10.

**Table 10 Corrective action plan** 

| Issue/ Event   | Event Response   |
|--|--|
| Non-conformance<br>with this<br>Management Plan                            | <ul> <li>Notify the supervisor responsible for the area of non-conformance</li> <li>ESM will provide the supervisor instructions to resolve the non-conformance</li> <li>ESM will check the non-conformance is rectified 24 hours after the instruction was given</li> </ul> |
| Inappropriate<br>storage, and/or<br>handling of<br>hazardous<br>substances | <ul> <li>Relocate product to appropriate storage location</li> <li>Notify the HSM and ESM</li> <li>Record the incident investigation in the Seqwater incident management system</li> <li>Clean-up and rectify facility where directed to by the ESM</li> </ul>               |

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| Issue/ Event            | Event Response   |
|-------------------------|--|
|                         | Notify and train personnel   |
|                         | Upgrade the facility or use appropriate equipment, where directed by the ESM   |
|                         | Document corrective actions in an update of this Management Plan   |
| Leaks and spills of     | Isolate source and contain spill   |
| hazardous<br>substances | Notify the HSM and the ESM   |
| substances              | Determine extent and degree of contamination   |
|                         | Document the incident investigation in the Seqwater incident management system   |
|                         | Notify DETSI if environmental harm has occurred  |
|                         | Implement remedial action as directed by the ESM or DETSI  |
|                         | Transport and dispose of in accordance with DETSI.   |
|                         | Investigate the incident to determine reasons why spill and future preventative action   |
|                         | <ul> <li>Where there is a spill of hazardous substances, relevant work procedures and<br/>operation controls will be reviewed and revised where necessary to ensure they are fit<br/>for purpose</li> </ul>      |
|                         | <ul> <li>Relevant personnel will undertake adequate environmental awareness training<br/>covering the requirements of this Management Plan regarding the management of<br/>hazardous substances</li> </ul>       |
|                         | Document corrective actions in an update of this Management Plan   |
| Contaminated fill       | Notify the supervisor responsible and the ESM  |
| brought to site         | <ul> <li>Any signs of potential contamination will require validation sampling and testing as<br/>per AS 4482 Guide to the investigation and sampling of sites with potentially<br/>contaminated soil</li> </ul> |
|                         | Refuse delivery of the contaminated fill   |
|                         | Document the incident investigation in the Seqwater incident management system   |
|                         | Cease to use the supplier of the contaminated fill and use an alternative supplier   |
|                         | Document corrective actions in an update of this Management Plan   |

# 11. Reporting

Reporting that will be undertaken in accordance with this Management Plan has been detailed in Table 11.

**Table 11 Reporting plan** 

| No. | Reporting Required  | By Whom | By When             | To Whom          |
|-----|---|---------|---------------------|------------------|
| 1.  | Details of field observations will be reported via the Weekly Environmental Inspection Checklist, and communicated during pre-starts, toolbox and team meetings as appropriate. | ESM     | Project<br>Delivery | All<br>personnel |

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| No. | Reporting Required  | By Whom               | By When             | To Whom                 |
|-----|---|-----------------------|---------------------|-------------------------|
| 2.  | All inspection and incident investigations will be recorded.  | Supervisor            | Project<br>Delivery | ESM                     |
| 3.  | Complaints/incidents regarding hazardous substances will be reported immediately to the ESM. Record any environmental incidents involving spills, including the time of the incident, persons involved, incident details, mitigation measures, and actions taken to minimise the probability of recurrence.   | All personnel/<br>ESM | Following incident  | Seqwater<br>DETSI       |
|     | Immediately report any large spills or potential risk of spills to the Environmental Representative.  |                       |                     |                         |
|     | Report incidents, complaints, and any significant environmental harm to Seqwater and DETSI, where required.   |                       |                     |                         |
| 4.  | Monthly report to Seqwater that includes details of hazardous substances related monitoring results, audits, non-conformance, training and incidents.   | ESM                   | Monthly             | Seqwater                |
| 5.  | <ul> <li>Quarterly report to the CG as per the requirements of schedule 2, condition 2. Report will include:</li> <li>An evaluation of compliance with the SEMP</li> <li>Monitoring data required by the Imposed Conditions included in Schedule 2 of the CGCR (2025) for the period and an interpretation of the results</li> <li>Details of any environmental incident during the reporting period, including a description of the incident, resulting effects, corrective actions (including site remediation activities), revised activity practices to prevent a recurrence, responsibility and timing</li> <li>The reports must be provided to the Coordinator-General and also be made available on the Project website within 20 business days of the end of the three-month period to which the report relates and continue to be available on the project website for the duration of the Project.</li> </ul> | Seqwater              | Quarterly           | Coordinator-<br>General |

# 12. Training and Awareness

Site inductions will include the following specific components for hazardous substances management:

- Summary of hazardous substances that are likely to be present on the Project site
- Key requirements for handling and storage of hazardous substances

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- Identification of hazardous and other chemicals, including awareness of other items/substances such as unexploded ordinances (UXO), known or suspected ground contamination and the findings of any surveys for such materials that have been conducted
- All relevant personnel will undertake adequate environmental awareness and training covering the requirements of this Management Plan regarding the sourcing, tracking and transportation of fill material
- Emergency response procedures including actions to be taken in the event of a spill or other incident involving hazardous substances

## 13. Review and Continual Improvement

This Management Plan shall be reviewed within the first 3 months of site mobilisation to ensure the plan is fit for purpose and any identified incidents, issues or hazards are addressed in the Management Plan accordingly. Follow up reviews are to be undertaken annually during construction.

This Management Plan shall be reviewed, out of the normal cycle, in the event of a legislative breach, incident, community complaint or when a new hazard or impact has been discovered.