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Proud operator of Sydney Ferries

Environmental Management Plan V2.0

Date 30/06/2022

SAFETY HEALTH ENVIRONMENT & QUALITY

Contents

1.   Introduction

Sydney Ferries is an integral component of Greater Sydney's multi-modal public transport network, carrying 15 million customers on 170,000 services throughout Sydney Harbour and its related waterways annually. Transdev Sydney Ferries (TDSF) operates Sydney Ferries since December 2016. The network consists of eight key routes and 36 wharves, ranging from Manly in the north-east to Parramatta in the west of Sydney and including key destinations such as Barangaroo and Circular Quay, Figure 1.
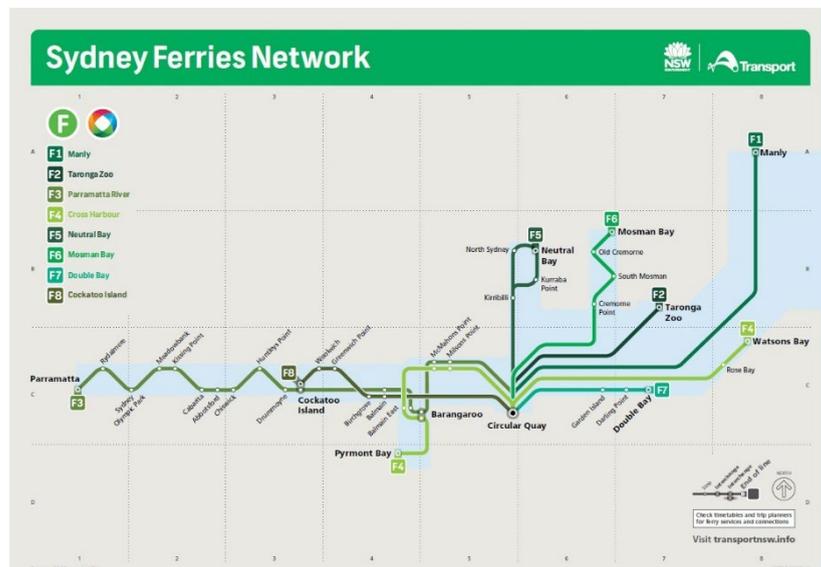
Figure 1: Current Sydney Ferries network

TDSF as part of the Transdev Australasia (TDA) umbrella follows Transdev Group Manifesto as states below, Figure 2:

We move forward

In comfort and safety

By thinking ahead and innovating

For generations to come

Transdev Sydney Ferries takes this aspect of the Transdev Group Manifesto to heart.

People are at the centre of everything we do. This does not just mean the people of now. It also means the people of the future.

The children of today are the travellers of tomorrow. We must protect the environment they will move through as they grow, and ensure not only sustainable transport systems, but a sustainable world.

Figure 2: Transdev Group Manifesto

Improving environmental sustainability is one of the key strategic priorities of Australia and TfNSW. This Environmental Plan prepared by TDSF is in line with our understanding of TfNSW's sustainability and environmental requirements and aspirations.

TDSF has drawn upon its global experience in applying robust environmental management approaches that minimise the potential for occurrence of any environmental incident. TDSF is committed to minimising its impact on the precious water resources in the region, as well as on the well- preserved surrounding land and its rich biodiversity. Other natural resource management considerations such as soil conservation and air quality are also addressed in this Plan.

This Environmental Plan brings to life our vision for the **Next Generation** by building a strong, long-term strategic partnering relationship with TfNSW, so that environmental risks are managed effectively, and the environmental impact of the ferry network is minimised.

1.1.   Plan purpose, objectives and KPIs

The purpose of this Environmental Plan is to outline the environmental responsibilities and activities that will be undertaken by TDSF and our contractors under the Contract and relevant Environment Legislation. TDSF's Environmental Plan objectives are to:

- Avoid, or minimise, adverse environmental effects arising from operation and maintenance of the Ferry Service
- Ensure application of best practice environmental management on the network
- Comply with applicable environmental legislation, including:
    - Protection of the Environment Operations Act 1997
    - Protection of the Sea (Prevention of Pollution from Ships) Act 1983
    - Marine Pollution Act 2012
    - Environment Protection and Biodiversity Conservation Act 1999
    - Local council environmental policy and plans
- Comply with AS/NZS ISO 14001:2015 standards
- Manage environmental risks associated with our activities, including those associated with the activities of our contractors
- Present our commitment to achieving the highest, reasonably practicable environmental standards throughout the life of the Contract
- Demonstrate our commitment to continuous improvement of environmental management and sustainability of our operations and maintenance.

TDSF's environmental objectives demonstrate our clear commitment to protecting the environment as well as complying with applicable laws and other requirements. These objectives also include improvements to environmental performance across all aspects of the business, both ashore and afloat. We have set our performance targets based on the following principles:

- Performance requirements set in relevant licences and consents
- Contractual requirements
- Industry leading practice.

Indicative objectives and targets for the key environmental risks and challenges are set out in Appendix 1.

These targets allow for the demonstration of environmental protection, prevention of pollution and continual improvement. Achievement of environmental objectives and targets is tracked by the SHEQ team and reviewed:

- periodically at monthly management meetings and SHEQ meetings
- annually as part of the overall management review process.

The TDSF management team and the GM SHEQ will target areas where improvements are deemed necessary to reduce risks and/or potential liabilities and develop further procedures, if required.

KPIs for targets have been defined within Appendix 2.

TDSF Objectives, targets and KPIs are summarised and updated within Appendix 3.

1.2.   Interfaces with other Plans

This Environmental Plan is a core part of TDSF's project management methodology to assist in providing transparency of our operations to TfNSW. This Plan is developed in conjunction with, and relates to, each of the Plans created for the delivery of the Ferry Services. Key documents that should be read in conjunction with this Environmental Plan are:

- Emergency and Crisis Management Plan
- Safety Management Plan
- Quality Assurance Plan
- Asset Management Plan

2.   Resources

Responsibilities for the implementation, maintenance, review, and improvement of TDSF's Environmental Plan are set out as follows.

2.1.   Organisational structure

Environmental protection is every *Journey Maker's* responsibility. The operations and maintenance team, through their daily work, carry the greatest risk to our environment and must ensure procedures are properly adhered to.

2.2.   Roles and responsibilities

Roles and responsibilities are stated within Table 1.

Table 1: Roles and responsibilities

Role	Environmental responsibilities
Managing Director	• Hold overall responsibility for the implementation the Environmental and • Sustainability Policy • Ensure that adequate resources are allocated to meet the goals of the Environmental and Sustainability Policy and to implement and maintain Transdev's Environmental Plan • Ensure that Transdev's environmental performance is reviewed at senior management meetings

Role	Environmental responsibilities
GM SHEQ	• Take responsibility for both organisations' environmental performance • Hold responsibility for maintaining, updating and implementing TDSF's Environmental Plan • Be aware of legislative requirements, including Protection of the Environment Operation Act 1997, Protection of the Sea (Prevention of Pollution from Ships) Act 1983, local council environmental policy and plans. codes of practice, guidance notes and best available environmental practice, relevant to the operation of Ferry Service and ensure TDSF (and its contractors) abide by these requirements • Coordinate the efforts of staff and subcontractors in matters of environmental management • Maintain a register of environmental legal requirements • Develop and maintain a register of environmental risks • Manage environmental risks and maintain environmental records • Ensure environmental reports are provided to the relevant managers • Report environmental incidents to managers and TfNSW, AMSA and/or EPA • Ensure that the appropriate investigation and reporting of environmental incidents is undertaken, and ensure that recommendations from these investigations are implemented • Receive, review and, where necessary, respond to environmental related complaints made regarding TDSF's management of the Ferry Service • Ensure that training in environmental issues is conducted • Liaise with regulatory authorities on environmental management issues • Maintain the Environmental Plan so that it meets the environmental objectives of TfNSW and TDSF • Periodically review the organisation's Environmental Plan and provide TfNSW with an updated copy of the Environmental Plan if it is amended • Work in partnership with TfNSW and the Network Access Provider to reduce the overall environmental impact of the network • Manage the achievement and retention of environmental accreditation to ISO14001standard
Safety Security Environment & Risk Manager	• Be aware of environmental hazards relating to operation of the ferry network and the plant and materials that are used to carry out operations and maintenance activities • Assess potential environmental issues associated with new products • Request a Safety Data Sheet (SDS) for any new product that they propose to use • Provide and maintain a register of all SDSs • Ensure that materials are ordered in such a manner that, the quantity order, the timing of the delivery, and the storage of the material is not conducive to unnecessary waste

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Role	Responsibilities
All staff	• All staff will be committed to minimising their impact on the environment by: • Complying with the requirements outlined in TDSF's Environmental Plan and documents relevant to the environmental management of the Ferry Service • Ensuring that their employees, agents and subcontractors abide by all statutory requirements and the requirements set out in the Environmental Plan, and any other relevant environmental management documents relating to the operation • Immediately notifying their direct manager of any breaches or non-conformances with respect to the organisation's legal requirements • Initiating actions to prevent the occurrence of non-conformances relating to environmental management • Identifying and reporting actual and potential environmental issues and problems relating to environmental management • Initiating, recommending or providing solutions to environmental issues • Encouraging practices to minimise waste • Taking care of their immediate working environment (ie efficient use of materials, do not litter, recycle when possible) • Suggesting ways of minimising environmental impacts to supervisor • Reporting all incidents that could result in an environmental impact to their immediate supervisor.
Subcontractor	• All subcontractors will be committed to minimising their impact on the environment by: • Complying with the requirements outlined in TDSF's Environment and Sustainability Policy, this Plan and other documents relevant to the environmental management of the Ferry Services • Complying with the requirements outlined in TDSF's Sustainable Procurement Policy • Reporting all incidents that could result in an environmental impact to TDSF.

2.3. Specialist environmental support and services

TDSF will draw upon the resources of both Transdev Australasia and Transdev Group for assistance and support to manage environmental issues and pursue sustainability initiatives. Environmental experts in both of our organisations will be available to support the ferry operations in Sydney.

With a network of over 550 environmental correspondents worldwide, Transdev will benchmark our operations against our other local and international operations – ensuring we bring a best practice approach to the Ferry Services.

2.4. Competence, training, and awareness

2.4.1. Environmental awareness - Induction

Ongoing basic environmental awareness training is provided to our employees and contractors on their first time on site or on an annual basis. Records are kept by the training department.

All new employees will undergo environmental awareness training. Initial training will be delivered as part of TDSF's Employee Induction Course. It will cover:

- Transdev's Health, Safety, Environment and Quality Policy
- Role of each employee within our environmental and sustainability responsibility
- The Environmental Plan – Overview
- Roles and responsibilities under the Environmental Plan, including environmental feedback from employees
- Controls in the event of an environmental incident

- Waste management
- Environmental incident management

2.4.2. Environmental management training

Employees dealing with hazardous materials, operating new or major plant, handling fuel and chemicals, and other environmental management tasks are given specialised training. For example, training staff in the use of specific energy and water management practices. Records are kept by training department.

2.4.3. Subcontractors

All parties engaged by TDSF will be advised of environmental requirements and their responsibilities via a site induction process. All subcontractors will be responsible for adhering to our environmental and sustainability policies as a condition of their subcontract. Their activities will be regularly audited by TDSF as part of implementation of the Environmental Plan.

2.5. Communication

2.5.1. Internal Communication

Methods to involve and engage staff in environmental awareness and protection are outlined in Table 2.

Table 2: Initiatives for involving and engaging staff in environmental awareness

Initiative	Detail
Promapp	Promapp is a process mapping tool. This will outline, in easy-to-understand graphic format, the main effects that ferry operations can have on the environment and ways to mitigate the impacts. It will contain information on recycling, greenhouse gas emissions, energy efficiency measures and spill procedures as well as cover key points in the Environmental Plan.
Staff newsletter	A staff newsletter, with regular environmental and corporate responsibility updates
An annual 'Week of Action'	A corporate responsibility initiative that Transdev Australasia runs across all of its subsidiaries, including Transdev. The Week of Action integrates community and employee engagement and aims to increase employee's awareness about environmental best practices.
MyTransdev app	Communication of bulletins, safety alerts, toolbox talks, initiatives, health, and wellbeing programs will be communicated to our people through the MyTransdev App.

2.5.2. External communication

Environmental complaints received will be recorded in the Customer Relationship Management Database and referred to GM SHEQ and other relevant departments. The complaint will be recorded in CAMMs and investigated in line with the complaints and 9.1 incident management process.

2.6. Document control

This plan adheres to the 6.1.1 document management procedure.

This Plan will be updated annually and will be reviewed based on advice and feedback by staff and in consultation with other stakeholders and agencies.

This Plan will also be reviewed and updated:

- If an event occurs and it has been identified that this Plan was deficient If a relevant new risk has been added or changes have been made to a relevant risk assessment
- If there is a change to relevant legislation, laws or regulation
- Following a relevant change to the Contract
- Following a relevant change in Transdev policy
- Following the recommendations of an environmental or accreditation audit.

3. Planning

3.1. Our environmental management

This Plan ensures that TDSF:

- Implement, maintain and advance robust environmental management practices which ensure that we:
    - Conduct business activities in an environmentally sound and responsible manner
    - Identify, monitor and manage environmental risks
    - Further reinforce the resilience of the Ferry Services.
    - Conduct environmental audits
- Utilise qualified staff to monitor our environmental strategy – recording corrective actions and non- compliance areas
    - Meet customer needs while:
    - Minimising negative environmental impacts due to our operations and maintenance
    - Maximising social and economic benefits for local communities
- Facilitate compliance with all relevant legislative requirements as well as national and international standards
- Assess and monitor environmental impacts, or potential impacts, arising from our operations
- Continuously improve our environmental management.

We will fulfil these requirements using the approach shown in Figure 3
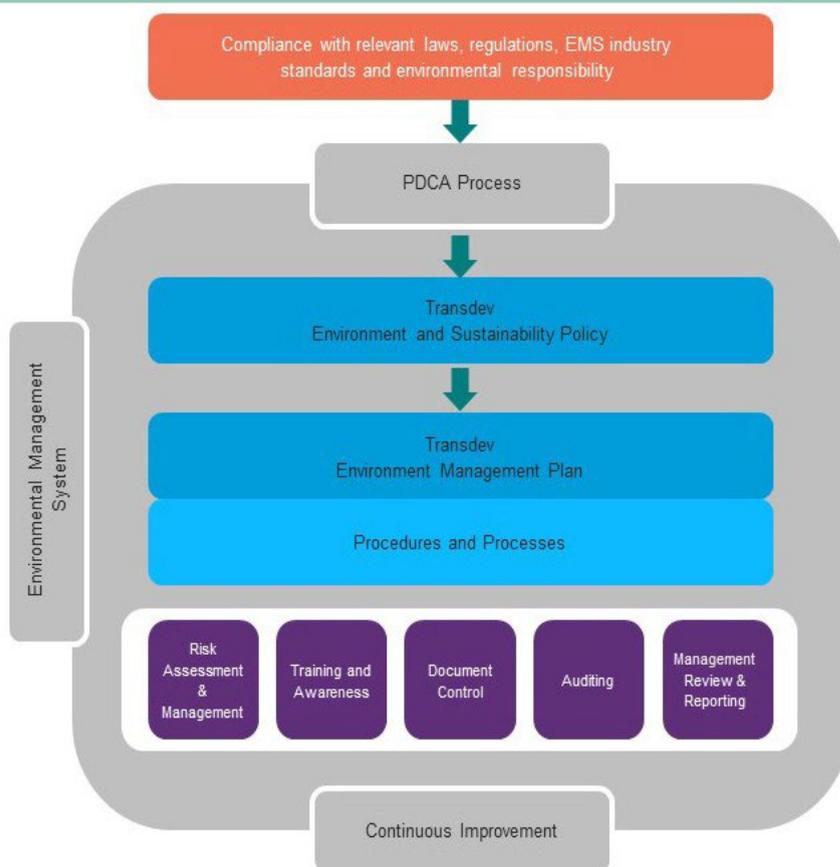
Figure 3: TDSF Process map

3.2. Legal and other requirements

TDSF understands the relevant environment laws and regulations applicable to the Ferry Service and as per 1.1.1.1 TDSF legal and other requirements register. The register is maintained by the GM SHEQ and annually reviewed.

These include as per Table 3:

Table 3: Legal and other requirements

1. Relevant Federal legislation	
Name of the Act	**Relevance**
Environment and Biodiversity Conservation Act 1999. (EPBC Act)	The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage locations.
National Greenhouse and Energy Reporting Act 2007 (NGER Act)	The NGER Act establishes a national system for reporting greenhouse gas emissions, energy consumption and production by corporations.
2. Relevant NSW legislation	
Environmental Planning and Assessment Act 1979 (EP&A Act)	Establishes the overall framework regulating development in NSW

Protection of the Environment Operations Act 1997 (NSW) (POEO Act) and POEO Amendment Act 2005	The main piece of NSW environmental legislation covering water, land, air and noise pollution and waste management. Establishes a system of environment protection licensing for 'scheduled' activities with the potential to have a significant impact on the environment. The Balmain Shipyard is licensed under this Act. Establishes a duty to report pollution incidents such as oil spills. Establishes a hierarchy of environmental offences and penalties applicable to environmental offences.
Protection of the Sea (Prevention of Pollution from Ships) Act 1983	Sets out requirements designed to protect the NSW marine environment from pollution caused by recreational, commercial and trading vessels operating in NSW waters
Marine Pollution Act 2012	Protects marine and coastal environment by minimising deliberate and negligent discharges of ship-sourced pollutants into coastal waters
Contaminated Land Management Act 1997	Gives the EPA the power to respond to contamination of land. Establishes a duty to report contamination of land.
Workplace Health and Safety Act 2011	Establishes a system for licensed premises where significant quantities of dangerous goods are stored. Requires storage of dangerous goods to comply with relevant standards.
Marine Safety Act 1998	The MSA sets out requirements for marine safety in NSW, including safety requirements for recreational boaters, commercial vessel operators, harbour Masters and marine pilots.
Waste Avoidance and Resource Recovery Act	Promotes waste avoidance and resource recovery.
Environmentally Hazardous Chemicals Act 1985	Provides the EPA with the power to make Chemical Control Orders for certain chemicals. Can apply to certain antifouling compounds (eg TBT).

3. Local Government environmental requirements

Source	Relevance
Sydney Regional Environmental Plan (REP) (Sydney Harbour Catchment) 2005	This Plan covers the area of Sydney Harbour, including the Parramatta River and its tributaries and the Lane Cove River. Establishes planning principles and controls for the catchment. Aims to establish a balance between promoting a prosperous working harbour, maintaining a healthy and sustainable waterway environment, and promoting recreational access to the foreshore and

4. Relevant standards	
Standard	**Relevance**
AS 1940–2004 Storage and Handling of Flammable and Combustible Liquids	This standard requires appropriate storage of flammable liquids above minor quantities (more than 100 litres).
AS/NZS ISO 14001–2015 Environmental Management Systems	This standard establishes the framework for developing an environmental management system.

5. Specific environmental instruments	
Licence	**Relevance**
NSW Environmental **Licence No. 6868 Protection**	Establishes requirements for management of wastes on the site. Establishes requirement to prevent pollution of waters arising from activities on the site. Requires a telephone complaints line to be maintained and advertised, and pollution complaints recorded. Requires an annual return to be prepared and submitted to the EPA. Requires immediate notification of pollution events to the EPA (via Pollution Hotline number 131 555)
Sydney Water – Consent to Discharge Industrial Trade Wastewater (Bilge Water) No. 35775	Permits discharge of industrial wastewater (bilge water) to sewer, provided it meets specified discharge quality parameters. Establishes a schedule for monitoring of discharge quality parameters. Establishes a schedule of charges for this discharge based on discharge quality parameters. Establishes procedures in the event of unintended or dangerous discharges. Requires calibration of meters to be recorded.
Sydney Water – Consents to Discharge Industrial Trade Wastewater (First flush stormwater) No. 35773	Permits discharge of industrial wastewater (first flush water) to sewer provided it meets specified discharge quality parameters. Establishes a schedule for monitoring of discharge quality parameters. Establishes a schedule of charges for this discharge based on discharge quality parameters. Establishes procedures in the event of unintended or dangerous discharges. Requires maintenance and calibration of the tipping bucket rain gauge to be recorded.
Sydney Water – Consents to Discharge Industrial Trade Wastewater (Boat repair water) No. 35774	Permits discharge of industrial wastewater (boat repair water) to sewer provided it meets specified discharge quality parameters. Establishes a schedule for monitoring of discharge quality parameters. Establishes a schedule of charges for this discharge based on discharge quality parameters. Establishes procedures in the event of unintended or dangerous discharges. Requires calibration of meters to be recorded.
Sydney Water – Commercial Trade Wastewater Permit No. 8507	Specifies that only toilet wastewater can be discharged from ships direct to sewer – no bilge water. Specifies that if there are odour problems from ship sullage pump-out chlorination may be required.

3.3.   PDMI Process

We use a Plan-Do-Measure-Improve (PDMI) process as part of our commitment to continuous improvement (described in our Quality Management Plan) and in accordance with the requirements set by TfNSW contract.

Applying beyond 'business as usual' practices, the PDMI process will provide a platform for the Environmental Plan and environmental practices to be modified and updated based on experience, lessons, and learnings from events/incidents, including potential incidents.

Inputs into the PDMI process will include experience and learnings from within TDSF, Australia and from our international network contacts, fulfilling the contractual requirement to set up an Environmental System based on good industry practice.

As part of our PDMI process, we propose establishing an TDA Sustainability Leaders Forum. This group, made up of key management and/or environmental personnel from Transdev, will meet quarterly to investigate an all-inclusive environmental management approach, encompassing design, construction, operations, maintenance of vehicles and infrastructure. The overall aim of the forum is to work in partnership to reduce the environmental impact of the Ferry Services.

3.4.   Environment Policy

TDSF is committed to ensuring sound environmental management practices are integrated into our activities and that high environmental standards are established across our business, 1.1.1.1 TDSF Health, Safety, Environment and Quality Policy.

3.5.   Environmental Management System

3.5.1. Overview

TDSF will maintain and continually improve an Environmental Management System (EMS) in accordance with the requirements of the ISO 14001:2015 International Standard and applicable laws, regulations, and contractual requirements. TDSF holds and maintains ISO 14001:2015 Certificate.

3.6.   Environmental management procedures

3.6.1. Environmental risk management

3.6.1.1.   **Environmental risk assessment process**

TDSF manages the environmental impacts of its operations and maintenance monitoring through a process of environmental hazard identification, risk assessment and operational control. TDSF locations are defined within Table 4:

Table 4: TDSF locations and responsibilities

TDSF direct responsibility	Shared responsibility
Balmain Shipyard Headquarter offices Vessels	Wharves

The environmental risks associated with the operation and vessel maintenance of the Ferry Service is reviewed and performance is continually improved.

TDSF inspects all sites which are direct responsibility for managing, together with those in partnership with other stakeholders. This includes environmental assessments of the wharves, operator areas in wharves, and other targeted areas with the intent to identify issues and to further develop a detailed environmental risk register. Inspections are conducted by TDSF and, where appropriate, by an independent certified environmental auditor.

Based on the risk rating, a risk treatment and/or risk reduction will be identified by applying the hierarchy of controls set out in a 2.1 TDSF Risk Management Procedure. Risk control and mitigation measures are selected and recorded in TDSF environmental aspects and impacts register. Residual risks are assessed to determine if the control measures applied are adequate and whether further controls are required.

TDSF has conducted a detailed risk analysis and identified key risks relevant to Environmental Plan. The risk ratings shown are based on the risk, as assessed by TDSF, following the application of relevant management controls.

TDSF's operational Risk Register details these risks and their proposed management controls to mitigate and lower the risk So Far as Is Reasonably Practicable.

TDSF holds periodic risk review meetings with operational staff and the senior management team as required to actively monitor and effectively manage these environmental risks.

Individual Risk Action Plans will be prepared for all Significant and High risks identified. Each Risk Action Plan will be registered with an allocated risk owner and detail management controls with allocation of responsibility, effectiveness tracking and timeframe for review.

3.6.2. Key environmental risks

As per TDSF environmental aspects and impacts register, the below significant aspects and impacts have been identified within Table 5 and 6:

Table 5: High level environmental risk associated with Sydney Ferry operations and maintenance

Passenger services	Vessel services	Climate risks
• Noise and vibration • Fuel consumption • Waste generation • Pollution (water) • Collision • Wash generated from vessel movement	• Water quality • Spillages • Hazardous materials • Waste generation • Land contamination	• GHG emission

Table 6: Key environmental risk management controls

No	Risk ID	Risk description
1	ENV01	Balmain Shipyard
		• Bilge water pump out and management • Vessel wash contamination • Sump water condition and system leaking • Odour, hazardous liquids or gases developing due to poor operations and maintenance practices
2	ENV02	• Accidental spillage of oil or chemical – Prevention. • Soil and water resources are polluted as a result of our activities (Above ground or underground petroleum storage system leakage)
3	ENV03	• Accidental spillage of oil or chemical during service (Oil, fuel or chemical has been spilled as a result of ferry collisions, grounds or mechanical failure.)
4	ENV04	• Ferry operations, including risk of ferry wash damage to riverbanks
5	ENV05	• Dry dock operation
6	ENV06	• GHG emission

3.6.3. Water and Wastewater Management – Balmain Shipyard

There are three main types of wastewaters at the Balmain Shipyard, which are monitored and tested every six (6) weeks as per Sydney Waters consents requirements:

Domestic sewage (including sullage pumped from the ferries) that is discharged directly to sewer. The wastewater treatment plant ensures the wastewater is not mixed with industrial wastewater prior to discharge to the sewer.

Contaminated bilge water pumped from the ferries, from pits around the shipyard and from seepage into the dry dock when it is empty. This water is treated in the oil-water separator and the trade waste treatment plant prior to discharge to the sewer, subject to the requirements set out in the Consent to Discharge Industrial Trade Wastewater No. 29850.

Contaminated stormwater captured by the first flush diversion system. This water is treated by the first flush diversion system prior to discharge to the sewer, subject to the requirements set out in the Consent to Discharge Industrial Trade Wastewater No. 29851.

The other over-riding priority for wastewater management at the Balmain Shipyard is to ensure that there is no discharge of contaminated water into the adjacent Harbour. This requires care in the management of stormwater and water pumped out of the dry dock during the emptying cycle.

3.6.4. Noise Management – Balmain Shipyard

Noise management at the Balmain Shipyard site controls are stated within Balmain Shipyard Environmental Licence from the EPA.

The primary noise management control at the shipyard is a self-imposed limit on noisy operations: 6:30am–4pm Monday to Friday, 7am–3pm Saturday and 9am–1pm Sunday. This self-regulation is aimed at good neighbour relations given the proximity of residential housing and the local demographics.

Where other noise issues arise, they will be assessed, and addressed as required.

3.6.5. Waste Management and Minimisation

Aspects of management of wastes generated at the Balmain Shipyard site includes solid waste, recyclable wastes, liquid waste, sludge from the trade waste treatment plant, and special wastes (such as asbestos-containing materials).

Waste is quantitative and qualitative monitor monthly to ensure effectiveness of the waste management solutions implemented and allow regular reporting, and bins for each type of waste are provided across our sites.

3.6.6. Contaminated Soil and Groundwater Management

Circular Quay and Balmain Shipyard have monitoring wells installed to ensure level of hydrocarbon contamination evident in the monitoring wells is decline steadily (due to natural in-situ degradation).

3.7. Emergency preparedness and response

Environmental incidents may include:

- Involvement in a hazardous/dangerous goods emergency (collision with other vessels carrying goods)
- A ferry incident in the vicinity of stations or trains
- Discharge of hazardous substances into the environment, ie to ground, water or air
- Entry of a pollutant into a drainage system, watercourse or other environmental system
- Accidental spillage
- A legal breach or non-compliance
- Non-compliance with the Environment and Sustainability Policy or Environmental Plan
- Receiving an environmental complaint from a third party.

Our emergency management and incident response approach and procedures are described in detail in:

- 8.1 Emergency and Crisis Management Plan
- 8.1.2 Balmain Shipyard Emergency Response Plan
- 8.1.3 Operations Emergency Response Plan

3.7.1 Contamination Control

Contamination response undertaken by TDSF, including subsequent contamination, contamination at other premises, and handling clean up notices. These requirements include:

- Dispose o f / or otherwise deal with subsequent contamination in accordance with relevant Environmental Law requirements
- Remediate to the standard required by relevant Environmental Law and Authorisations on TDSF premises and its adjoining area
- If contamination occurred from TDSF's operation, we would take appropriate actions to dispose and remediate the site, including other premises not managing by TDSF.
  - If TDSF receives any Clean Up Notices, we will provide a copy of the notice to TfNSW. We will determine, where possible, to what extent the Clean Up Notice relates to Pre-existing Contamination or Subsequent Contamination.
  - Consult with TfNSW, Comply with Environmental Auditor recommendation where possible, and provide evidence for the actions taken.

4. Continual improvement

4.1. Environmental Monitoring and Reporting

4.1.1. Reporting

Through CAMMs, employees and contractors can report any environmental incidents, which are investigated, and corrective actions implemented.

Notification of any environmental incident to relevant stakeholders as soon as reasonably practicable, and in any event within two business days, after receipt of any penalty notice or direction or other notice or complaint issued under any Environmental Law in relation to our vessels, wharves and shipyard.

Table 7 outlines the required reports for the effective delivery of our Environmental Plan.

Table 7: Environmental Management Reports

Description	Author	Recipient	Frequency
Audit finding reports	GM SHEQ	Managing Director	Annually
Environmental awareness internal and external initiatives	GM SHEQ	Managing Director & TfNSW	Annually
Environmental complaints	SHEQ Manager	GM SHEQ	Monthly
Environmental inspections	SHEQ Manager	GM SHEQ	Monthly
Environmental incidents	GM SHEQ	TfNSW	Monthly
Noise/vibration Complaints	SHEQ Manager	GM SHEQ	Monthly
Waste Management Report	SHEQ Manager	GM SHEQ	Quarterly
Water, electricity and gas consumption	SHEQ Manager	GM SHEQ	Quarterly

4.1.2. Monitoring

Environmental monitoring involves the collection, collation and storage of all relevant environmental information, and the reporting of environmental initiatives, including the systems and methodology involved.

In all cases, the results of monitoring will be reviewed, analysed statistically and provided to relevant stakeholders. The following table (Table 8) outlines the types of environmental monitoring to be undertaken.

Table 8: Environmental Monitoring

Type of monitoring	Description
Risk	Environmental risk assessments maintained and reviewed at least once a year. Hazards and risks are continually identified through our incident reporting process and addressed as required.
Sites	All sites for which TDSF is directly responsible are inspected. By using the site inspection checklist, issues are identified, and corrective actions and non-conformances recorded and addressed. Onsite monitoring will occur at high-risk sites or during high-risk operations (eg large events).
Incidents	Monitoring of incidents will be conducted by the GM SHEQ and will occur both during and afterwards. Appropriate records will be kept, and procedures updated where necessary.
Targets and objectives	Monitoring progress against targets and objectives is an important element in improving environmental performance. This occurs on a quarterly basis.
KPIs	Likewise, tracking performance against set KPIs is an important element in improving environmental performance. KPI monitoring occur on a monthly, quarterly, and annual basis.
Operational monitoring	TDSF ensures that all plant and equipment is inspected for functionality in accordance with relevant plant and equipment inspection, maintenance and calibration schedules, manufacturer's manuals, and other relevant
Compliance with legal and other requirements	TDSF periodically evaluates compliance with applicable legal and other requirements. Records of the results are kept on file.

Issues identified because of environmental monitoring are addressed as follows:

- Environmental risk, issues or non-compliance will be detailed
    - A plan to address or rectify the risk, issue or non-compliance will be prepared and agreed
    - The plan will be implemented, and the matter rectified
    - The issue and outcome will be communicated to relevant stakeholders
    - The Environmental Plan and other procedures will be modified/updated as required to ensure non- recurrence as part of our PDMI Process.
- Regular sampling and analysis of samples from the trade waste system and the first flush diversion system (for compliance with Sydney Water sewer discharge consent agreements)
- Periodic sampling and analysis of groundwater monitoring wells at Balmain Shipyard and Manly ferry terminal.
- Sampling is managed by subcontractor who has been approved by NATA and Sydney Water. Data recording and analysis, and reporting requirements are completed by SHEQ team.

4.2. Internal inspections and environmental auditing

4.2.1. Site inspections

Table 9: Environmental site inspections (frequency to be reviewed)

Items to be inspected	Location	Action	Timing
Containment units such as bunds, acid trays, sump pallets and drip trays	Balmain Shipyard and storage areas	Inspect to check general condition and integrity	Periodic inspections: Every 6 months
Storage tanks containing oil, paint and chemicals	Storage areas, hazardous substance stores	Inspect to check general condition and integrity	Periodic inspections: Every 6 months
Vessels	Balmain Shipyard	Check for leakage or discharges of grease fuel or other pollutants and implement repairs if required	Periodic inspections, annually, and following collisions
Vessel wastewater and sewage tanks	Balmain Shipyard	Inspected to ensure that they are in good condition and that there are no leaks	Periodic inspections, annually, and following collisions
Oil interceptors and waste-water treatment plants	Balmain Shipyard	Check to ensure that they are being maintained in accordance with the manufacturer's recommendations	Periodic inspections: Annually
Surface water drains	Balmain Shipyard	Inspect for blockages and contaminants	Periodic inspections and following storm events: Annually
Sewage and wastewater storage tanks	Balmain Shipyard	Inspect to ensure contaminant levels are not exceeded and that they are in good condition with no visible leaks	Periodic inspections: Annually

A site inspection check list is in place to conduct the site inspections. SHEQ team retain records of site inspections.

4.2.2. Internal and external audits

TDSF has established, implemented and a maintained a procedure for regular internal and external auditing of the environmental management system as per Measures Audit Review and Improvement Standard (12.1).

4.2.2.1. Corporate audits

An environmental audit, using corporate or consultant auditors, will be undertaken on an annual basis. The audit will:

- Determine whether the Environmental Plan conforms to planned arrangements for environmental management, including ISO 14001:2015
- Determine whether the Environmental Plan has been properly implemented and maintained

- Provide information of the results of audits to the Transdev Senior Management Team, along with a plan to address and issues identified in the audit.

A report confirming the actions undertaken or being undertaken to address issues identified in the audit will be prepared and presented to relevant stakeholders. Following completion of actions to address audit issues, are port will be prepared outlining remedial action undertaken. This will be presented to the TDSF Senior Management team. Relevant plans, procedures or other documentation will be updated following the audit.

4.2.2.2. External auditing: ISO 14001:2015 certification

As mentioned previously, TDSF achieved ISO14001:2015 certification in 2017 and we commit to maintaining this certification in the new Contract.

External independent environmental audits will be commissioned every year. The audits will comply with the audit requirements set out in ISO 14001:2015. Action will be taken to address any issues identified.

4.2.2.3. Internal auditing

TDSF conducts internal audits on a scheduled basis at regular intervals and identifies any areas of the organization where operations do not conform with the requirements of our system.

A report is provided to responsible management for action to be taken on correcting any non-conformance, and follow-up to ensure that corrective action has been effective.

The audit results are communicated, consulted and actions are follow-up by SHEQ team monthly meeting. Audit findings are recorded, monitored, and verified within TDSF Corrective Actions Register on Smartsheet.

4.3. Nonconformity, preventive action, and corrective action

Nonconformity, preventive, and corrective actions identified by our continuous improvement activities will follow the quality procedures outlined in the SHEQMS within Corrective actions register on Smartsheet.

Preventive and corrective actions will address the potential environmental risks, impacts and non-conformities identified within our system and the SHEQ specific plans outlined further in this plan.

All non-conformities and preventive and corrective actions will be registered in the TDSF Corrective Actions Register within Smartsheet.

5. initiatives

TDSF is continually improving our environmental management. To do so, we have set environmental and sustainability objectives and targets, and identified specific actions to meet them, see appendix 1 and 2.

These initiatives are as follows.

5.1. Towards carbon neutral

Climate change and an increasingly carbon restrained economy means we need education and a new set of tools to operate and prosper. Being carbon neutral plays a key role in TDSF's sustainability and CSR strategy. We realise that many individuals and corporate customers prefer to buy products and services from environmentally conscious suppliers.

TDSF carbon neutral. By taking the lead in the transport sector, our strategy will include:

- Switching to carbon neutral products where possible
- Reduce waste
- Improving recycling rates and fuel efficiency
- Carbon offsetting

5.2. 'Going Green' Campaign for our people

In line with our focus on environmental initiatives we will be rolling out an internal campaign that focuses on reducing our carbon footprint and promoting sustainable behaviours on our waterways, in our offices and within the community.

5.3. Blueflow

Transdev is committed to delivering state-of-the-art environmental solutions for the Ferry Service. Part of our strategy will be the implementation of Blueflow technology throughout the first year of the Contract.

Blueflow is a fuel monitoring system with the capability to become a useful tool to help us find ways to reduce fuel consumption, related costs and environmental impact. Blueflow records data on fuel used. It displays this data on-screen in real-time so the vessel Master can immediately see the correlation between acceleration and fuel consumption. Every second, Blueflow also automatically uploads all data to its servers – enabling more in-depth data analysis by vessel crews, maintenance, and management staff. Figure 6 depicts the Blueflow fuel monitoring process.

To support this initiative, we are:

- Monitor Blueflow and gather relevant data
- Further improve fuel consumption
- Monitor engine data (telematics)
- Monitor VDRS (vessel data recorder system)
- Monitor AIS (automatic identification system)
- Support competency management system through providing relevant data such as speed, direction, way points
- Support Geofencing initiative allowing us to track ferries by geographical location and send alerts to
- OCC if vessels are speeding to further enhance safety on our waterways.

Document History

Version	Revision	Revision Date	Description	Prepared By	Reviewed by	Approved by
1.0	All	30/06/2019	Document created			GM SAFETY & ASSURANCE
2.0	All	30/06/2022	Annual update	Safety & Assurance Advisor		GM SAFETY & ASSURANCE

Appendix 1. TDSF Environmental Plan Objectives and targets based on risks

Environmental risk and opportunity	Objectives	Targets
Natural resource (fuel) consumption	• Reduce fuel usage • Use clean fuel • Comply with relevant legislative requirement	• Implement Blueflow instrument to monitor fuel consumption • Increase engine efficiency by introducing Tier 3 engines • Reduce fuel consumption rate by 3% • Use low sulphur fuel as per legislative requirement on 1st of January 2020
Wastewater management (primarily at the Balmain Shipyard), including sewage, trade waste, bilge and sullage pump-out, and storm water runoff	• Comply with requirements of trade waste consents	• Comply with total dissolved solids limit through effective management of saline water • Minimise costs associated with wastewater treatment and disposal
Ferry operations, including risk of ferry wash damage to riverbanks	• No harm to the environment arising from ferry operations	• Identify areas in Parramatta and elsewhere prone to wash damage • Maintain wash damage management plan
Dangerous goods storage and handling	• Store and handle all dangerous goods safely and in compliance with appropriate standards	• Complete dangerous goods audit and minimise inventory
Waste management, including Handling, storage and transport, waste minimisation, recycling, liquid wastes such as waste oils and solvents, and special wastes (eg asbestos)	• No incidents involving waste management • Minimise waste volumes and disposal costs	• Measure waste volumes and achieve 5% reduction on solid waste • Identify and action recycling opportunities • Investigate disposal options for trade waste sludge
Noise management – particularly at Balmain Shipyard, where nearby neighbours may be impacted by out-of-hours noise	• No noise disturbance to neighbours outside set working hours	• Adhere 100% to working hour limits
Energy efficiency, including electricity use and fuel consumption	• Optimise fuel and electricity use	• Measure usage in line with National Greenhouse and Energy Reporting requirements • Develop electricity saving plan • Increase engine efficiency and reduce fuel consumption rate by 3%
Vessel decommissions	• Reduce solid waste generated from vessel decommission	• Apply 5R strategy • Obtain evidence of disposal for waste

Appendix 2. TDSF KPIs

Environmental category	KPI (annual targets)
Sustainability	Number of sustainability initiatives implemented
Greenhouse gas emissions management	Total tonnes of CO_2 emitted
	Tonnes of CO_2 per passenger kilometres (km)
Reporting	Tonnes of CO_2 reduced through emissions management and sustainability initiatives
Energy efficiency	Kilowatt hours (kWh) reduced through energy efficiency activities
	For offices and workshop: kWh used per employee
	Gigajoule (GJ) gas used
Water consumption and efficiency	Mega Litres (ML) of water used
Hazardous materials and dangerous goods	Number of incidents involving hazardous materials
	Tonnes of waste going to landfill
Waste and recycling	Tonnes of waste material being recycled
	Number of waste and recycling initiatives implemented
Biodiversity and nature conservation	Number of incidents involving impact on protected or ecologically significant sites
Fuel reduction	Litres of fuel consumed
	Fuel efficiency initiatives
Noise and vibration	Number of noise and vibration complaints received
Water pollution	Number of surface and groundwater pollution incidents
Regulatory reporting	Compliance with reporting requirements to regulatory bodies

Appendix 3. 2022 TDSF objectives and KPIs

Objective	Target	KPI	Responsible	Status
Reduce Carbon footprint	Maintain carbon neutral accreditation	100% annual accreditation	GM Safety & Assurance	**Closed** – 2021 accreditation maintained
	Implement initiatives to reduce our carbon footprint	One (1) initiative annual	GM Safety & Assurance	**Open** – Starts in September 2022
Reduce waste generation from our operational activities	Comply with vessels decommissioned as per TfNSW and legal requirements	100% compliance with vessel decommissioned requirements	GM Safety & Assurance GM Assets	**Open** – Vessel decommissions program on going
	Reduce waste generation within our sites by 1% per year	1% waste generation reduce by year	GM Safety & Assurance	**Open** – Currently working with Remondis
Reduce fuel consumption	Maintain and monitor Blueflow program on current vessels and services	Monthly meeting to review implementation and evaluation of Blueflow	GM Safety & Assurance	**Open** – As part of SHEQ monthly meeting
	Reduce fuel consumption by 0.5% per year	0.5% reduction of fuel consumption per year	GM Safety & Assurance GM Operations	**Open** – On going monitoring of Blueflow data
Increase staff and contractors' environmental awareness	Maintain annual environmental training program	100% staff and contractors trained on environmental program	GM Safety & Assurance GM People & Culture	**Open** – On going induction implementation to new and existing staff and contractors
	Deliver internal environmental and sustainability communications and programs	Monthly communication / Program to staff and contractors	GM Safety & Assurance	**Open** – Starts in September 2022
Protect biodiversity	Minimise potential effects on ecosystems and biodiversity arising from operation of the Ferry Network	5 minor/major environmental incidents reported per year	GM Safety & Assurance GM Assets GM Operations	**Closed** – 4 minor environmental incidents reported FY2022