IEMS

Royal Freshwater Bay Yacht Club
"2025 and Beyond"

Prepared by:
Royal Freshwater Bay Yacht Club Inc

Keane's Point, Peppermint Grove
WA 6011 Australia

Telephone: (08) 9286 8200
E-mail: rfbyc@rfbyc.asn.au

THE CLUB WOULD LIKE TO ACKNOWLEDGE THE INVALUABLE GUIDANCE AND ADVICE PROVIDED BY PAST REAR COMMODORE ANDREW BAKER VIA THE PRODUCTION OF THE INITIAL ENVIRONMENTAL MANAGEMENT SYSTEM.

WE ALSO THANK THE DEPARTMENT OF BIODIVERSITY CONSERVATION AND ATTRACTIONS FOR ITS ASSISTANCE IN SIGNIFICANTLY REDUCING THE CLUB'S ENVIRONMENTAL IMPACT.

THE CLUB WOULD LIKE TO ALSO ACKNOWLEDGE THE MARINA INDUSTRY ASSOCIATION FOR THE DEVELOPMENT OF BOTH THE "CLEAN MARINA" AND "FISH FRIENDLY" AUDITING AND CERTIFICATION

MARCH 2025

ROYAL FRESHWATER BAY YACHT CLUB INC.
PETROLEUM PRODUCT AND BOAT MAINTENANCE REPAIRING FACILITIES
INTEGRATED ENVIRONMENTAL MANAGEMENT SYSTEM (IEMS)

CONTENTS

1.0 EXECUTIVE SUMMARY

1.1 Background

Royal Freshwater Bay Yacht Club Inc. (RFBYC) has historically conducted a business that involves three Environmentally Relevant Activities (ERA's) under Section 18 of the Environmental Protection Act 1994 (the Act).
These are: -

- Activity 11 Chemical, Coal and Petroleum Products
- Activity 69 Boat Maintaining and Repairing Facility
- Activity 73 Marina or Seaplane Mooring

Specifically, these activities involve:

- A Fuel Wharf
- Marina and swing moorings
- A Boat Maintaining & Repairing Facility

1.2 Legislative Responsibilities

The Environmental Protection Act 1994 (the Act) was introduced to improve environmental protection, remove doubts about administrative responsibility for environmental protection and allow integration of environmental values into development approvals.

RFBYC continues to comply with the Act Section 319 **General Environmental Duty** by `*ensuring it does not carry out any activity that causes or is likely to cause environmental harm unless it takes all reasonable and practicable measures to prevent or minimise the harm.'*

The implementation of an IEMS (Schedule 3 of the Act) has allowed RFBYC to continue its operations whilst at the same time minimising any environmental harm (Section 14 (1) and (2), the Act 1994).

Using data obtained since the initial IEMS, the management teams, (with the ongoing assistance of The Department of Biodiversity, Conservation and Attractions and The Marina Industries Association of Australia), have targeted individual operations and practices to further develop pollution prevention and waste management techniques.

Overall pollution prevention and waste generation reduction goals, as set by the Club's Committee, are being regularly reviewed and, where economically feasible, are being amended to achieve ongoing improvement in the Club's Environmental Management.

Following the introduction of RFBYC's first EMS in early 2000, significant improvement in the Club's Environmental Management of its waterfront facilities has been achieved.

Refueling, painting, sanding, degreasing and any other maintenance operations are now carefully controlled. Airborne omissions are no longer an environmental concern and noise levels are contained within the limits described in the relevant legislation.

Considerable emphasis has been placed on Environmental Education and further improvements in this area are planned.

In-water Maintenance and Wastewater Management is still causing concern to RFBYC Environmental Management Group and is specifically addressed in this revised IEMS - (see SECTION 18.

The status of commitments which were incorporated into the original IEMS are summarised in APPENDIX TWENTY EIGHT.

In line with the Act guidelines "Preparing an Integrated Environmental Management System" (EPA 07/01, Version 2), RFBYC has reviewed and discarded earlier IEMS's. The proposal "2016 and Beyond", aims to reduce waste at the target rate of an additional 10% per annum, *"year on year"* through ongoing reduction programs aimed at achieving further environmental management improvement in line with Local, State and Federal Environmental Protection Regulations.

RFBYC's original program derived its name from the goal of achieving a 33 per cent reduction in contaminant release from the Club's site at Keane's Point by September 2004, with a 50 per cent reduction being achieved by June 2008. This aim was achieved.

The new Program, which is envisaged to run until August 2030, embraces pollution prevention as the best method of achieving ongoing pollution reduction targets.

In this reviewed IEMS, RFBYC has adopted the Principles of Due Diligence and Continuous Improvement.

The Management Program in this revised IEMS has generally adopted the format of a "Draft Code of Practice" in order to clarify actions, responsibilities and outcomes.

This Document is reviewed annually and addresses continual improvement and unsuccessful environmental controls through:

- Internal Auditing and review of best practices
- Marina Industries Association Australia, Clean Marina and Fish Friendly Marina Audits and Accreditation
- DBCA Environmental Audits

The format is:

ACTIVITY	Identify the activity
LIKELY ENVIRONMENTAL HARM	Identify the environmental harm the activity is likely to cause
ENVIRONMENTAL OBJECTIVES	Identify the related environmental objective to be achieved
MITIGATION/MANAGEMENT MEASURES	Identify the measures to be taken to achieve that objective
PERFORMANCE INDICATORS and TIME FRAMES	Identify steps taken and set specific timetables (eg. 3 months from the date of approval of the IEMS).
MONITORING, ASSESSMENT and REPORTING	Identify assessment tools that will indicate whether the objective has been achieved

This IEMS submission addresses the following considerations-

- The monitoring of releases of contaminants into the environment and an environmental assessment of the releases.
- Staff training and awareness of environmental issues.
- The conduct of environmental and energy audits.
- Waste prevention, treatment and disposal.
- A program for continuous improvement.
- Reporting arrangements on effectiveness of the environmental management of the activities.

2.0 OVERVIEW

2.1 Applicant's Details

Name of Applicant:
Royal Freshwater Bay Yacht Club Inc.

Contact Name:
Andy Fethers, Chief Executive Officer

Trading As:
Royal Freshwater Bay Yacht Club Inc

Ph: 08 9286 8200

Email: rfbyc@rfbyc.asn.au

Mailing Address:
PO Box 373
COTTESLOE, WA, 6911

Street Address:
Keane's Point
PEPPERMINT GROVE, WA, 6011

Real Property Description of Premises:

Activity 69 Butler's Hump – Recreation Reserve,

Activity 73 Swan River (Reserve 48325) and River Reserve (Lot 2534 on Plan 222326, Hobbs Place, Peppermint Grove (Reserve 17060)

Existing leases are in place.

2.2 Environmentally Relevant Activities

Schedule Activities:

Activity 11 Chemical, Coal and Petroleum Products

Activity 69 Boat Maintaining or Repairing Facility

Activity 73 Marina or Seaplane Mooring

2.3 Detailed Description of the Actual Activities under the Approved ERA's

An aerial photograph of the marinas and the boat maintaining and repairing facility (hereafter called Hardstand) is attached as APPENDIX ONE.

2.3.1 Fuel Wharf

Diesel and premium unleaded petrol are dispensed at the refueling wharf, the location of which is shown on the plan attached as Appendix TWO.

2.3.2 Marina

The marina is currently used for the mooring of diesel, petrol and sail-powered vessels in a fixed pile marina environment and on swing moorings within Freshwater and Mosman Bay – approximately 400 vessels in total.

2.3.3 Hardstand (Boat Maintaining and Repairing Facility)

The boat maintaining and repairing facilities are currently active in the general maintenance and repair of boats up to approximately 14 meters length overall. Up to 5 boats are undergoing maintenance at any one time.

A plan of the site on which these activities are conducted is attached as APPENDIX TWO. This plan includes information relating to the surrounding area and the relevant discharge points.

3.0 ENVIRONMENTAL RESPONSIBILITY & PLANNING

3.1 Legal Responsibilities

The Environmental Protection Act 1994 was introduced to improve environmental protection, remove doubts about administrative responsibility and accountability for environmental protection and to allow integration of environmental values into developments and the operation of ERA's.

As stated earlier, RFBYC intends to comply with the Act including its **general environmental duty** of ensuring it must not carry out any activity which causes, or is likely to cause environmental harm, unless the Club has firstly taken all reasonable and practical measures to prevent or minimise the harm.

In order to upgrade and revise RFBYC's initial IEMS the Club has adopted the Principles of Due Diligence.

3.2 Due Diligence

Acting with due diligence is relatively simple and the implementation of a Due Diligence Program will assist RFBYC in complying with all environmental legislation, reduce long-term costs and improve the Club's public image.

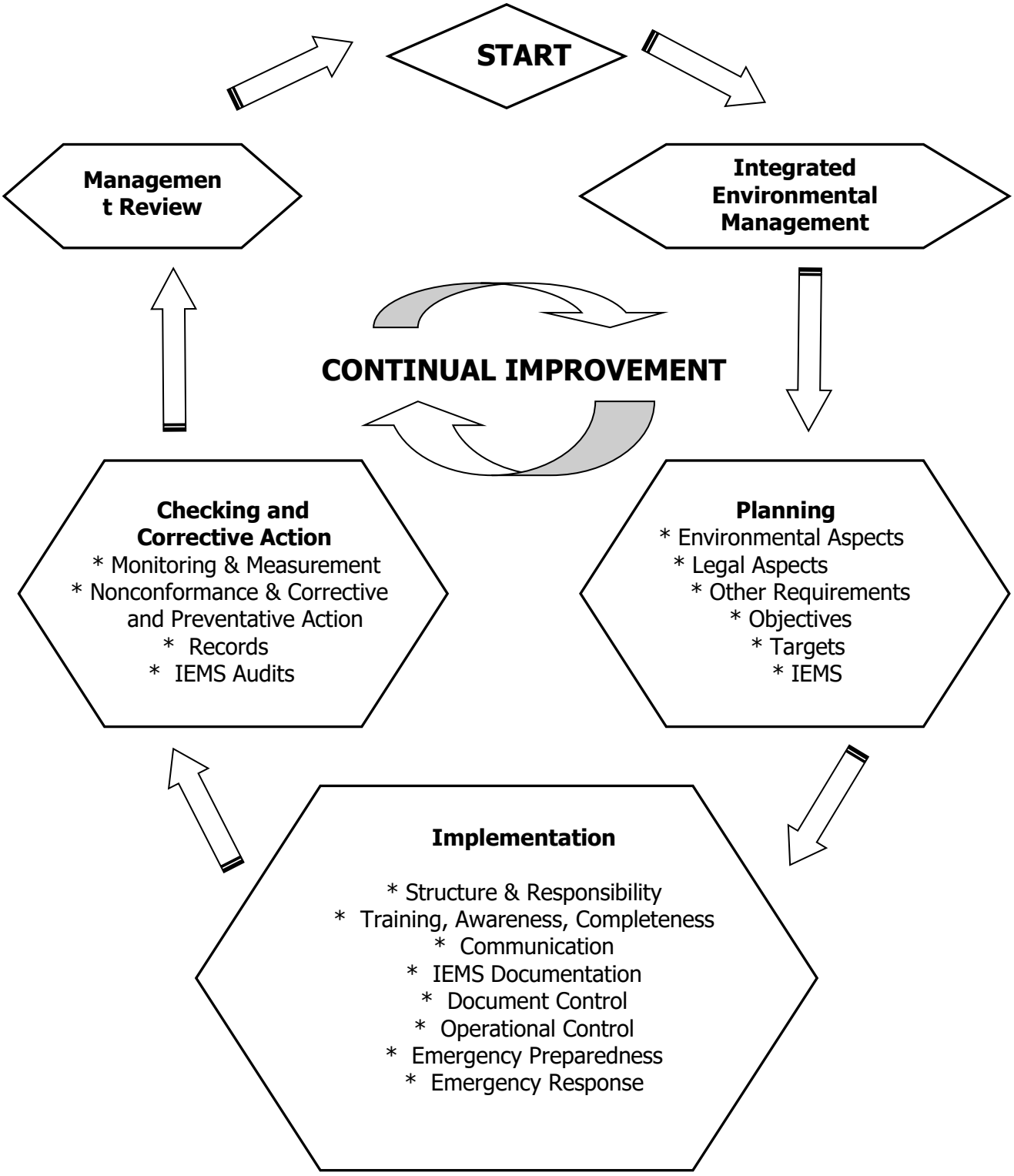
The seven primary principles of Due Diligence include:

- The instruction of all relevant officials that a Pollution Prevention System is required.
- Establishment (development) of a pollution prevention system.
- Operation of a pollution prevention system.
- Ensuring people with ultimate responsibility receive reports.
- Ensure people with ultimate responsibilities know the environmental standards.
- Ensuring those with the ultimate responsibility know the environmental laws.
- Ensuring those with the ultimate responsibility deal personally with system failures.

RFBYC is of the view that Due Diligence should also include "Embracing the Continuous Improvement Process" (see Fig. 1).

FIGURE 1.

INTEGRATED ENVIRONMENTAL MANAGEMENT SYSTEM & the CONTINUOUS IMPROVEMENT PROCESS



4.0 STAKEHOLDER CONSULTATION

The first stage of the revision involved stakeholder consultation.

4.1 Stakeholders

The stakeholders involved with the creation of this revised IEMS are listed below. Environmental concerns of the local residents have not changed from those identified in the initial research. These concerns typically involve visual surface contaminants i.e. litter and hydrocarbons.

Stakeholder	Concern
Local residents	Visual impact of pollution, includes litter and hydrocarbons
Recreation Groups	Visual impacts of pollution, litter and hydrocarbons. Land, water, flora and fauna quality are also of concern
Swan River Trust	Environmental protection
Vessel Owners	Environmental degradation, being able to sail freely as well as financial concerns and Environmental Education
Shire of Peppermint Grove	Environmental protection consistent with legislation, ensuring public health and safety
RFBYC	Enterprise activities, environmental protection & financial concerns

5.0 ENVIRONMENTAL POLICY

As a consequence of stakeholder concerns and RFBYC's own desire to demonstrate and achieve environmental responsibility for its activities – particularly the approved ERA's, the RFBYC Committee adopted and endorsed the following Environmental Policy. This Policy is current for this revised IEMS.

The Royal Freshwater Bay Yacht Club Inc is committed to:

- Minimising environmental harm and environmental nuisance where practically possible.
- Operating all activities in compliance with any statutory requirements for protecting the environmental values of air, noise and water.
- Conducting the operation of its refueling wharf, marinas and boat maintaining and repairing activities in a manner consistent with environmentally sustainable development.
- Compliance with all relevant Workplace Health and Safety requirements.
- Minimising waste generation by use of cleaner operational techniques and the reuse and recycling of wastes.
- Ensuring the Club's activities are in the public interest.
- Continuous improvement.
- Providing adequate human and financial resources to effectively implement the **IEMS**.
- Consistency between the Club's **IEMS** and Federal, State and Local Government environmental plans, standards, agreements or requirements.
- Achieving best practice environmental management in design and implementation of the **IEMS.**
- Ensuring Club personnel, (especially marina and hardstand staff) are suitably informed and trained to implement the Club's **IEMS**.
- Monitoring and auditing the performance of the Club's **IEMS**.
- Striving to conform to the principles and objectives of Ecologically Sustainable Development.

6.0 OBJECTIVES

The aim of RFBYC's IEMS is to focus on the World's Best Practice and performance criteria to integrate the management practices associated with the ERA's at the Club's marina and boat maintenance and repair facility to prevent or minimise environmental harm in line with the Principles of Ecologically Sustainable Development.

The objective of the Revised IEMS is to again seek continuous improvement by:

- Highlighting potential contamination "problems".
- Initiating management and operational strategies for preventing and controlling pollution that may result from these "problems".
- Implementing a system of ongoing audits to ensure the development and implementation of further environmental management strategies in the future.

The **KEY** to achieving these objectives remains as waste prevention, waste minimisation, recycling, treatment and disposal.

7.0 RISK ASSESSMENT AND PRIORITY SETTING

The feedback from stakeholders and the internal evaluation by RFBYC identified the following "Environmental Values" for inclusion in the IEMS.

Under the Environmental Protection Act (1994) environmental value is defines as:

- a quality of physical characteristics of the environment that is conducive to ecological health or public amenity or safety

- any other quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation

7.1 Key Environmental Values:

- Water quality
- Impacts on the waterway – waste management
- Oil, antifouling
- Air quality – dust and odour
- Noise
- Local / visual impact

7.2 Risk Management

The following risk management and priority setting analysis was used to determine the action and timing recorded in the revised IEMS – see APPENDIX TWENTY FIVE and APPENDIX TWENTY EIGHT.

STEP ONE:
Assess the probability of each impact occurring, using the table below as a guide.

Probability

Frequent	Exposure of the environment to the impact is likely to occur weekly, every day or most of the year
Occasional	Exposure of the environment to the impact is likely to occur infrequently over weeks or months
Remote	Exposure of the environment to the impact could occur randomly in the course of a year or two
Unlikely	Exposure of the environment to the impact is not likely to occur

STEP TWO:
Assess the consequence of each impact on the environment, using the table below as a guide.

Environmental Impact Consequence

Catastrophic	The impact could cause permanent and irreparable damage to the environment
Critical	The impact could cause severe but reparable damage to the environment
Major	The impact could cause an impact on the environment that requires significant time to eliminate (>3 days)
Minor	The impact is likely to cause minor impact on the environment

STEP THREE:
Determine the seriousness of each impact, using the table below as a guide.

Risk Assessment Rating

	Catastrophic	**Critical**	**Major**	**Minor**
Frequent	Extremely serious	Extremely serious	Very serious	Serious
Occasional	Extremely serious	Very serious	Serious	Not serious
Remote	Very serious	Serious	Not serious	Not serious
Unlikely	Serious	Serious	Not serious	Very minimal

STEP FOUR:
Rate each impact according to the priorities below.

Risk Priority

Risk	**Control Priority**
Extremely serious	Urgent
Very serious	High
Serious	Medium
Not serious	Low

Adapted from Britax OHS/Environmental Risk Assessment Report

The assessment of the potential impacts and likely environmental harm and adoption of the appropriate Mitigation/Management measures ensure the operations of RFBYC Marina and Hardstand have acceptable impacts on the environment.

The results of this analysis were used to determine the priorities as defined in APPENDIX TWENTY FIVE.

8.0 DOCUMENT CONTROL AND FURTHER REVISION

This IEMS is a confidential document for the use of RFBYC's marina and boat maintenance and repairing facilities. It is not to be modified or amended without the written consent of RFBYC CEO.

The distribution and control of this revised IEMS is the CEO's responsibility. Once this revised IEMS has been accepted, all previously distributed copies of the initial IEMS are to be retrieved and destroyed.

All revisions are to be implemented only under the authority of RFBYC CEO, in accordance with the procedure of monitoring, checking and management review outlined in the review process in the IEMS. All suggestions for revision are to be recorded on a Register (see below) for assessment by the Environmental Management Officer for subsequent endorsement by RFBYC Committee.

Amendment Register

Amendment No.	Suggested Date	Section/Page	Amended By	Description
1.	17.10.24	Whole Document	Debbie Hanrahan	Publish Online
2.	17.10.24	Appendix 19	Nathan Stronach	Schedule and Responsibility
3.	17.10.24	Appendix 25		Responsibility and timing
4.	13.01.25	Appendix 24	Nathan Stronach	DoT Contact details

9.0 WORKPLACE HEALTH & SAFETY

Workplace Health and Safety, Training and Education are all inextricably linked in order to:

- Create a safe working environment for employees and customers/patrons.
- Best work practices are used through staff training and education of customers/patrons of the Marina and Hardstand and Refueling Facility to minimize risk to the environment.

9.1 RFBYC Policy Statement

RFBYC recognises that "people are its best resource" and are essential for its continuing operation, environmental protection and reputation: therefore, RFBYC has a strong commitment to Workplace Health and Safety, Training and Education.

9.2 Workplace Health & Safety

RFBYC understands and undertakes to fulfill its obligations under the Workplace Health and Safety Act 1995 and Regulations.

In particular, RFBYC acknowledges its obligation to ensure:

- The Workplace Health and Safety of its workers at work
- The Workplace Health and Safety of others is not affected by the way RFBYC operates
- The risk of disease and injury from RFBYC's site is minimized
- The risk of disease or injury from any plant or substance is minimised through proper use
- Safe access is available to and from RFBYC's site
- Adequate and clearly defined sign-posting concerning safety issues is displayed
- Staff use personal protection equipment at all times

9.3 Risk Minimisation

- Regular staff meetings are held to document, identify and review work practices

9.4 Monitoring and Reviewing

- Any "near miss" accidents are documented, reported and discussed in order to identify any requirements for changes in work practices

- As required, the relevant government Authority will be notified of :
  - A work related injury
  - A work-related illness
  - A dangerous event
  - An environmentally relevant event or accident

- Following any accident, RFBYC will conduct a review to identify responsibility and introduce modifications to work practices aimed at preventing further recurrence of the same event.

9.5 Performance Indicators and Timeframes

- Compliance confirmed.

10.0 TRAINING

10.1 RFBYC Policy Statement

Training is a vital part of any IEMS. Relevant staff will be trained in the purpose and operation of the IEMS and associated equipment to foster an awareness of environmental issues, minimise environmental impacts and inform all relevant individuals of their responsibilities and duties under the Act. See APPENDIX NINETEEN – Training Plan for Staff and Employees.

10.2 Training Topics include

10.2.1 Environmental awareness and responsibility

- Awareness of the Club's commitment to environmental management and its Environmental Policy.
- Instruction on the Club's **IEMS.**
- Briefing on the Club's environmental management objectives and targets and updating of these objectives and targets as the IEMS is implemented and evolves.
- Responsibilities, particularly environmental duty (of care) under the EPA Act 1994.
- A general responsibility to encourage others to adopt better environmentally friendly practices.
- Organisational structure and responsibilities and the role this plays in the effective management of environmental issues.
- The need for all staff (and customers/patrons) to be environmentally aware, provide feedback and suggest new ideas.
- Awareness of RFBYC Marina User Regulations.
- General awareness of environmental impacts and the pollution potential of products being used.

10.2.2 Personal Safety

- General Safety Procedures (use of Equipment).
- Location of First Aid Kits.
- Persons to contact with First Aid Training.

- Storage of Hazardous Materials, their impacts and safe use.
- Use of power tools and hazardous substances.

10.2.3 Risk Minimisation

- Knowledge of control procedures for day-to-day operational activities that can be followed to minimise environmental impacts.
- Locations of Electrical, Plumbing and Storage Tank arrangements to facilitate rapid repairs and unnecessary accidental damage.
- Correct usage of the Refueling Facility to minimise spillages.
- Correct techniques for containing and mopping up spills.

10.2.4 Reporting and Documentation

- Identifying / Detecting, Reporting and Monitoring Potential Hazards.
- Systems of Documentation.

10.2.5 Emergencies

- Fire fighting Procedures and Roles (APPENDIX TWENTY TWO).
- Emergency Response Procedures – contingency plan for non-routine situations (APPENDIX TWENTY ONE).
- Location of the Pollution Control Cabinets (also shown on the site plan – APPENDIX TWO).
- Location of Storm Water Drains to manage sudden rainfall events or spillages (APPENDIX TWO).
- Location of current lists of emergency phone numbers (APPENDIX TWENTY FOUR).
- Location of details of Energy Response Procedures i.e. in the Pollution Control Cabinets and in the Club and Shipwright Offices.

10.3 Performance Indicators and Timeframes

- Compliance confirmed but training is on-going.

11.0 EDUCATION

11.1 RFBYC Policy Statement

RFBYC accepts that education of staff, members/patrons and the general public involved with the operations of RFBYC Marina Hardstand and Refueling Facility is critical in maintaining a safe, environmentally friendly and economically profitable business that has a good 'public profile'.

11.2 Actions and Status

Signs

- Copies of RFBYC Environmental Policy are displayed at sites around the grounds to ensure continuing awareness and commitment to environmental responsibility.

- Drainage pit labeling is employed to inform the public that drainage is not treated and those materials that enter RFBYC drainage system ultimately will discharge to the environment.

- Warning signs (stencil supplied by Swan River Trust) are installed which display the following:

- Signs are installed to indicate that swimming and fishing are prohibited in the Marina and in the vicinity of the Hardstand.

- Newsletters regarding relevant boating and specific environmental issues are sent to members/patrons of the Marina and are also made available to staff.

- A public education program is ongoing that includes:

    - Gybe sheet and Tidings articles
    - The marina's no-discharge regulations.
    - Environmentally friendly boat cleaning practices.
    - Storm water run-off contamination.
    - Liquid material management.
    - Petrol and diesel handling.

11.3 Environmental Warning

Any employee, Club member, guest, tenant, customer, or any outside contractor violating RFBYC's Pollution Control Guidelines, may be asked to pay for the clean up, and/or have his/her privileges to use RFBYC marinas and vessel maintenance areas terminated.

A notice to this effect is handed to all individuals using RFBYC facilities.

11.4 Performance Indicators and Timeframes

- Compliance confirmed but education is ongoing.
- Ongoing work is required with regard to the education and training of Members and contractors who visit RFBYC site.

SECTION 12
DISCHARGE OF SEWAGE FROM VESSELS

12.0 ACTIVITY:
DISCHARGE OF SEWAGE FROM VESSELS

Raw sewage can not be discharged (legally) from vessels berthed within the RFBYC leasehold area nor the wider Swan River precinct in general.

12.1 Likely Environmental Harm

Untreated (raw) sewage has the potential to be a source of waterborne disease. In addition, floating sewage adrift in the marina is a very repulsive sight, which can totally ruin the boating experience and the reputation of the marina.

12.2 Environmental Objective

To minimise the risk of disease and visual pollution from the discharge of raw sewage into the Marina.

12.3 Mitigation/Management Measures

- The use of an onshore rest room is encouraged via the provision of free of charge, clean, comfortable and dry ablutions.
- RFBYC has developed and communicated to member's boat sewage management rules that are simple and succinct.
    - **NO** OVERBOARD DISCHARGE OF ANY SEWAGE IS PERMITTED.
    - Individuals **MUST** use the shore-side shower and toilet facilities.
    - Holding tanks **MUST** be pumped out regularly.
- Porta-potty users are advised to use non-formaldehyde based products to minimise impacts on the domestic water treatment facility.
- Sullage pump out facilities in the Swan Canning Riverpark

Contact details of facility managers are listed below.

- East Fremantle Yacht Club, 08 9339 8111

12.4 Monitoring, Assessment and Reporting

- RFBYC, by policy, has no vessels on which people are resident.
- No recent (20 years+) reports of deposited (floating) raw sewage have been received.
- RFBYC will continue its evaluation of the problems associated with vessel sewage management.
- The administrating authority to be advised of any significant incident using the Environmental Incident Reporting Form – see APPENDIX SIXTEEN. A significant incident with respect to sewage would be any incident in which it is suspected or confirmed that sewage has been deposited into the river from within the RFBYC leased areas.

12.5 PERFORMANCE INDICATORS AND TIMEFRAMES

- Compliance confirmed.

SECTION 13
VISUAL IMPACTS FROM VESSEL MAINTENANCE AND MOORING

13.0 ACTIVITY:
VISUAL IMPACTS FROM VESSEL MAINTENANCE AND MOORING

13.1 Likely Environmental Harm

There may be some visual impacts of the operations carried out by the Marina and in the Hardstand.

Comment
As the Marina and, in particular the Hardstand, are well buffered from any domestic dwellings by roadways, open space and parking areas (see APPENDIX ONE) there is little likelihood of negative visual impact.

The Marina and Hardstand are part of the visual 'character' of Keane's Point precinct.

13.2 Objective

To 'soften' yet retain the waterfront character of the Hardstand.

13.3 Mitigation/Management Measures

- Improve the landscaping of the sea wall adjacent to the main car park (see APPENDIX TEN).

Comment
Improved landscaping of this boundary will provide a further buffer to river traffic, whilst retaining the visually sought-after 'view' of the vessels in pens.

13.4 Monitoring, Assessment and Reporting

- There have been no complaints about the visual impact of the RFBYC facility, so the retention of the 'view' is encouraged as the area attracts both locals and tourists to the visually pleasing sight of vessels in and around the waterfront.

- Monitoring of public attitude will be ongoing.

- Significant changes in public attitude will be reported to the administering authority.

13.5 Performance Indicators and Timeframes

- Compliance confirmed but improvements are ongoing.

- RFBYC has been awarded both the "Clean Marina" and "Fish Friendly" certification.

SECTION 14
PAINTS AND HAZARDOUS SUBSTANCES: STORAGE, MANAGEMENT AND USE

14.0 ACTIVITY: PAINTS AND HAZARDOUS SUBSTANCES: STORAGE, MANAGEMENT AND USE

Repair and maintenance activities carried out in the Marina and on the Hardstand involve the use and storage of paints, hazardous substances, and chemicals.

14.1 Likely Environmental Harm

The potential for human and environmental harm is significant. Chemicals and materials such as oils, fuels, anti-fouling paints, solvents and poisons have the potential to enter the environment in several different ways including inappropriate use, leaks, and spills.

14.2 Environmental Objective and Safety Objective

To minimise the potential impacts from paint, hazardous substances and chemicals.

To minimise the risk to employees, customers/patrons, neighbours and members of the public.

14.3 Mitigation/Management Measures

The risk and potential of hazardous substances on humans and the environment can be reduced significantly by adopting the following procedures:

14.3.1 Storage

- All substances are to be stored in appropriately constructed designated areas.
- Storage areas are to be away from drainage areas, pipes and fire hazards.
- Substances are to be stored in accordance with AS 1940 with individual MSDS.
- Bunding should be as per AS 1940; local bunding or storage areas should hold 110% of maximum storage.
- The storage areas are to be covered, sealed, fenced, locked and bunded.
- Up to date copies of MSDS and a legible list of all substances held are to be maintained at the storage site (and made available to staff and contractors prior to use of the product).

14.3.2 Use:

- Emergency Response units should be located in an accessible place and clearly identifiable: including a spill kit containing easy to use and clearly labeled equipment.
- Appropriate precautions, in accordance with the MSDS, should be taken when handling hazardous substances.
- The use of drip trays and basic safety measures is to be encouraged.
- Overfilling, topping up, smoking near storage areas and 'horse play' is prohibited.
- Any damaged equipment or spills must be reported to the CEO as soon as possible and an environmental incident report form filled out.
- Storage and disposal of chemicals should be in individual containers, clearly labeled with the name of the substance.

14.4 Monitoring, Assessment and Reporting

- Continually review substances being used; is there a less hazardous or environmentally damaging substance available?
- Inspections of storage areas and containers are conducted regularly to detect use by dates, leakages etc. Visual checks for leaks to be carried out daily with "use by dates" to be checked monthly.
- All used or outdated substances are to be picked up for disposal or recycling by licensed contractors.
- Bunding is installed across all openings to the workshop and paint storage areas to reduce the possibility of liquid waste escaping from the workshop areas.
- The administrating authority to be advised of any significant incident using the Environmental Incident Reporting Form – see APPENDIX SIXTEEN. A significant incident with respect to paint and hazardous substance storage would be any incident in which paints and/or hazardous substances leak from the storage area and are released from within the Hardstand bunded area to the surrounding environment.

14.5 Performance Indicators and Timeframes

- Compliance confirmed.

SECTION 15
GENERAL WORKSITE WASTE, LITTER MANAGEMENT AND RECYCLING

15.0 ACTIVITY:
GENERAL WORKSITE WASTE, LITTER MANAGEMENT AND RECYCLING

15.1 Likely Environmental Harm

- Worksite waste and litter have a high visual impact if unmanaged, which reflects poorly on the reputation of RFBYC and the professionalism of its employees.

- Worksite waste and litter have the potential to pollute both the worksite and adjacent areas by transport by wind and water (particularly storm water).

15.2 Environmental Objective

- To control worksite waste and litter.

15.3 Mitigation/Management Measures

15.3.1 Waste Policy - RFBYC Waste Management Policy is:

- **Waste Segregation** is encouraged to facilitate the minimisation, reuse, recycling and disposal of waste.

- Appropriate **facilities are provided** and their **use is encouraged**.

- **Overboard Dumping** into the Marina is **illegal** and **will not be tolerated.**

- **Food waste**, including waste from cleaning fish, must be disposed of in sealed plastic bag in the waste receptacles ashore.

- **Wheelie Bins** with lids are to be used, where possible, to collect general waste for subsequent transfer to the industrial bins.

- **Use general waste receptacles** for anything, which cannot be recycled.

- **Dispose** of cigarette and cigar butts in fire safe trash receptacles.

15.3.2 Recycling - Recycling has two main benefits:-

- To optimise the removal of wastes from the site and,

- To optimise the reuse of products by recycling industries, which is not only energy efficient, but significantly reduces the dependence upon 'land fill', which is a benefit to the community.

RFBYC encourages the use of environmentally sound recycling options.

Steps have been taken to improve waste stream segregation, thus increasing reclamation efficiencies and, in turn, reducing the generation of hazardous waste.

Existing recycling programs at RFBYC have been extended to promote the sound disposal of hazardous waste.

Battery recycling is encouraged by the provision of a battery-recycling drop off point in the location shown on the plan attached as APPENDIX TWO. The battery-recycling contractor collects used batteries. Acid disposal from batteries is prohibited on-site.

Glass recycling, which is already practiced by RFBYC, has been opened to Marina and Hardstand tenants with appropriately labeled glass recycling bins being located, as shown on the plan attached as APPENDIX TWO.

Cardboard and Paper recycling is to be encouraged by the provision of a cardboard and paper collection point in the location shown on the plan attached as APPENDIX TWO.

Oil recycling (discussed in detail in SECTION TWENTY) is encouraged and fostered by the provision of an oil recovery station in the location as shown on the plan attached as APPENDIX TWO. APPENDIX EIGHT photographically details the layout of the waste oil collection point.

15.3.3 General Waste/Refuse

- Industrial waste bins are provided for the collection of general refuse and are positioned in several locations (see APPENDIX TWO) for use by Club members and staff, contractors, and tenants of the Marina and Hardstand.

15.4 Monitoring & Assessment

15.4.1 Waste Transfer

General waste is transferred via industrial bins collected once a week on Thursdays.

Receipts for waste disposal and recycling are kept as proof of proper disposal.

15.5 Reporting

The administrating authority is to be advised of any significant breakdown in the General Worksite Waste, Litter Management and Recycling, using the Environmental Incident Reporting Form (see APPENDIX SIXTEEN).

15.6 Performance Indicators and Timeframes

- Degree of compliance confirmed, but the development of The General Worksite Waste, Litter Management and Recycling Program, is on-going.

- RFBYC has been awarded both the "Clean Marina" and "Fish Friendly" accreditation by the Marina Industry Association Australia.

SECTION 16
AIR QUALITY PROTECTION AND MANAGEMENT

16.0 ACTIVITY:
AIR QUALITY PROTECTION AND MANAGEMENT

16.1 Likely Environmental Harm

Air pollution can be caused by dust, fumes, gases and smoke emitted from activities associated with the operation of marinas and boat maintaining and repairing facilities.

Potential sources of air pollutants include:

- Organic solvent vapors from degreasers, thinners and paints.
- Overspray from spray-painting.
- Dust from sanding and grinding.
- Emissions from fibreglassing processes.
- Air pollution from fuel and oil storage and the exhaust fumes of boat engines.
- Odour from sewage pump operations.

16.2 Environmental Objectives

- Implement effective controls to ensure that all emissions from spray painting, fiber glassing and water blasting processes comply with the relevant requirements.
- Minimise air pollution by adopting safe and environmentally friendly work practices and conducting medium and high risk/management activities in a protective environment and under qualified supervision. (RFBYC Environmental Enclosure – see APPENDIX NINE).

16.3 Mitigation/Management Measures

Maintain existing air pollution control practices including:

- Spray painting and water blasting is carried out only within the designated area.
- Mobile screens are to be set up around the work area to reduce the risk of over spray and the release of volatile organic compounds.
- Spray painting is only to be conducted during light winds (less than 8 knots).
- Spray painting is only performed using high-volume, low-pressure spray guns to reduce the amount of overspray, paint usage, and release of volatile organic compounds.
- Continuous spray painting is restricted to a maximum of 1.5 hours per day and prohibited on weekends and public holidays.
- No incineration or burning of waste is allowed on site.
- Tenants are encouraged to shut down engines as soon as possible after mooring, thus avoiding prolonged idling.
- Fuel and oil drums are sealed tightly after use.

- Tenants are encouraged to keep their machinery in good order – a tuned engine is a clean engine that emits less oil and petrol exhaust fumes.
- Totally prohibit dry blasting.
- Wet blasting is only carried out by skilled operators to reduce the generation and escape of particulates.
- Antifouling is applied by rollers, where practical, as an alternative to airless spraying to minimise dispersal of micro droplets either inside or outside the Environmental Enclosure.
- All maintenance, except minor maintenance, is totally prohibited within the Marinas.
- Sanders, grinders and other power tools are to be fitted with dust extraction and collection systems, to capture the majority of dust.
- Materials falling on the ground are swept up and disposed of in the industrial bins.
- Vessels which require work of a particularly environmentally sensitive nature are lifted into the Environmental Enclosure.
- Water blasting is restricted and only permitted by skilled operators: it is only conducted over the Multiple Stage Sediment Trap and Mycelex Filtration System.

16.4 Monitoring, Assessment and Reporting

- The Environmental Enclosure is in line with the improvements to existing shade cloth barriers.

  The vertical shade cloth screens are designed to attenuate the drift of airborne particles created by grinding and touch-up spray painting. Touch-up spray painting is carried out on low wind days using high-volume, low-pressure technology within the Environmental Enclosure.

- Touch-up spray painting is anticipated to be approximately two hours per week with an average of 1 liter of paint product being used for each application.

16.5 Reporting

The administering authority to be advised of any significant Air Pollution incident using the Environmental Incident Reporting Form (see APPENDIX SIXTEEN).

16.6 Performance Indicators and Timeframes

- Compliance confirmed.

- The environmental value for air in and around the site is currently protected as the measures for all indicators for the values tested do not exceed the guidelines for the values as defined in the Environmental Protection Act 1994.

SECTION 17
NOISE EMISSION MANAGEMENT

17.0 ACTIVITY: NOISE EMISSION MANAGEMENT

17.1 Likely Environmental Harm

Noise from the operation of RFBYC Marinas and boat maintenance and repairing facilities shall be such that the noise does not create an environmental nuisance and/or impact on the quality of the acoustic environment conducive to public, community or individual **amenity**.

The **amenity** is described as the right of people to live free of intrusive noise and to:

- Undisturbed sleep.
- Undisturbed passive recreation and,
- Be able to converse and listen without undue interference from noise.

17.2 Environmental Objective

- Implement effective controls to ensure noise levels comply with the relevant requirements.

17.3 Mitigation/Management Measures

- Noisy activities are currently not allowed at all, before 0700 hours and after 1800 hours daily. This management strategy will be continued.

In addition, the following Mitigation/Management Measures will be followed:

- The use of noise barriers around noisy equipment and operations.
- The use of visual signals, portable telephones and digital pagers in preference to public address systems, hooters, etc.
- Restricting and limiting heavy vehicle movement, especially trucks, to normal working hours.
- The employment of efficient exhaust mufflers on all machinery, vehicles and air powered tools.
- Correct maintenance of equipment and prompt attention to loose or rattling covers, yacht halyards etc.
- The mounting of mechanical equipment on mounts designed to reduce vibration and noise.

17.4 Monitoring, Assessment and Reporting

- Noise from the operation of RFBYC's Marinas and boat maintenance and repairing facilities should not exceed the industry standard levels in the following table:

Compliance Noise Limits

Time Period	RFBYC Marina	Boat Maintaining or Repairing Facilities
Daytime (7am – 6pm)	Background + 5 dB(A)	Background + 10 dB(A)
Evening (6pm – 10pm)	Background + 5 dB(A)	Background + 5 dB(A)
Night-time (10pm – 7am)	Background + 3 dB(A)	Activity Restricted

NOTE: Compliance limit levels are measured as the average of the maximum A-weighted sound levels adjusted for noise character measured over a 15 minute time interval.

17.5 Reporting

The administrating authority to be advised of any significant Noise Pollution incident using the Environmental Incident Reporting Form (see APPENDIX SIXTEEN).

17.6 Performance Indicators and Timeframes

- Compliance confirmed.
- Existing noise levels at RFBYC's facilities are minimal and well within the limits described in the relevant legislation. This situation is being maintained by the existing Mitigation/Management measures.

SECTION 18
MANAGEMENT OF WASTE WATER THAT HAS BEEN USED IN THE WASHING AND CLEANING OF VESSELS ON THE HARDSTAND

18.0 ACTIVITY:
MANAGEMENT OF WASTE WATER THAT HAS BEEN USED IN THE WASHING AND CLEANING OF VESSELS ON THE HARDSTAND.

18.1 Likely Environmental Harm

- Water has the greatest potential to transport dissolved and or un-dissolved contaminants off the site.

18.2 Environmental Objectives

- Implement effective controls to treat Waste Water from the site to a level that meets the relevant requirements.
- Reduce the amount of water used.
- Filter and Recycle the water used for wash down activities
- Reduce the risk of runoff.
- Reduce the contaminants in waste water by diverting flows through a staged filter system prior to entry into the river.
- Remove many of the solid wastes from the Hardstand surface to minimise their mixing and transport by waste water.

18.3 Mitigation/Management Measures

Objectives:

18.3.1 Reduction of Water Use

- All wash down hoses in the hardstand are fitted with spring loaded on/off valves which require the operator to physically hold the hose to obtain water.
- The spring-loaded nozzles automatically shut off when the hose is put down by the user, thereby minimising unnecessary runoff.

18.3.2 Reduction in the Risk of Runoff

- Bunding in the north east corner of the hardstand (APPENDIX FOUR) has been installed to contain the overflow of the filter system in the event of a 'normal' rainfall event.

18.3.3 Reduction of Contaminants in Waste Water

- All waste water from the site is diverted to the waste water interceptor trap, firstly passing through a fine ground level screen at the input site to the underground containment, then via a multiple storage sediment and oil trap tank, complete with a Mycellex filtration system, immediately prior to release. (APPENDIX THIRTY ONE). The fine fabric sediment catchment bag allows waste water to pass through to the multiple stage sediment and oil tank. The primary role of the fine screen is to remove particular matter (barnacles, paint flakes etc.) which are then recovered on a daily basis for subsequent disposal to land fill.

  The sediment filters are checked and cleaned routinely and residual sediment is regularly removed by a certified waste contractor.

  Only antifouling paints that meet the Australian Standards are to be used in the boat maintenance and repairing facilities area. All antifouling is conducted according to the ANZECC Code of Practice.

  Antifoul Material Safety Data Sheets (MSDS), for the standard antifouling paints used in RFBYC Boat Maintenance and Repairing Facility, are kept for review and are made available to staff, contractors and customers who use the product (see APPENDIX TWENTY NINE).

  Boat owners in the marina and individuals who perform their own maintenance on the Hardstand are encouraged to use environmentally friendly products.

- Regulations prohibit the use of Tributyl Tin.

  The changes which are occurring in the formulas of antifouls and the move to water-based, non-stick anti-fouls, coupled with the multiple stage sediment trap, has assisted a reduction in wastewater. The introduction of an Mycellex Final Filter has further improved the quality of the water leaving the site.

18.3.4 Removal of Solids Collected on the Hardstand

- High use areas are decontaminated as required, but at least daily with other, less used areas being swept twice weekly.

18.3.5 Zinc

Initial water quality data showed high levels of zinc contamination in the waste water – see APPENDIX TWENTY SIX.

Investigation revealed the zinc contamination was originating from the practice of water blasting vessels over the multiple stage sediment trap prior to the removal of the old partially-used underwater anodes.

Work practices have been modified so zinc anodes are removed from vessels and placed in the recycling bin prior to the vessel being water blasted.

18.4 Monitoring, Assessment and Reporting:

18.4.1 Water Quality Assessment

The boating industry in general has a huge vested interest in the quality of our waterways. As the number of people utilising the River is increasing, the water quality is decreasing. With the close proximity of RFBYC marina and Hardstand to the River, every effort is made to minimise the contaminants in waste water.

18.4.2 Water Quality Monitoring

- Waste water from the Maintenance and Boat Repair Facility does not enter the waterways without filtering.

- The waste water entering the River is to comply with the Environmental Protection (Water) Policy 1997 and the AWQ Guidelines (Australian Water Quality Guideline for Fresh and Marina Waters – published by ANZECC In 2000).

- Monitoring (see APPENDIX TWENTY SIX) has identified that a residual Tributyl Tin problem exists. Further sampling is to be carried out. The current readings are confusing as Tributyl Tin-based antifouls have not been used at RFBYC Boat Maintenance and Repairing Facilities for approximately 40 years.

  Tributyl Tin levels are expected to further reduce over time because, as indicated above, Tributyl Tin based antifouls are no longer used in the RFBYC Hardstand.

RFBYC, in conjunction with other river clubs and Swan River Trust has commissioned expert assistance to further reduce the level of Tributyl Tin contamination of waste water with the aim of achieving compliance with ANZECC guidelines. This research is ongoing.

RFBYC is voluntarily disclosing a failure to comply with the Act with regard to Water Quality and is continuing with the development of an Environmental Management Plan (EMP) under the relevant section of the Act. RFBYC is of the view the residual Tributyl Tin problem is widespread and that the Marine Industry in Western Australia is better served by developing a "Code of Practice" to address the residual Tributyl Tin problem rather than vessel maintenance facilities throughout the state submitting individual EMP's seeking individual protection from what is an industry problem.

RFBYC's view is particularly relevant for facilities which no longer use Tributyl Tin based antifouls as the problem is expected to dissipate over time. However, pending the development of an industry Code of Practice as detailed above, RFBYC has decided to continue to work on the development of an EMP (acceptable to the Authority) to assist with the ongoing management of the residual TBT problem, that may exist.

DBCA and McGees are working on the Water Sampling and Monitoring Program protocol and interval requirements.

Once the protocols are confirmed, RFBYC will commence water testing immediately.

- Filter system monitoring.

  Outflow from the filtration sediment tank is monitored.
  Waste water results are summarized in APPENDIX TWENTY SIX.

  The results obtained show an ongoing improvement in the quality of the waste water since the installation and modification of the Mycellex Filtration Unit and recent introduction of dry sweeping procedures for the collection and disposal of waste.

18.4.3 Water Quality Reporting

- The administrating authority to be kept informed of improvements in the Tributyl Tin problem.

- The administrating authority to be advised of any significant waste water pollution incident using the Environmental Incident Reporting Form – see APPENDIX SIXTEEN.

SECTION 19
IN WATER MAINTENANCE

19.0 ACTIVITY:
IN WATER MAINTENANCE

Currently WA has legislation in place preventing the pollution of the waterways. Specifically, the Environmental Protection Act 1986 which outlines it is an offence to cause pollution and environmental harm.
In addition, the Environmental Protection (Unauthorized Discharges) Regulations 2004 outline those substances that cannot be released into the environment by commercial businesses or acts.
General "LOW RISK" maintenance work may be undertaken in the marina with the approval of the Committee.

19.1 Likely Environmental Harm

Depending upon the work to be conducted, equipment and product used, there could be sliding scale of relative impact upon the marine environment.
Most contamination would be floating on the surface of the water rather than being 'inserted' below the surface.
Certain in water hull cleaning practices also present a significant risk.

19.2 Environmental Objectives

- Implement effective controls to ensure low risk in-water maintenance is only carried out on vessels for which it is not practical to remove from the water. (see 19.3.1).

- To maintain water quality levels of the water throughout the marina, to at least the same levels as the broader river.

- The Department of Biodiversity Conservation and Attractions works closely with RFBYC to continually improve environmental management, identifying risks and ensuring best management practices.
  Under this system we don't allow any abrasive in-water hull cleaning

19.3 Mitigation /Management Measures

- Work on vessels in the water to be categorised as LOW RISK, MEDIUM RISK or HIGH RISK, with the risk being offset by the adoption of work practices which comply with 'Best Practice'.

- Currently maintenance work is only allowed on such vessels categorised as 'LOW RISK' (see 19.3.1).

- In-water hull scraping or any underwater process that could remove antifouling paint from the vessels hull or create a plume is prohibited.

- Vessels with biocide free coatings, that are designed to withstand regular in-water cleaning and are free from macrofouling should be wiped with a soft cloth to maintain these finishes.

- If the type of antifoul coating cannot be reliably determined, then it should be assumed the coating contains biocides and other pollutants.

- Slime, algal scum and filamentous weed may be removed by wiping down with a soft cloth using gentle non-abrasive cleaning techniques.

- Low copper, hard paints and long lasting, low-toxicity paints should be used in lieu of soft ablative paints.

- If scraping of the hull is required, the vessel must be removed from the water and cleaning performed where debris can be captured and properly disposed of.

- Any detergents used to clean boats on the river must be phosphate free, biodegradable, used minimally and are not to enter the water.

- Detergents containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates, lye or any other noxious or poisonous substance should not be used.

- Vessels with hard, polished finishes should be wiped with a soft cloth to maintain these finishes to ensure the efficacy of the antifouling treatment.

- The use of environmentally friendly equipment, e.g., sanders with 'filter bags' also minimises the dispersal of contaminants in this 'in water' situation.

- As per Swan and Canning Rivers legislation, any commercial act or activity within the Development Control Area or Riverpark requires approval from the Department of Biodiversity, Conservation and Attractions. (Rivers and Estuaries)

Applications should be made to email: rivers.planning@dbca.wa.gov.au

SECTION 20
OIL POLLUTION PREVENTION

20.0 ACTIVITY:
OIL POLLUTION PREVENTION

20.1 Likely Environmental Harm

The environmental significance of oil pollution is recognised by its specific incorporation into legislation.

Recreational vessel owners and commercial operators of small ships have an obligation under the Transport Operations (Marine Pollution) Act 1995 to exercise responsibility for the marina environment by ensuring proper containment and disposal procedures are met for all specified pollutants.

Under the Act, oil spillage or discharge, the discharge of noxious, harmful substances and chemicals into waters from all vessels, including the transfer of oil from another vessel, or through filling up the fuel tank at marinas or boat harbours (except at an approved marina refueling facility), is prohibited.

With regard to oil pollution, worthy of special mention is the Transport Operations (Marina Pollution) Act 1995 which states: *"bilge water may be pumped out of a vessel providing the material pumped out does not contain any pollutants including diesel, petrol and all refined oil products, noxious and harmful substances and chemicals, sewage and garbage".* However, the risk of contaminates entering the environment via Bilge Water are high.

20.2 Environmental Objective

- Improvement of effective controls to ensure RFBYC minimises the risk of oil pollution by complying with the relevant requirements.
- To minimise the risk of oil pollution.

20.3 Mitigation/Management Measures

Continue to promulgate RFBYC Oil Pollution Prevention Policy which is:

- Overboard dumping or discharge of any oil is ILLEGAL and NOT TOLERATED in RFBYC Marinas and vessel maintenance areas.
- All vessels will be encouraged to have oil absorption pads in their bilges, which are regularly replaced as needed. Disposals to be via a container in the oil recycling facility.
- All vessels' engines shall be properly maintained to prevent oil and fuel leaks.
- When fuelling boat tanks, extra care must be taken to prevent spillage from around the fuel nozzle or from the tank vent; fuel dripping from the nozzle when removed from the boat is to be minimised.

- Tanks must not be overfilled – employees and customers will be retrained to discontinue the practice of 'topping off', thus leaving a space in the top of fuel tanks.
- Engine cooling water additive must be disposed of in the receptacle provided in the waste oil collection and recycling facility. Discharge into the water is prohibited as it will kill marine life.
- Dispose of waste oil in the oil waste recycling tank located in the southwest corner of RFBYC vessel maintenance area.
- The oil waste recovery facility is provided free of charge to users for the collection of oil and other waste hydrocarbons, with the used oil being recycled by an approved contractor. The free of charge policy is deliberate to foster use of the facility by vessel owners and crew.
- RFBYC provides signs informing customers of what to do in the case of a spill.
- Wash boats with water pressure only. Use only biodegradable detergents. Do not use caustic cleaners in the Marina.

20.4 Monitoring, Assessment and Reporting

- RFBYC management is required by State and Federal law to report to the Department of Transport, the name of any boat or person responsible for any oil or fuel spill into the water.

- All liquid waste is removed by an approved "contaminated waste" contractor as required. Copies of documentation from contaminated waste contractors is retained on file for audit purposes.

20.5 Reporting

The Administering Authority to be advised of any significant oil pollution Incident using the Environmental Incident Reporting Form (see APPENDIX SIXTEEN). A significant incident with respect to Oil Pollution would be any incident in which hydrocarbons are released to the surrounding environment in quantities which cannot immediately (less than 10 minutes) be recovered by emergency procedures outlined in Appendix Twenty One.

20.6 Performance Indicators and Timeframes

- Compliance confirmed.

SECTION 21
EXTERNAL (OFF-SITE) ENVIRONMENTAL INFLUENCES

21.0 ACTIVITY:
OFF SITE (EXTERNAL) ENVIRONMENTAL INFLUENCES

21.1 Likely Environmental Harm

Pollution from sources outside RFBYC facilities has an impact upon RFBYC and its members, particularly the tenants of the Marinas. In the most significant cases, contaminants are transported by the water via the Swan River or from urban storm water runoff into the river. In both cases they can cause visual impact (floating litter). The timing of the storm events may cause a bias in RFBYC's water quality monitoring, particularly in the values of E. coli due to the first flush transfer of animal faeces from the urban environment.

21.1.1 Swan River Impacts

The Swan River flows through RFBYC Marinas from east to west.

Surface water carries urban waste into the Club's facilities. The waterborne waste can then be 'trapped' in the Club's Marinas until it is cleaned out.

21.1.2 Stormwater Outlets

Outlets drain into the Marina precinct. General storm water has the capacity to enter the Marina precinct via these outlets.

21.2 Environmental Objectives

Implement effective controls to minimise the impacts of offsite contaminants on RFBYC facilities.

21.3 Mitigation/Management Measures

- RFBYC is to investigate ways in which contaminants carried on the surface of the water can be channeled through an entrapment facility and collected for future recycling or disposal.

21.4 Monitoring and Assessment

- A reduction in the litter removed from the water by RFBYC staff and tenants of the Marina will provide an indication of improvement.

21.5 Reporting

- The administering authority to be advised using the Environmental Incident Reporting Form (APPENDIX SIXTEEN) of any significant "Off Site External" pollution incident impacting RFBYC site.

SECTION 22
EXTERNAL CONTRACT SERVICES

22.0 ACTIVITY:
EXTERNAL CONTRACT SERVICES

22.1 Likely Environmental Harm

The risk of an accident that will cause environmental harm is particularly high from Contractors whom are not environmentally aware.

22.2 Environmental Objective

To minimise the likelihood of unforeseen accidents from External Contractors.

22.3 Mitigation/Management Measures

- To ensure transportation of hazardous or toxic material to and from the Club's facility and/or within the Club's premises is in accordance with the Carriage of Dangerous Goods Act 1984.
- To preferentially select only approved contractors who have provided proof of adequate insurance and have agreed to comply with RFBYC's environmental policies and work practices and have undergone "Contractor Environmental Training".
- To preferentially select contractors who have their own environmental policy.

22.4 Monitoring, Assessment and Reporting

- Compile a preferred list of contractors according to their proven environmental responsibility and performance.

22.5 Reporting

- The administering authority to be advised of any Contractor not adhering to the Contractors' General Environmental Duty.

- The administering authority to be advised when Contractor Training Sessions are being conducted.

22.6 Performance Indicators and Timeframes

- Results from the use of the Environmental Awareness Checklist will provide an indication of the success of the Contractor Training Program.

- The Contractor Training Program to be extended and conducted twice per year with the next training session being held within six months of acceptance of RFBYC's revised IEMS.

SECTION 23
CONTINUOUS IMPROVEMENT BY DOCUMENTATION, AUDITING AND REVIEW

23.0 CONTINUOUS IMPROVEMENT BY DOCUMENTATION, AUDITING AND REVIEW

A critical component of any environmental management system that embraces the philosophy of continuous improvement, is retaining appropriate documentation.

These records can be used for various purposes such as:
- Future planning by audit, review and modification which leads to continuous improvement.
- Education by identifying gaps in knowledge and thus modifying training needed.
- Self protection in relation to compliance, safety records, accreditation for contractors, etc.

23.1 Environmental Documentation and Recording Systems

To satisfy RFBYC Committee, Local State and Federal Authorities and the community, appropriate records of environmental safety matters and equipment will be maintained in RFBYC's main office using forms included in the Appendix.

23.2 Continuous Improvement/Quality Management Reviews

To ensure a minimum consistent quality is assured in the management of RFBYC site and a foundation for progressive quality improvement is laid down, RFBYC follows a formal review process. This review process is continuing and ongoing.

Formal internal reviews will occur half-yearly, ensuring all aspects are covered, findings will be assembled in report form and, where appropriate, refined or new actions will be initiated.

Included in the Appendix are examples of the standard documents to be used to audit environmental practices and performances. The report, thus generated, will provide impartial feedback of the effectiveness of the Club's **IEMS** and provide guidance relating to potential improvements.

23.3 Environmental Performance Surveys

The standard document attached as APPENDIX FIFTEEN will be used by staff, contractors and customers/patrons to evaluate and report on the perceptions of the Club's environmental performance in order to identify the need for change/modification.

23.4 External Auditing Factors

The Club's **IEMS** will regularly be amended to suit changing circumstance and technological developments. These updates will include reviews of:-

- The way RFBYC conducts its business,
- Technological advances in waste prevention, treatment and disposal.
- Legislation and new Environmental Protection Policies, and,
- The expectations and/or needs of the community.

23.5 The Continuous Improvement Outcome

Following these review processes, modifications of the **IEMS** are incorporated into a formal Amendment Register for endorsement and implementation in line with Section 8.0.

23.6 Controls

- The distribution and control of this IEMS and all revisions thereto are the responsibility of the Chief Executive Officer. All distributed copies and all revisions and alterations are to be recorded and listed.
- All revisions are to be made only under the authority of the RFBYC Chief Executive Officer and are to be in accordance with the procedure outlined in the **IEMS**.

23.7 Special Audits

At various times, specific audits may be conducted on issues relevant to the **IEMS** and RFBYC's economic and environmental performance.

23.8 Energy Audits and Reviews

An energy audit will take place annually in June each year to ensure energy is being used wisely and that alternatives are identified and implemented.

23.9 Water Audit and Review

A water use audit will take place annually in order to review the efficiency of use and cost of water to RFBYC.

24.0 CONCLUSION

Advantages

The principal advantages of RFBYC's **IEMS** are expected to include:

- Reduction of environmental risk, health risk and accident rate.
- Savings in terms of raw materials.
- Increased productivity and product quality.
- Savings in waste and emission management and treatment.
- Improved work structure, rationalisation of the work, and improved technological level of RFBYC's maintenance facilities (new equipment, new controls, methods etc.).
- The overcoming of routine habits by re-engineering processes, procedures, stages, materials etc.
- Improved public image of RFBYC.
- Immediate and ongoing visual improvement.

25.0 SUMMATION

This IEMS is designed to encourage a reduction in the amount of waste generated within the Club's leased areas at Keane's Point, including the refueling wharf, Marinas and boat maintenance and repairing facilities.

It includes a combination of source reduction or elimination, recycling, reclamation and waste stream reduction strategies.

Recycling is encouraged, containment practices are followed and dry disposal of waste is an integral part of the proposed daily operation.

The production of waste-water is minimised, and the quality of the water flowing from the existing sediment tanks and filters monitored on a regular basis.

The initiatives outlined in RFBYC's IEMS will be sent to all major marinas and slipways throughout Western Australia to obtain feedback and further suggestions with the aim of encouraging ongoing improvement in pollution prevention activities in marinas and slipways throughout the State in an attempt to foster and achieve a significant reduction in the release of contaminants from all such facilities.

RFBYC, with guidance from The Swan River Trust, will seek to continually modify RFBYC's **IEMS** to attack the pollution problem at its roots and provide solutions that involve design, operation and waste management to achieve the Club's ongoing goals for pollution prevention.

All staff, sub-contractors and members of RFBYC are to implement the requirements of this Plan, whilst on the site.

Signed:…….RFBYC CEO Date:…….

Signed:…….....Commodore Date:…….

Signed:……RFBYC Bosun Date:…….

Signed:……..Shipwright Manager Date:……..

26.0 REFERENCES

ANZECC, (1997). "Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand".

Department of Environment, "Environmental Management Guidelines.

"Environment Protection Act". (1994).

"Environmental Protection (Water) Policy" 1977.

"Workplace Health and Safety Act" 1995.

"Environmental Management Plan", Royal Freshwater Bay Yacht Club Inc.

SECTION 27
APPENDICES

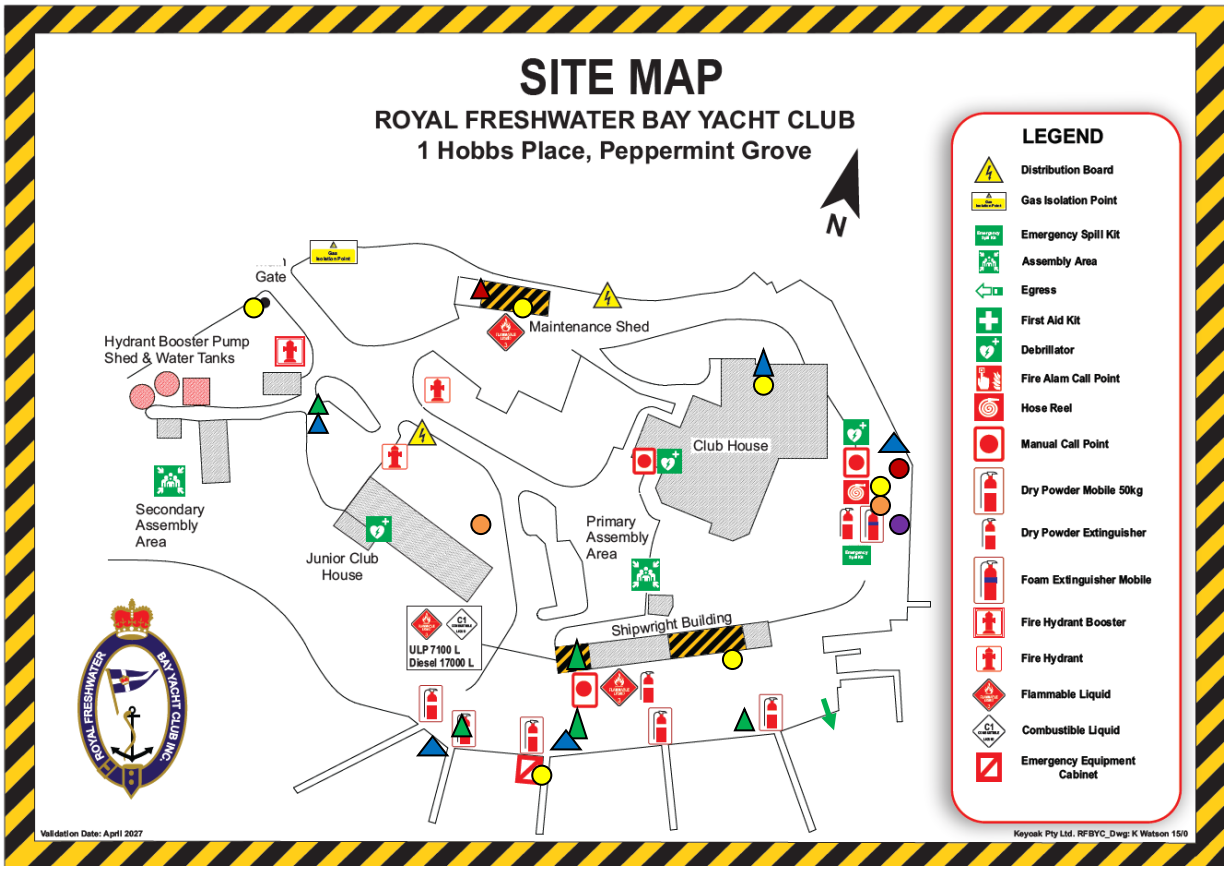
27.0 APPENDICES Cont...

A P P E N D I X ONE

AERIAL PHOTOGRAPH OF SITE

A P P E N D I X TWO

SITE PLAN



Diesel Pump

Premium Unleaded Petroleum Pump

Slipway Filtration Discharge Point

Emergency Fuel Shut Off Valves

Emergency Procedures

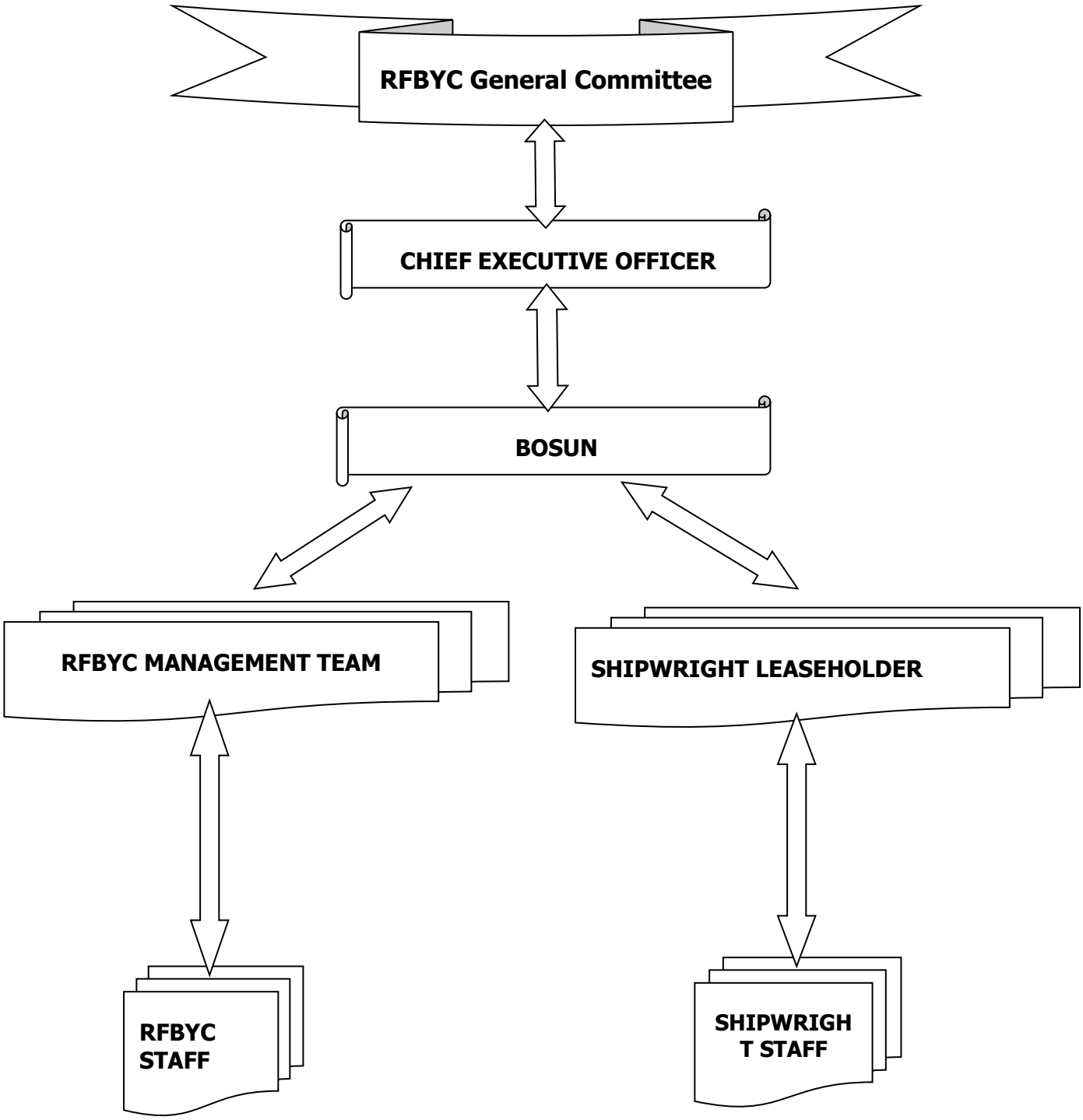
General Waste

Battery Recycling

Glass and Cardboard Recycling

A P P E N D I X THREE

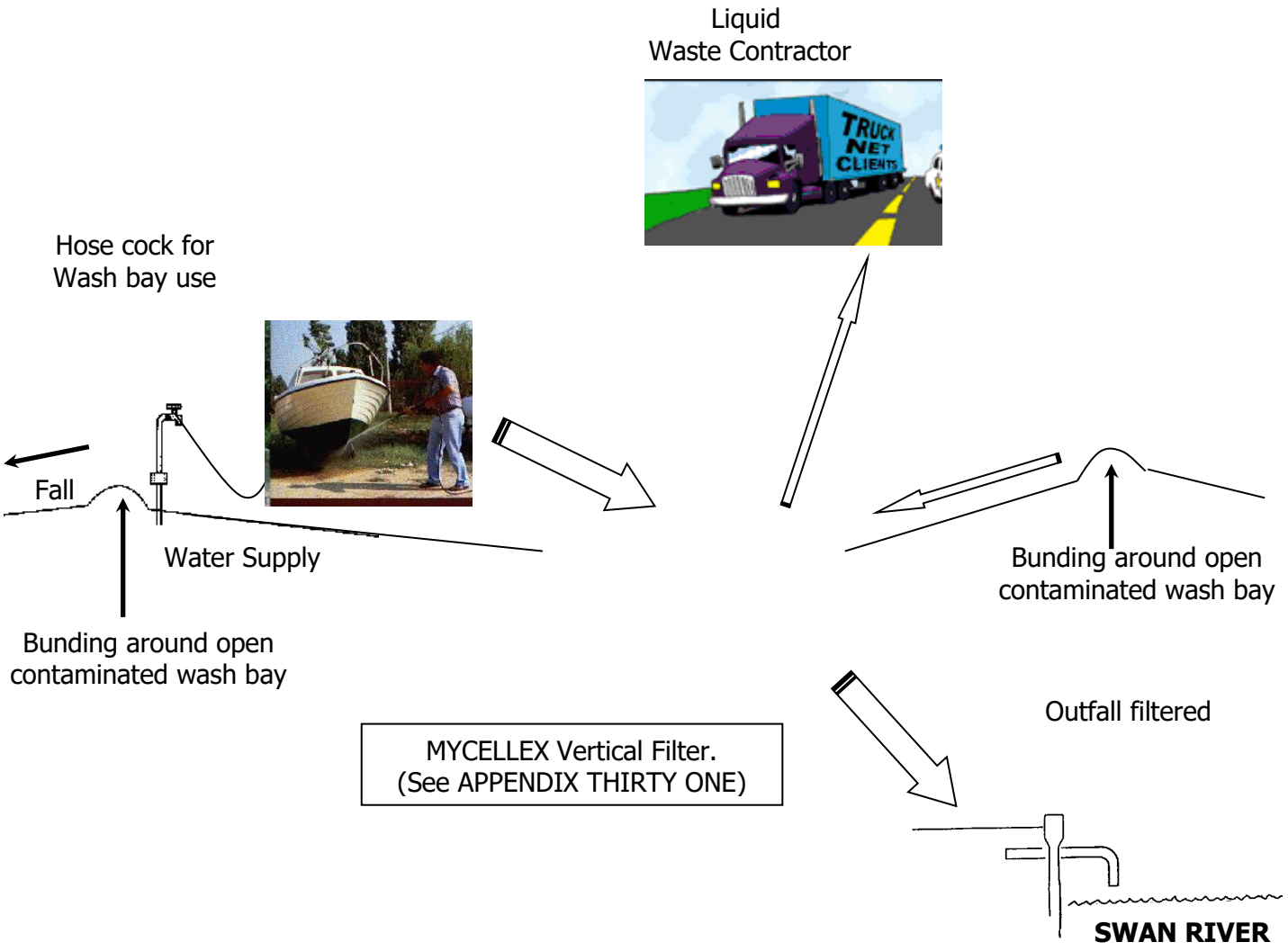
ORGANISATIONAL STRUCTURE



A P P E N D I X FOUR

SCHEMATIC EXISTING PROCEDURES

COLLECTION, TREATMENT AND DISPOSAL OF WASTE WATER AND DIVERSION OF STORM WATER

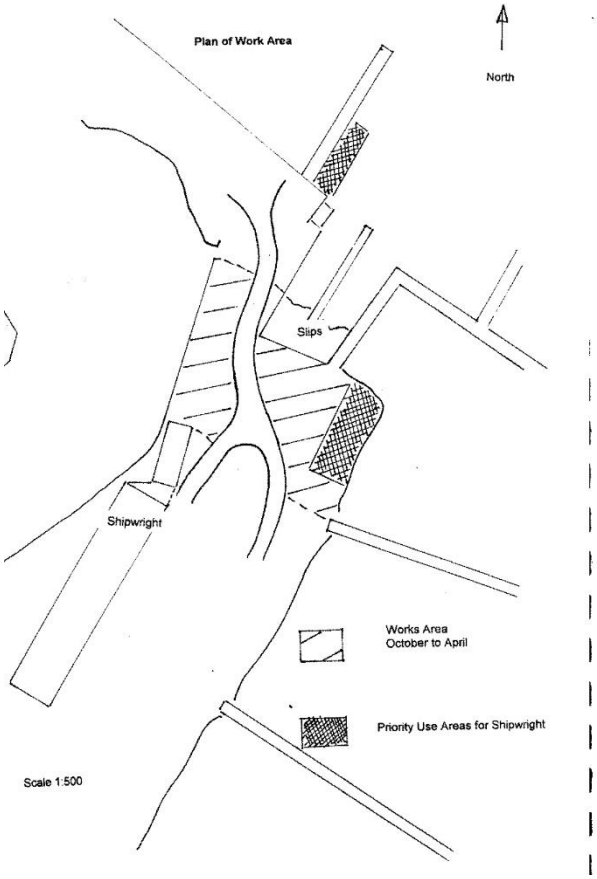


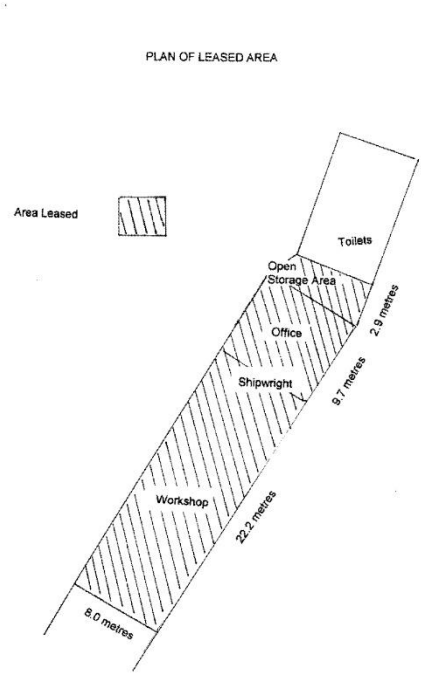
SCHEMATIC of collection, treatment and disposal of contaminated stormwater/wastewater from unroofed wash bay.

- Collection, storage, treatment and disposal of wastewater/storm water to the Swan River to comply with the Environmental Protection (Water) Policy 1997 and the AWQ guidelines (Australian Water Quality Guidelines for Fresh and Marine Waters-Published by ANZEC in 2000), except for Tributyl Tin (see text).

A P P E N D I X FIVE

BOAT MAINTENANCE & REPAIRING FACILITY LOCATION & AREA





A P P E N D I X SIX

TOPOGRAPHY OF BOAT MAINTENANCE & REPAIRING FACILITY

Waste Water Filtration Unit

Direction of water flow

Boundary of Boat maintenance and Repairing Work Area

A P P E N D I X SEVEN

POLLUTION CONTROL EQUIPMENT

MOBILE SPILL KIT CONTENTS

PRODUCT	PART No.	QTY IN KIT
Envirosorb oil only pads	MBP-100	200
Disposal Bag + Ties	DB	6
Large Absorbent Boom	SBM-SH3125	20 meters
Mini Booms	PBFO2.4	6
Caution Tape	TAPE	2
PVC Gloves	PVCG	1

Other Environmental Products

Drain Warden with Pillow	ST1.2
Bilge Sock	BS400
Marine Spill Instructions	LABMF
Spill Kit Label	LABOFS
Blow Back Pad	BBP22X22
Spill Drum Bund	DB4G

PREFERRED SUPPLIER:

Global Spill Equipment

Accounts: 21 Glassford Road, Kewdale, Western Australia, 6105

Toll Free Ph: 1300 774 557 / **F:**+61 8 9258 5833

E: sales@globalspill.com.au **W:** www.globalspill.com.au

A P P E N D I X EIGHT

WASTE OIL COLLECTION AND RECYCLING FACILITY

BATTERY RECYCLING COLLECTION POINT

A P P E N D I X NINE

ENVIRONMENTAL ENCLOSURE

The area enclosed by the Red Demarcation line is bunded and all waste water is captured and filtered

Airborne overspray screening is afforded at the areas marked in blue.

Additional mobile screening is available and to be used within the work area for additional protection against overspray.

A P P E N D I X TEN

LANDSCAPING

Sedges and Rushes to be planted as a vegetative buffer

A P P E N D I X ELEVEN

ROYAL FRESHWATER BAY YACHT CLUB INC
CERTIFICATE
OF
ENVIRONMENTAL SUPPORT

ROYAL FRESHWATER BAY YACHT CLUB AND THE MANAGEMENT TEAM CARES ABOUT THE ENVIRONMENT, AND WE ASK ALL BOAT OWNERS AND VISITORS TO DO THE SAME

We clean and maintain our work areas regularly.

♦

We do our best to make sure particles or wastewater from boat cleaning or maintenance work do not fall into or drain to the foreshores or the marine environment.

♦

We make sure activities such as sanding, grinding, high-pressure cleaning and painting do not pollute the water, ground or air with particles, dust or fumes.

♦

Abrasive blasting and grinding is prohibited in the marina.

♦

We make sure materials such as fuels, oils, cleaners and paints are correctly handled and stored safely and with care to prevent pollution of the ground, air and water.

♦

We require our customers and contractors who use the Club's facilities to be aware of their environmental responsibilities – specifically, litter and other wastes and wastewaters from recreational, maintenance, repair and cleaning activities must not pollute the water, ground or air.

♦

We keep material to clean up spills in an accessible place where it is clearly labeled and ready for use.

♦

We are aware noise is a nuisance, so we do our best to minimize loud music, excessive revving of engines, hammering and sanding.

♦

We require you to use biodegradable phosphate-free soaps and cleaning products.

♦

We are always looking for new opportunities to reduce the amount of waste we dispose of to landfill. We encourage reuse and recycling.

♦

We encourage suggestions and new ideas which will improve the environment.

A P P E N D I X TWELVE

DATA TO BE RECORDED

All relevant internal and external information is to be recorded and kept. Environmental protection in the form of an IEMS is only legally useful if there is a paper trail showing continuous monitoring and improvement. For example:

INTERNAL DATA SOURCES	**EXTERNAL DATA SOURCES**
Environmental incident reporting forms	Industry reports
Environmental audit reports	Material Safety Data Sheets
Supply order forms	Media reports
Business records	Environmental Protection Agencies
Meetings and communication with SRT, DEC, Shire of Peppermint Grove, Town of Mosman Park	Changes and amendments to the EPA
Environmentally related meetings with Engineering consultancy	Copy of all waste disposal operators licenses
Water and sediment testing data	Payment receipts from oil recovery company
Environmental monitoring checklist	Payment receipts from sullage disposal company
Training and education of staff and visitors	Payment receipts or money received from recycling companies
Money and time spent on training and education	Payment of all environmental related activities
Changes and revisions to IEMS	Payment of license fees
Operation and management changes to the marina	

A P P E N D I X THIRTEEN

MONTHLY ENVIRONMENTAL MONITORING CHECKLIST			
AREA	**TOPIC**	**REPONSIBILITY**	**MONTH**
	HAZARDOUS SUBSTANCES STORAGE AREA		
	Were there any incidents (Attach report)		
	Is storage area neat and tidy		
	Are all chemicals documented		
	Any potential environmental hazards		
	Is bunding in place		
	OIL RECOVERY FACILITY		
	Were there any incidents (Attach report)		
	Is storage area neat and tidy		
	Is bunding in place		
	Have documents i.e. pick ups, been kept		
	Any potential environmental hazards		
	MULTIPLE STAGE SEDIMENT TRAP		
	Were there any incidents (Attach report)		
	Is area unobstructed, neat and tidy		
	Is equipment in good order		
	Have documents i.e. pump outs, been kept		
	Any potential environmental hazards		
	WASTE STORAGE AND RECYCLING AREAS		
	Were there any incidents (Attach report)		
	Is storage area neat and tidy		
	Is equipment in good order		
	Are recycling bins used for correct waste		
	Any potential environmental hazards		
	MACHINERY AND EQUIPMENT		
	Were there any incidents (Attach report)		
	Has equipment been serviced by due date		
	Is equipment in good order		
	Have service documents been kept		
	Any potential environmental hazards		
	HARDSTAND AND BOAT REPAIR AREA		
	Were there any incidents (Attach report)		
	Is storage area neat and tidy		
	Has dry vacuuming been done regularly		
	Has the use of water been reduced		
	Any potential environmental hazards		
	AIR-BORNE PARTICLE MANAGEMENT AREA		
	Were there any incidents (Attach report)		
	Is equipment in good order		
	Are screens in good order		
	Any potential environmental hazards		

A P P E N D I X FOURTEEN

MAINTENANCE OF SLIPWAY EQUIPMENT AND FACILITIES

MANAGEMENT – SIX MONTHLY

INSPECT

- Entrance surroundings ……
- Buildings ……
- Access and paths ……
- Slipway ……..

MANAGEMENT - ANNUALLY

INSPECT

- INSURANCE

  Public liability ……..

  Ship Repairers Liability ……..

  Workers Compensation ……

- FIRE EQUIPMENT ……..
- SPILL EQUIPMENT ……..
- PAINT STORAGE ……..
- ELECTRICAL EQUIPMENT TAGGED ……..

TRAINING AND EDUCATION

- OH+S WHITE/MARINE CARD ……
- ENVIRONMENTAL AWARENESS ……
- INTEGRATED ENVIRONMENTAL MANAGEMENT SYSTEM ……

A P P E N D I X FIFTEEN

ENVIRONMENTAL AWARENESS CHECKLIST

STAFF AND CONTRACTORS

All staff and contractors must be aware that breaches of Local, State and Federal Environmental Laws could harm the environment and make you and/or your employer vulnerable to fines and/or prosecution.

Environmental Management Commitment (Delete those which do not apply)

- I am aware of the Royal Freshwater Bay Yacht Club's (RFBYC) Integrated Environmental Management System (IEMS) YES/NO/N\A
- I am aware of RFBYC's commitment to the environment YES/NO/N\A
- I am aware of the environmental legislation applicable to RFBYC's facilities YES/NO/N\A
- I am aware of and understand RFBYC Environmental Policy YES/NO/N\A
- I am aware of my responsibility to minimise pollution YES/NO/N\A

Water Quality Management

- Are the storm water traps and drains free of pollutants? YES/NO/N\A
- Are you carrying out all boat maintenance and repairs in an area which contains run off? YES/NO/N\A
- Are you aware of the structure and procedures in place to prevent pollution YES/NO/N\A
- Do you follow RFBYC's procedures designed to control pollution? YES/NO/N\A
- Are you using oil absorbent products to prevent the discharge of oily water into the Swan River? YES/NO/N\A
- Is the multiple stage sediment trap used and cleaned on a regular basis? YES/NO/N\A
- Are you aware of the locations of the 'Spill Kits' and 'Emergency Response Cabinets', and the appropriate procedures? YES/NO/N\A

Waste Management

- Are you aware of the waste you generate and where it is to be stored for removal? YES/NO/N\A
- Do you use waste bins? YES/NO/N\A
- Are the solid wastes collected and disposed of by a licensed contractor? YES/NO/N\A
- Do you know the name of RFBYC's licensed waste contractor? YES/NO/N\A
- Do you try to re-use some waste products? YES/NO/N\A
- Are you aware of and use recycling facilities? YES/NO/N\A
- Do you actively consider how to reduce waste? YES/NO/N\A
- Are you encouraging customers and contractors to use waste recycling and disposal facilities correctly? YES/NO/N\A

A P P E N D I X SIXTEEN

ROYAL FRESHWATER BAY YACHT CLUB INC
ENVIRONMENTAL INCIDENT REPORTING FORM

(This form is to be completed by all staff who are aware of an Environmental Incident and is to be included in the Bosuns' monthly report. The Chief Executive Officer, Bosun or 2IC are to be notified of incidents immediately and they, in turn, are to notify all relevant statutory authorities.)

Incident reported by:_____**Signature:**_____

Supervisor:_____ **Date:**_____

Location of Incident: _____

Time of incident: _____ **Date of incident:**_____

Detailed description of incident (such as: how it happened, size and type of spill, possible impacts, etc…)

Mitigation/Clean up required (such as: what was done and what should be done next etc…)

BELOW IS TO BE FILLED OUT BY THE Chief executive officer

Is further remediation or investigation required? If so explain. YES NO

*Attach additional sheets if required.

CHIEF EXECUTIVE OFFICERS final sign off: _____

Date:_____

A P P E N D I X SEVENTEEN

SUGGESTION – POLLUTION CONTROL

Date…….

To the Chief Executive Officer
Royal Freshwater Bay Yacht Club Inc

SURVEY RESPONSE TO ENVIRONMENTAL PROTECTION QUESTIONNAIRE

To assist Royal Freshwater Bay Yacht Club in the management of the Club's environment, please accept my completed Environmental Questionnaire.

ITEM	**RATING**			
Air Quality	Excellent	Good	Fair	Poor
Noise Levels	Excellent	Good	Fair	Poor
Water Quality	Excellent	Good	Fair	Poor
Recycling Facilities	Excellent	Good	Fair	Poor
Garbage disposal	Excellent	Good	Fair	Poor
Wastage	Excellent	Good	Fair	Poor
Environmental Information	Excellent	Good	Fair	Poor

In addition, I would like to offer the following specific comments and suggestions:

……..
……..
……..
……..
……..

NAME ……..

ADDRESS ……

……

PHONE No ……

A P P E N D I X EIGHTEEN

WASTE INVENTORY

ITEM	EXISTING PROCEDURE	PROPOSAL
Rain Water	To storm water	Collect and use
Barnacle Waste	Licensed disposal	Continue
Antifoul	Licensed disposal	Continue
Paper	Recycle	Continue
Cardboard	Recycle	Continue
Metal	Recycle	Continue
Glass	Recycle	Continue
Oils (hydrocarbons)	Recycle	Continue
Batteries	Recycle	Continue
Run off	Filter and test	Improve filtration
Air Pollution	Dust extraction	Continue
Ground Contamination	Dry Sweeping	Continue
Paint/Thinners	Recycle	Continue
Sewage	Scheme	Continue
Noise	Controlled	Continue
Airborne Particulates	Dust extraction and enclosure	Continue and Improve
General Garbage	Licensed disposal	Continue
Bilge Water	Bilge Sock/licensed disposal	Education
Exhaust Emissions	NA	Education

A P P E N D I X NINETEEN

TRAINING PLAN FOR STAFF AND EMPLOYEES

To be completed under the supervision of the Bosun.
The training register is to be updated on completion of each training module.
Training register is located under R:\Resource\EMERGENCY PROCEDURES\Staff Training Register
Upon commencement of employment and annually thereafter

Employee Name:……..

YEARLY REVIEW PROCEDURES	Comments
• **INSPECTION ROUTINES** Annual	……..……
Six monthly	……
Monthly	……
• ORGANISATIONAL STRUCTURE AND RESPONSIBILITIES	……
• **EMERGENCY** Fire Drill	……
Fuel & waste spillage	……
Standard response	……
• Familiarisation with Plan of Management guidelines	……
• Understanding of signage	……
• Understanding of relevant regulations and statutory requirements	……
• Familiarisation and understanding of all Marinas and boat maintenance facilities	…….
• Understanding of all machinery operations	…….
• Operative ability to command/work Emergency craft	…….
• Understanding of RFBYC's IEMS	…….
• Understanding of regulations	…….

I acknowledge and understand all of the above mentioned procedures.

Signed…….. Date……/……../……...

A P P E N D I X TWENTY

ENVIRONMENTAL TIPS

USE OF MARINAS, HARDSTAND AND SLIPWAY FACILITIES

To help prevent pollution and protect RFBYC environment, we ask you to follow this advice:

1. Ensure all litter and waste from your boat is collected and either recycled or disposed of in the bins provided.

2. If your boat has an inboard motor, use oil-absorbent pillows to reduce oily water discharges from bilge pumps.

3. Be conscious of noise – loud music, revving of engines, and other activities that could upset your fellow boat users, other members and local residents.

4. Ensure waste water from maintenance work does not fall or drain into the stormwater system or the river.

5. Ensure activities such as sanding, grinding, high-pressure cleaning and painting do not pollute the water, ground or air with particles, dust, fumes or odours.

6. Ensure chemicals such as fuels, oils, cleaners and paints are correctly handled to prevent spills and pollution of the ground and water.

7. Ensure oil drip trays are used whenever you are working on machinery which is not located inboard your vessel.

8. Never store fuel except in an approved container.

9. Excess fuel must not be stored above deck or outside your vessel. All fuel not correctly stored within your vessel must be removed from RFBYC site.

10. Immediately notify the RFBYC Management if you become aware of any activity which threatens or harms the environment.

A P P E N D I X TWENTY ONE

EMERGENCY PROCEDURES – FUEL AND WASTE SPILLAGE

Petroleum spills cause pollution and are costly to clean up. The problem is that lack of proper containment and a 'Fuel Spill Response Plan' can critically delay containment of a discharge.

Pollution in the Swan River must be reported to the Swan River Trust and the Department of Environment.

The following details MUST be provided:

- When and where the pollution occurred
- What type of substance was discharged
- Extent of pollution
- Name of the vessel (if applicable)
- The size and type of the vessel (if applicable)
- Other relevant information

Method of Application for Spills on Water

Large bodies of water

1. Immediately enclose the spill area with mycellex booms and/or socks or booms with ties. Connecting the socks and booms will prevent spreading.
2. Place booms at the water's edge to prevent the spilled material from contaminating the shore line.
3. Apply absorbent pads over the spilled material.
4. Let the absorbent pads absorb the spilled material.
5. Collect the saturated absorbent pads using boat hooks or suction processes.
6. Place the saturated absorbent into a container for disposal in either an authorised landfill or by an authorised waste disposal contractor. Note type of spilled material on container.
7. Collect the socks and booms. Place them into a container for disposal in either an authorised landfill or by an authorised waste disposal contractor. Note spilled material on container.

Flowing Water

1. Immediately place the socks or booms with ties across the water flow. The socks or booms should be placed at various intervals across the water course. It is recommended to have at least three (3) socks or booms at different locations across the area. Secure the socks or booms to the shore area. This will ensure complete collection.

A P P E N D I X TWENTY ONE Cont…

2. Place socks or booms on the edge of the water to prevent migration of the spilled material onto the edges of the water course.
3. Apply absorbent pads over the spilled material.
4. Let the absorbent absorb the spilled material for one to two minutes.
5. Collect the saturated absorbent pads using boat hook.
6. Place the saturated absorbent pads into a container for disposal in either an authorised landfill or an incinerator. Note type of spilled material on container.
7. Collect the socks and booms. Place them into a container for disposal in either an authorised landfill or by an authorised waste disposal contractor. Note type of spilled material on container and booms.

A P P E N D I X TWENTY TWO

EMERGENCY PROCEDURES - FIRE

EMERGENCY PROCEDURES
FIRE

- FIRE! FIRE! FIRE! - SOUND THE ALARM
- RING 000 - NOTIFY THE FIRE BRIGADE &
  GIVE THE FOLLOWING INFORMATION: -
  - YOUR NAME
  - LOCATION E.G. ROYAL FRESHWATER BAY YACHT CLUB / MARINA / HARDSTAND / MAIN BUILDING ETC.
  - TYPE OF FIRE
  - DETAILS OF INJURIES
  - NOTIFY AMBULANCE SERVICE (IF NECESSARY)
- NOTIFY YOUR MANAGER
- COUNT HEADS - ENSURE THE SAFETY
  AND WELLBEING OF EVERYONE
- NOTIFY SENIOR PERSON- IF ANYONE IS MISSING
- TURN OFF COMPUTERS DO NOT TAKE RISKS
- TURN OFF POWER- DO NOT TAKE RISKS
- TURN OFF GAS BOTTLES- DO NOT TAKE RISKS
- TURN OFF FUEL - DO NOT TAKE RISKS
- FIGHT FIRE - IF THE FIRE IS SMALL
  AND YOU ARE NOT IN IMMEDIATE
  DANGER, FIGHT THE FIRE –
  DO NOT TAKE RISKS
- MOBILE FIRE EXTINGUISHERS - EMPLOY MOBILE FIRE EXTINGUISHERS -
  DO NOT TAKE RISKS
- DEPRIVE OXYGEN- ISOLATE THE FIRE BY
  SHUTTING OFF DOORS AND WINDOWS, CLOSE
  HATCHES, CLOSE OFF VENTS –
  DO NOT TAKE RISKS
- DIRECT FIRE BRIGADE- IF AVAILABLE, AN EXTRA
  STAFF MEMBER SHOULD BE SENT TO THE ROADWAY TO
  DIRECT THE FIRE BRIGADE

A P P E N D I X TWENTY TWO Cont…

- ESCAPE ROUTE- DO NOT CLOSE OFF YOUR MEANS OF ESCAPE AND BEAR IN MIND THAT SMOKE AND TOXIC FUMES ARE RESPONSIBLE FOR 80% OF DEATHS IN FIRES

- PUBLIC AWAY- KEEP THE PUBLIC AWAY AND EXCESS STAFF SHOULD STAND WELL CLEAR

- EVACUATE THE MARINAS- EXCESS STAFF TO ASSEMBLE ON THE EASTERN BOUNDARY OF THE CARPARK

- EXTINGUISHERS-

WATER:	Red Extinguisher
DRY POWDER:	Red with White Band
CO2:	Red with Black Band
FOAM:	Red with Blue Band

- FIRE HOSES- A FIRE HOSE IS LOCATED AT THE REFUELING WHARF

- BOUNDARY COOLING- IF YOU CANNOT DIRECT THE WATER ONTO THE FIRE (OR EVEN IF YOU CAN) USE FIRE HOSES FOR BOUNDARY COOLING. BE CAREFUL YOU DO NOT SPREAD LIQUID FIRES

- ENVIRONMENTAL CONSIDERATION- TAKE ACTION TO MINIMISE OR CONTAIN ENVIRONMENTAL DAMAGE

- ENVIRONMENTAL REPORTING- ADVISE SWAN RIVER TRUST AND DEPARTMENT OF ENVIRONMENT

- ADVISE THE OWNER- AS SOON AS POSSIBLE ADVISE THE VESSEL'S OWNER/S

- SECURITY- ARRANGE TEMPORARY SECURITY IF NECESSARY

- DIARY NOTES- IMMEDIATELY AFTER THE FIRE IS OVER, MAKE DIARY NOTES DETAILING YOUR INVOLVEMENT IN THE EMERGENCY

DO NOT TAKE RISKS - NO AMOUNT OF MATERIAL LOSS IS AN EXCUSE FOR LOSS OF A HUMAN LIFE

A P P E N D I X TWENTY THREE

ROYAL FRESHWATER BAY YACHT CLUB
Emergency Procedures - STORM

Experience has shown that in the event of a major storm (or cyclone) passing a marina, the risk of storm damage and injury can be significantly reduced by early preventative action. Environmental damage by the release of normally secure pollutants such as paints, solvents, fuel, oil, chemical and solid wastes can also be minimised by prior preparation and planning.

THE RECOMMENDATIONS THAT FOLLOW ARE FOR BOATS IN THE MARINA, ON THE HARDSTAND AND SWING MOORINGS, HOWEVER, THESE RECOMMENDATIONS CAN BE EXTRAPOLATED FOR ALL BOATS IN THE SWAN RIVER WATERWAYS.

As a boat owner, you should be aware that it is your responsibility to ensure your vessel and equipment is as secure as possible. Members are also encouraged to check with their insurers regarding the adequacy of the insurance cover of their vessels for damage resulting from storm and/or cyclonic conditions.

OVERALL CONSIDERATION

In the event of a storm/cyclone, personal safety is of prime importance. Flying debris can be lethal. All non-essential crew (and children) should leave the marina. Persons electing to stay aboard vessels must realise conditions may preclude them from returning to land. In the event of the centre of the storm passing close by, a major windshift can be expected and this may be accompanied by a storm surge, with sea levels typically between one and three metres higher than a normal tide.

ACTION

1. Check your lines. **Double up mooring lines** by running duplicate lines to alternative bollards. The alternative ropes should be run slightly slack to ensure they are only required if the primary mooring lines fail. Fit chafe preventers.

2. Remember, man-made synthetic fibres such as polyethylene, polypropylene and polyester deteriorate in sunlight. The **deterioration** is usually unnoticeable until the rope is subjected to stress. If in doubt replace.

3. **Check all boat cleats.** If there is any doubt, secure additional lines to other structural members and fittings e.g. winches, sampson posts, etc.

4. **Reduce wind loadings to a minimum**. Remove all excess deck gear including lifebuoys, biminies, etc. and stow below.

5. **Remove** all furled sails and covers. If this is not possible, double wrap and tie all sails and covers securely.

A P P E N D I X TWENTY THREE Cont…

6. **Stow** all loose gear (hatches, boat hooks, buckets, fishing gear, floats, life rings, etc) below decks. Deflate and stow inflatable dinghies. Do not place dinghies on the walkways.

7. **Remove** portable containers and cans of paint, cleaners, petrochemicals etc. from the waterfront area.

8. Ensure all **self-draining openings are clear and working**. Dinghies in davits should be cleaned out, bungs removed or, preferably, removed from the vessel and stowed.

9. **Disconnect** all shore power leads.

10. **Ready** spare fenders and lines.

11. Ensure **engine is serviceable** and batteries are fully charged.

12. Check all **bilge pumps** are operational.

13. Ensure "**Bilge Sock**" is installed in **Bilge** to reduce hydrocarbon pollution in the advent that bilge pump activates.

14. **Communication** should be checked on VHF Channel 16 and 73, 27.88 or 27.90 MHz and other local frequencies.

15. If you have to remain aboard your vessel in the marina, it is mandatory you **advise the Club office** of your presence aboard and your intentions.

16. Club management may determine personnel are **barred from the jetties** and/or the hardstand areas. Ensure you abide by any such direction.

17. Vessels wishing to leave the marina to seek shelter at other locations must do so **before conditions deteriorate**. You are reminded that severe conditions make maneuvering dangerous.

18. Maintenance hardstand vessels and dinghies will be **returned to the water** if possible. If vessel cannot be returned to the water, take similar action to the above.

19. Waste contractors will be asked to do a special pick-up – **empty waste** from your vessel.

20. **Fuel tanks** and other tanks which could be flooded by a storm surge should be topped off and, if necessary, tied down.

Staff will do what they can to assist, but it is still each owner's responsibility to ensure your vessel and equipment are as secure as possible.

A P P E N D I X TWENTY FOUR

EMERGENCY SERVICES – Phone Numbers

When reporting an emergency, clearly state what the emergency is and where it is and advise if life is at risk.

EMERGENCY	Fire, Police, Ambulance	000
AMBULANCE	Transport	(08) 9334 1233
POLICE	General non- emergency	131 444
	Cottesloe	9286 7777
	Water Police	9442 8600
FIRE & RESCUE SERVICE	Claremont	9384 2222
FUEL & OIL SPILLS	DBCA	9278 0900 or A/H 9278 0981
	DWER	1300 762 982
	DoT - MEER	08 9480 9924
	Dot – Cygnet West	1300 501 010
SIR CHARLES GAIRDNER HOSPITAL	General	9346 3333
MEDICAL CENTRE	COTTESLOE	9284 5777
DENTAL	COTTESLOE	9384 1644
POISONS INFORMATION		131 126
FREMANTLE SEA RESCUE	General	9335 1332
	VHF Channel	16 (emergency) and 73
FREMANTLE PORTS	Emergency	9335 1300
RFBYC BOSUN	Nathan Stronach	0407 489 870
ROYAL FRESHWATER BAY YACHT CLUB	Andy Feathers Chief Executive Officer	0404 420 885 9286 8200
PEPPERMINT GROVE SHIRE COUNCIL	General Ranger	9384 0099 0411 427 341
DBCA	RIVERS AND ESTUARIES	9278 0900 A/H 9278 0981

Appendix Twenty Five

SUMMARY REPORT OF TARGETS

Priority	Significant Impact	Objective	Targets	Indicators	Roles and Responsibilities
1	Water Pollution	Reduce the amount of contaminants entering the marina wate	1, Establish and maintain an approved monitoring program 2, All relevant staff appropriately trained in reducing pollution 3, Reduce pollution of the marina water 4, Reduce total water contamination 5, Improve Emergency Response techniques	1. Water column testing 2. Visual inspection of hardstand 3. Checking waste collection records and dry vacuuming	DBCA to advise protocols Bosun - weekly Bosun - weekly
2	Waste Disposal	Improve waste management and production techniques	1, Continually improve the waste management system 2, Train staff in waste management and encourage recycling 3, Provide recycling areas and marked storage containers 4, Separate recyclable materials from general waste 5, Regular removal of rubbish and collection of recyclables	1. Waste auditing 2. Records and receipts of recycling 3. Visual inspection of waste bins 4. Interview staff	Bosun – annual Bosun – ongoing Bosun – weekly Bosun - annual
3	Air Pollution		1, To capture air-borne particles from spray painting, sanding and grinding	1. Introduce dustless sanders and grinders to hardstand 2. Train staff to reduce the amount of air pollution caused 3. Reduce the amount of air-borne particles released into the environment.	In place Bosun – annual Staff Contractors Members
4	Hydrocarbons	To reduce the amount of hydrocarbons entering the marina environ	1, Train staff and members in the correct procedures for refueling vessels 2, Train staff in the correct procedure for boat maintenance and repair 3, Recycle waste oil free-of-charge to customers 4, Implement bunding where necessary 5, Improve emergency response procedures and equipment 6, Maintain an oil storage and recovery facility	Upkeep signage, training and education Improvement by audit Improvement by review	Bosun – signage in place and annual training Contractors In place In place Bosun – review annually In place

5	Hazardous Chemicals	To reduce the risk to humans and the environment	1, Records of all fuels and chemicals kept on site and current copies of all MSDS 2, Store chemicals in accordance with AS 1940 3, Fire extinguishers located on fire plan 4, Bases and acids to be stored separately 5, Bungs to be in place when in storage 6, Staff appropriately trained in emergency response 7, Storage area to be free of obstructions and fire hazards	Inspection and audit records Improve by audit Update as required	Bosun – updated as required Bosun, MIA – 3 yearly Bosun - Audit Annually Bosun, Tenant, Staff, Contractors Bosun – Annually Bosun - weekly
6	Contaminant Runoff	To reduce the amount of contaminants being washed into the marina water environment	1, Dry vacuuming of hardstand, post major repairs or building 2, Implementation of new dustless sanding and grinding equipment 3, Bunding of the hardstand area 4, Maintain efficiency of the filter/sedimentation unit 5, Reduce contaminants entering the water	Scheduled Equipment on hand In place Audit and service record keeping	Bosun – Weekly, Monthly and as required Bosun, contractors, tenant, member education Maintain by tenant Bosun, Staff, Tenant and members review individual works procedures

A P P E N D I X TWENTY SIX

WASTE WATER – CHEMICAL ANALYSIS

Parameter	Method	Measurement Level	Units	Before Filter			Filtered	Low	High
				26/7	7/9/	16/9/06	1/10/06		
Acid (pH)	APHA 4500 H+	Within range 7 to 8.5	-	-	7.1	-		7.1	7.8
Dissolved Oxygen		Greater than 6 mg/L	mg/L	-	-	-		-	-
Suspended Solids	APHA 2450 D	Maximum 10 mg/L	mg/L	12	-	-	-	-	-
Aluminium	EG005 F	Maximum 0.2 mg/L	mg/L	<0.3	1.8	0.3	0.3	<0.3	2.0
Benzene		Maximum 0.5 mg/L	mg/L	-	0.009	-	-	-	-
Chromium	GCCC 6.4.5	Maximum 0.0044 mg/L	mg/L	<0.02	0.007	<0.01	<0.01	<0.01	0.013
Copper	APHA 3111/3	Maximum 0.0013 mg/L	mg/L	0.82	9.1	9.13	-	0.019	9.13
Iron	GCCC 6.4.7		mg/L	.016	2.1	0.63	0.6	0.6	2.1
Lead	APHA 3111/3	Maximum 0.0044 mg/L	mg/L	<0.01	0.22	0.10	0.05	<0.01	0.22
Mercury	APHA 3112		mg/L	<0.0005	<0.001	-	-	<0.0005	0.001
Tin	EG 020 F		mg/L	-	-	0.009	0.005	0.005	0.01
Silicone	EG005 F		mg/L	-	-	4.7	0.8	0.8	4.7
Zinc	EG005 F	Maximum 0.015 mg/L	mg/L	-	-	9.87	2.43	0.019	9.97
Monobutyl Tin	ALS-EP-098-WS	Maximum 6 ng/L	ng/L	11	<5	6	<5	<5	25
Dibutyl Tin	ALS-EP-098-WS	Maximum 6 ng/L	ng/L	12	15	79	18	<5	80
Tributyl Tin	ALS-EP-098-WS	Maximum 6 ng/L	ng/L	35	71	218	15	4	245
Surface Films		No Visible Films (NVF)		-	-	-	-	NVF	NVF
Litter/Solids		No Material (NM)		-	-	-	-	NM	NM
Faecal Coliforms		150/100 ml		-	-	-	-	-	-
Colour				-	-	-	-	-	-
Odour				-	-	-	-	Nil	Nil
Turbidity				-	-	-	-	-	-

NOTE: Sampling sites and standards are yet to be advised by DBCA

A P P E N D I X TWENTY SEVEN

IDENTIFICATION OF ASPECTS, IMPACTS AND THEIR SIGNIFICANCE

ASPECT	HAZARD	RISK	SIGNIFICANCE
Hardstand	Boat Maintenance	Hydrocarbon spill	Acceptable
	Boat Maintenance	Noise pollution	Acceptable
	Fuelling	Hydrocarbon spill	Acceptable
	Spray painting	Airborne particulates	Medium
	Waste bins	Cont. of rainwater	Acceptable
	Hazardous Substances	Fire, spills	Acceptable
	Runoff	Pollute marina Water	Medium
Boats	Sewage systems	E. Coli Pollution	Acceptable
	Cooking	Hydrocarbon pollution	Acceptable
	Washing detergents	Pollute Marina water	Acceptable
	Litter	Pollute Marina water	Acceptable
	Motors	Hydrocarbon pollution	Medium
	Bilge	Hydrocarbon spill	Medium
RFBYC	Litter	Pollute Marina Water	Acceptable
	Car Park runoff	Pollute Marina Water	Medium
Shire Peppermint Grove	Stormwater	Pollute Marina Water	High

A P P E N D I X TWENTY EIGHT

DEFERRED COMMITMENT PRO-FORMA

IEMS COMPONENT	STATUS	CODE	DATE
Pollution Control	Ongoing	M	ONGOING
Waste Avoidance/Reduction	Ongoing	I	ONGOING
Bunding	Ongoing	I	ONGOING
Solid Waste	Ongoing	A	ONGOING
Vacuum Sweeping	Ongoing	I	ONGOING
Urban Pollution	Awaiting Council Input	L	ONGOING
Waste Water	Ongoing	A	ONGOING
Waste Water to Sewer (See Note)	Under Investigation	UI	N/A
Water Quality Management	Ongoing	UI	ONGOING
Vessel Sewage Management	Ongoing	A	ONGOING
Litter Control	Ongoing	A	ONGOING
Anode Contamination	Introduced	A	ONGOING
Paint Storage	Introduced	A	ONGOING
Hazardous Substances	Ongoing	A	ONGOING
Recycling	Introduced	A	ONGOING
Buy Recycled	Introduced	A	ONGOING
General Garbage	Existing	-	ONGOING
Certificate of Support	Introduced	A	ONGOING
Oil Pollution	Ongoing	A	ONGOING
Bilge Water	Ongoing	M	ONGOING

Code Legend

"A"	Actioned
"I"	Immediate Strategies
"L"	Long Term Strategies
"M"	Medium Term Strategies
"S"	Short Term Strategies
"UI"	Strategies Under Investigation

A P P E N D I X TWENTY EIGHT Cont…

DEFERRED COMMITMENT PRO-FORMA cont…

IEMS COMPONENT	STATUS	CODE	DATE
Antifoul	Ongoing	M	ONGOING
Noise Emission	Ongoing	A	ONGOING
Air Quality	Ongoing	A	ONGOING
Dust Extraction	Ongoing	A	ONGOING
Abrasive Blasting	Existing	A	ONGOING
Spray Painting	Ongoing	A	ONGOING
Landscaping	Introduced	A	ONGOING
Warning Signs	Completed	A	ONGOING
Transportation	Policy	A	ONGOING
Tributyl Tin	Research & testing Continuing	L	SEE TEXT
In-water Maintenance	SRT policy	A	Ongoing

NOTE: The aim of the Waste Water Program is to reduce the production of waste water and treat the water on site to a quality that can be released to the Swan River.

Even though tributyl tin based antifouling paints have not been used in the Hardstand for over 25 years, a residual tributyl tin problem exists which prohibits the release of waste water to trade waste.

ANZECC Guidelines for Tributyl Tin levels in the waste water are currently under review.

Code Legend

"A"	Actioned
"I"	Immediate Strategies
"L"	Long Term Strategies
"M"	Medium Term Strategies
"S"	Short Term Strategies
"UI"	Strategies Under Investigation

A P P E N D I X TWENTY NINE

ANTIFOUL MATERIAL SAFETY DATA SHEETS

COPPERCOAT EXTRA A-FOUL BLACK
http://datasheets1.international-coatings.com/msds/YBA260A7_aus_eng.pdf

COPPERCOAT EXTRA BLUE
http://datasheets1.international-coatings.com/msds/YBA261A8_aus_eng.pdf

COPPERCOAT EXTRA RED
http://datasheets1.international-coatings.com/msds/YBA262A7_aus_eng.pdf

MICRON EXTRA BLUE
http://datasheets1.international-coatings.com/msds/YBA920A6_AUS_eng.pdf

MICRON EXTRA 2 BLACK
http://datasheets1.international-coatings.com/msds/YBC704E2_AUS_eng.pdf

MICRON EXTRA 2 BLUE
http://datasheets1.international-coatings.com/msds/YBC702E2_AUS_eng.pdf

INTERSPEED ULTRA 2 BLACK
http://datasheets1.international-coatings.com/msds/YBC754_AUS_eng.pdf

AWLCRAFT ANTIFOULING BLACK
http://datasheets1.international-coatings.com/msds/YBE00201_AUS_eng.pdf

AWLCRAFT ANTIFOULING BLUE
http://datasheets1.international-coatings.com/msds/YBE00001_AUS_eng.pdf

AWLCRAFT ANTIFOULING RED
http://datasheets1.international-coatings.com/msds/YBE00101_AUS_eng.pdf

A P P E N D I X TWENTY NINE cont…

SAFETY DATA SHEETS ALPHABETICAL

AVESTA CLEANER 401
http://www.voestalpine.com/welding

ACETONE
https://web.chempliance.com/MSDS/OpenDoc.ashx?DocID=54959

ALL PURPOSE THINNER
https://www.recochem.com/wp-content/uploads/2023/06/All-Purpose-Thinners-Xylene-Formulation-v11.pdf

BILGE CLEANER
https://www.petergs.com.au/wp-content/uploads/2015/05/MSDS-ENGINE-BILGE-CLEANER.pdf

CABOTS NATURAL DECKING OIL
file:///C:/Users/reception/Downloads/836-LINE_CABOTS_NATURAL_DECKING_OIL-NZ_SDS.pdf

CALCIUM LIME AND RUST REMOVER
https://www.recochem.com/wp-content/uploads/2023/06/Calcium-Lime-and-Rust-Remover-v6.pdf

Cetol Deck
https://www.tenaru.com.au/ts1695770137/attachments/Product/1279/SI_AU_EN_CETOL%20DECK_83482.pdf

Contact Adhesives Brush
file:///C:/Users/reception/Downloads/205_Brush_Contact_Adhesive-AUS_SDS.pdf

Contact Adhesive Spray
file:///C:/Users/reception/Downloads/203_Premium_Spray_Contact_Adhesive-AUS_SDS.pdf

CT18 Superwash SDS
http://www.chemtech.net.au/SDS%20Chemtech%20CT18%202013.pdf

DEGREASING FLUID
https://www.recochem.com/wp-content/uploads/2023/06/Water-Based-Degreaser-v1.pdf

DEMINERALISED WATER
file:///C:/Users/reception/Downloads/Demineralised_Water-SDS_-_Aust%20(2).pdf

DIGGERS ENAMEL THINNERS
HTTPS://WWW.RECOCHEM.COM/WP-CONTENT/UPLOADS/2023/06/DIGGERS-ENAMEL-THINNERS-V7.PDF

EPIGLUE PART A
http://datasheets1.international-coatings.com/msds/YAA953A1_AUS_eng.pdf

EPIGLUE PART B
http://datasheets1.international-coatings.com/msds/YAA954A2_AUS_eng.pdf

EVERDURE CLEAR PART A
http://datasheets1.international-coatings.com/msds/YPA314A1_AUS_eng.pdf

EVERDURE CLEAR PART B
http://datasheets1.international-coatings.com/msds/YPA313A1_AUS_eng.pdf

FIBREGLASS CLOTH
https://www.cs-nri.com/wp-content/uploads/CSNRI_SDS_US_FG-200_02Mar20.pdf

FIBREGLASS MATTING
https://s1e.co.uk/_uploads/s1e.poweredbygravit-e.co.uk/6128f21762e6f-MSDS-Fibre-Glass-Matting-Rev3.pdf

FIBREGLASS RESIN
http://www.recochem.com.au/files/downloads/Fibreglass_Resin_v4.pdf

FIBREGLASS RESIN CATALYST
https://www.tradeware.com.au/media/website_posts/35/Protite-Fibreglass-Resin-Catalyst-Hardener.pdf

Gelcoat and Flowcoat
https://www.amcsupplies.com.au/manuals/tooling%20gelcoat%20SDS.pdf

GUNWASH
https://www.recochem.com/wp-content/uploads/2023/06/Gunwash-9-Xylene-formulation-v7.pdf

HYDROCHLORIC ACID
https://shop.chemsupply.com.au/documents/HT0201CH34.pdf

HYPERLON GLUE HARDNER
https://p.widencdn.net/nyjsgu

INTERZONE 954 BASE ULTRA DEEP PART A
http://datasheets1.international-coatings.com/msds/EAA904_AUS_eng.pdf

INTERZONE 954 PART B
http://datasheets1.international-coatings.com/msds/EAA984_AUS_eng.pdf

JETCRETE
https://aus.sika.com/content/dam/dms/au01/9/Davco%20Jetcrete.pdf

Light weight body filler
http://www.evercoat.com/images/ePIM/original/100113_Rage_Gold_USENG.pdf

KLEEN-A-DECK TEAK CLEANER
https://www.petergs.com.au/wp-content/uploads/2015/05/MSDS-KAD-TEAK-CLEANER.pdf

Kleen-A-Hull
https://www.petergs.com.au/wp-content/uploads/2015/05/MSDS-KLEEN-A-HULL.pdf

MERCURY HIGH PERFORMANCE GEAR LUBE
http://www.mercurymarine.staging.yartdigital.com/media/489644/mercury_high_performance_gear_oil.pdf

MERCURY OPTIMAX 2-CYCLE ENGINE OIL
http://www.mercurymarine.staging.yartdigital.com/media/489659/mercury_optimax_2-cycle_engine_oil.pdf

MERCURY POWER TRIM AND STEERING FLUID
http://www.mercurymarine.staging.yartdigital.com/media/489662/mercury_power_trim_and_steering_fluid_-11-2013.pdf

METHYL ETHYL KETONE
http://www.recochem.com.au/files/downloads/Methyl_Ethyl_Ketone_v5.pdf

METHYLATED SPIRITS
http://www.recochem.com.au/files/downloads/Methylated_Spirits_v7.pdf

MINERAL TURPENTINE
http://www.recochem.com.au/files/downloads/Mineral_Turpentine_v8.pdf

MOBILUBE 1 SHC 75W-90
https://www.partinfo.co.uk/files/123716%20MOBILUBE%201%20SHC%2075W90.pdf

Orange Oil
https://aquatictechnologies.com.au/wp-content/uploads/2020/12/20201130_OrangeOil_SDS_V3.2.pdf

Patching Filler
https://www.cleaningshop.com.au/contents/media/msds/diggers-patching-filler-msds.pdf

Paint Dulux

ACRYLIC ONE COAT CEILING
https://www.lupinsys.com/search/duluxgroup/

DULUX PROFESSIONAL SEMI GLOSS ENAMEL
file:///C:/Users/reception/Downloads/305-LINE_DULUX_PROFESSIONAL_SEMI_GLOSS_ENAMEL-AUS_GHS.pdf

DULUX METALSHIELD EPOXY SATIN WHITE
file:///C:/Users/reception/Downloads/30H-S101A_DULUX_METALSHIELD_EPOXY_SATIN_WHITE-AUS_GHS.pdf

DULUX PRECISION STAIN SMOKE AND ODOUR BLOCKER
file:///C:/Users/reception/Downloads/30SX383A_DULUX_PRECISION_STAIN_SMOKE_AND_ODOUR_BLOCKER-AUS_GHS.pdf

INTERIOR LOW SHEEN ACRYLIC
file:///C:/Users/reception/Downloads/179-LINE_ACCENT_INTERIOR_LOW_SHEEN_ACRYLIC_-_SAMPLE_POTS-AUS_GHS.pdf

EXTERIOR LOW SHEEN ACRYLIC
file:///C:/Users/reception/Downloads/179-LINE_ACCENT_EXTERIOR_LOW_SHEEN_ACRYLIC-AUS_GHS.pdf

METALSHIELD EPOXY ENAMEL GLOSS
file:///C:/Users/reception/Downloads/31A-LINE_METALSHIELD_EPOXY_ENAMEL_GLOSS-AUS_GHS.pdf

METALSHIELD ALL SURFACE PRIMER GREY
file:///C:/Users/reception/Downloads/366-H0070_METALSHIELD_ALL_SURFACE_PRIMER_GREY-AUS_GHS.pdf

DULUX PROFESSIONAL COLD GALVANISED METAL PRIMER
file:///C:/Users/reception/Downloads/367-84190_DULUX_PROFESSIONAL_COLD_GALVANISED_METAL_PRIMER-AUS_GHS.pdf

METALSHIELD RFU ETCH PRIMER
file:///C:/Users/reception/Downloads/466-H0069_METALSHIELD_RFU_ETCH_PRIMER-AUS_GHS.pdf

WEATHERSHIELD X10 LOW SHEEN
file:///C:/Users/reception/Downloads/54L-LINE_DULUX_WEATHERSHIELD_EXTERIOR_LOW_SHEEN-AUS_GHS.pdf

ULUX WEATHERSHIELD X10 GLOSS
file:///C:/Users/reception/Downloads/54G-LINE_DULUX_WEATHERSHIELD_EXTERIOR_GLOSS-AUS_GHS.pdf

WEAR KITCHEN AND BATHROOM LOW SHEEN
file:///C:/Users/reception/Downloads/52A-LINE_DULUX_WASH_WEAR_PLUS_INTERIOR_KITCHEN___BATH_LOW_SHEEN-AUS_GHS.pdf

WASH & WEAR KITCHEN AND BATHROOM SEMI GLOSS
file:///C:/Users/reception/Downloads/52B-LINE_DULUX_WASH_WEAR_PLUS_INTERIOR_KITCHEN___BATH_SEMI_GLOSS-AUS_GHS.pdf

RECO-COOL COOLGUARD OAT CONCENTRATE ANTIFREEZE/COOLANT
http://www.recochem.com.au/files/downloads/Reco-Cool_Coolguard_OAT_Concentrate_Antifreeze-Coolant_v4.pdf

RUST AND STAIN CLEANER (OXALIC ACID)
http://www.recochem.com.au/files/downloads/Rust_and_Stain_Cleaner_Oxalic_Acid_v4.pdf

RUBIA FLEET HD 200 SAE 10W
https://totaloilnz.co.nz/wp-content/uploads/2019/09/TOT-RUBIA-FLEET-HD-200-SAE10W-2018_SDS.pdf

Stainless Steel Cleaner and Polish
file:///C:/Users/reception/Downloads/3M_Stainless_Steel_Cleaner_and_Polish-AUS_SDS.pdf

SURFACE CLEANER
https://www.recochem.com/wp-content/uploads/2023/06/Multi-Purpose-Surface-Cleaner-Lemon-v6.pdf

TIMBER CLEANER (OXALIC ACID SOLUTION)
https://www.recochem.com/wp-content/uploads/2023/06/Timber-Cleaner-Oxalic-Acid-Solution-v5.pdf

XYLENE

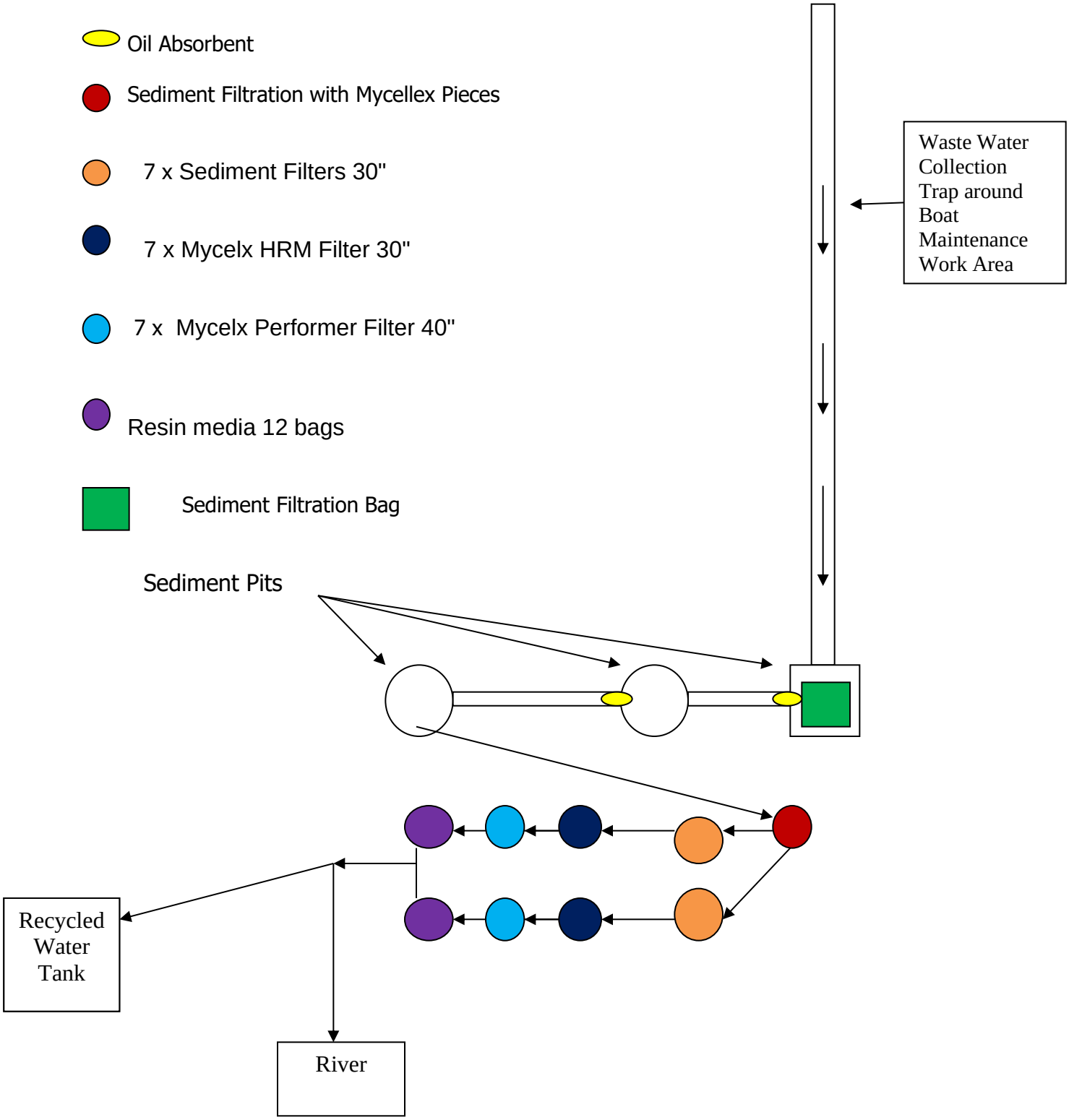
https://www.recochem.com/wp-content/uploads/2023/07/Xylene-v8.pdf

A P P E N D I X THIRTY

MATERIAL SAFETY DATA SHEETS

A P P E N D I X THIRTY ONE

MYCELLEX FILTRATION SYSTEM SCHEMATIC

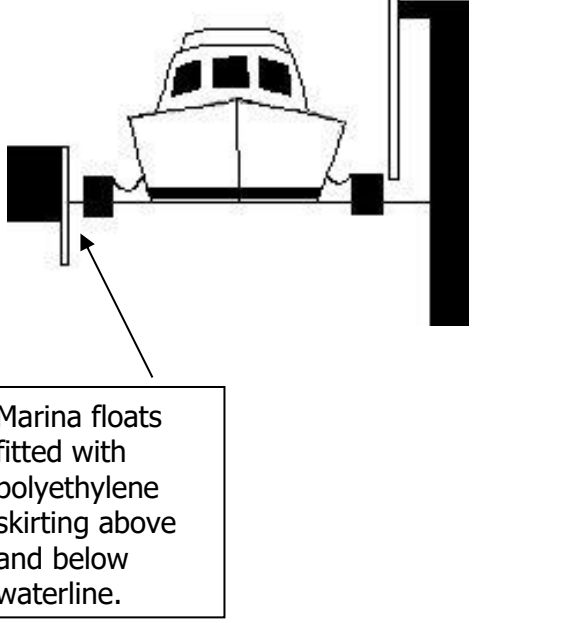


A P P E N D I X THIRTY TWO

IN WATER MAINTENANCE

MEDIUM RISK

Application only to vessels for which it is not practical to remove from the water.



MEDIUM RISK

- Ultra high stick double sided tape.
- Recyclable membrane of polyester reinforced polyethylene.

NB: In all three categories (Low, Medium and High) a floating boom is to be permanently installed around the service wharf dock with a 240 volt surface water thruster being used to filter the enclosed water through a floating filter bag.

SCHEMATIC of containment, treatment and disposal of contaminants from in water maintenance of boats.

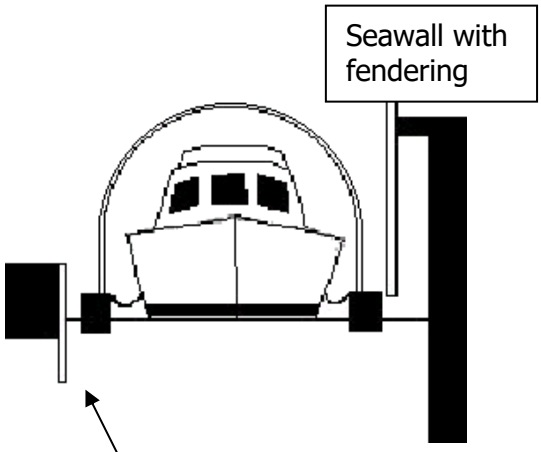
- All work classified as **LOW RISK, MEDIUM RISK** or **HIGH RISK.**
- Approved contractors only. Water not to be used within service wharf contained area unless waste water is contained, recovered and discharged via the hardstand filtration system to comply with the Environmental Protection (Water) Policy 1997 and the AWQ Guidelines (Australian Water Quality Guidelines for Fresh and Marine Waters – Published by ANZEC in 1992).
- Proposal exceeds or is in line with World Best Practices for In Water Maintenance currently employed in the United States and Europe.

A P P E N D I X THIRTY THREE

IN WATER MAINTENANCE

HIGH RISK

Application only to vessels for which it is not practical to remove from the water.



Marina floats fitted with polyethylene skirting above and below waterline

HIGH RISK
Containment Tent

- Temporary/Recyclable
- PVC Framing
- Low density flame retardant polyethylene
- Recyclable
- Cladding one use recyclable
- Ventilated

NB: In all three categories (Low, Medium and High) a floating boom is to be permanently installed around the service wharf dock with a 240 volt surface water thruster being used to filter the enclosed water through a floating filter bag.

SCHEMATIC of containment, treatment and disposal of contaminants from in water maintenance of boats.

- All work classified as **LOW RISK, MEDIUM RISK** or **HIGH RISK.**
- Approved contractors only. Water not to be used within service wharf contained area unless waste water is contained, recovered and discharged via the hardstand filtration system to comply with the Environmental Protection (Water) Policy 1997 and the AWQ Guidelines (Australian Water Quality Guidelines for Fresh and Marine Waters – Published by ANZEC in 2000).
- Proposal exceeds or is in line with World Best Practices for In Water Maintenance currently employed in the United States and Europe.

A P P E N D I X THIRTY FOUR

GLOSSARY OF TERMS

Abbreviation	**Expansion**
AMSA	Australian Maritime Safety Authority
DOT	Department of Transport
EMP	Environmental Management Plan
EPA	Environmental Protection Act 1994
ERA	Environmentally Relevant Activity
ESD	Ecologically Sustainable Development
MSDS	Material Safety Data Sheets
THE ACT	ENVIRONMENTAL PROTECTION ACT 1994
RFBYC	Royal Freshwater Bay Yacht Club Inc
IEMS	Integrated Environmental Management System
"I"	Immediate Strategies
"**L**"	Long Term Strategies
"**M**"	Medium Term Strategies
"**S**"	Short Term Strategies
"UI"	Strategies Under Investigation