

Environmental Management System
of
Claremont Yacht Club

Endorsed: 25 February 2011







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Environmental Policy

On the 25th February 2011 the Claremont Yacht Club endorsed the environmental management system. The Club will endeavour to implement the strategies outlined for the management of environmental risk within stated timeframes. Furthermore we make a commitment to make the environment a key consideration in the decision making process of our organisation and in:

-  **Compliance with all relevant legislation.**
-  **Commitment to continual improvement in the prevention of pollution**
-  **The development of, and adherence to, good environmental procedures by our Members, Staff and Contractors.**
-  **Regular measurement of the Club's environmental performance.**

Dominic Papaluca
Commodore

Clive Annear
Vice Commodore

RISK ASSESSMENT AND OPERATIONAL CONTROL

Risk Assessment Matrix

Likelihood		Consequence				
		1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
5	Almost Certain	5	10	15	20	25
4	Likely	4	8	12	16	20
3	Moderate	3	6	9	12	15
2	Unlikely	2	4	6	8	10
1	Rare	1	2	3	4	5

- Extreme risk; immediate action required
- High risk; senior management attention needed
- Moderate risk; management responsibility must be specified
- Low risk; manage by routine procedures

As at 25 February 2011 the Claremont Yacht Club commits to implement the Operational Controls for each Risk within the stated time frames.

Time Frames

- I Already Implemented
- 6 To be implemented within 6 months of endorsement date
- 12 To be implemented within 12 months of endorsement date
- 24 To be implemented within 24 months of endorsement date
- D Deferred
- N/A Not Applicable

Activity/Event	Fuel Storage
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Risk	Hydrocarbon contamination from storage tanks and associated pipe works				
Objective	Prevent loss of hydrocarbons to the environment from storage tanks and associated pipe works				
Legal Requirements	See attached list of legislation to be met				
Operational Control	All bunding and containment to be impervious. Double skinned pipes and double wrapped tanks	I	Likelihood 5: Almost Certain 4: Likely 3: Moderate 2: Unlikely 1: Rare	Consequence 5: Catastrophic 4: Major 3: Moderate 2: Minor 1: Insignificant	Risk Rating 4
	Minimise likelihood of tank and associated pipe works failure by ensuring tanks located as close as possible to point of delivery of fuel	I			
	Provision of appropriate emergency response equipment (Booms, mats etc). 2 spill kits – 1 on jetty and 1 near office.	I			
	Develop preferred procedures for the filling of bulk fuel tanks. Use licensed fuel delivery company with their own filling procedure. Fuel tanks are dipped before delivery. Industry practice requires delivery driver to dip tanks and confirm capacity available for deliveries. Fuel supply levels reconciled with fuel delivery.	I			
	Develop and implement an inspection and maintenance program for fuel tanks and associated pipe works	I	2	2	
	Provide training to relevant staff on preferred procedures and emergency response plan.	I			
	Develop an emergency response plan	I			
	All incidents to be reported to manager (or delegate) of the club	I			
	All fuel spill incidents to be reported to the relevant agencies (refer to Emergency & Accident Response section)	I			
System in place to detect leakage from fuel storage tanks. Sampling bores maintained annually	I				

Activity/Event	Vessel Refuelling				
Risk	Hydrocarbon contamination from spillage during refuelling				
Objective	Prevent spillage of hydrocarbons (fuels) during refuelling				
Legal Requirements	See attached list of legislation to be met				
Operational Control	Bowsers fitted with variable rate delivery nozzles	I	Likelihood 5: Almost Certain 4: Likely 3: Moderate 2: Unlikely 1: Rare	Consequence 5: Catastrophic 4: Major 3: Moderate 2: Minor 1: Insignificant	4
	Bowsers fitted with auto-shut off delivery nozzles	I			
	Members are encouraged to have fuel/air separators inline devices in their vessels that prevent fuel from escaping vents. Advised by 'Midstream' newsletter	I			
	Provision of appropriate spill response equipment (booms, mats etc) in close proximity to refuelling facility.	I	2	2	
	Develop a member preferred procedure on refuelling.	I			
	Provide training to members/clients/contractors on preferred procedures	I			
Instructions for refuelling at bowser, including response in event of a spill. Members only – instructions to new members include refuelling.	I				

Activity/Event	Discharge from Vessels				
Risk	Pollution of the river from bilge water				
Objective	Prevent discharge of hydrocarbons or other contaminants into river via bilge water				
Legal Requirements	See attached list of legislation to be met				
Operational Control	<p>Suitable bilge pillow waste disposal facilities provided. Members responsibility</p> <p>Members are encouraged to have oil separation/absorption pillow in bilges of vessels with automatic bilge pumps. Readily available at office, bar and chandler</p> <p>Provide training to members/staff/ clients/contractors on impact, use and options for bilges pillows.</p> <p>Bilge water contaminated with other substances (eg detergents, degreaser) to be removed and appropriately disposed. Member's responsibility, advised by 'Midstream' newsletter.</p> <p>Non compliance of members/staff/clients/contractors results in consequences.</p> <p>Non compliance of members/staff/clients/contractors to be reported to managing body of marine facility.</p>	I	Likelihood	Consequence	Risk Rating
		I	5:Almost Certain 4: Likely 3:Moderate 2: Unlikely 1: Rare	5:Catastrophic 4:Major 3: Moderate 2: Minor 1: Insignificant	4
I	2	2			
		I			
		I			

Activity/Event	Hardstand Runoff - NOT APPLICABLE – no slipway facility, no cleaning of boats permitted on site, no dust generating activities permitted				
Risk	Pollution of the environment from contaminated runoff				
Objective	Containment and treatment of all hardstand runoff to remove contaminants				
Legal Requirements	See attached list of legislation to be met				
Operational Control	Adequate bunding and stormwater diversion to prevent cross contamination of runoff from dirty work areas and clean work areas	NA	Likelihood 5:Almost Certain 4: Likely 3:Moderate 2: Unlikely 1: Rare	Consequence 5:Catastrophic 4:Major 3: Moderate 2: Minor 1: Insignificant	
	Provision of interceptors or litter and oil traps to prevent pollution to the river from dirty work areas.	NA			
	Interceptor traps/filtration systems regularly maintained/cleaned.	NA			
	Clean water separation to minimise contamination and need for treatment of stormwater runoff .	NA			
	Oil absorbent mats to be made available	NA			
	Oil separator waste routinely disposed into oily waste/oil recycling program.	NA			

Activity/Event	Vessel Maintenance on Hardstand (including engine maintenance, hull cleaning/stripping, antifouling, general painting & maintenance) NOT APPLICABLE				
Risk	Pollution of the environment from boat maintenance and hull cleaning operations on hardstand/slips				
Objective	Prevent contamination of the environment from vessel maintenance works undertaken on hardstand/slips				
Legal Requirements	See attached list of legislation to be met				
Operational Control	<u>Boat Maintenance and Cleaning</u>		Likelihood	Consequence	Risk Rating
	Provide a clearly marked designated work area with adequate kerb bunding.	NA	5:Almost Certain 4: Likely 3:Moderate 2: Unlikely 1: Rare	5:Catastrophic 4:Major 3: Moderate 2: Minor 1: Insignificant	
	Containment of blasting/spraying/sanding waste by erecting a mobile barrier to catch dust and spray For e.g. a double layer of shade cloth on wheels (only airless spraying permitted). No blasting or spray painting permitted.	NA			
	Provide designated covered waste bins for solid wastes generate during boat maintenance and hull cleaning.	NA			
	Provide solvent and hydrocarbon recovery containers.	NA			
	Develop preferred procedures for maintenance works (eg limit blasting according to wind conditions, preferred maintenance methods and chemicals).	NA			
	Provide training to members/staff/clients/contractors on procedures for maintenance works	NA			
	Contingency Plan; Use external appropriately equipped facilities.	NA			
Non compliance of members/staff/clients/contractors to be reported to managing body.	NA				
Non compliance of members/staff/clients/contractors results in consequences.	NA				

Operational Control	<u>Applying Antifouling to Vessels</u>		Likelihood	Consequence	Risk Rating
			5:Almost Certain 4: Likely 3:Moderate 2: Unlikely 1: Rare	5:Catastrophic 4:Major 3: Moderate 2: Minor 1: Insignificant	
	All antifouling technology used by members/clients/contractors to comply with Department of Environmental Protection and Transport WA regulations.	NA			
	All antifoulants used by members/staff/clients/contractors to be unadulterated.	NA			
	Preferred antifouling technology readily available (at recommended retailer or chandler)	NA			
	Provide information on the environmental consequences of antifouling technology	NA			
	Non compliance of members/staff/clients/contractors results in consequences.	NA			
	Non compliance of members/clients/contractors to be reported to managing body.	NA			
	<u>Vessel Maintenance</u>				
	Power tools with dust extractors used on site	NA			
	Anyone wishing to carry out abrasive blasting or spray painting on the premises must inform the grounds/yard manager.	NA			
	No visible dust to escape into areas of public access.	NA			
	Wet blasting procedures are the preferred option with adequate collection & proper disposal of the run off (no abrasive blasting allowed on site).	NA			
	Dust creating activities to be only carried out in calm conditions (less than 4m per sec, approx 12 knots, with direction away from areas need protection)	NA			
	All contractors used on site to be registered companies.	NA			
	All blasting materials to be acceptable under Department of Environmental Protection regulations	NA			
	Encourage the use of less invasive blasting materials (eg. garnet, bicarbonate of soda)	NA			

Activity/Event	Cleaning/maintenance of Vessels in Water				
Risk	Contamination of environment due to cleaning of vessels in pen areas				
Objective	Prevent contamination of environment by cleaning agents or other substances used on vessels in pens				
Legal Requirements	See attached list of legislation to be met				
Operational Control	Use of chemicals in skirting that are harmful to the environment is not permitted. Club rules	I	Likelihood 5:Almost Certain 4: Likely 3:Moderate 2: Unlikely 1: Rare	Consequence 5:Catastrophic 4:Major 3: Moderate 2: Minor 1: Insignificant	Risk Rating 6
	No abrasive cleaning or scraping of hulls that result in hull coating (antifoul or other) being released into the river. Advised by 'Midstream' newsletter	I			
	No discharge of cleaning products or effluent to river.	I			
	Encourage the use of appropriate materials for cleaning.	I			
	Provide training to members/staff/clients/contractors on preferred procedures for cleaning.	I			
	Non compliance of members/staff/clients/contractors results in consequences	I			
	Contingency Plan; Use suitable facilities at another club	I			
Non compliance of members/clients/contractors to be reported to managing body of marine facility.	I				
		3	2		

Where possible, boats will be rinsed with water only.

Activity/Event	Noise Management				
Risk	Noise pollution causing a nuisance and/or endangering the health of neighbours and members/clients/contractors				
Objective	Reduce all noise pollution such that no health risk is posed and no nuisance caused to neighbours				
Legal Requirements	See attached list of legislation to be met				
Operational Control	<p>Noise producing boat building and maintenance to occur only between the hours of 0700 and 1900 (between 0900 and 1900 on Sundays and public holidays) Advised by 'Midstream' newsletter</p> <p>If noise complaints received, club to work with Local Government Environmental Health officer and complainant to negotiate acceptable levels and times for the activity to continue.</p> <p>Non compliance of members/staff/clients/contractors to be reported to managing body of marine facility</p>	I	Likelihood	Consequence	Risk Rating
			5:Almost Certain 4: Likely 3:Moderate 2: Unlikely 1: Rare	5:Catastrophic 4:Major 3: Moderate 2: Minor 1: Insignificant	
			2	2	4

Activity/Event	Property Management				
Risk	Contamination of river from fertiliser, herbicides, pesticides, green wastes, general litter.				
Objective	Prevent pollution of the river arising from general grounds and property management.				
Legal Requirements	See attached list of legislation to be met				
Operational Control	Install litter traps in stormwater drains Provide a buffer strip of native vegetation around river with reduced chemical use. Use preferred and appropriate pesticides and herbicides.	NA I I	Likelihood	Consequence	Risk Rating 4
			5: Almost Certain 4: Likely 3: Moderate 2: Unlikely 1: Rare	5: Catastrophic 4: Major 3: Moderate 2: Minor 1: Insignificant	
			2	2	

No run off from lawn to river

Activity/Event	Storage of hazardous and dangerous goods NOT APPLICABLE				
Risk	Contamination of environment from stored hazardous and dangerous goods				
Objective	Prevent contamination of the environment or unacceptable exposure to people resulting from the storage and use of hazardous and dangerous chemicals				
Legal Requirements	See attached list of legislation to be met				
Operational Control	All areas where hazardous and dangerous chemicals are stored and used to comply with current Department of Minerals and Energy and Department of Environmental Protection regulations and standards and guidelines where applicable.	NA	Likelihood 5: Almost Certain 4: Likely 3: Moderate 2: Unlikely 1: Rare	Consequence 5: Catastrophic 4: Major 3: Moderate 2: Minor 1: Insignificant	Risk Rating
	Provision of chemical spill stations with absorbent clean-up material	NA			
	Undertake inventory of all hazardous and dangerous chemicals on the premises, including those held by ground-people, contactors and sub-lessees. Ensure all Materials Safety Data Sheets (MSDS) for chemicals are available on site.	NA			
	Conduct inspection to quantify the level of danger (hazard) presented by the flammable, combustible or environmental hazardous material.	NA			
	Develop storage facilities and management practices incorporating the principles of separation from other facilities, people and property, segregation from other incompatible dangerous goods, secondary containment to intercept uncontrolled spills, security to prevent unauthorised entry and use of the materials, ventilation to prevent exposure to vapours and emergency response planning such that adequate fire fighting equipment, first aid treatment commensurate with the type of hazardous materials and appropriate emergency response contact numbers (Poisons Information, Medical, Fire and Emergency Services) are available.	NA			
	Dangerous goods signage should be placed on gates for the fire department	NA			
	Audit compliance with standards and guidelines annually	NA			
	Develop an emergency response plan	NA			
Club to provide appropriate first aid, first line fire fighting and emergency spill equipment	NA				
All spill incidents to be reported to the relevant agencies. Appropriate phone numbers must be displayed.	NA				

Activity/Event	Moorings – installation and ongoing use				
Risk	Damage to sea grass and other river bed habitat				
Objective	Ensure low impact design moorings are installed when current moorings are due for replacement				
Legal Requirements	See attached list of legislation to be met				
Operational Control	Consider installation of low impact design moorings as current moorings become due for replacement.	I	Likelihood	Consequence	Risk Rating
			5: Almost Certain 4: Likely 3: Moderate 2: Unlikely 1: Rare	5: Catastrophic 4: Major 3: Moderate 2: Minor 1: Insignificant	
			2	2	

Activity/Event	Minor maintenance of marina Infrastructure				
Risk	Pollution arising from maintenance works on piles, jetties, pontoons etc, such as painting/anti-fouling, denzo wrapping or other surface treatments.				
Objective	Prevent contamination of the environment from maintenance works on marina infrastructure				
Legal Requirements	See attached list of legislation to be met				
Operational Control	Contain and appropriately dispose of any dust or liquid waste/spillage arising from maintenance works on marina infrastructure Advised by 'Midstream' newsletter	I	Likelihood	Consequence	Risk Rating
			5:Almost Certain 4: Likely 3:Moderate 2: Unlikely 1: Rare	5:Catastrophic 4:Major 3: Moderate 2: Minor 1: Insignificant	
			2	2	4

Legislation Requirements

1. Swan River Trust 2. Environmental Protection Authority 3. Department of Mines and Petroleum
 4. Department of Transport 5. Department of Environment and Conservation 6. Relevant Local Government Authorities

LEGAL REQUIREMENTS PROCEDURE		
Date of Review:		Date of Next Review:
Officer Name:		Officer Signature:
Current Legal Requirements	Changes in Legal Requirements	EMS Updated Y/N
Swan River Trust		
Environmental Protection Authority		
Department of Mines and Petroleum		
Department of Transport		
Department of Environment and Conservation		
Relevant Local Government Authorities		

Objectives & Targets/ Monitoring & Measuring Programme

Objective	Target	Responsibility	Time frame for review	Monitoring/ Measuring
Prevent loss of hydrocarbons to the environment from storage tanks and associated pipe works	Nil leakage or spillage from bulk tanks and associated pipe work	General Manager	Every 3 months	Incident Report Forms
Prevent spillage of hydrocarbons (fuels) during refuelling	Nil spillage of fuels to water during refuelling	Members	Every 3 months	Incident Report Forms
Prevent discharge of hydrocarbons or other contaminants into river via bilge water	No contaminants to be released into river via bilge water	Members	Every 3 months	Incident Report Forms
Containment and treatment of all hardstand runoff to remove contaminants	Contaminant levels in any discharge to river are reduced to within ANZEC guidelines (95% species protection)	N/A	Annual	N/A
Prevent contamination of the environment from vessel maintenance works undertaken on hardstand/slips	No visible dust emission beyond hardstand No harmful antifouling agents detectable in any discharge to river (TBT etc)	N/A	Annual	N/A
Prevent contamination of environment by cleaning agents or other substances used on vessels in pens	No contamination of environment with cleaning agents from vessels in pens.	Members	Annual	Incident Report Forms
Reduce all noise pollution such that no health risk is posed and no nuisance caused to neighbours	Any noise generated is with compliant with Environmental Protection (Noise) Regulations 2007. No noise complaints received from neighbours	Members	Annual	Incident Report Forms
Prevent pollution of the river arising from general grounds and property management.	No use of herbicides and pesticides near shoreline	General Manager	Annual	Incident Report Forms
Prevent contamination of the environment from maintenance works on marina infrastructure	No contamination of environment from maintenance works	General Manager & Management Committee	Annual	Incident Report Forms
Ensure low impact design moorings are installed when current moorings are due for replacement	Any moorings requiring replacement are replaced with low impact designs	General Manager & Management Committee	Annual	N/A
Prevent contamination of the environment or unacceptable exposure to people resulting from the storage and use of hazardous and dangerous chemicals	Storage and use of hazardous substances complies with all relevant regulations at all times. Nil incidences of spillage or accidents related to hazardous substances. Nil environmental contamination from hazardous substances.	N/A	Annual	Incident Report Forms

Emergency & Accident Response

- Any incident or accident that has the potential to cause pollution or otherwise impact on the river environment must be reported immediately to the Swan River Trust, by phone call to the numbers below.
 During office hours – Duty Officer – 9278 0981
 After Hours – Duty Officer – 0419 192 845

Depending on the nature of the incident, reporting to other authorities may also be required.

- In relation to hydrocarbon (fuel and oil) spills, it is a requirement to report any confirmed spills, AND any noticeable hydrocarbon slicks observed within or immediately adjacent to the club facilities, regardless of whether a spill source has been identified. As a rough guide, a ‘noticeable’ slick can be considered as any visible sheen/slick of fuel (petrol or diesel) covering an area of more than 100 m² (10x10m or equivalent), or any slick of oil covering an area of more than 16m² (4x4m or the equivalent).
- A written incident report should be completed and a copy provided to the Swan River Trust when an incident is considered significant, or when requested by the Trust.

Register of Emergency Response tests

No.	Description of test	Planned date	Actual test date	Responsibility	Comments

Incident Report Form

Location _____

Time: _____ Date: _____

Detailed Description (how, size, type, impacts etc)

Response (what has been done and what needs to be done)

Incident reported by: _____ Signature: _____

To be completed by General Manager

Is further remediation or investigation required? YES NO

Oil and Hazardous Materials Incident Report Form

Date and Time of Discharge	<input type="text"/> / <input type="text"/> / <input type="text"/> <input type="text"/> AM/PM
Location of Discharge	<input type="text"/>
Cause of Discharge	<input type="text"/>
Steps taken to stop discharge	<input type="text"/>
Materials used to clean up, absorb or contain spill	<input type="text"/>
Type and volume of substance discharged	<input type="text"/>
Risk Rating	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Significant <input type="checkbox"/> Extreme <input type="checkbox"/>
Description	Released to Water <input type="checkbox"/> Released to Soil <input type="checkbox"/> Damage to flora/fauna <input type="checkbox"/> Disturbance to neighbours <input type="checkbox"/> Other <input type="checkbox"/> Please specify; <input type="text"/>
Person/Vessel/Activity responsible	<input type="text"/>
Contact details of person responsible or witnesses	<input type="text"/>
Was discharged reported?	YES <input type="checkbox"/> NO <input type="checkbox"/>
Reporting Officer Name and Signature	<input type="text"/>

Responsibilities & Training Schedule

Staff Member	Job Description	Responsibility within EMS	Training Required
<i>Club Manager</i>			
<i>Bosun</i>			

Communicating with Staff & Contractors	
EMS	Induction Organisational Meeting Document readily available for reading
Policy	Readily available for reading Posted on notice board for all to read
Responsibilities in EMS	Internal Training – whole group / one on one
Consequences of Non Conformance	Internal Training – Whole group/ one on one
External Communication?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, list methodology	

Document Register

Document Reference	Brief description	Storage Location	Retention Time	Protection (if applicable)	Disposal Method (if applicable)
EMS Manual	Description of the scope of the EMS and the documented procedures that underlie the system				
EMS	A plan that enables the Club to control the effect of its activities on the natural environment.				
Risk Management Manual	A plan that responding to and managing risks associated with the Club's activities				
Emergency Response Plan	Procedures for responding to a comprehensive range of emergency situations that may affect the organisation				

Evaluation of Compliance

Activity/Event	Risk	Occurrences of Non-conformance	Compliance with Legal Requirements (Y/N)	Recommended changes to controls (if any)
Vessel maintenance on hardstand	Pollution of the environment from boat maintenance & hull cleaning operations on hardstand/slips			
Fuel Storage	Hydrocarbon contamination from storage tanks and associated pipe works			
Storage of hazardous & dangerous goods	Contamination of environment from stored hazardous and dangerous goods			
Refuelling	Hydrocarbon contamination from spillage during refuelling			
Discharge from vessels	Pollution of the river from bilge water			
Hardstand Runoff Not Applicable	Pollution of the environment from contaminated run off			
Cleaning of vessels in water	Contamination of environment due to cleaning of vessels in pen areas			
Noise Management Not Applicable	Noise pollution causing a nuisance and/or endangering the health of neighbours and members/clients/contractors			
Property Management	Contamination of river from fertiliser, herbicides, pesticides, green wastes and erosion			
Marina infrastructure maintenance works	Pollution arising from maintenance works on piles, jetties, pontoons etc, such as painting/anti-fouling, denso wrapping or other surface treatments.			
Ensure low impact design moorings are installed when current moorings are due for replacement	Damage to sea grass and other river bed habitat			

Non Conformance register

Date	Details of preventive/correction action request	Raised by	Response to request	Close Date	Initials

Corrective and Preventative Action Request Form

Section to be filled out by employee	
Employee name:	Date:
Concern (use additional sheet/map if necessary)	
Action taken (if any)	
Signature:	Date:
Section to be filled out by Manager	
Is this a non conformance? Why or Why not?	
Possible Solutions	
Correction and/or Preventative Action/s required	
Person responsible: Due Date:	Completed by: Date Completed:
EMS to be revised? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, how?	
Corrective or preventative action has been evaluated and determined to be effective. Method used to verify effectiveness; - Evidence submitted (attach) - Follow up audit - Other, describe	
Corrective/Preventative Action accepted	
Manager signature:	Date:

Internal Audit Schedule

Requirements	1 st quarter	2 nd quarter	3 rd quarter	4 th quarter
Policy				
Environmental Aspects & Legal requirements				
Objectives and Targets				
Resources, Roles, Responsibilities & Training and Awareness				
Communication				
Documentation				
Document and Record Control				
Operational Control				
Emergency Response				
Monitoring and Measuring				
Evaluation of Compliance				
Non conformity				
Internal Audit				
Management Review				