

BURRANEER BAY MARINA

ENVIRONMENTAL PROTECTION PLAN

1 - CONTENTS

Section	Contents	Page
1	Contents.....	1
2	Introduction.....	2
3	General.....	2
4	Marina Environmental Policy.....	2
5	The Location.....	2
6	The Planning and Operational Context of the EPP.....	3
7	The Structure of this EPP.....	3
8	Protection of the Environment.....	3
9	Commitment to Environmental Protection.....	3
10	Objectives of the Environmental Protection Plan.....	4
11	Environmental Compliance.....	6
12	Operational Environmental Issues.....	6
13	Environmental Protection Plan, Sub-Plans.....	6
14	Fuel Management.....	6
15	Waste Oil Management.....	7
16	Waste Water Management.....	8
17	Management of Landscaped Areas.....	8
18	Solid Waste.....	9
19	Liquid Waste.....	10
20	Hazardous Waste.....	10
21	Hull and Topside Maintenance: Painting.....	11
22	Slipway Management.....	12
22	Engine Repair and Maintenance.....	12
23	Safety Flare Management.....	13
24	Battery Management.....	13
25	Fish Waste.....	14
26	Marina Water Quality.....	14
27	Wastewater.....	15
28	Greywater.....	15

This document was compiled specifically for Burraneer Bay Marina and all information relates specifically to the Marina operations at the time of publication. Any variation to the operational requirements or applications of those requirements can vary with day to day requirements including such items as (but not limited to) inclement weather, storms and available resources at specific times.

31st August 2016

Environmental Protection Plan -

A document that addresses statutory requirements in regard to best practice

2 – Introduction

The purpose of these guidelines are to provide clear and comprehensive information to marina staff on the scope, role and content of the environmental Protection plan (EPP), and in assessing environmental impacts of business operations in Sutherland Shire and specifically Burraneer Bay.

Environmental Protection Plan address's the key directions, identified by Marina Management and the Sutherland Shire in 'Shaping the Shire to 2030 of -

- A. - Nurture our clean and beautiful environment
- B. - Preserve Burraneer Bay's water quality.
- C. - Increase Staff and Customer Awareness on issues that affect water way operations.
- D. - Maintain our prosperous business economics
- E. - Build safe, healthy and active lifestyles.

3 – General

Environmental Protection Plan (EPP)

This Environment Protection Plan (EPP) has been prepared to assist in the environmentally sustainable operation of Burraneer Bay Marina. This EPP identifies the environmental control measures needed to minimise the ecological impact of daily operations of Burraneer Bay Marina on the surrounding environment. These control measures will assist in maximising the long-term sustainability of the Marina.

4 - Marina Environmental Policy.

The purpose and objective of this EPP, is for identifying environmental issues with associated actions, relevant legislation, references, staff and contractor training and contingency procedures and are covered within this EPP. The EPP will act as a reference tool for the Operator's Staff, Contractors and Customers to work around the marina on land or water operations.

5 - The Location

This EPP has been prepared for Burraneer Bay Marina, water and Land based operations, Located at 48 Fernleigh Road, Caringbah NSW 2229.

6 - The planning and Operational Context of the EPP

This EPP prescribes the environmental control measures to be implemented or maintained within the Marina Precinct.

It is likely that the environmental control measures prescribed in this document could be incorporated into a broader operational management system under the direction of the Owner.

This EPP specifically addresses Burraneer Bay Marina it provides the management framework for the environmental performance of the business. It is prepared to communicate the intention, commitment and approaches to minimising potential environmental impacts associated with the operation of the Marina complex.

The EPP sets out a schedule of control measures to manage the impact of operating activities on the environment, outlines the regulatory requirements and identifies requirements for monitoring, auditing and reporting activities and defines accountability

This EPP also aims to avoid or minimise the extent of any adverse effects on the amenity of the local environment and the wellbeing of the community.

7 - The structure of this EPP

A - Details of the Environmental Management and Monitoring Measures provided at the Marina

B - Requirements for ongoing Operational Management and Control to ensure the Marina operates as planned.

8 - Protection of the Environment

The EPP recognises that operational activities has the potential to detrimentally impact upon the amenity and biodiversity of the Marina waterways and surrounding environments if not managed effectively. This EPP aims to minimise the impact that operational activities will have on the amenity and biodiversity of Burraneer Bay and the adjoining environments surrounding the premises.

9 - Commitment to Environmental Protection

The Owners are committed to managing Burraneer Bay Marina in an environmentally responsible manner and is committed to the continued protection of environmental values of the site.

The Owner intends to operate Burraneer Bay Marina in a way that minimises environmental impacts and embraces the principles of ecologically sustainable development. This commitment is demonstrated throughout this EPP.

All marina staff will be required to demonstrate commitment to environmental protection through implementation of the requirements of the EPP.

10 - Objectives of the Environmental Protection Plan

Key Environmental Objectives

<u>ISSUE</u>	<u>OBJECTIVE</u>	<u>TARGET</u>	<u>RESPONSIBILITY</u>
Fuel Management			
Boat fueling.	Minimise spills.		
Fuel and oil waste management.	Minimise air and water pollution.	No impact on Bay water quality.	Owner, Staff, clients and Contractors
Bilge water management.	Minimise safety risks. Promote correct disposal methods.		
Boat Maintenance			
Cleaning boats in and out of the water	Meet water quality objectives Minimise impact and promote correct cleaning methods	No impact on Bay water quality.	Owner, Staff, Clients and Contractors
Solid Waste			
Solid waste management.	Reduce the generation of Solid waste Ensure the correct disposal of solid waste	No impact on bay water quality Increased participation in recycling programs	Owner, Staff, Clients and Contractors
Liquid Waste			
Liquid waste management.	Reduce the generation of Liquid waste Ensure correct disposal	No impact on water quality.	Owner, Staff, Clients and Contractors
Hazardous Waste			
Hazardous waste management	Reduce the generation of hazardous waste Ensure the correct disposal of hazardous waste		
Hull end topside maintenance - Painting	Encourage best practice procedures in relation to hull and topside maintenance.	No Impact on bay water quality	Owner, Staff, Clients and contractors
Engine repair and maintenance	Encourage best practice procedures in relation to engine maintenance and correct disposal of waste.		
Flares and battery management	Promote correct Oil, Filters Batteries and Flare disposal Methods		

Water Quality			
Management.	Prevent pollutants entering Marina Manage run-off into water Monitor water quality within The Marina	No Impact on bay water quality No impact on aquatic eco systems	Owner, Staff, Clients and Contractors
Waste Water			
Sewage pump outs. Grey water.	Prevent sewage entering Marina Waterways through the provision of Pump-out Facilities To provide adequate onshore Facilities (i.e. showers & toilets)	No Impact on bay water quality	Owner and Staff
Ground Water			
Ground water management	Minimise impacts on ground Water quality and flow paths	Minimal impact on ground water quality	Owner and Staff
Marina Maintenance			
On-site maintenance (Lighting, recycling facilities, Ext. furniture, pedestrian paths, road and car park storm water pits and noise	Maintenance of the Marina's public facilities and infrastructure to a high standard Reduced environmental impacts through the adoption of best practice maintenance measures	No impact on bay water quality Minimise complaints from residents, public, EPA or council and comply with targets derived from EPA Guidelines	Owner and Staff
Cleaner Production			
Water demand and usage	Reduction in water usage through	No impact on water quality	Owner & Staff

This EPP for the Marina recognises the activities that have the potential to impact upon the environment of, or adjacent to, the business premises. The EPP requires activities to be planned and conducted in a manner that protects and preserves the environment and the waterways.

The EPP will serve as a tool for environmental protection and management, this will be achieved by specifying monitoring and reporting requirements ensuring that the necessary controls are met. The EPP also makes provision, as appropriate, for unforeseen events by outlining corrective actions, which may be implemented during these situations.

11- Environmental Compliance

The EPP will be conducted taking account of all relevant Commonwealth, State and Local Government environment legislative requirements with a commitment to comply with all obligations under the relevant legislation and regulations that is applicable to the business premises.

12 - Operational Environmental Issues

An assessment of the level of environmental risk potentially associated with activities which may occur within the business premises has been undertaken and has identified the key environmental issues to be addressed in the EPP. For each key environmental issue, an environmental protection sub-plan has been prepared.

Key environmental issues addressed in this EPP are -

Fuel Management;
Habitats and Species;
Solid Waste;
Liquid Waste;
Hazardous Waste;
Water Quality;
Wastewater;
Groundwater;

13 - Environmental Protection Plan, Sub-Plans

The environmental Protection sub-plans as included in this EPP detail the environmental protection measures to be performed during the operation of the Marina.

The sub-plans are titled according to the particular management issue, which could be encountered during the operation of the Marina these management issues have the potential to have an impact on the Marina and surrounding environment.

14 - Fuel Management

Issue

Fuel and oil can be accidentally released into the environment during refueling through spills.

Objectives

To minimise oil and fuel spills to the environment.

To minimise the generation of incomplete combusted hydrocarbon pollutants to the environment during fueling operations

Management Action

- Provide Premixed Two Stroke Fuel directly from a Bowser.
- Automatic shut-off nozzles have been installed on all pumps to prevent spills occurring during re-fuelling.
- On-water re-fueling will only be allowed where fuel is stored in a fixed tank onboard the vessel.
- An oil and fuel spill response plan has been developed and is available in the procedures manual.
- Oil and fuel spill containment and clean-up kits are readily accessible in the fuelling area and staff are trained in its use.

Monitoring

Action / Frequency / Responsibility

All fueling areas and Equipment are inspected on a daily basis by staff to ensure they are in good working order and that no leakages have occurred.

Educational material is available as required to Marina Staff and users regarding the benefits of good Boat and Engine Maintenance practices

Action	Frequency	Responsibility
Oil spill containment and cleanup kits. Inspected to ensure that kits are complete and accessible.	Weekly	Owner and Staff

15 - Waste Oil Management

Issue

Waste oil can present environmental and public safety issues if stored and/or disposed incorrectly.

Objective

To minimise negative environmental impacts and safety risks associated with the disposal of waste oil.

Management Action

- Provide controls for the collection of unwanted oil products.
- In case of spillage clearly labeled containers are located in the bunded area.
- Oil spills will be cleaned utilising absorbent material, which will be then disposed of in the appropriate manner.
- An oil and fuel spill response plan has been developed and is available

Monitoring

Action	Frequency	Responsibility
Disposal and storage areas will be Inspected to ensure that waste is being handled correctly.	Daily	Owner and Staff
Oil and Fuel spill containment and Cleanup kits are inspected to ensure that kits are complete and accessible	Weekly	Owner and Staff

16 - Waste Water Management

Issue

The discharge of wastewater presents a significant source of pollution.

Objective

To minimise the occurrence of contaminated wastewater and its discharge to the environment.

Management Actions

Boat users are advised not to discharge contaminated bilge water directly to the environment.

Monitoring / Action / Responsibility

Educational instruction is available from marina staff as required for marina users regarding the management of bilge water disposal from vessel

17 - Management of Landscaped Areas

Issues

Landscaped areas contribute significantly to the Marina's amenity and play an important role in the operation of the Marina's aesthetic appearance and controls ground water run off

Ongoing maintenance to be carried out to ensure the establishment and continued development of these areas.

Objectives

- To encourage biodiversity within the Marina area where possible.
- To incorporate environmental values into landscaping programs.

Management Actions

- All landscaped areas will be maintained. Plants in poor health will be tended to or be replaced with similar species.
- Weeds will be controlled.

Monitoring / Action / Responsibility

Landscaped areas will be inspected weekly by owner. Plants in poor health will be removed and replaced, weed eradication and Lawn controls are also undertaken at the same time.

18 - Solid Waste

Issues

Solid waste can create a nuisance and become an eyesore if not managed correctly. The visual appearance of the Marina and waterways can be significantly reduced by the presence of solid waste. Additionally, solid waste can create hazards and pose a threat to human health.

Management to incorporate into the Marina operations a waste avoidance program which is the most desirable option followed by re-use, then recycling and disposal as the final option.

Objective

To reduce amount of solid waste generated within the Marina and to ensure that the waste produced is disposed of correctly.

Management Actions

- Marina staff and users are encouraged to develop new waste avoidance and re-use strategies.
- Interceptor Grates have been installed to capture litter that may drain into the storm water system.
- Interceptor Grates are cleaned at appropriate intervals as a function of the weekly Landscape inspections
- All waste will be disposed of in proper waste receptacles with wind / wildlife proof covers.
- Litter will be collected on a daily basis from both land and waterways.

Monitoring

Action	Frequency	Responsibility
Litterbins to be inspected to ensure they are in good working condition and that sufficient receptacles are provided.	Daily	Owner and Staff
Recycling Contractors are monitored to maintain their standards of practice	Weekly	Owner, Staff and Contractor
General site inspections are made to ensure that litter is not entering waterways.	Daily	Owner and Staff
Waste deposited in general litter bins Are being monitored to ensure that the receptacles are being utilised correctly.	Daily	Owner and Staff
Additional education programs will be implemented, if waste minimisation strategies are not being adopted.	As required	Owner

19 - Liquid Waste

Issues

The release of liquid waste to the environment can significantly reduce water quality, threaten aquatic life and habitats and threaten human health and safety. Liquid wastes can include used oil, unwanted fuels and chemicals, bilge water, contaminated spill control material, used batteries, washing solvents and other hazardous wastes.

Objective

To minimise pollution through the release of liquid wastes to the environment.

Management Actions

- Information will be provided to boat berth/mooring holders and Marina users regarding methods to reduce the occurrence of liquid wastes and their correct disposal methods.
- Signage advising Marina patrons of correct liquid waste management will be displayed in prominent locations.
- Spill control materials are provided for emergency situations.
- A spill contingency plan is provided
- Liquid waste storage areas will be bunded and covered to prevent rainwater from filling the bund.
- Storage containers are to be clearly marked to avoid mixing incompatible hazardous waste.
- Storm water entry pits will be marked to inform public that the drain enters the waterway.
- Additional education programs implemented, if waste minimization strategies are not being adopted.

Monitoring

Action	Frequency	Responsibility
Marina users will be monitored to Ensure liquid waste is being disposed Of correctly	Daily	Owner and Staff
Disposal and storage areas will be Inspected to ensure that waste is being handled correctly	Daily	Owner and Staff
Spill containment and cleanup kits will be inspected to ensure that kits are complete and accessible	Weekly	Owner and Staff
Additional education programs will be implemented, if waste minimisation strategies are not being adopted.	As required	Owner and Staff

20 - Hazardous Waste

Hazardous Waste Management

Issues

Incorrect disposal of hazardous waste can threaten human health and safety and can have adverse impacts on the environment.

Objective

To minimise the generation of, and manage hazardous wastes generated within the Marina so as to control negative environmental impacts and threats to human health and safety.

Management Action

- Information to be provided to Marina users regarding methods to reduce the occurrence of hazardous wastes and the correct methods of disposal.
- Signage will be displayed on solid waste receptacles to avoid incorrect disposal of hazardous wastes.
- The use of alternative parts cleaning products will be encouraged.
- Spill control material is provided
- Wastes will be segregated to ensure that domestic waste is not contaminated by hazardous waste.
- A licensed contractor will remove hazardous waste.
- Storage containers are to be clearly labeled to avoid mixing incompatible hazardous wastes.
- Storm water entry pits will be marked in a way that informs the public that the drain eventually discharges into a natural waterway. This may act as a deterrent to illegal discharges.
- Additional education programs will be implemented, if waste minimisation strategies are not being adopted.

Monitoring

Action	Frequency	Responsibility
Marina users will be monitored to Ensure hazardous waste is being disposed of correctly	Daily	Owner and Staff
Disposal and storage areas will be Inspected to ensure that waste is being Handled correctly	Daily	Owner and Staff
Spill containment and clean-up kits will be inspected to ensure that kits are Complete and accessible	Weekly	Owner and Staff
Additional education programs will be implemented, if waste minimisation strategies are not being adopted.	As required	Owner and Staff

21 - Hull and Topside Maintenance: Painting

Issues

Hull painting and topside coating activities may result in the release of liquid solvents and harmful vapours to the environment. Hazardous wastes are often generated from painting activities (especially if solvents and I or heavy metals are contained within the paint materials).

Objective

To minimise the generation of hazardous waste and to manage the disposal of all hazardous waste.

Management Actions

- Vacuum sanders and grinders must be used to minimize dust generation.
- Paints containing low levels of solvents will be encouraged.
- Used solvents from cleaning or painting equipment will be placed in sealed containers and disposed of correctly
- Material Safety Data Sheets will be made available in an easily accessible and visible location.
- Acoustic barriers are to be installed if grinding and sanding of boats is conducted outside.

Monitoring

Action	Frequency	Responsibility
Work areas will be inspected to ensure they are in good working order.	Weekly	Owner and Staff
Random inspections of boat berthing and marine maintenance areas will be undertaken to ensure the preferred maintenance methods are being implemented.	On-going	Owner and Staff
Marina will stock preferred Paints	Monthly	Owner and Staff

22 – Slipway Management

- Heavy/large shells from vessel hull to be collected and disposed of in trade waste bin
- Filters to be cleaned as required and residue to be disposal of in trade waste bin
- All residue water from vessel cleaning to be put through filtration system
- Do not drink filtered water from the filtration system.

23 - Engine Repair and Maintenance

Issues

Engines that are properly maintained are less likely to emit high levels of carbon monoxide, hydrocarbons, nitrous oxides and particulate matter to the air and aquatic environment. Waste generated during service and maintenance operations can present public health and environmental risks if this waste is not handled correctly.

Objective

To encourage boat owners/operators to maintain their vessels in good repair and to ensure that waste generated during servicing and maintenance is correctly disposed.

Management Action

- Boat owners and operators will be advised of designated boat repair and maintenance areas,
- Designated boat repair and maintenance areas will be provided debris will be captured and disposed of correctly by the boat owner/operator or contractor.
- Engine Maintenance areas will be properly maintained.
- Contractors providing boat maintenance services will be required to sign an agreement as to how boat materials are to be handled within the Marina.
- Supplies of absorbent materials are to be supplied by Contractors and Owner/Operators for the work that accomplish, however the Marina will maintain a backup supply on an emergency basis.
- Contractors and boat owners are to clean up their own spill and take full responsibility for their own actions.
- Disposal area will be made available for contaminated absorbent material and waste arising through boat maintenance activities.

Monitoring

Action	Frequency	Responsibility
Boat maintenance areas will be inspected to ensure they are in good working order.	Daily	Owner and Staff
Waste storage areas will be inspected to ensure that waste is being handled correctly.	Daily	Owner and Staff

24 – Safety Flare Management

Issue

If disposed of incorrectly, out of date, damaged or water logged flares can create public safety risks.

Objective

To encourage the safe disposal of unwanted flares.

Management Actions

Boat and Marina users will be informed by Signs prohibiting the disposal of flares, or any hazardous materials in litterbins.

Monitoring

Action	Frequency	Responsibility
Litterbins will be inspected for Incorrectly disposed hazardous waste	Daily	Owner and Staff

25 - Battery Management

Issues

Most Batteries contain an electrolytic sulphuric acid solution and lead. If incorrectly disposed, batteries can have a detrimental impact on both humans and the environment.

Objective

To encourage the safe disposal of unwanted batteries

Management Actions

- Boat Owners and Marina users are to be advised that unwanted Batteries are not to be left unattended at the Marina. Drop off Locations for facilities if required will be advised.
- Workshop Batteries New and In-use will be stored undercover at all Times in wet weather.
- Unwanted workshop Batteries will be collected by an approved contractor for recycling

Monitoring

Action	Frequency	Responsibility
Unwanted Batteries for disposal	Daily	Owners, Staff and Contractors

26 - Fish Waste

Issue

Disposal of fish waste in high quantities within the Marina can deplete the dissolved oxygen in the water and consequently impact on water quality, Also high quantities of fish waste will lead to odour problems.

Objective

To minimise the impact of fish waste on the Marina environment.

Management Action

- The Marina Precinct has been designated as a fish Sanctuary.
- Boat operators are advised that no cleaning of fish is to be undertaken at the marina Facilities.
- Boat operators are advised that unwanted Bait and Fish Parts are not to be disposed of at the Marina and are encouraged to dispose of unwanted bait offshore.

Monitoring

Action	Frequency	Responsibility
Inspect the waste areas	Daily	Owner and Staff

27 - Marina Water Quality

Issues

Maintenance of the water quality within the marina and surrounding areas will be critical to the Marina's long-term sustainability

Boating and maintenance occurring within the Marina has the potential to impact on water quality through:

- Increased concentration of sediments, nutrients, metals or other pollutants entering the bay.
- Contamination of run off waters resulting from spillage.
- Contamination of run off waters resulting from the use and storage of chemicals and oils, greases and fuel.
- Contamination of storm water runoff with salts, nutrients or suspended solids such as litter and anthropogenic floatable materials such as foams or scum.

Objectives

- To ensure that the Marina activities do not result in an increase in the loads or concentrations of pollutants entering the bay.
- To monitor water quality.
- To protect aquatic eco-systems and biology.
- To ensure best practices

Management Actions

- Ongoing water clarity monitoring as a common daily practice.
- Marina maintenance activities will be undertaken in order to ensure proper housekeeping to reduce the incidence of waste entering the waterway.
- The sewer pump out facilities will be in operation and maintained.
- All ground water points will be regularly monitored.
- Maintenance materials and equipment will be kept covered and away from waterways.
- Storm water pits will be regularly inspected and obstacles will be removed as soon as practicable.
- Water collected from roof areas will be diverted to suitable permeable areas or storage tanks for re-use on landscaped areas.

Monitoring

Action	Frequency	Responsibility
Inspect Marina Waterways	Daily	Owner & Staff
Inspect storm water pits	Weekly	Owner & Staff

28 - Wastewater

Issues

The discharge of domestic sewage into Marina waterways has the potential to significantly degrade water quality.

Objective

To provide adequate sewage pump out facilities.

Management Actions

- Pump out connection points are installed at the marina and will be maintained.
- Pump out equipment will be operated by trained marina staff.
- Marina users will be advised of these facilities.

Monitoring

Action	Frequency	Responsibility
Pump out connections will be inspected to ensure they are in good working condition.	Daily	Owner and Staff

29 - Greywater

Issues

The discharge of wastewater from boat sinks and showers to the waterways has the potential to significantly degrade water quality.

Objective

To provide adequate onshore facilities for boat owners to utilise.

Management

- Onshore showers facilities will be provided and maintained in good working order and in a clean state.
- Boat owners will be encouraged to utilise phosphate free biodegradable soaps on vessels.
- Boat owners will be encouraged to install water saving devices on vessels.

Monitoring

Action	Frequency	Responsibility
Onshore Facilities condition inspection	Daily	Owner & Staff

ENVIROMENTAL PROTECTION PLAN