

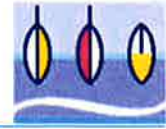


Environmental Assessment

Dolans Bay Marina

Appendix 9

Environmental Management Plan Existing and Proposed



APPENDIX 9 - Environmental Management Plan – Existing and Proposed

(a) Description of the marina operations;

The marina operations include;

- Berthing boats
- Moorings boats
- Car parking
- Dinghy Storage
- Amenities for boat owners and visitors
- Slipping, repairing and antifouling boats
- Engine Maintenance
- Fuelling boats.
- Acting as an educational resource to our boat owners on environmental issues and other facets of boating.
- Holding seminars and First Aid classes in conjunction with the Australian Volunteer Coastguards.

(b) Relevant statutory requirements that apply to these operations;

Fire Department - (Building Code of Australia) Cl. E.1

Fire Fighting equipment;

- Fire Hose Reels
- Fire Extinguishers
- Fire Blankets

EPA, Local Council- (Protection of the Environment Operations Act 1997, NSW EPA Industrial Noise policy 2000, Protection of the Environment Operations Act 1997, Dangerous Goods Act 1975, NSW EPA Industrial Noise policy 2000.)

- Liquid Waste
- Sewerage and Bilge water
- Slipway run-off
- Fuel storage and dispensing
- Solid waste disposal
- Excessive noise
- Garbage storage and removal

WorkCover NSW - (Occupational Health & Safety Act 1983, Workers Compensation Act 1987, Work Place Injury Management Act 1998, Dangerous Goods Act 1975)

- Fuel Licensing
- Employee working conditions
- Safety

Waterways -

- Numbering and Identification of moorings numbered 1-22 inclusive.
- Moorings are checked/serviced annually by Aquanaut Marine Services P/L

Trade Practices - (The Trade Practices Act 1974)

- Business Operations



(c) Standards and/or performance measures for each of the relevant environmental issues;

Fire

- Fire fighting equipment should be able to reach all areas of the marina to be able to contain within limits the outbreak of a fire.
- Staff must know where the equipment is located and be trained to use the equipment and take preventative measures to limit damage.

Liquid Waste

The marina currently generates the following amounts of liquid wastes;

- Waste Engine Oil - Approximately 12 litres per month
- Solvents - Solvents are used by us only for cleaning brushes when necessary. Quantities used are 1 litre per month.
- Paints - There is no waste paint as paint is either used up on vessel as an overcoat or small amounts such as two litres may be kept for a week until the next boat is antifouled.

Liquid wastes should be;

- Stored in suitable plastic receptacles that are able to be sealed with lids
- Disposed/recycled by means of collection by a licensed waste transporter.

Solid Waste

Solid wastes should be;

- Stored in suitable plastic receptacles that are able to be sealed with lids
- Disposed of by means of a licensed waste transporter.

Boat Sewerage and Bilge Water

- Where possible the marina is to mitigate contamination of the waters of Dolans Bay and Port Hacking by marina boat owners

Slipway Run off

- The collection system should filter out contaminated run off from the exposed slipway.

Fuel Storage and Dispensing

- Should prevent contamination of the surrounding soil or water.

Excessive Noise

- As defined in the Protection of the Environment Operations Act.

(d) Measures and procedures implemented to mitigate the potential impacts of the marina's operations, and to ensure that these operations meet the relevant standards and/or performance measures:

Fire Measures and Procedures

- Fire equipment on the marina consists of fire hose reels and appropriate fire extinguishers.
- Signage on the fuel pontoon includes "no smoking".
- Stainless steel collection trays have been placed under the fuel bowsers and are checked weekly for any leaks.
- There are a number of cocks on the line so that various sections of fuel pipes can be isolated.
- The main solenoid valves for the fuel lines can be instantly closed.
- In the case of spillage a "Spillage Kit" is available to be used quickly to contain a fuel spill.
- Fire equipment is examined by ourselves monthly
- Fire Fighting equipment is checked annually.



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- Employees are trained at quarterly intervals in emergency fire procedures.
- Fuel pipelines and pumps are checked for leaks weekly.

Liquid Waste Measures and Procedures

- Waste engine oil is disposed of at the marina by a registered waste contractor (Shire Waterfront Waste)
- Boat engine maintenance is carried out at the slipway.
- Used engine oil is temporarily stored in 40lt drums with screw-on lids and kept undercover
- An ongoing average of 40lt of new oil is kept on site, at any one time.
- Due to minimal amounts of oil kept on site, bunding in relation to AS 1993 is not required
- Staff are advised on appropriate handling and care in the removal /transport of waste containers to avoid spillage
- Receipts of payment from our waste disposal contractor as proof of proper disposal are kept on site.
- Also see slipway measures.

Solid Waste Measures and Procedures

- Boats on the slipway are cleaned by high pressure hosing and scraping to remove marine growths. No chemical additives/cleaners are used in the cleaning procedure.
- This waste is swept and shovelled into 40lt drums and lids are screwed on. These drums are temporarily stored under cover
- This waste is disposed of by Sutherland Shire Council.
- Timber, boat parts and oily rags are collected by an appropriate Garbage contractor

General Garbage collection

- Clearly marked garbage containers with colour coded lids are provided for recyclable (paper/beverage containers) and non-recyclable waste.
- General waste at the marina is collected/disposed of by Sutherland Shire Council weekly.

Boat Sewerage and Bilge Water Measures and Procedures

- Boats are required to use sewage pump out stations located at four Port Hacking facilities located at Cronulla Marina, Royal Motor Yacht Club, Burraneer Bay marina, and Yowie Bay Marina.
- We provide free of charge to all our clients - "nappies" for the containment of oil contaminants which may be in the bilge of their boat.
- Should boats at the marina inadvertently deposit contaminants into the water, staff are trained to initiate action to contain and clean up the spillage with the use of the Spillage Kit and oil nappies.

Prior to occupying a berth all Licensees sign a BIA Agreement which states:-

The Licensee agrees that: -

- Clause (j) "the Licensor shall note that under the Pollution of the Environment Act (POEO Act) 1997, and in addition all subsequent and relevant legislation, all forms of pollution are prohibited. Any person or Licensor contravening this legislation leaves themselves open to action by Council or the EPA."
- Clause (l) "it shall comply with the requirements of all statutes, regulations and by-laws relating to the use and occupation of the Property. Without limiting the generality of the foregoing, the Licensee shall comply with and shall cause all of its employees, agents, contractors and invitees to comply with the provisions of any legislation and regulations made there under relating to pollution affecting any part of the environment and however caused including but not being limited to the Pollution of the Environment Act (POEO) Act 1997 and Environmental Protection Act, State Pollution Control Commission Act 1970 and under the Maritime Services Act 1935."
- Any member of our marina who does not abide by the above rules is given Notice to leave the marina



Slipway Run-off Measures and Procedures

- The repair and maintenance of boats is carried out above the high tide mark.
- The slipway is kept clean of wastes and antifouling tailings.
- Our outside slipway is sealed with a concrete apron to prevent waste seeping into the surrounding ground.
- Sand filter booms are placed at the lowest point of the slipway and pillows are laid along the slipway rails to contain and filter out contaminants from the slipway run off in accordance with EPA instructions
- The sand filter booms and pillows on the slipways are inspected monthly to ensure the systems integrity.
- The slipway is cleaned after each use and waste debris is stored in screw lid containers
- This waste is collected by Sutherland Shire Council.
- No sandblasting is permitted.

Fuel Storage, Service Measures and Procedures

- Stainless Steel collection trays have been placed under the fuel bowsers and are checked weekly for any leaks.
- There are a number of cocks on the line so that various sections of the fuel pipes can be isolated in the event of a leak.
- The main solenoid valves for the fuel lines can be instantly closed.
- In the case of spillage a "Spillage Kit" is available to be used quickly to contain a fuel spill.
- An automatic cut off action is installed on the bowsers to stop spillage.
- The Bowsers are locked when not in use.
- Dangerous Goods Licence : 35/000786
- Marina employees are trained to fill boats in such a manner that fuel is dispensed with the utmost care to avoid spillage.
- Fuel pipelines and pumps are checked for leaks weekly.
- In the event of spillage or a fuel line rupture marina staff are trained to
 - (a) isolate the fuel pumps at the bowser
 - (b) close adjacent valves
 - (c) Initiate action to clean up the fuel spillage with the use of the Spillage Kit.
 - (d) Inform Sutherland Shire Council as required under POEO.
- Fuel tank inlets are locked and covers are colour coded in accordance with Work cover requirements. Fuel sump pts are located around each inlet to contain approximately 80 litres of fuel and have been installed and inspected in accordance with Work cover requirements.
- Fuel is unloaded by a registered and trained fuel supplier who carries a fuel spill-kit in accordance with Work cover requirements.
- Unloading is supervised by a senior member of marina management.

Excessive Noise Measures and Procedures

Planning guidelines classify a marina of this type as being an "active recreation" facility.

- The recommended L_a (eq) noise level in dB(a) is 55 dB(a). The recommended maximum acceptable noise level is 60 dB(a)
- Notices are displayed "consider our neighbours and leave quietly" around the marina.
- Excessive running of engines/generators whilst at the marina is not permitted.
- Staff are trained to request boat owners lower their noise (mechanical and social) if excessive.
- Time clocks cut power to the Inclinator to limit its use within the guidelines as detailed in Chapter 178 of the Environmental Protection Authority NSW's 'Environmental Noise Control Manual' (ENCM).
- The Inclinator is serviced bi-annually to ensure quiet and smooth operation within the EPA guidelines of 60 dba. when measured in the immediate vicinity of the external structure of any adjoining premises.



- (e) **Description of measures and procedures implemented to;**
- Register, report and respond to complaints during operations
 - Ensure the operational health and safety of workers;
- All complaints whether verbal or written are registered in a book for that purpose. Names of the person/organization, date and nature of complaint is recorded. The complaint is then passed on to senior management for action.
 - We comply with WorkCover regulations and adhere to their recommendations.
 - Emergency numbers are kept in the Register Book. Educational and safety instructions are given to all employees.
 - Workers are encouraged to seek management advice on any matter that they may be concerned about.
- (f) **The role, responsibility, authority, and accountability of all key personnel involved in the proposed marina's operations;**

Senior Management

- Ensure the safety of all personnel associated with the marina on a day to day basis.
- Compile and maintain Environmental Management Procedure manuals.
- Train employees in the correct procedures to carry out their tasks in accordance with this EMP.
- Ensure that the marina is run efficiently and in an orderly manner
- Ensure that the marina is carrying out its environmental responsibilities.
- Ensure the cleanliness of the marina
- Keep up with and implement the latest technologies and developments for "Best Marina Management"

- (g) **Detailed Management Plans as follows;**

Wastewater and Stormwater Management Plan

The marina's waste water consists of the water used to clean the underside of boats when they are brought up to be anti-fouled and boat owners cleaning the topsides of their boats. We have in place the following to ensure that contaminants are prevented from entering the sea or land.

- The sand filter boom located at the bottom of the slipway is inspected monthly to ensure the systems integrity.
- The slipway is cleaned after each use and waste debris disposed of in suitable containers.
- Boat owners are requested to use only biodegradable cleaners on the topsides of their boats and if possible rinse these topsides frequently to avoid cleaner usage
- Gutters are cleaned 6 monthly.
- Roof stormwater is directed away from work areas.
- All storm water is fed through pits designed to engineers specification and is released into the stormwater channel as approved by Sutherland Shire Council.



Slipway Management Plan

The following activities are conducted at the slipway;

- Antifouling
- Boat repairs
- Engine Maintenance

Utilizing the following materials;

- Paints
- engine oils
- timber
- solvents

Boats on the slipway are cleaned by high pressure hosing and scraping to remove marine growths.

- No chemical additives/cleaners are used in the cleaning procedure.
- Only biodegradable cleaners are used in the event that high pressure hosing is ineffectual for certain marks.
- Paints are bought on a "just in time" basis, and therefore their storage is negligible.
- An ongoing average of 40 lt of new oil is kept on site, at any one time.
- Due to minimal amounts of oil kept on site, bunding in relation to AS 1993 is not required.
- All materials are stored under cover.
- The sand filter boom is placed as a continuous barrier across the slipway above the high water mark in accordance with EPA instructions.
- The sand filter boom is kept permanently in position.
- Staff are trained to inspect the water below the slipway after each activity has been conducted.
- Antifouling tailings (marine growths) are swept and shovelled into 40lt drums and lids are screwed on. These drums are temporarily stored under cover. This waste is disposed of by Sutherland Shire Council.
- Waste engine oil is disposed of at the marina by a registered waste contractor. (Shire Waterfront Waste)
- Staff are advised on appropriate handling and care in the removal /transport of waste containers to avoid spillage.
- Receipts of payment from our waste disposal contractor as proof of proper disposal are kept on site.
- Negligible amounts of waste timber and motor parts are disposed of by Sutherland Shire Council.
- Larger pieces of timber are disposed of using a registered waste contractor.

Carparking Management Plan

- Boating clients are requested to park in between the lines.
- The Storm Water system at the car park is cleaned on a quarterly basis.
- Signage is displayed - For the use of patrons and employees only.
- Management checks are made that the carpark area is being used as intended.
- Landscape areas are fortnightly maintained.
- Site Specific Study as required under the Road and Traffic Authority Generating Developments (1993);
- Line marking is kept clearly visible.
- Senior Management and staff monitor Car park use, as well refer to the clause below which forms part of our Terms to Lessees,
- "Please refrain from temporarily parking on the western side of Parthenia Street opposite the car park in the "no standing" zone."



Solid Waste Management Plan

- Antifouling tailing waste (marine growths) is stored under cover
- This waste is stored in appropriate containers with screw lids and transferred to Council bins.
- Garbage containers (Whoolie bins with colour coded lids) for recyclable and non recyclable waste are supplied by Sutherland Shire Council.
- Sutherland Shire Council empties all garbage containers once a week.

Berthing Management Plan

- The maximum number of vessels the marina can physically berth is 29.
- Berthing/Fuel Pontoon plan enclosed - Schedule 3 CALM - Licence L199963
- Berths are numbered for ease of identification
- There is a security gate to access the marina
- Rules of marina conduct are insisted on by marina staff.
- Keys of each boat are left with the marina
- BIA Berthing/Mooring Agreements and Regulations are mandatory for each client.

Noise Management Plan

- Notices are clearly visible to consider our neighbours and leave quietly.
- Excessive running of boat engines whilst at the marina is not permitted.
- Staff are trained to request boat owners lower their noise emission if it is excessive.
- Time clocks cut power to the Inclinator to limit its use within the guidelines as detailed in Chapter 17B of the Environmental Protection Authority NSW's 'Environmental Noise Control Manual' (ENCM)
- The Inclinator is serviced bi-annually to ensure quiet and smooth operation within the EPA guidelines of 60 dba when measured in the immediate vicinity of the external structure of any adjoining premises.
- All complaints whether verbal or written will be registered in a book for that purpose. Names of the person/organization, date and nature of complaint will be recorded. The complaint will then be passed on to senior management who will then deal with it.

Fuel Management Plan

- Stainless Steel collection trays have been placed under the fuel bowsers and are checked weekly for any leaks.
- Cocks on the line are spaced to allow sections of the fuel pipes to be isolated in the event of a leak.
- The main solenoid valves for the fuel lines can be instantly closed.
- In the case of spillage a "Spillage Kit" is available to be used quickly to contain a fuel spill.
- An automatic cut off action is installed at the bowser to stop the fuel supply when the tanks are full to stop spillage.
- When not in use the Bowsers are locked.
- Marina employees are trained to fill boats to ensure that fuel is dispensed with the utmost care to avoid spillage
- Fuel pipelines and pumps are checked for leaks weekly.
- In the event of spillage or a fuel line rupture marina staff are trained to:
 1. Isolate the fuel pumps at the bowser
 2. Close adjacent valves
 3. Deploy the fuel containment boom
 4. Initiate action to clean up the fuel spillage with the use of the Spillage Kit.
- Fuel tank inlets are locked and covers are colour coded in accordance with Work cover requirements. Fuel sump pits are located around each inlet to contain approximately 80 litres of fuel and have been installed and inspected in accordance with Work cover requirements
- Fuel is unloaded by a registered and trained fuel supplier who carries a fuel spill-kit in accordance with Work cover requirements.
- Unloading is supervised by a senior member of marina management.



Emergency Management Plan

Water contaminated by fuel or oil

- In the event of major spillage or a fuel line rupture marina staff are trained to
 1. Isolate the fuel pumps at the bowser
 2. Close adjacent valves
 3. Deploy the fuel containment boom
 4. Initiate action to clean up the fuel spillage with the use of the Spillage Kit.
 5. Inform Sutherland Shire Council as required under POEO.
- In the event that these measures are inadequate staff are trained to call the Fire Brigade on 000 or 9319 7000.
- Emergency clean-up materials will be disposed of by a licensed waste contractor to an appropriate licensed landfill area.

Fire

- Fire fighting equipment must be able to reach all areas of the marina to be able to contain within limits the outbreak of a fire.
- Staff must know where the equipment is located and be trained to use the equipment and take preventative measures to limit damage.
- In the event that these measures are inadequate staff are trained to call the Fire Brigade on 000 or 9319 7000.