

GUIDELINE

Number 03

**Marina Environmental Management
Requirements**

June 2014

Clean Marina Program - Dubai

Objective:

- Reduce pollution from marine related sewage, gray-water, storm water runoff, hull and engine maintenance, antifreeze, boat cleaning activities, petroleum spills, bilge and oily waste discharges, fish wastes and marine debris.
- Protect and restore fish and wildlife habitats through better marina design.
- Improve aesthetics and public safety.
- Cleaner and healthier Dubai waters, beaches and habitats.
- Gain economic benefits from reduced waste handling and disposal costs, reduced liability and insurance rates, enhanced public image and visitation rates, potentially greater revenues from marina rental fees, and reduced potential for environmental violation fines.

At a minimum, all marinas have to comply with environmental laws and regulations. However, a clean marina also strives to maintain a healthy, pollution-free environment by providing services that support clean boating, educating customers about clean boating practices, and training staff to be partners in the program. A marina that protects Dubai water resources helps ensure that future generations of Dubai will enjoy recreational boating – with thriving fish populations, swimmable waters, and clean beaches and waterways.

Operating a clean marina is not only good for the environment and for boating, it is also good for business. Whether anyone manage a coastal marina with hundreds of slips, or a small privately operated marina, improvements that make a marina more environmentally friendly can attract more customers. A clean marina can also save money by reducing costs associated with spill response or waste-disposal, and reduce potential liability associated with environmental incidents.

Legislations:

Federal Law No (24) of 1999 for the Protection and Development of the Environment

Overarching federal environmental law which aims to:

- Protect and conserve the quality and balance of the environment through the control of pollution, sustainable development of natural resources and conservation of biological diversity
- Ensure compliance with international and regional agreements related to environmental conservation and ratified by the UAE
- Address various environmental aspects including impact assessment of major development projects, environmental monitoring, and protection of the marine environment, natural reserves, and groundwater resources, handling of hazardous substances, air quality and liability and compensation issues for environmental damages.

Federal Law No. (23) of the year 1999 regarding the Exploitation, Protection and Development of the Living Aquatic Resources In the waters of the state of the United Arab Emirates

- This legislation, covering protection of the marine environment, came into force in April 2000. This law governs the exploitation, protection and development of marine biological resources.

Federal Law No. 7 of 1993 for the Establishment of the Federal Environmental Agency (as amended by Federal Law No. 30 of 2001 and Federal Law No. 20 of 2004)

The objectives for establishing the Agency are to:

- Protect and develop the Environment within the UAE
- Determine the necessary plans and policies to safe guard it from damaging activities, particularly those affecting human health, agricultural crops, wildlife, marine life, other natural resources and atmosphere
- Implement such plans and policies; to take all suitable measures and actions to prevent deterioration of the environment
- Combat environmental pollution of all kinds and to minimize effects of pollution for the welfare of the present and future generations.

Local Order No. 61 of 1991

In 1991 Dubai Municipality issued Local Order 61, dealing with environment protection regulations in the Emirate of Dubai. This Local Order consists of 91 articles, which provide regulations concerning the following:

- Reuse and land disposal of wastewater and sewage sludge;
- Disposal of wastewater into the marine waters;
- Air pollution control from stationary sources;
- Occupational health and safety;
- Swimming pool safety;
- Noise control; and
- General provisions on penalty and fines for non-compliances.

Executive Council Resolution No. (11) of 2013 Issuing the Implementing Bylaw of Law No. (11) of 2010 Concerning the Licensing of Vessels in the Emirate of Dubai

Law No. (11) of 2010 Concerning Licensing of Maritime Vessels in the Emirate of Dubai

Environmental Management Plan (EMP):

Environmental Management Plan or EMP is the action an organization is taking to determine how it affects the environment, comply with regulations, keep track of environment management activities, and meet environmental goals and targets. It also documents key elements of environmental management including the environmental policy, responsibilities, applicable standard operating procedures and Best Management Practices (BMP's), record keeping, reports, communication, training, monitoring, and corrective action.

Best Management Practices Guidebook:

As there are many marinas in Dubai, each marina has its unique design, operation, different types of boaters that it serves, and the pollution problems that it may experience. Hence, there cannot be a single set of requirements fulfilling the operating requirements of all the marinas.

To assist the marinas for regulatory compliance a document with name Best Management Practices (BMP's) Guidebook was prepared, which is intended to be a resource that provides the marina operators with the options to consider implementing in order to solve the pollution problems that may exist at the marina facility. It is up to the marina management to choose the options and financing strategies that are workable and most likely to result in the maximum environmental benefits.

Not all suggestions made in the *Guidebook* are either necessary or economically feasible at all marinas in Dubai. Factors such as the marina size, location and other physical aspects may help to define what is reasonable and appropriate for a specific facility. The fact that a marina does not implement a practice suggested in the *Guidebook* does not mean that the marina is environmentally unsound.

Mandatory requirement for all the marinas:

In General **the mandatory requirements for all the marinas** to fulfill, is to have its own marina specific Environmental Management Plan (EMP) approved by Dubai Municipality based upon the criteria mentioned below;

The EMP should be divided into two main sections:

- a) Marina Management
 - b) Marina Operation and Maintenance
- a) Marina management section should consist of:
- 1) Environmental policies
 - 2) Clean marina plan
 - 3) Public education
 - 4) Staff training
 - 5) Emergency response
- b) Marina operation and maintenance section should cover the following topics:
- 1) Vessel cleaning and maintenance
 - 2) Boat sewerage and bilge water
 - 3) Oil and fuel
 - 4) Hazardous waste
 - 5) Trash and marine debris
 - 6) Solid waste management
 - 7) Liquid material management
 - 8) Gray water
 - 9) Fish waste
 - 10) Boat operation
 - 11) Storm water and polluted runoff

For new marinas, or marinas planning major expansions, further requirements should include:

1. Marina flushing
2. Water quality assessment
3. Habitat assessment
4. Shoreline stabilization
5. Storm water runoff (designing for controls)
6. Fueling station design

The EMP should clearly define the environmental standard operating procedures for management of all the activities listed above.

Environmental Standard Operating Procedures (SOPs) are the specific steps an employee would take to complete a job safely and in compliance with laws and regulations while contributing toward efficient and productive operations. SOPs can be developed based on Best Management Practices (BMPs), which are proven activities, practices or methods. SOPs can be designed to reduce pollution by five basic methods:

- 1) Preventing pollution from occurring (e.g. eliminating the source by changing products)
- 2) Reducing the amount of pollution produced (e.g. using less toxic cleaners or using smaller amounts)
- 3) Capturing pollution before it can enter the environment (e.g. dustless sander)
- 4) Trapping pollution before it can enter the environment (e.g. using ground filter cloth under boats being worked on outside)
- 5) Cleaning/removing pollution from the environment (e.g. oil spill absorption boom)

The BMPs selected for normal use in the marina become its SOPs. An effective SOP includes a complete description of the procedure, including a step-by-step breakdown of what is needed to be done, and to whom the SOP applies. It should also include the date the procedure was first issued and the latest revision date. This tracking is beneficial to help ensure all necessary SOPs are completed. Depending on the types of marina services offered, the number of SOPs will vary among marinas.

Maintaining the EMP—Monitoring and Taking Corrective Action

Monitoring and taking corrective actions are important components of the EMP because they help verify if the marina is on the right track and provide a method to get back on track if operations have strayed. The marina environmental manager oversees the monitoring process and work with the staff and reports to the owner about the changes needed.

Environmental monitoring must be an ongoing part of the daily marina routine and needs to be scheduled at required set intervals. When a critical problem is observed, management must take immediate corrective action.

Corrective Action

Take corrective action if compliance monitoring identifies nonconformance with any applicable laws or with the EMP. In general, do the following for corrective action:

Investigate the root cause of the problem.

Find an applicable solution to correct the existing problem as well as to prevent recurrence of the problem.

Assign responsibility for corrective and preventive action.

Ensure that the problem has been solved.

Record Keeping

The marina must keep good records of the activities covered under the marina EMP. By keeping good track of essential records, management can easily document that the marina is keeping its commitment to meet environmental regulations and desirable environmental practices. Keeping good records is also often one of the biggest challenges faced by marina owners/managers. When documents get lost, an otherwise good system can fall apart.

Sample for record keeping

Sewage pump-out log

The facility is required to keep a Sewage Pump-out Log for the portable pump-out device or the permanent sewage pump-out system. The facility should enter each pump-out performed into the Sewage Log. Each Log entry shall include the following:

Date of pump-out

Approximate volume of pump-out

Identification of the vessel (e.g. name, registration or documentation number)

Slip number (if vessel is moored at the marina)

Signature of person performing the pump-out

Conducting Training

Training employees about environmental management responsibilities is essential, and it is required by most environmental regulations. Trained employees will understand how their responsibilities contribute toward meeting the goals of the EMP.

For further information, please visit Dubai Municipality website www.dm.gov.ae

or contact the Marine Environment & Biodiversity Section on

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