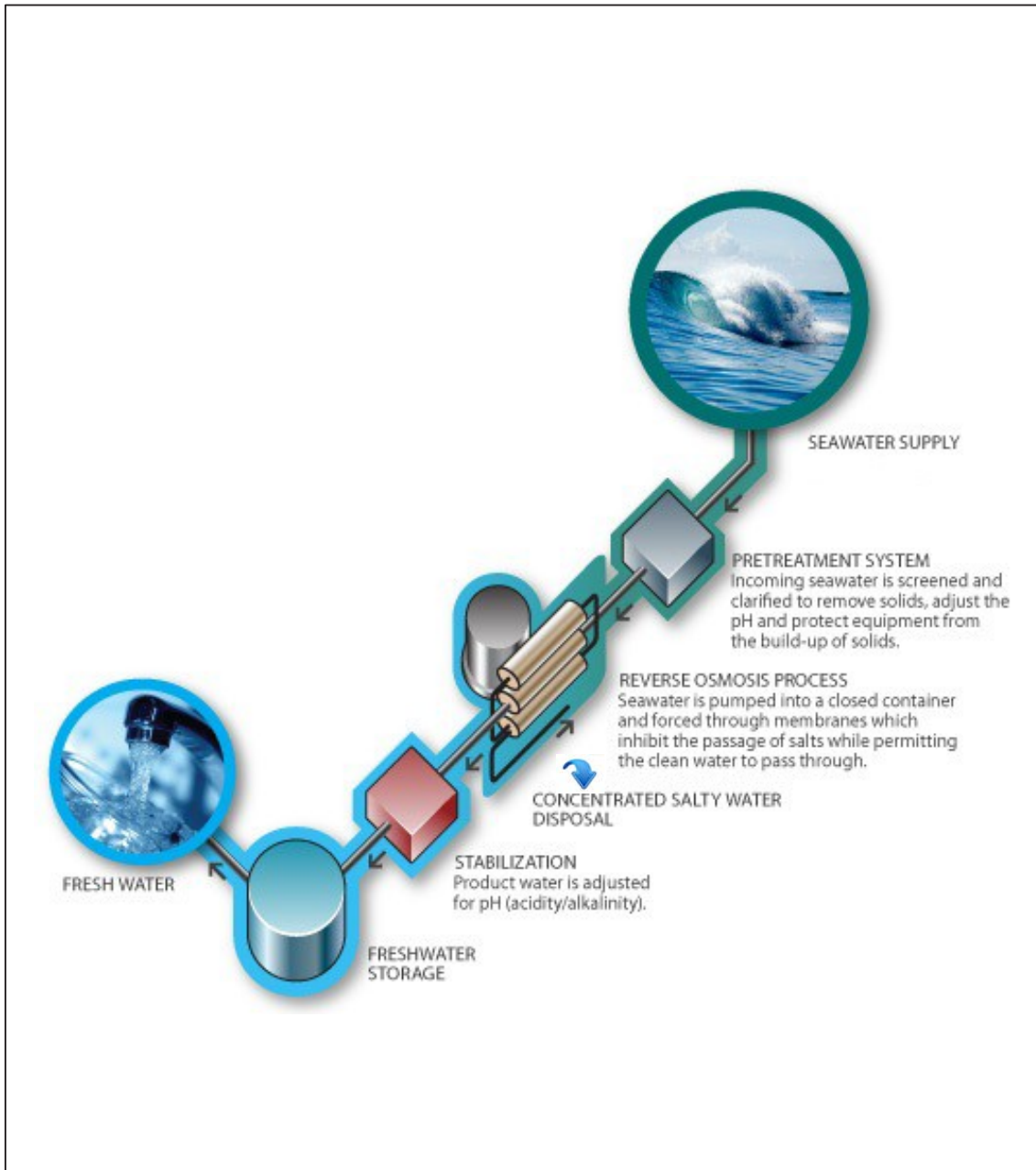




Design Sheet



Desalination Plant

August 2012

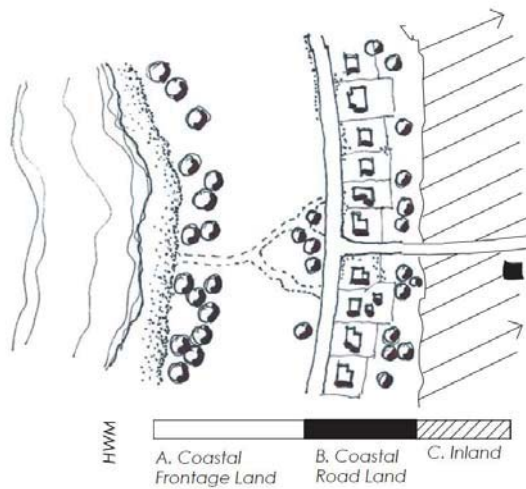




Desalination Plant

1.0 Introduction

This design sheet applies to all hotel premises, Real Estate Scheme and Integrated Resort Scheme Projects with a minimum of 5A00 or 50 rooms located within Coastal frontage land A.



In accordance with the Fifth Schedule of the Environment Protection Act (as amended in 2008), the setting up of a desalination plant warrants an EIA licence.

The Ministry of Environment has an EIA Guideline for proposed Desalination plants. Proponents are advised to consult the EIA guideline prior to preparing their EIA reports.

2.0 Background

Mauritius is often faced with severe droughts and hence shortage of fresh water supply. The impact of climate change, increase in the local population and in tourist arrival will further accentuate the water problem. To combat the problem of water supply, some hotels have already installed desalination plants to provide uninterrupted water supply to their clients. Up to now 14 hotels (including Rodrigues) have already installed or are in the process of installing a desalination plant. Significant advances in desalination technology over the past decade have increased the efficiency and decreased the cost of desalinating seawater.

3.0 Design Sheet

The Design Sheet provides for the specific planning criteria or typical design requirement that must be complied by the proponent for a desalination plant. In determining applications for desalination plants, the permit authority should have regard to the following criteria:

3.1 Location of Desalination Plant

Proposed sites must be **located within Coastal frontage land A** and should comply with the following minimum setbacks:

At least 50m from the High Water mark (HWM)

At least 30m from wetlands

30m from any waterbody as per Rivers and Canals Act 1863



3.2 Siting

An appropriate site within the hotel premises must be identified so as to minimize the noise nuisance on the surrounding areas. As far as practicable, the desalination plant should be sited away from residential dwellings within or in the immediate vicinity of the hotel premises.

3.3 Development Height

The proposed desalination plant installation rooms must be on ground floor level. The architectural design of the plant room must blend aesthetically with the rest of the hotel development.

3.4 Noise

Major reverse osmosis plants generate noise because of the use of high pressure pumps. As most of these plants will be situated within hotel sites, it is advisable that the plants should not be located near the hotel rooms and villas. In cases where, there is no other option than to locate the facilities near to the hotel rooms or the noise of the plants may be a nuisance to the nearby rooms, then mitigating measures such as acoustic norms to control the noise pollution will have to be taken.

In case the applicant has to install an electric motor on site, he must comply with section 40 of the Building Act and publicise his intention in two (2) dailies and serve a legal notice through Court Usher upon contiguous neighbours. Moreover, the noise level generated by the electric motor must be within the prescribed noise level as per the Environment Protection (Environment Standards for Noise) Regulations 1997 promulgated under the Environment Protection Act.

3.5 Visual Impacts

Desalination plants should be designed to minimize visual impacts. Trees and hedges must be planted to screen the plant from the sea or from the beaches or any other vintage points in the vicinity of the plants.



3.6 Waste Disposal & Protection of the Water Resources

The Promoter should explore and propose environmental friendly methods for the abstracting of sea water and disposal of brine. Such methods should prevent saline intrusion (to aquifers), safeguard inland fresh water and should not negatively impact on coastal wetlands. The hydro-geology of the region and characteristics of the sub surface strata should be studied at the proposed development site by the promoter prior to proposing methods for abstraction and rejection of brine.

In this context, the promoter should seek clearances / advice from the:

- i) The Ministry of Environment & Sustainable Development on how best to dispose of the wastes and brines produced from desalination plants;
- ii) The Ministry of Energy & Public Utilities (Water Resources Unit) on all proposed measures for the protection of the water resources; and
- iii) The Ministry of Fisheries on the methodologies for sea water intake /waste disposal and the operational times of the desalination plant.

4.0 Effective Date

This Design Sheet on Desalination Plant is effective as from the 13 August 2012.