

Project Overview:

Muriya Tourism Development Company (Muriya) is a joint venture between the Oman Tourism Development Company (OTDC) and ORASCOM Hotels and Development established to develop Omani tourism and development projects. Muriya has identified a number of signature projects in Oman that have the potential to attract international tourism and in so doing reduce dependence on the oil and gas sector of continued National growth.

Al Soda Island Ecolodge Development Project:

Al Soda Island, also known as As Sawdah or Black Island, is one of the islands of the archipelago of desert islands known as the Al Hallaniyah Islands that lie off the coast of south-eastern Oman approximately 32km from mainland Dhofar, the southernmost province of Oman. The nearest mainland villages are Sharbathat (~60Km) and Shwaymyah (~55Km). Al Soda Island is not currently inhabited although there was historically a settlement.

The project area is long and narrow in shape having 4km coastal frontage comprising three embayments along the north western shoreline of Al Soda Island and is currently covered in a mix of open scrubland, wadi outflows and rock with a chain of low mountains forming the inland boundary to the southeast.

In August 2006 Denniston International Architects and Planners Ltd was commissioned by Orascom to undertake a preliminary master planning study for the proposed Ecolodge development. The proposed development has been designed as an “ecolodge” which is a nature-dependent tourist facility designed to meet the principles of ecotourism. An ecolodge is recognized by distinct design features that are intended primarily to blend in with the natural environment (International Finance Corporation 2007b).

A site visit was undertaken by the design team prior to the preparation of several development alternatives for the site. An understanding of the site’s principal environmental characteristics enabled **Geo Resources Consultancy / Coffey Environments**

Environmental Impact Assessment – Al Soda Island Ecolodge Development:

The preparation of the Master Planning Perspective that forms the basis of land use planning for this EIA scoping document

- Land use components of the proposed project as shown on the Master Plan include:
- 30 two and five-bedroom villas;
- Spa;
- Main lodge with restaurants, private dining, library and lounges and swimming pool;
- Back of house village and management accommodation;
- Eight butler stations (including storage for linen, food and general items);
- Guest arrival jetty and pavilion;
- Service jetty;
- Man-made lake;
- Dive centre; and
- Water sports shed and bar.

Sustainable Development Activities

Project design and development has taken into account sustainable development and Equator Principles. Sustainable development has been defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987).

A Master Planning Perspective has been prepared for the proposed development by the proponent's planners Denniston International Architects and Planners Ltd (Denniston 2006), and based on ecolodge principles (International Finance Corporation 2007). The Equator Principal describes a partnership that brings together the United Nations, civil society, business, governments and communities to help build capacity. Consideration of the Equator Principal is reflected in developing a project that charting a path toward sustainability and creatively using biological resources to improve livelihoods in ways that raise incomes and protect the environment.

Sustainable development featured of the development was created and the detail are given below:

Factor	Strategy
<i>Design and Construction</i>	<ul style="list-style-type: none"> • Development incorporates or adapts existing facilities as far as possible.
	<ul style="list-style-type: none"> • Building and infrastructure design minimizes adverse environmental impacts and impacts on surrounding communities.
	<ul style="list-style-type: none"> • Building material selection is subject to life cycle assessment, considering environmental implications during manufacture, use and disposal.
	<ul style="list-style-type: none"> • Development takes into account the findings of community consultative processes.
	<ul style="list-style-type: none"> • Development minimizes the amount of land used while not compromising good design.
	<ul style="list-style-type: none"> • Site selection and design avoids native bushland, threatened species, populations and ecological communities, critical habitat, and ecologically sensitive areas including wetlands and wildlife corridors.
	<ul style="list-style-type: none"> • Site selection and design avoids areas of Aboriginal or European archaeological significance.
	<ul style="list-style-type: none"> • Site selection and design encourages walking.
	<ul style="list-style-type: none"> • Environmental management plans are prepared and implemented during design, construction and operational stages of development.
	<ul style="list-style-type: none"> • Independent environmental audits are conducted during design, construction and operational stages of development.

Annexure 1: Brief Muriya Project Overview, Sustainable Programs and Environmental measures
– Al Sodha Islands

Energy conservation	<ul style="list-style-type: none"> • The development will incorporate passive solar building design. • Insulation and natural ventilation are used. • Life cycle assessment of materials considers thermal performance. Renewable sources of energy are widely used. Use of natural light is maximized. • Energy efficient appliances and lighting systems are used. • Sophisticated building management and control systems assist management of engineering services to minimize energy requirements. • Mechanical ventilation is zoned to allow ventilation flow to be switched off when spaces are unoccupied.
Water conservation	<ul style="list-style-type: none"> • The development is consistent with any relevant catchment management Plans
	<ul style="list-style-type: none"> • A water cycle management plan is incorporated.
	<ul style="list-style-type: none"> • Buildings and infrastructure are designed to collect wastewater for recycling.
	<ul style="list-style-type: none"> • Life cycle assessment of materials considers water used.
	<ul style="list-style-type: none"> • Treated stormwater and sewage effluent is recycled.
	<ul style="list-style-type: none"> • Public information and education supports the recycled water system.
	<ul style="list-style-type: none"> • Landscape design uses locally indigenous species, which decrease water requirements. • Water conservation devices are used such as dual flush toilet systems,
Waste avoidance and minimisation	<ul style="list-style-type: none"> • A waste minimisation plan covering design, construction and operation is prepared and implemented. • User information and education supports the waste minimisation plan. • Life cycle assessment of materials considers waste issues, including recycled content. • Packaging is avoided wherever possible during construction and operation of the development. • Waste separation and composting facilities are incorporated in design. • Colour coded recycling bins with signage are used. • Compost from organic waste is used in landscaping. • Regular waste audits are conducted. • Recycled, non-chlorine bleached paper is used in all project documentation.

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Table below presents the results of the atmospheric dust monitoring conducted during March 2009 at Al Sodah Island as part of our continuously monitoring program to track environmental conditions of our workplace sites.

MEASURED AMBIENT DUST VALUES, CONSTRUCTION SITES, PHASE I				
CONSTRUCTION OF SODA ISLAND ECOLOGDE DEVELOPMENT - MARCH 2009				
Date	Measured PM10	3PM10 24 hr ave guideline	Inferred TSP	3TSP 24 hr ave guideline
	mg/m3	mg/m3	mg/m3	mg/m3
17/03/2009 – 18/03/2009	0.011	0.050	0.031	0.120
Notes				
1. data was collected using a DustTrak mdl 8520 aerosol monitor operating continuously				
2. TSP values were calculated by applying USEPA factor of 2.86 (i.e. PM10 comprises 35% of TSP)				
3. WHO (1987)				

The PM10 results for the two locations are presented graphically in Charts below:

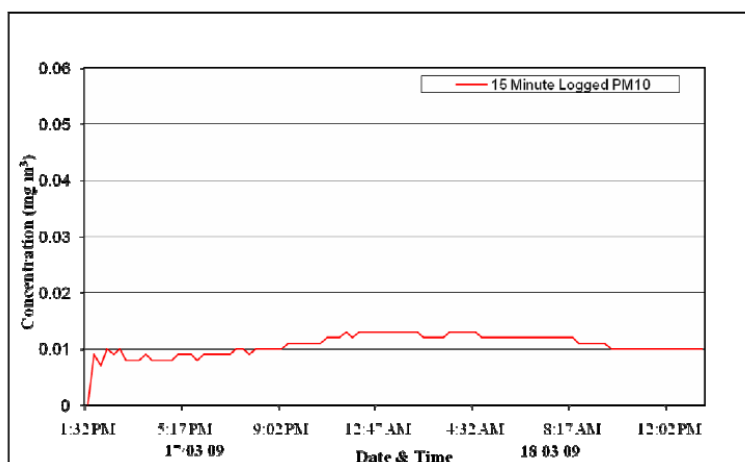


Chart 2 - Measured PM₁₀ Values at Construction Site, Phase I Construction of Soda Island Ecologde Development - March 2009

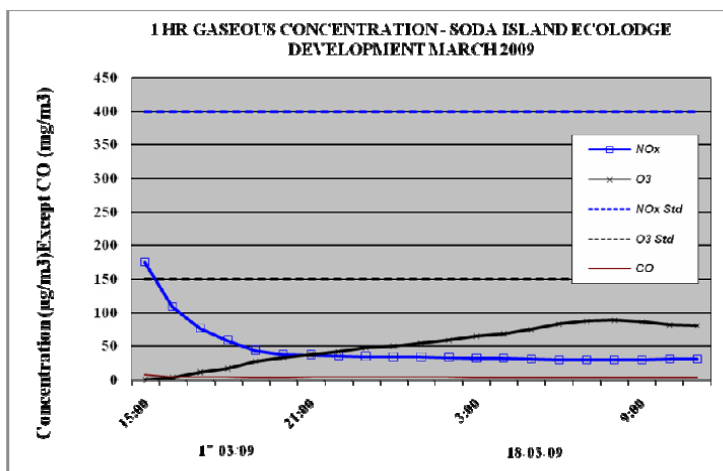


Chart 3 - Measured Hourly Atmospheric Gas Concentrations, Construction Site, Phase I Construction of Soda Island Ecologde Development - March 2009

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– Al Sodha Islands

Table Shows: “Nutrients and Physical Parameters demonstrating good marine water quality at our Construction sites at Al-Sodha Island Ecotourism Development – March 2009”

Sample ID	Nutrients and physical parameters									
	NH4 N	Tot Kjeldahl N	NOx N	Tot N	Reactive P	Tot P	pH	EC	Turbidity	TSS
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	units	mS/cm	NTU	mg/l
Method detection limit	0.002	0.2	0.002	0.1	0.002	0.005	-	0.01	0.1	5
Marine Sample W 1	0.003	0.8	<0.002	0.8	0.009	0.019	8.4	40	0.2	< 5
Marine Sample W 5	0.004	1.2	0.009	1.2	0.011	0.019	8.4	47	0.5	< 5
Marine Sample W 11	0.033	1.3	<0.002	1.3	0.006	0.038	8.7	52	1.2	< 5

Measured Noise Levels – Monitoring Program Results conducted during March 2009 predicts values much lower than the permissible limits at Al-Sodha Island.

Monitoring Location	Date & Time of Measurement	Ambient Noise		Occupational Oman Criteria dB(A)	Comments
		Measured SPL in dB(A)			
Construction (0375931 E, 1934440 N)	18/03/2009 11:10-11:20 am	LAeq	44.3	(Occupational) 85 dB(A)	Sound of the rough sea, wind & birds
		LAeq Max	47.6		
		LAeq Min	41.1		