



# Ramsar Information Sheet

Published on 25 October 2018

## United Arab Emirates Jabal Ali Wetland Sanctuary



Designation date	25 October 2018
Site number	2364
Coordinates	24°56'55"N 54°56'03"E
Area	2 002,00 ha

## Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

## 1 - Summary

### Summary

Jabal Ali Wetland Sanctuary located inside Jabal Ali Marine Sanctuary in the Emirate of Dubai, within a priority WWF Global 200 Ecoregion (Ecoregion 232, Arabian sea), the marine area is also recognized by the Convention on Biological Diversity (CBD) as an one of the Ecologically and Biologically Significant Areas (EBSAs) in the Arabian Gulf. The coastal and marine area of Jabal Ali Wetland Sanctuary maintains a healthy and diverse wetland habitat that is a typical representative to the marine environment of the Arabian Gulf, e.g coral reef, mangrove, shallow lagoons, seagrass, oyster beds and sandy shorelines.

With its diverse habitats, Jabal Ali Wetland Sanctuary provides shelter for around 539 species of marine fauna and flora. A total of 34 species of corals are recorded in the site, 40% of them are threatened, like the endemic species *Acropora arabensis*, and other threatened taxa such as the two species of mammals Dugong (*Dugong dugon*) and Indo-Pacific humpback dolphin (*Sousa chinensis*), the area also considered important for fish as it provides shelter, feeding ground and a nursery for species such as, Orange-spotted grouper (*Epinephelus coioides*), Arabian carpet shark (*Chiloscyllium arabicum*), Whale shark (*Chiloscyllium arabicum*), Black-tipped reef shark (*Carcharhinus melanopterus*), all mentioned species are considered threatened by the International Union for Conservation of Nature (IUCN).

More important the area supports the survival of two other threatened species of marine reptiles, Green turtle (*Chelonas mydas*) and Hawksbill turtle (*Eretmochelys imbricata*), both species are using the area as a feeding ground. The sandy beaches of Jabal Ali are one of the main breeding sites for the critically endangered hawksbill turtle (*Eretmochelys imbricata*) in the UAE and the only one in Dubai Emirate.

The site covers partially the marine and the coastal area that fall within Jabal Ali Marine Sanctuary (JAMS) which has been designated by Local Order 2 of 1998 (under the management of Dubai Municipality), JAMS covers the marine area between the Palm Jabal Ali and up to Dubai-Abu Dhabi border to the South West of Dubai.

## 2 - Data & location

### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

##### Compiler 1

Name	Ms. Aisha Almurr Al Muhery, Head Of Natural Resources Conservation Section
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Postal address	PO Box 67 Bani Yas Road, Deira Dubai, UAE
E-mail	aamuhery@dm.gov.ae
Phone	0097146066888
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##### Compiler 2

Name	Maral Khaled Chreiki
Institution/agency	Dubai Municipality, Environment Department, Natural Resources Conservation section
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E-mail	mkchreiki@dm.gov.ae
Phone	0097146066137
Fax	009714703 3532

#### 2.1.2 - Period of collection of data and information used to compile the RIS

From year	2006
To year	2017

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Jabal Ali Wetland Sanctuary
Unofficial name (optional)	محمية غنتوت البحرية

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

b) Digital map/image  
<1 file(s) uploaded>

Former maps	0
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#### Boundaries description

The area falls within Jabal Ali Marine Sanctuary "JAMS" and the ecologically and biologically significant area "EBSA" of Jabal Ali. It includes 2000 ha of the coastal and marine area of the sanctuary and EBSA "Ecologically and Biologically Significant Areas". The site borders extend from Palm Jabal Ali West towards the South-West near to Dubai-Abu Dhabi borders.

### 2.2.2 - General location

a) In which large administrative region does the site lie?	Dubai, United Arab Emirates
b) What is the nearest town or population centre?	Jabal Ali Free Zone

### 2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes  No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes  No

2.2.4 - Area of the Site

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Marine Ecoregions of the World (MEOW)	Western Indo Pacific
Other scheme (provide name below)	Priority WWF Global 200 Marine Ecoregion (Ecoregion 232, Arabian sea)
Other scheme (provide name below)	EBSA Region North-West Indian Ocean and Adjacent Gulf Areas

Other biogeographic regionalisation scheme

**Biogeographic region:**  
 Jabal Ali Marine Sanctuary in Emirate of Dubai lies within a priority WWF Global 200 Marine Ecoregion (Ecoregion 232, Arabian sea “CE”), Jabal Ali area is also recognized by the Convention on Biological Diversity (CBD) as an Ecologically and Biologically Significant Areas (EBSAs).

**Biogeographic regionalisation scheme:**  
 - WWF Global 200 Eco-region categorised as Critically Endangered “CE” (see bibliography)  
 - EBSA Region North-West Indian Ocean and Adjacent Gulf Areas (see bibliography)  
 - Western Indo-Pacific/Somali-Arabian (19)/Arabian Gulf (90) (see bibliography)

### 3 - Why is the Site important?

#### 3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

The recent habitat mapping for JAMS done by Dubai Municipality in 2017 identifies five main marine habitats of conservation interest:

- Extensive areas of seagrass beds, which are known to serve as an important fish nursery, feeding grounds for green turtles (*Chelonia mydas*) and dugongs (*Dugong dugong*); the latter are known to have periodically used seagrass areas in this location to feed in recent years;
- Breeding hawksbill turtles (*Eretmochelys imbricata*) on the sandy beaches at Jabal Ali;
- Small dense patches of hard coral communities dominated by sensitive table corals (*Acropora* spp.);
- Mixed communities containing diverse and seasonal brown macro-algae populations and sparse but numerous colonies of poritid and faviid hard corals;
- Rich communities of fishes associated with high relief hard bottom habitat found at natural coral reefs and coral colonized breakwaters.

#### Other ecosystem services provided

The diversity of habitat in JAMS provide shelter, feeding and nursery ground to vast assemblage and diversity of endemic, threatened and migratory marine species. JAMS is noted for its important coastal area and highly productive inshore habitats including several areas of seagrass beds and extensive patches of hard corals, many of which are used to be dominated by table corals (*Acropora* spp.). The coral communities have been acknowledged as some of the most diverse in the southern Arabian Gulf.

Approximately 7000km<sup>2</sup> of seagrass habitat has been mapped in the Arabian Gulf up to 2012, with particularly extensive meadows in the coastal waters of the United Arab Emirates, Bahrain, and Qatar. The majority of seagrass habitat area (5670 km<sup>2</sup>) in the Arabian Gulf is mapped in Abu Dhabi coastal area and around the islands, Dubai comes second in the UAE with considerable coverage of 2 km<sup>2</sup> in JAMS and less than 0.1 km<sup>2</sup> in Jumeirah.

Jabal Ali area is one of the few areas selected within the Arabian Gulf Sea based on EBSA criteria of the Convention on Biological Diversity CBD such as;  
C1: Uniqueness or rarity,  
C2: Special importance for life-history stages of species,  
C3: Importance for threatened, endangered or declining species and/or habitats  
C4: Vulnerability, fragility, sensitivity, or slow recovery  
C6: Biological diversity  
C7: Naturalness

Other reasons

The Arabian Gulf is a unique environment which undergoes extreme water, air temperature fluctuations. The sea water circulation pattern is slow and counterclockwise, with waters entering the Gulf and moving up the coast of Iran, then down the coasts of Kuwait, Saudi Arabia, and Qatar, and eastward along shallow waters of the United Arab Emirates, it is estimated that it takes between three and seven years for a complete changeover of the gulf water.

Surface water temperatures range from a minimum of 16°C during winter months to a maximum of 37°C in the summer, and air temperatures range from 0°C in winter months to greater than 50°C in the summer. In the Arabian Gulf, species are adapted to this harsh environmental conditions, for instance, Jabal Ali Wetland Sanctuary is between few areas that still have a high diversity of coral species. Jabal Ali Wetland Sanctuary hosts a variety of the main representative habitats in the biogeographic region and in one relatively area (2000ha) such as; White sand coastline, coral reefs, seagrass bed, mangroves and intertidal flats. Designation of JAMS as a Ramsar Site will add the element of representatives to the existing protected area network in UAE. It also provides other ecosystem services such as nutrient recycling, a nursery for fishes.

Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

Justification

The area supports 124 birds, 34 corals and 147 fish and shark species. Arabian Gulf coral communities exist in a harsh environment with respect to salinities, sea temperatures and extreme low tides. These factors have a profound influence on community structure by restricting the number of species in the area and by causing recurrent mortality among the dominant species.

A total of 34 species of corals are recorded in the area belongs to 9 families, 14 species are considered to be Near threatened to Threatened by the IUCN Red List. Corals in the area are classed as 'patch corals', which are relatively small, flat-topped coral structures in shallow water. These corals do not contribute to the development of a solid framework (i.e. coral growing on coral), but instead grow directly on top of exposed hard substrates such as Caprock and large rocks used to form breakwaters.

Reef coral communities in a non-reef setting on shallow, fat hardgrounds were quantitatively sampled in Dubai Emirate (UAE, Southern Arabian Gulf) before and after a coral mass mortality in 1996. The coral fauna consisted of 34 scleractinian species, Acropora was removed virtually after the mass mortality event but it is recovering since then.

Five community types were identified and characterized by the dominant species: (A) a sparse Porites lutea community in sandy areas, (B) a dense Acropora clathrata community in areas with little sand, (C) a faviid community in muddy areas, (D) a Siderastrea savignyana community in sandy areas, and (E) a Porites compressa community, (F) Sea grass beds, which built a framework in sandy areas. These communities are comparable to those described from other areas of the Gulf.

The spatial distribution and dynamics of the coral communities appear to be strongly influenced by mass mortality events recurring every 15 to 20 year. A combination of extreme water temperatures and high sedimentation/turbidity appear to be the major cause of mortality. but are nonetheless subjected to temperature extremes and stress from turbidity and sedimentation.

In the Arabian Gulf, Mangrove ecosystem reaches its northern limit and is represented by a single species, Avicennia marina.

Unique population genetically/Endemism;

On the other hand, the genetic analysis comparison of the UAE Hawksbill turtles population with published data from other populations suggests Based on mtDNA, that hawksbill populations of the Gulf are strongly differentiated from those of Seychelles and that the UAE population has lower genetic variability than the Seychelles population.





Finally, the data suggest that the UAE population, and the Gulf population overall, experienced a bottleneck/founder event. The observed overall low genetic variability, evidence of population structure in the Arabian Gulf, and strong differentiation between the Gulf and the Indian Ocean populations, which raises concerns about the sustainability of this species in this near-enclosed basin.

Criterion 4 : Support during critical life cycle stage or in adverse conditions

### 3.2 - Plant species whose presence relates to the international importance of the site

<no data available>









### 3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence <sup>1)</sup>	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
<b>Birds</b>																		
CHORDATA/ AVES	<i>Haematopus ostralegus</i> 	Eurasian Oystercatcher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened		
CHORDATA/ AVES	<i>Limosa lapponica lapponica</i> 		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened		

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	<i>Limosa limosa limosa</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CHORDATA/ AVES	<i>Numenius arquata</i>	Eurasian Curlew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CHORDATA/ AVES	<i>Phalacrocorax nigrogularis</i>	Socotra Cormorant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Fish, Mollusc and Crustacea</b>																		
CHORDATA/ ELASMOBRANCHII	<i>Aetomylaeus maculatus</i>	Mottled eagle ray	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ELASMOBRANCHII	<i>Aetomylaeus nicholfii</i>	Nieuhof's eagle ray	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ELASMOBRANCHII	<i>Carcharhinus melanopterus</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CHORDATA/ ELASMOBRANCHII	<i>Chiloscyllium arabicum</i>	Arabian carpetshark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CHORDATA/ ACTINOPTERYGII	<i>Epinephelus coioides</i>	Green grouper; Orangespotted rockcod	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CHORDATA/ ELASMOBRANCHII	<i>Gymnura poecilura</i>	Longtail butterfly ray; Longtail butterfly ray; Longtailed butterfly-ray	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CHORDATA/ ELASMOBRANCHII	<i>Himantura uarnak</i>	Reticulated whip ray	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ELASMOBRANCHII	<i>Rhincodon typus</i>	Whale shark	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ELASMOBRANCHII	<i>Rhinoptera javanica</i>	Javanese cow-nose ray	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ELASMOBRANCHII	<i>Rhynchobatus djiddensis</i>	Giant guitarfish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ELASMOBRANCHII	<i>Taeniurops meyeri</i>	Blotched fantail ray	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ELASMOBRANCHII	<i>Torpedo sinuspersici</i>	Variable torpedo ray; Variable torpedo ray; Gulf torpedo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Data deficient	
<b>Others</b>																		
CNIDARIA/ ANTHOZOA	<i>Acropora arabensis</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened, endemic.	
CNIDARIA/ ANTHOZOA	<i>Acropora pharaonis</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CNIDARIA/ ANTHOZOA	<i>Acropora tenuis</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	



Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CNIDARIA/ ANTHOZOA	<i>Anomastrea irregularis</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ REPTILIA	<i>Caretta caretta</i>	Loggerhead turtle	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA/ REPTILIA	<i>Chelonia mydas</i>	Green turtle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		green turtle nests were not recorded in JAMS, the sanctuary is mainly utilised as feeding ground, The majority of green turtles used shallow-water core habitats in particular between Dubai and Abu Dhabi towards the Western area of the marine Sanctuary. Within the Gulf, the green turtle has nesting sites in Saudi Arabia, Kuwait, Iran, and the UAE. Green turtles used most of the coastline from Abu Dhabi through to Ras Al Khaimah within the UAE.
CHORDATA/ MAMMALIA	<i>Dugong dugon</i>	Dugong	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Dugongs are listed as a species vulnerable to extinction by the International Union for Conservation of Nature and are also protected by federal law. In Jabal Ali there was two confirmed records on in 2011 for a carcass fo a young dugong and another sighting for a female and its calf in 2015. Seagrass beds since the very extensive seagrass dominated ecosystems along the Southern Gulf are crucially-important as foraging and nursery grounds for marine mammals such as dugongs.
CHORDATA/ REPTILIA	<i>Eretmochelys imbricata</i>	Hawksbill turtle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				CR 	<input type="checkbox"/>	<input type="checkbox"/>		Hawksbill turtles are a truly regional species; they do not belong to any one country, as evidenced by their migration routes. the area supports considerable numbers of hawksbills, with 100–1000 individuals nesting each year in each of Saudi Arabia, Iran, the United Arab Emirates (UAE), and Qatar. Hawksbills in the Arabian region may nest up to 6 times in a season with an average of 3 nests per turtle. Turtles from Qatar, Iran and the UAE generally migrated south and southwest to waters shared by the UAE and Qatar. In Dubai, Jabal Ali Wetland Sanctuary is the only breeding site for Hawksbills turtles.
CNIDARIA/ ANTHOZOA	<i>Favites spinosa</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CNIDARIA/ ANTHOZOA	<i>Pavona decussata</i>	leaf coral	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CNIDARIA/ ANTHOZOA	<i>Platygyra crosslandi</i>	lesser valley coral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CNIDARIA/ ANTHOZOA	<i>Platygyra lamellina</i>	lesser valley coral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CNIDARIA/ ANTHOZOA	<i>Porites harrisoni</i>	hump coral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CNIDARIA/ ANTHOZOA	<i>Porites lobata</i>	hump coral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CNIDARIA/ ANTHOZOA	<i>Psammocora contigua</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened	
CNIDARIA/ ANTHOZOA	<i>Psammocora stellata</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ MAMMALIA	<i>Sousa chinensis</i>	Indo-Pacific humpback dolphin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CNIDARIA/ ANTHOZOA	<i>Stylophora pistillata</i> 	hood coral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			NT 	<input type="checkbox"/>	<input type="checkbox"/>	Near Threatened		
CNIDARIA/ ANTHOZOA	<i>Turbinaria mesenterina</i> 	disc coral	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			VU 	<input type="checkbox"/>	<input type="checkbox"/>			
CNIDARIA/ ANTHOZOA	<i>Turbinaria peltata</i> 	disc coral	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			VU 	<input type="checkbox"/>	<input type="checkbox"/>			
CNIDARIA/ ANTHOZOA	<i>Turbinaria reniformis</i> 	disc coral	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			VU 	<input type="checkbox"/>	<input type="checkbox"/>			

1) Percentage of the total biogeographic population at the site

### 3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Sea Grass Beds	<input checked="" type="checkbox"/>	Extensive seagrass beds are consist of Halodule uninervis beds are best developed on very fine sand or mud, while Halophila species become more important on coarser sediments, and pearl oyster beds.	Typical of the United Arab Emirates coast but are threatened due to the construction of megaprojects in the area
Coral reefs	<input checked="" type="checkbox"/>	The corals in the area are classed as 'patch corals', which are relatively small, flat-topped coral structures in shallow water.	The area is also recognized as one of the main hotspots for the UAE in term of corals species diversity, a total of 40 species are recorded .

[Optional text box to provide further information](#)

These two ecological communities are under threat due to the sedimentation coming from the nearby dredging activities in the surrounding area, the expansion of the alien species of algae "Caulerpa racemosa". The potential change in water chemistry due to water desalination is expected and other threats such as sea temperature rise due to climate change.

## 4 - What is the Site like? (Ecological character description)

### 4.1 - Ecological character

Based on the 2017 baseline survey done by Dubai Municipality, JAMS are still ecologically functional, providing many provisioning services for all the species counted in the area including nursery ground and shelter despite the rapid development of the coastal area of Dubai. Only the coastal and marine area in JAMS support around 539 species in which many of them are endemic, threatened or migratory.

JAMS area is the last coastal and marine area for Dubai that kept pristine relatively, it still considered a typical representative to the region as it fulfills the criteria for EBSA designation. Habitat diversity is relatively high compared to other coastal areas of UAE in the Arabian Gulf, the interaction between these different habitats provide nursery ground for at least 19 species of fish as well as shelter and feeding ground for another 173 species, it also provides breeding ground for 19 species of birds out of 124 recorded in the area, many of them are migratory species and using the site as rest area. In 2012 new breeding settlements were discovered for four species of terns for the first time in Dubai on the deserted area of two major development around the proposed area of designation (Waterfront Island and Palm Jabal Ali) the birds continue breeding in these two areas till recently and the last count was conducted in 2017 counted 4760 breeding pairs of the four species of terns, Saunders' Tern (*Sterna saundersi*), White-Cheeked (*Sterna repressa*), Tern Lesser-Crested (*Thalasseus bengalensis*) and Bridled Tern (*Onychoprion anaethetus*). The coastal area of the site is also considered the last area for breeding Hawksbill turtle in Dubai with 30 nests recorded in 2017, the area also provides feeding ground for another two species of turtles, Green turtle and loggerhead.

Given the rapid development of the coastal areas in the Emirates, there are very few such sites left, which support a relatively diverse set of habitats and rich biodiversity. Other than 124 species of birds, the Site is also important for globally threatened marine turtles, fish, sharks, rays, invertebrates and reptiles.

The ecological importance of seagrasses in the Arabian Gulf has been widely acknowledged. Seagrasses habitat are recognized and designated as a critical marine resource in the gulf, sustaining high primary production, harbouring high biodiversity of associated species, and serving as important nursery grounds for shrimps, pearl oyster and other organisms of importance to the Gulf biodiversity, artisanal and commercial fisheries.

Seagrasses in the gulf play a major role as food for few threatened species such as green turtles (*Chelonia mydas* – endangered) and dugongs (*Dugong dugong* – vulnerable). With their extensive root systems, they play a crucial role in the stabilization of the nearshore seabed against wave action and other erosional forces. The species diversity of benthic fauna associated with seagrasses beds in the Gulf has been reported between 530 and 835 species. About 9% of the Gulf's faunal taxa (at least 48 species, mostly molluscs) are endemic to seagrass meadows.

The most important habitats of conservation interest include:

- Extensive areas of seagrass beds, which are known to serve as an important fish nurseries, feeding grounds for green turtles (*Chelonia mydas*) and dugongs (*Dugong dugong*); the latter are known to have periodically used seagrass areas in this location to feed in recent years;
- Breeding hawksbill turtles (*Eretmochelys imbricata*) on the sandy beaches at Jabal Ali;
- Small dense patches of hard coral communities (>40% cover) dominated by sensitive table corals (*Acropora* spp.);
- Mixed communities containing diverse and seasonal brown macro-algae populations and sparse but numerous colonies of poritid and faviid hard corals;
- Rich communities of fishes associated with high relief hard bottom habitat found at natural coral reefs and coral colonized breakwaters

### 4.2 - What wetland type(s) are in the site?

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
B: Marine subtidal aquatic beds (Underwater vegetation)	Mixed sea grass, Algae and bivalves sand	2	763	Unique
C: Coral reefs	Coral reef associated habitat	1	934	Unique
D: Rocky marine shores	Construction emergent	4	30	
E: Sand, shingle or pebble shores	Land and Coastal area	2	117	Representative
G: Intertidal mud, sand or salt flats	Mud and silt	3	42	Representative
I: Intertidal forested wetlands	Mangrove	4	30	Representative
J: Coastal brackish / saline lagoons	Lagoons	0	20	

(ECD) Habitat connectivity

The marine area is fragmented by the dredging done by the marine water front project, sand reclamation started in 2007 to connect the beach with the island.

### 4.3 - Biological components

#### 4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Halodule uninervis</i>	null	
<i>Halophila ovalis</i>	null	
<i>Halophila stipulacea</i>	null	

Optional text box to provide further information

There are four species of seagrass occurring in the Gulf: *Halodule uninervis*, *Halophila stipulacea*, *H. ovalis* and *Syringodium isoetifolium*. The first three are recorded in Jabal Ali Wetland Sanctuary, *Halodule uninervis* is undoubtedly the dominant species of seagrass and, in the UAE at least, probably forms the major food-plant taken by grazing dugong. *Halophila stipulacea* is widespread in the west (Abu Dhabi Emirate), but its status and relative abundance, together with that of the other two species, is poorly known and needs mapping. Seagrasses occur in some inter-tidal areas where a resultant food chain proceeds through grazing and breeding molluscs to overwintering shorebirds and their predators. Leaf-densities vary and in some areas are >100 leaves per 10 sq. cm. Seagrass beds in the very extensive seagrass dominated ecosystems along the Southern Gulf are crucially-important as foraging and nursery grounds for fish, crustaceans, green turtles and marine mammals such as dugongs.

**Invasive alien plant species:**

*Caulerpa racemosa* is a non-native fronded seaweed in the Arabian Gulf. Stands of *Caulerpa* used to persist in restricted areas (Vanneyre et al., 2011), within the Palm particularly, where the alga forms monospecific meadows of variable density in sandy-to-muddy habitat. *Caulerpa racemosa* was discovered in the Southern Gulf in September 2010 during a survey by a diving team of the Emirates Marine Environmental Group of the seaweeds and seagrasses within an artificial peninsula known as Palm Jebel Ali. The recent survey shows that *Caulerpa* has spread in the area of the proposed site and cover around 1.6 km<sup>2</sup>.

*Caulerpa racemosa* occurs in Indonesia from where most of the dredging fleet in Dubai had been winning material used to reclaim land in Singapore (Mieke Fordeyn, pers. comm.) before travelling to the Gulf. A possible source of introduction is ballast from suction, hopper sand-dredgers formerly employed to dredge sand in a country where the introduced *Caulerpa* is common.

The new introduction fulfils criteria for an invasive species: colonizing a new area, a geographical discontinuity existing between the new area and its native area, human-vector probably involved in range extension and forms well-established, spreading and self-sustaining populations. Right now, the extent of the algae is mapped and will be monitored in order to determine further actions.

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	<i>Kogia sima</i>	Dwarf Sperm Whale				

Optional text box to provide further information

The species list is provided in the appendix

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
B: Dry climate	BWh: Subtropical desert (Low-latitude desert)

The UAE is predominantly classified as a desert environment and experiences high temperatures, with many days of sunshine and high levels of humidity. Despite being generally low in volume, there are also periods of intermittent rainfall, which may occur several times a year. Due to the environment and low rainfall, dust hazes occur reasonably frequently, especially in the summer months. Dust storms can also occur in the region and significantly impact upon ambient air quality.

Average temperatures from January to December typically range from 17°C to 35°C. In terms of rainfall, December to March are the months when the UAE typically experiences its highest volumes of rain. The prevailing winds in the UAE come from the Northwest and South and tend to vary depending on the time of year. The regional climate of Jabal Ali does not deviate significantly from that of Dubai, high summer and low winter temperatures characterize the marine climate, water temperature ranges of nearly 15°C.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Arabian Gulf

4.4.3 - Soil

- Mneral
- Organic
- No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes  No

Please provide further information on the soil (optional)

Sandy coastal area

4.4.4 - Water regime

Water permanence

Presence?
Usually permanent water present

Source of water that maintains character of the site

Presence?	Predominant water source
Marine water	<input checked="" type="checkbox"/>

Water destination

Presence?
Marine

Stability of water regime

Presence?
Water levels fluctuating (including tidal)

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

**Tidal patterns**  
 The tidal regime prevalent in the conservation area is essentially one of a semi-diurnal pattern. During the neap tides, a strong semi-diurnal pattern prevails, with two, well defined high and low water periods during each 24 h period. During the spring tides, however, the regime tends toward a more mixed system with only a slight difference in height and time between one pair of adjacent high and low peaks each day.

**Currents**  
 Surface currents are driven by the prevailing northerly wind, which generates a northerly swell and a southerly current along the shore. Deeper circulations are driven by a net inflow of water from the Indian Ocean that replaces water lost through evaporation. The general pattern of circulation of surface water in the Gulf is counterclockwise. The influence of the wind on these shallow waters can result in very complex current patterns.

4.4.5 - Sediment regime

Significant erosion of sediments occurs on the site

Significant accretion or deposition of sediments occurs on the site

Significant transportation of sediments occurs on or through the site

Sediment regime is highly variable, either seasonally or inter-annually

Sediment regime unknown

(EOD) Water turbidity and colour  
 Turbidity levels at surface and bottom were within 0.52-2.16 NT with an average value of 1.08 NT in June 2017.

4.4.6 - Water pH

Acid (pH<5.5)

Circumneutral (pH: 5.5-7.4)

Alkaline (pH>7.4)

Unknown

Please provide further information on pH (optional):

The average pH measured during the in-situ water quality survey was in the range of 8.088.18 with an average of 8.13. The pH of Arabian Gulf coastal water typically varies in the range from 7.8 to 8.3. Horizontal variations in pH at different sampling stations were insignificant reflecting low levels of organic matter and photosynthetic activity. Usually, the horizontal variations in the water of the United Arab Emirates are insignificant due to shallowness and vertical turbulence. The recorded pH levels from the Project Area were in compliance with DM's Water Quality Objectives

4.4.7 - Water salinity

Fresh (<0.5 g/l)

Mxohaline (brackish)/Mxosaline (0.5-30 g/l)

Euhaline/Eusaline (30-40 g/l)

Hyperhaline/Hypersaline (>40 g/l)

Unknown

Please provide further information on salinity (optional):

The average salinity along the monitoring stations taken in December 2017, varied in the range 40.08 to 40.19‰ with an overall average salinity of 40.12‰. Salinity levels are comparable with the typical salinity regime of the Arabian Gulf region. The salinity could increase up to ~45 ‰ as a consequence of the flow restriction caused by the Straits of Hormuz, shallow depth and the high evaporation rates.

(EOD) Dissolved gases in water

Dissolved oxygen; Was found at high saturation levels at all stations throughout the water column at the surface, middle and near the bottom. The DO results were recorded in a narrow range from 5.12 to 6.64 mg/L (average of 5.80 mg/L) throughout the water column (surface, middle and bottom), during June 2017. The recorded DO levels from the surface, middle and bottom show a highly saturated and well-mixed distribution throughout the Project Area. The recorded levels of DO from the area are comparable with the earlier records of DO along the Dubai coastline (Mustafa and Deshgooni, 2005), and are well within the compliance limits for DM water quality objectives.

The sites at Waterfront had the lowest levels. However, at salinity levels of 42 g/kg and temperature of 30 °C the maximum saturation level for dissolved oxygen is ca. 6.0 mg/L. So saturation levels at Waterfront were at 95% and other sites were near fully saturated.

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic
- Mesotrophic
- Oligotrophic
- Dystrophic
- Unknown

Please provide further information on dissolved or suspended nutrients (optional):

Nutrients;  
Dissolved nitrogen and phosphorus compounds are present in low concentrations in seawater. Nitrogen is mainly present as nitrate (NO3-N) with low concentrations of nitrite (NO2-N), while the major inorganic compound of phosphorus is total phosphate. High concentrations of these nutrients in water can lead to excessive growth of algae resulting in eutrophication.

The average levels of nitrite nitrogen, nitrate nitrogen, ammonia nitrogen, total nitrogen and total phosphorous during the summer fieldwork were <0.10, 0.70, <0.10, <2.0 and <0.10 mg/L respectively.

The recorded levels of nitrite nitrogen, nitrate nitrogen, ammonia nitrogen, total nitrogen and total phosphorous during the winter season were <0.10, 0.45, <0.10, <2.0 and 0.44 mg/L respectively.

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar  ii) significantly different  site itself:

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Medium
Wetland non-food products	Other	Low
Genetic materials	Genes for tolerance to certain conditions (e.g., salinity)	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	Medium
Climate regulation	Local climate regulation/buffering of change	Low

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Low
Recreation and tourism	Picnics, outings, touring	Low
Spiritual and inspirational	Cultural heritage (historical and archaeological)	High
Spiritual and inspirational	Aesthetic and sense of place values	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Major scientific study site	High
Scientific and educational	Type location for a taxon	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	Medium
Nutrient cycling	Carbon storage/sequestration	Medium
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High

Other ecosystem service(s) not included above:

The surrounding marine area is utilised for water desalination.

Within the site: More than a million

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes  No  Unknown

#### 4.5.2 - Social and cultural values

- i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland
- ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland
- iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples
- iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

<no data available>

#### 4.6 - Ecological processes

<no data available>

## 5 - How is the Site managed? (Conservation and management)

### 5.1 - Land tenure and responsibilities (Managers)

#### 5.1.1 - Land tenure/ownership

##### Public ownership

Category	Within the Ramsar Site	In the surrounding area
Provincial/region/state government	<input checked="" type="checkbox"/>	<input type="checkbox"/>

##### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Commercial (company)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

##### Other

Category	Within the Ramsar Site	In the surrounding area
No information available	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

The site of Jabal Ali Wetland Sanctuary fall within JAMS, covers around 25% of the original reserve area, mainly the marine and coastal areas of around 20 sq km.

1. Palm Jabal Ali and Water Front Development; Two projects have been announced by Nakheel Developer, they both surround the site, in addition, the waterfront development shares the marine area with Jabal Ali Wetland Sanctuary.
2. Jabal Ali DEWA (highlighted on the attached map), the intertidal lagoons area 1.2 sq km that include the mangrove trees are falling under the jurisdiction of Dubai Electricity and Water Authority "DEWA" (Hassyan Coal Power Plant) but also proposed as part of the Ramsar site. Jabal Ali Dewa land is designated for conservation as it includes two representative wetlands habitat, mangrove and sea lagoons.
3. Private landowners: a few blocks along the coast belong to private owners.

#### 5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

As per Local Law No 11 of 2003:  
Dubai Municipality, Environment Department, Natural Resources Conservation Section

Provide the name and title of the person or people with responsibility for the wetland:

Eng. Alya Abdulrahim Abdulla Amin Alharmoudi, Head Of Environment Department

Postal address:

PO Box 67  
Bani Yas Road, Diera  
Dubai, United Arab Emirates

E-mail address:

aaaamin@dm.gov.ae

## 5.2 - Ecological character threats and responses (Management)

### 5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

#### Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Housing and urban areas	Medium impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Commercial and industrial areas	Medium impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Dredging	Medium impact	High impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Salinisation	Low impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water abstraction	Low impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	Low impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Shipping lanes	Low impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roads and railroads	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Utility and service lines (e.g., pipelines)	Low impact	Medium impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>



## Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fishing and harvesting aquatic resources	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified/others	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Vegetation clearance/ land conversion	Medium impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Garbage and solid waste	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Air-borne pollutants	Low impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Excess heat, sound, light	Low impact	High impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Habitat shifting and alteration	Medium impact	High impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Temperature extremes	Medium impact	High impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unspecified	Medium impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Please describe any other threats (optional):

**Harmful Algal Bloom (Sediment Cyst)**  
Commonly called red tide, occur frequently in the Arabian Gulf, mainly during winter seasons (2000-2001; 2006, 2008-2009). This phenomenon transforms the water colour to red, green and brown due to the dense batches of the HABS formed in oceans. These HABS may cause death and or poison the fish and birds which affect the food cycle, affect human health by irritating the eyes and the respiratory systems, damage the filtration and the membrane systems of the desalination plants which are the main source of fresh water in this arid region, and affect the recreational activities in the affected areas.  
Toxic and harmful blooms cause negative impacts and economic losses in many parts of the world. During recent years, HABS have become increasingly a problem in the coastal waters. The consequences and mechanisms of impact of harmful blooms vary depending on the species involved.  
Seven dinoflagellate cysts representing eleven species were identified from the samples taken from JAMS. Alexandrium sp. (8.43%), Protoperidinium Cysts (37.35%), Gymnodinoid cyst (8.03%), Dinoflagellates cysts (17.47%), Pyrophacus sp. (7.63%), Peridinooid cyst (11.24%) and unidentified cyst ((9.84%) were the major groups of dinoflagellate cysts in the sediment. The mean numbers of cysts 17 gram in the sediments were low and not substantial to produce the red tide of HABS. A wide range of organisms within dinoflagellate cysts in the sediments achieves dinoflagellate bloom in the water during favourable conditions and sometimes involved in HABS due to toxic species.

**Accidental oil spills**  
The Arabian Gulf has an enormous number of offshore oil and gas platforms and many major oil terminals. It is also extremely busy shipping line for oil transports. Accidental spilling is unavoidable. About 25,000 tanker movements sail in and out of the Strait of Hormuz annually and transport about 60% of all the oil carried by ships. Minor oil spills reach the coastal areas of Dubai occasionally including JAMS.

**In the surrounding area:**  
Hassyan 1200MW Clean Coal Independent Power Plant:  
Dubai Electricity and Water Authority's (DEWA) total installed generating capacity is approximately 9,656MW with a desalination capacity of 470 MGD (Million Imperial Gallons per Day). In order to meet forecasted power demand, DEWA is the Project Sponsor for a new Independent Power Project (IPP) with an aggregate capacity of 1,200MW (net output) consisting of two 600MW units, with the first unit to be in commercial operation in March 2020 and the second unit in March 2021.

**Hassyan SWRO Station Complex**  
Located inside JAMS but outside the proposed site and near to its Southern borders. The project is designed to meet future potable water requirements for the Emirate of Dubai, the Dubai Electricity and Water Authority (DEWA) is developing a Sea Water Reverse Osmosis (SWRO) desalination complex at their Hassyan landholding in Dubai, UAE.

## 5.2.2 - Legal conservation status

## Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Other global designation	Biologically significant area "EBSA" of Jabal Ali	<a href="https://chm.cbd.int/database/record?documentID=237773">https://chm.cbd.int/database/record?documentID=237773</a>	partly

## National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Protected area as per Local Law No 11 of 2003	Jabal Ali Marine Reserve		whole

## 5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

## 5.2.4 - Key conservation measures

## Legal protection

Measures	Status
Legal protection	Partially implemented

## Habitat

Measures	Status
Catchment management initiatives/controls	Proposed

## Species

Measures	Status
Threatened/rare species management programmes	Implemented

## Human Activities

Measures	Status
Research	Partially implemented

Other:

Currently, Natural Resources Conservation Department is carrying out environmental baseline surveys at each protected area in Dubai including JAMS to describe the existing environmental conditions and provide a foundation to NRCS for future environmental monitoring activities.

**Environmental Baseline Study 2017:**

The primary objectives of the environmental baseline study part are listed below:

- Characterize the ecological (e.g., key species and habitats of conservation, threats, stresses, etc.), environmental (e.g., climate change impacts), socio-economic and cultural systems (e.g., archaeology and heritage, ecosystem services, etc.)
- Lay a solid foundation for future data collection and monitoring programs; and
- Prepare an integrated geo-database for JAMS

**Environmental Management Plan**

In one step further, the findings of the EBS, where relevant, will also serve as input to the second part of the project, the environmental management planning process with particular respect to i) defining conservation targets at both Emirate (network/system) level and protected area (site) level and to ii) developing well-tailored and practical Environmental Management Plans .

**Biological Environment - JAMS:**

Seawater profiling was conducted at predefined sampling stations to assess the compliance of Dissolved Oxygen (DO), salinity, temperature, turbidity and pH values at various locations in JAMS. The analyzed seawater samples were found to be in compliance with Dubai Water Quality Objectives values.

**Species monitoring;**

With respect to coastal birds, nesting terns were found at four locations; two small islands at the tip of PJA trunk and at Waterfront Islands 1 and 2. In addition to the nesting terns, several bird species were also recorded during the survey.

Although JAMS provides a suitable habitat for the globally threatened mammal species Dugong dugong, there was no any sighting of this species during the MEBS field works. In addition, dolphin species were also not observed during the summer surveys.

Marine turtle survey was conducted by the Emirates Marine Environment Group (EMEG) in March-August 2017. As per the survey results, 49 emergences from sea were recorded. Of this number, 43 resulted in nesting while six (6) of them were reported to be aborted nesting attempts. In total, 3,225 eggs were laid of which approximately 2,540 successfully hatched. Two (2) nests were poached by people whereas one (1) nest was attacked by sand foxes.

Ground-truthing works were conducted in JAMS at 45 locations. After the completion of the ground-truthing works, a satellite mapping was conducted to determine the seabed characteristics within the perimeter of JAMS. Mapping was conducted using an object-based algorithm considering all the available satellite imagery and ground-truth. 8-band WorldView-2 satellite imagery (DigitalGlobe Inc.) was examined to create a benthic habitat map. These data have a spatial resolution of 2.0 m.

**5.2.5 - Management planning**

Is there a site-specific management plan for the site? In preparation

Has a management effectiveness assessment been undertaken for the site? Yes  No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes  No

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

A research center is under the establishment as part of Hasayan power plant project compensation and to maintain the ecological characters of the site.

This research centre will run by a management committee that includes the main stakeholders to achieve the following; Maintain Ecological function and biodiversity of the Jebel Ali Marine Sanctuary (JAMS) and to ensure that in doing so, the highest standards of good governance are maintained, adherence to legal provisions and ethical principles are achieved and operational procedures for all stakeholders are implemented.

An action plan will be prepared in this regard for the management board to approve .

**5.2.6 - Planning for restoration**

Is there a site-specific restoration plan? No, but restoration is needed

**Further information**

Coral restoration plan is required in order to restore the loss by bleaching events and by dredging activities.

**5.2.7 - Monitoring implemented or proposed**

Monitoring	Status
Animal species (please specify)	Implemented

Hawksbill turtle nesting annual monitoring is implemented by EMEG. The last marine turtle survey was conducted by the Emirates Marine Environment Group (EMEG) in March – August 2017. As per the survey results, 49 emergences from sea were recorded. Of this number, 43 resulted in nesting while six (6) of them were reported to be aborted nesting attempts. In total, 3,225 eggs were laid of which approximately 2,540 successfully hatched. Two (2) nests were poached by people whereas one (1) nest was attacked by sand foxes.

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Al-Ghais, S. M. (2009). Nesting of hawksbill turtles, *eretmochelys imbricata*, on the islands of the arabian gulf: (Reptilia: Cheloniidae). *Zoology in the Middle East*, 48(1), 43–48.

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Feary, D. A., Burt, J. A., Bauman, A. G., Al Hazeem, S., Abdel-Moati, M. A., Al-Khalifa, K. A., ... Wiedenmann, J. (2013). Critical research needs for identifying future changes in Gulf coral reef ecosystems. *Marine Pollution Bulletin*, 72(2), 406–416.

Gundlach, E. R., McCain, J. C., & Fadlallah, Y. H. (1993). Distribution of oil along the Saudi Arabian coastline (May/June 1991) as a result of the Gulf War oil spills. *Marine Pollution Bulletin*, 27, 93–96.

Hasbun, C. R., Lawrence, A. J., Samour, J. H., & Al-Ghais, S. M. (2000). Preliminary observations on the biology of green turtles, *Chelonia mydas*, from the United Arab Emirates. *Aquatic Conservation: THE REST IN THE ATTACHMENT*

#### 6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<1 file(s) uploaded>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

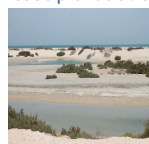
<no file available>

vi. other published literature

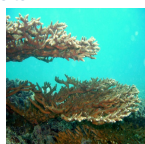
<no file available>

#### 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Inter tidal Lagoons ( Dubai Municipality, 03-05-2018 )



Acropora downingi-Coral ( Shahid Mustafa , 01-05-2015 )



Anomastrea irregularis (cf Pseudosiderastrea tayami) ( Shahid Mustafa , 01-05-2015 )



Arabian butterflyfish - Chaetodon melapterus ( Shahid Mustafa , 01-05-2015 )



Arabian Gulf sea snake (Hydrophis lapemoides) ( Shahid Mustafa , 01-05-2015 )



Caulerpa sp. [cf noodle seagrass (Syringodium isoetifolium)] ( Shahid Mustafa , 01-05-2015 )



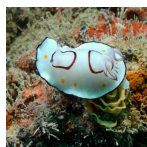
Seagrass - Halodule uninervis ( Shahid Mustafa , 01-05-2015 )



Paddle weed - Halophila ovalis ( Shahid Mustafa , 01-05-2015 )



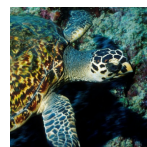
Seagrass bed ( *Shahid Mustafa* , 01-05-2015 )



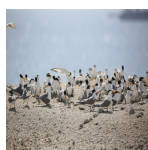
*Chromodoris annulata* ( *Shahid Mustafa* , 01-05-2015 )



Green turtle - *Chelonia mydas* ( *Shahid Mustafa* , 01-05-2015 )



Hawksbill turtle - *Eretmochelys imbricata* ( *Shahid Mustafa* , 01-05-2015 )



Lesser crested tern - *Thalasseus bengalensis* ( *Esmat Elfaki Mohammed Elhassan* , 31-05-2017 )



*Platygyra daedalea* ( *Shahid Mustafa* , 01-05-2015 )



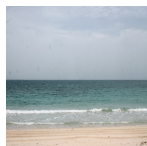
Longfin batfish - *Platax teira* ( *Shahid Mustafa* , 01-05-2015 )



*Turbinaria peltata* ( *Shahid Mustafa* , 01-05-2015 )



Mangroves ( *Mohammed Al Sadi Dubai Municipality* , 03-05-2018 )



Jabal Ali Wetland Sanctuary Coastal Area ( *Dubai Municipality* , 03-05-2018 )

### 6.1.4 - Designation letter and related data

#### Designation letter

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Date of Designation

2018-10-25