RAMSAR INFORMATION SHEET

FOR WETLANDS OF INTERNATIONAL IMPORTANCE

Site reference number 7UK

1 Compilation date **September 2000**

2 Country **Bailiwick of Jersey**

3 Name of wetland **South East Coast of Jersey, Channel Islands**

4 Site centre location: **Latitude: 02 02 00 W Longitude: 49 09 00 N**

5 Altitude **14.58m bcd – 14.12m acd**

6 Area (ha) **3210.5**

7 Overview

The site comprises various habitats; reefs, boulder fields, mud, sandy and shingle shores not covered by water at low tide, combined with shallow tidal lagoons, seagrass beds and a constellation of outlying reefs. Amongst the largest intertidal reef sites in Europe. A maximum spring tide range of 12 metres exposes in excess of 17.5sqkm of wave cut rock platforms, extensive areas of reef at varying elevations, expansive rocky shores and a complex system of soft substrate gullies. The area also features a large, shallow, depositing, soft sediment bay, containing seagrass meadows, which provide important winter habitat for nationally important populations of waders and wildfowl. These factors, combined with Jersey's biogeographical position produce great biodiversity, a rich and diverse range of biotopes and some uncommon species assemblages. The flora and fauna is characterised by limit-of-range species at the northern and southern margins of their distributions that are not present on shores either to the north or south respectively. Fishing within the site, is of great cultural, social and traditional importance to the population of Jersey. To the north of the site lies Gorey Harbour a small port used principally for recreational boating. To the west of the site lies St Helier, Jersey's capital and principal port with associated facilities and shoreline development.

8 Wetland type Marine/coastal wetland

Code	Name	% Area
A	Shallow marine waters	33.4
B	Marine beds (eg. sea grass beds)	2.3
D	Rocky shores	25.4
E	Sand / shingle shores (including dune systems)	37.5
Other	Other	1.4

9 Ramsar Criteria 1, 2, 3, 4, 7, 8

10 Map of the site √

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12 Justification of criteria

Ramsar Criterion 1.

The site has the one of the largest tidal ranges in the world that can exceed 12 metres, a shallow sloping shore profile, a wide range of substrata and wave exposure. Its shallow waters are relatively warm due to the influence of the Gulf Stream and surrounding oceanographic conditions. These factors combine to produce a site considered to have great ecological value due to the diverse range of habitats, communities and species found in a comparatively small area. Within the site, the Violet Bank is one of the largest igneous intertidal reef sites in Europe, comprising approximately 8sqkm of rocky shore exposed at low water on spring tides divided by an extensive network of gullies and separated in places by mud and sand flats. Grouville Bay is a large shallow bay containing mud and sand flats that are exposed at low water and contain Zostera beds.

Ramsar Criterion 2.

The extensive rocky shores found within the site are identified as being of priority for conservation at an international level due to the rarity and perceived threat to this type of habitat and its associated faunal and floral communities. The extensive mud and sand flats found in the site are likewise considered of significant value at a European level. Zostera beds found in the embayed shallow waters are of great importance to a wide range of vulnerable species in their early life stages and thus merit the highest level of protection available. Adjacent to the Baie de Mont St Michel (62000 Ha designated in 1994), the site represents the last vestiges of a former land bridge to continental Europe and plays a major role in the continued ecological functioning of the Golfe Normano-Breton with many species of wintering shorebirds visiting the area during annual migration passages. One of the largest breeding groups of bottle-nosed dolphins (*Tursiops truncatus*) in the British Isles is regularly sited within the boundaries of the site.

Ramsar Criterion 3.

Jersey is situated in Le Golfe Normano-Breton between England and France, on the convergence of Boreal (cold temperate) and Lusitanean (warm temperate) marine biogeographical regions. Overlap of these regions promotes increased species richness and allows species to exist at the northern and southern limits of their distributions. This enables the site to support some species which are rare or absent from British coasts as they are normally associated with the warmer waters of southern Europe, e.g., the ormer *Haliotis tuberculata*, as well as species that are normally associated with the colder northern waters of the United Kingdom, e.g., the beadlet anemone *Actinia equina*. The overlap of the Boreal and Lusitanean biogeographical regions, produces many limit-of-range populations. It has been hypothesised that such limit-of-range populations contain unique alleles or a combination of alleles arisen though adaptation to local, more extreme environmental conditions than core populations. Monitoring of these habitats for environmental change is crucial.

Ramsar Criterion 4.

The Baie de St Malo experiences huge movements of water diurnally with a relatively closed anti-clockwise current around Jersey. This factor, when combined with the warming influence of the Gulf Stream and the physical characteristics of the site assists in enhancing the local recruitment and subsequent offshore migration of many animals that have planktonic early life stages, especially commercially important Crustacea. The large areas of rocky shore are important to many species, providing shelter, protection and food for both larval and adult stages. Similarly the rich infaunal communities of the sand and mudflats are important for their range of mollusc and worm species. These areas are important nurseries for a wide variety of organisms. Zostera beds and wide, shallow gullies dividing the rocky platforms also provide critical habitat for many other forms and stages of life, as do the extensive and diverse algal communities found within the site.

Ramsar Criterion 7.

The extensive areas of shallow water and huge number of intertidal pools found within the site provide habitat for many species of fish. To date 107 species of fish have been recorded from the site and adjacent waters. The enormous water exchanges and consequent strong tidal streams combined with high and low energy wave conditions and substrate variability mean a wide diversity of species and life history stages are present. The biogeographic location of the site allied with the surrounding oceanographic circulation and physical features serve to enhance species variety and abundance. The site contributes much to the continued viability of the Golfe Normano Breton ecosystem, which undoubtedly plays a major role in the functioning of English Channel fisheries and biodiversity.

Ramsar Criterion 8.
On the south coast, several headlands of varying elevation extend into the residual inshore anti-clockwise current, creating sheltered areas in their western lee. Here, recruitment of planktonic larvae onto extensive areas of rocky shore and water-filled soft sediment gullies occurs. Many species of fish take advantage of elevated summer water temperatures to feed and grow on the rich food supply in fertile, shallow waters before making an Autumn migration to spawn in offshore waters. Conversely, other species are absent in summer but present in winter for similar reasons. A range of small fish species lives out their entire life within the site. Adjacent to the site is a sand bank known as the Banc du Chateau where large rafts of seabirds and the aforementioned dolphins often feed on a plentiful supply of sandeels (Ammodytes sp.) and other pelagic fish.

13 General location
Located on the south and east coasts of the Channel Island of Jersey. Situated in Le Golfe Normano-Breton , 22.4 kilometres west of Normandy (France), 48 kilometres north of Brittany (France) and 136 kilometres south of Weymouth (England).
The site extends from the port of St. Helier on the south coast, to Gorey harbour on the east coast, encompassing the south-east corner of the Island.
The site is adjacent to the capital of Jersey, St. Helier, which holds a population of 27,523 (1996, Census).
Administrative Region: Bailiwick of Jersey

14 Physical Features

Soil & Geology	acidic, alluvium, basic, boulder, clay, cobble, granite, gravel, igneous, maerl, metamorphic, mud, nutrient-rich, peat, pebble, sand, sandstone/mudstone, sedimentary, shingle, slate/shale
Geomorphology and Landscape	coastal, crags/ledges, enclosed coast (including embayment), geos (rocky inlets), intertidal rock, intertidal sediments (including sandflat/mudflat), islands, lowland, open coast (including bay), pools, shingle bar, subtidal rock (including rocky reefs), subtidal sediments (including sandbank/mudbank), surge gullies, tidal rips
Nutrient status	Mesotrophic
PH	Circumneutral
Salinity	Saline / euhaline
Soil	No information
Water permanence	Tidal
Summary of main climatic features	Rainy with a mild winter. Coolest month above 0 ° C but below 18 ° C. Warmest month above 10 ° C but below 22 ° C. Constantly moist, rainfall of the driest month is above 60 mm. Mean annual precipitation in the range 600-1000 mm.

15 Hydrological values
Shoreline stabilisation and dissipation of erosive forces, Sediment trapping

16 Ecological features
The site contains a diverse array of habitats and micro-habitats. Extensive mud sand flats and pools stretching into shallow waters support extensive beds of *Zostera noltii* and *Zostera marina*. Intertidal rocky platforms bear luxuriant growth of Fucoid species. Low water levels reveal large stands of Laminaria species. All of these communities also support rich epiphytic growth. The shallow water

filled gullies and intertidal rock pools contain dense colonies of the introduced alga *Sargassum muticum*, first recorded in Jersey in 1980. At times *Ulva lactuca* is abundant.

17 Noteworthy flora

Internationally important species occurring on the site

Habitat Type

Zostera beds

Higher Plants

Zostera marina, Zostera noltii

Nationally important species occurring on the site

Habitat Type

Zostera beds, Ascophyllum nodosum colonies

Higher Plants

Bifurcaria bifurcata, Codium fragile subsp. Tomentosoides, Codium tomentosum, Cystoseira baccata, Cystoseira foeniculacea, Cystoseira nodicaulis, Cystoseira tamariskolia, Halopteris scoparia, Stilophora tenella, Calliblepharis jubata, Choreocolax polysiphoniae, Falkenbergia rufolansa, Gigartina teedi, Gracilaria bursa-pastoris, Grateloupia filicina var.filicina, Griffithsia corallinoides, Halopitys incurvus, Halurus equisetifolius, Kallymenia reniformis, Lomentaria clavellosa, Mesophyllum lichenoides, Polysiphonia nigrescens

Zostera marina, Zostera nolti

18 Noteworthy fauna

Nationally important species occurring on the site

Mammals

Tursiops truncatus

Fish

Hippocampus hippocampus, Gobius cobitis

Mollusc

Modiolus modiolus, Ostrea edulis, Haliotis tuberculata, Gibbula pennanti, Mactra glauca, Ocenebrina aciculata, Rissoa guerinii

Crustacean

Pisa tetradon, Thia scutellata

19 Social and Cultural Values

Aesthetic
Aquatic vegetation (e.g. reeds, willows, seaweed)
Archaeological/historical site
Conservation education
Current scientific research
Fisheries production
Non-consumptive recreation
Sport fishing
Subsistence fishing
Tourism
Traditional cultural
Transportation/navigation

20 Land tenure/ownership

Ownership category	On-Site	Off-Site
Non-governmental organisation	+	+
Local authority, municipality etc.	+	+
National/Crown estate	+	+
Private		+
Public/communal		+

21 Current land use

Activity	On-Site	Off-Site	Scale
Nature conservation	+	+	Small-Scale
Tourism	+	+	Large-Scale
Recreation	+	+	Large-Scale
Research	+	+	Small-Scale
Collection of non-timber natural products: (unspecified)	+		Small-Scale
Fishing: (unspecified)	+		Small-Scale
Fishing: commercial	+	+	Small-Scale
Fishing: recreational/sport	+	+	Large-Scale
Fishing: subsistence	+	+	Small-Scale
Marine/saltwater aquaculture	+	+	Large-Scale
Gathering of shellfish	+	+	Large-Scale
Shell collection	+	+	Small-Scale
Bait collection	+	+	Large-Scale
Permanent arable agriculture		+	Small-Scale
Grazing (unspecified)		+	Small-Scale
Rough or shifting grazing		+	Small-Scale
Industrial water supply	+		Small-Scale
Industry		+	Small-Scale
Sewage treatment/disposal		+	Small-Scale
Harbour/port	+	+	Small-Scale
Mineral exploration	+	+	Small-Scale
Transport route	+	+	Small-Scale
Urban development	+	+	Small-Scale
Military activities		+	Small-Scale
Other	+	+	Large-Scale

22 Adverse factors affecting the ecological character of the site

Activity	On-Site	Off-Site	Scale
Direct loss of fauna through hunting or capture	+	+	Large-Scale
Drainage/reclamation: (unspecified)	+	+	Large-Scale
Drainage/reclamation for industry	+	+	Large-Scale
Drainage/reclamation for urban development	+	+	Large-Scale
Dredging		+	Large-Scale
Erosion	+	+	Large-Scale
Eutrophication	+	+	Large-Scale
Sedimentation/siltation	+	+	Large-Scale
Introduction/invasion of exotic animal species	+	+	Large-Scale
Introduction/invasion of exotic plant species	+	+	Large-Scale
Over fishing	+	+	Large-Scale
Pollution - domestic sewage	+	+	Large-Scale
Pollution - fertilisers	+	+	Large-Scale
Pollution - pesticides/agricultural runoff	+	+	Large-Scale
Recreational/tourism disturbance (unspecified)	+	+	Large-Scale
General disturbance from human activities	+	+	Large-Scale
Transport infrastructure development		+	Small-Scale

23 Conservation measures taken

Conservation measure	On-site	Off-site
Other	+	+

24 Conservation measures proposed but not yet implemented

see below

Site vulnerability and management statement

A series of major land reclamations have taken place on the western boundary of the site in the last 30 years. These have provided a disposal site for the Island's inorganic waste. The most recent, completed in 1995, destroyed an area of intertidal reef identified as the most biologically diverse around Jersey's coast during construction. Future options for further reclamation or alternative methods of disposal are currently being considered. Eutrophication resulting from treated sewage discharge occurs in the adjacent St Aubin's Bay. Discharges of untreated sewage within the site occur periodically, damaging the interests of bivalve fish farmers and causing localised nutrient enhancement. Agricultural run off of unspecified quality enters the site from variety of point sources. Chlorinated warm water effluent from a power station enters the site on its western boundary. Dredging of adjacent St Helier Port facilities may impact on the site as may further expansion of the Port. Aggregate extraction has taken place within the site in the past and historical shoreline developments have perturbed natural sediment regimes. In some areas erosion is an ongoing concern and invasive sea defence work within the site may cause problems in the future. Evidence of radionucleide pollution from the nuclear reprocessing site on the adjacent French coast has been found within the site. The introduced species *Crepidula fornicata, Crassostrea gigas, Venerupis senegalensis, Tapes phillipinarium* and *Sargassum muticum* are present in the site with *Undaria pinnititida* recorded in St Helier Harbour for the first time in 1998. Further expansion of fish farming structures may adversely affect the site.

Overfishing of some vulnerable species is a potential problem within the site. Damage caused by insensitive fishing methods is a small scale problem. Sources of angling bait have declined in recent years. Tourism/recreational activities are mainly low-impact, but potential major impacts are linked to creation and ongoing use of facilities for recreational and commercial vessels. The port of St Helier and its associated fuel depot lie immediately to the west of the site.
Personal water craft and motor boats are used extensively in Grouville Bay. Dog walking has been seen to disturb wintering shore birds.
A Marine Protection Zone, whereby there is a presumption against all development between mean high water mark and the seaward extent of Jersey's territorial seas other than for fish farming purposes was established in 1995. Major developments now require a full environmental impact assessment under the Island's Planning Laws. A raft of sea fisheries regulations apply and are enforced across the site. An Oil Spill Contingency Plan is in place. Alterations to the Island Planning Law and the development of the Conservation of Wildlife (Jersey) Law 1999, afford the potential for more legal protection of the site and a management plan is proposed. A Coastal Zone Management Strategy is in preparation.

25 Current scientific research/survey/monitoring and facilities

Daily

· Sea temperature is monitored from an automated station at St Helier Harbour and at another location east of the site.
· Tides from two gauges, recording date, time and height (m), to gather real time data to measure tidal surges for flood warnings.

Monthly

· The States of Jersey's Agriculture and Fisheries and Public Health Departments monitor fish farm concession areas, i.e., oysters and clams for *Escherichia coli, Presumptive Coliform* and *Salmonella*.
· Societe Jersiaise Ornithology Section conduct shorebird counts within specific sectors of the site. Undertaken at least once a month, with up to 3 counts per month during the winter (from December through to March).

Quarterly

· Common Limpet (*Patella vulgata*) and serrated wrack (*Fucus serratus*) are tested for Cd, Pb, Cu, Cr, Zn, As and Hg. Samples collected in January, April, July and October from La Collette/ Havre des Pas and Gorey since July 1996.
· Beach profiles taken Feb/May/Aug/Nov. 20 profiles taken at 20 metre intervals from MHW to MLW across the site.

Biannually

· Slipper limpet (*Crepidula fornicata*) tested since July 1996 for heavy metal content in January and July. Sites east of St Helier Harbour and in Grouville Bay.
· Pollack (*Pollachius pollachius*) tested for radioactivity (Gross Beta and Gamma scan) spring and autumn.

Annually

· Seawater tested for radioactivity (Caesium 134 and 137, plus Tritium).
· Oyster (*Crassostrea gigas*) tested for radioactivity - Total beta, Gamma spectrometry and transuranics: Pu-238, Pu-239+240, Am-241 + where detected Cm-242 and Cm-243 + 244.
· Sediment (inshore and fine 200 u sieve) tested for radioactivity - Total beta, Gamma spectrometry and transuranics: Pu-238, Pu-239+240, Am-241 + where detected Cm-242 and Cm-243 + 244.

Seasonal.
· Societe Jersiaise Ornithology Section conduct monthly Brent Goose counts during the winter from November through to April.
· Societe Jersiaise Ornithology Section conduct fortnightly wader counts during the winter from November through to April.
· Bathing waters are monitored for a period of 20 weeks over the main tourist bathing season. Total *coliform, faecal coliform* and *faecal streptoccoci*, plus other physical and chemical parameters in compliance with EC Bathing Water Directive.

Continuous
· Jersey's Department of Agriculture and Fisheries monitor usage of the site, commercial fisheries landings, recreational activity,farmed shellfish production, all imports and exports of farmed shellfish, occurrence and frequency of rare fish sightings and occurrence and frequency of fish kills.
· Sightings and mortalities of marine mammals recorded by the Zoology Section of the Société Jersiaise and the States of Jersey Department of Agriculture and Fisheries.
· Société Jersiaise Ornithology Section bird ringing project ongoing.

Current Studies Being Undertaken
· 3 year study on the importance of *Zostera* habitats to fisheries. Focussing on Jersey shores and funded by the States of Jersey Department of Agriculture and Fisheries.
· 3 year study on sediment dynamics and physical oceanography of Jersey's coastal waters. Funded by the States of Jersey Environmental Services Unit.
· Monitoring of populations of the ormer (*Haliotis tuberculata*) following significant mortality in 1999.
· Trials underway in an attempt to enhance populations of scallop (*Pecten maximus*) within the site
· Marine Conservation Society sublittoral biotope survey - Sea Search.

Undertaken and Completed: Pollution.
· University of Wales. Laser ablation study of a collection of historic to modern limpet shells for 11 elements, including Zn, Cu, Cd, Pb and As.
· Non-marine waters of south-east coast monitored monthly between January 1995 and November 1997. Outfalls at Le Hurel Slipway and La Rocque monitored since January 1994. Other sites - Le Bourg, Grouville Bay, Le Hurel and Gorey Harbour. Bacterial analysis occurred from January 1995 and full analysis for: NH3, NO3-, NO2-, Na, K, Ca, Mg, P, SO4, Cl, COD, BOD, suspended solids, total *coliform*, faecal *coliform*, faecal *streptoccoci*, from July 1995.
· CREH. (1995). Further Assessment of Non-outfall Sources of Bacterial Indicator Organisms to the Coastal Zone of the Island of Jersey.

Undertaken and Completed: Physical aspects -
· Various hydraulic studies have been carried out on the area surrounding St Helier. For example:
1. Coode & Partners. (1980). St Helier Harbour Land Reclamation West of Albert Pier. Report on Tidal Model Studies. Surrey, Harbours Office, Jersey.
2. Coode & Partners. (1981). St Helier Harbour Roll on Roll Off Harbour and Land Reclamation. Report on Wave Model Tests. Surrey, Harbours Office, Jersey.
3. Wallingford. (December 1989). St. Helier Hydraulic Studies. 3 studies included sediment samples, beach profiles, waves, seasonal wave height exceedence, tidal flow measurements, suspended solids and bed sampling.
· Various reports describing Anneport Bay and Fauvic (Grouville Bay). (1991 - 1997). Examining wave regime, turbidity, pre and post recharge beach profiles, sediment transport patterns and an assessment of coastal protection options. For example:
4. Wallingford. (December 1991). Jersey Coastal Management Study.
5. Bird, E. C. F. (GeoStudies). (July 1995). Report on Survey of the Jersey Coast with Reference to Erosive Problems. (Includes studies on beach erosion problems at Fauvic and Anneport.)
· Various studies on coastal protection. For example:
6. Thorton, V. A. (September 1993). Coast Protection Study. (Baseline survey on the seawalls around the island.)

7. Young, J. (March 1996). Report on Coastal Protection and Management. Public Services Committee.
· Various inshore bathymetry studies have been carried out on the East of the Island.
8. Navy. UK Admiralty. (November, 1963). Report of Survey Jersey, St Helier.
9. Navy. UK Admiralty. (April, 1973). Survey of North and East Coast, Jersey.
10. HMS HECATE. BFPO Ships. UK Admiralty. (October 1983). Report of Survey - Jersey East Coast Grouville Bay Shoal Investigation.
11. Naval party 1016, MV PROUD SEAHORSE. UK and French Admiralty. (December, 1997). Passage De La Deroute.
· Le Hir, P. B. P. et al. (October 1987). Golfe Normono-Breton, Etude Regionale Integree. IFREMER: 269. Studied hydrodynamics and sedimentology, deep water pelagic, sub-tidal biology, foreshore and wet zones, socio-economic aspects and a particular study of the Bay of Mont St Michel.
· Wallingford. (December 1997 - June 1998). Wave buoy deployed off East coast to monitor height and period.
· Arup Economics and Planning. (1998). Jersey Mineral Study. Investigated marine mineral resources.
· Turbidity monitored at 5 stations weekly during development of the St Helier Marina.

Undertaken and Completed: Flora and fauna.
A number of studies have been undertaken examining the biodiversity of Jerseys coastal zone. Some areas of the South East coast have been studied in detail:
1. Thomas, N.S. and Culley, M. B. (1988). The Macroinvertebrate Fauna of the Sandy Shores Adjacent to La Collette, Jersey. Unpublished report to the States of Jersey. Marine Laboratory, Portsmouth Polytechnic. 22pp.
2. Culley, M. B., & English, P. (1992). A Preliminary Investigation into the Macro-invertebrates of the Soft Sediments at La Rocque, Jersey, October 1990. Unpublished report to the States of Jersey. Marine Laboratory, University of Portsmouth. 27pp.
3. Save our Shoreline. (1994). A Case for Preserving the Shoreline and Bay of Havre des Pas from any Further Development, (Landfill, Reclamation Schemes or Marina) and a Recommendation for Making 'La Carriere' and Associated Causeway a Site of Special Interest. A presentation to Members of the States of Jersey. SOS, St. Helier 29pp.
4. Culley, M.B., Farnham, W.F. and Thorp, C.H. (1996). An Assessment of the Marine Communities present on the South Coast of Jersey from St. Helier to La Rocque, July, 1994. Unpublished report to the States of Jersey. Marine Laboratory, University of Portsmouth. 47pp.
5. Culley, M.B., Thorp, C.H., Farnham, W.F. and Romeril, M.G. (1996). Proposal for the Designation of the Southern Shore of Jersey from La Collette to La Rocque as a Site of Special Interest. Unpublished report to the States of Jersey. Marine Laboratory, University of Portsmouth. 20pp.
6. Culley, M.B. and Thorp, C.H. (1996). An Investigation of the Macroinvertebrate Communities Inhabiting the Sediments of the Shore of Jersey from La Collette to La Rocque, April , 1995. Unpublished report to the States of Jersey. Marine Laboratory, University of Portsmouth. 99pp.
7. Mercer, T. (1998). Volume 1 - Main Report: Intertidal Survey: La Collette to Le Dicq. WWT Wetlands Advisory Service report to the States of Jersey. 25pp.
8. Bruce, J. (September, 1998). Assessment of Wintering Waterfowl Populations, La Collette to Le Dicq, Jersey, Channel Islands. WWT Wetlands Advisory Service report to the States of Jersey. 28pp.
· Kindleysides, D. (1995). Conserving the Intertidal Biodiversity of Jersey: a Strategy. Unpublished MSc Thesis. University College London. 149pp.
· Crutchley, S. (1997). Designation of a Marine Protected Area in Jersey. Recommendations with special Reference to Molluscs. Unpublished MSc Thesis. University College London. 83pp.
· Jewell, S. (1995). An Identification and Analysis of Key Criteria for the Sustainable Development of Jersey's Coastal Zone. Unpublished MSc Thesis. Institute of Offshore Engineering, Heriot-Watt University. 99pp.
· Southampton University study on radionucleides in molluscs and algae. Samples taken from St. Helier and La Rocque.
· Short report completed following significant mortality of razor shells (*Ensis arcuatus*) within site in 1998.

26 Current conservation education

A small range of published material is available on Jersey's wider marine environments. Several information panels are situated within the site. The States of Jersey and various NGO's organise regular guided walks across the site for all ages and abilities from infant to post-graduate level. Visiting groups of students regularly use the site for field studies. Fisheries regulations are explained in several information leaflets. A publication focused on the site, its value and future management is planned.

27 Current recreation and tourism

Non-exploitive recreational activity is very important within the site. A wide range of activities take place, including for example: Walking (also with dogs), bird watching, horse-riding, sun bathing and beach games. Exploitive recreational activities centre on low water fishing for crustaceans, molluscs and fish, recreational angling, bait collection, spearfishing and algae collection. Watersports are important within the site with water ski-ing, jet ski-ing, windsurfing, canoeing, sailing, rowing, swimming all popular. Facilities within the site include non-marina boat moorings, a tidal swimming pool, beach kiosks, cafes and associated retail outlets. Piers, jetties and slipways are also found spread along the entire landward boundary of the site. On the whole there is currently little conflict within user groups; bar overfishing and threats from coastal development, the site suffers relatively little activity of major environmental consequence. Most activities run throughout the year depending on weather and tides, but activity tends to peak in the summer months. The main tourist season is April to October. The estimated number of visitors to Jersey from 1994-1997 was 663,250. Some directed fisheries are subject to seasonal closures: *Maja squinado* and *Hakiotis tuberculata*. There is a strong cultural attachment to the site within a significant proportion of Island residents - the continued ecological health of the site is held as sacrosanct by many.

28 Functional jurisdiction

Bailiwick of Jersey

29 Management authority

States of Jersey Planning and Environment Committee
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30 Bibliography

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British Geological Survey. (1982). Jersey. (Channel Islands Sheet 2) Solid and Drift 1:25000 Series. Ordance Survey, Southampton.

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Christensen, J. Report on the Census for 1996. States of Jersey.

Critchley, A. T., Farnham, W. F. and Morrell, S. L. (1983). A Chronology of New European Sites of Attachment for the Invasive Brown Alga, Sargassum muticum, 1973-1981. Journal of the Marine Biological Association U. K. 63, 799-811.

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Hayward, P. J. and Ryland, J. S. (Eds). (1990). The Marine Fauna of the British Isles and North-West Europe. Volume 2 Molluscs to Chordates. Clarendon Press, Oxford.

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Joint Nature Conservation Committee. (1995). Non-native Marine Species in British Waters. Marine information notes. Number 7 (edition 1).

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Kindleysides, D. (1995). Conserving the Intertidal Biodiversity of Jersey: a Strategy. Unpublished MSc Thesis. University College London.

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