



Identifying and monitoring local seals

**Environmental Impact Assessment
prepared for Hayle Harbour Development
in relation to Grey Seals (*Halichoerus grypus*)
by Sue Sayer of Cornwall Seal Group.**

This report outlines Cornwall Seal Group's (CSG's) position statement on Hayle Harbour Development, information about the current locations of seal haul out sites and the movement of seals, possible anticipated impacts of this major development on Grey Seals, an outline of the conservation status of Grey Seals in the UK, as well as an acknowledgement of help. Cornwall Seal Group (CSG) members' aim is to ensure that any impact on seals in the surrounding area by the development of Hayle Harbour and Marina is minimised.

Due to the current and ever increasing* levels of disturbance of seals at haul out sites either side of St Ives Bay, a voluntary 'Marine Creatures Code of Conduct for St Ives Bay' already exists. This will need to be reviewed and strengthened with legal reinforcement.

Marine Creatures of St Ives Bay
The Bay is host to a wealth of large marine creatures. Respect them and follow the code. Please also respect the voluntary No Go Zones to help minimise disturbance to wildlife.

Under the Wildlife and Countryside Act, 1981, (as amended by the Countryside and Rights of Way Act, 2000) it is an offence to kill or injure cetaceans (dolphins, porpoises and whales) or to disturb cetaceans and basking sharks. To do so intentionally or recklessly may result in a prison sentence.

GREY SEAL
The most commonly seen of the large marine creatures living in our waters. Grey seals use remote islands and caves for breeding. They spend their first 3 weeks on land. It is natural for them to be left alone by their mothers who leave watch from the sea. Seals can be easily disturbed when on land as they rest, moult and breed. The first sign of disturbance are the seals looking up in response to movement or sounds and moving towards the sea. Never approach, touch or feed seals of any age.

BOTTLENOSE DOLPHIN
At over 3 metres, bottlenose are one of the largest dolphins commonly seen in UK waters, easily recognisable with their tall dorsal fin, short snout, bulbous head and pale grey colouring. They live close to shore, in small family groups and are often seen leaping in the waves. They like shallow sandy bays where they can rest and nurse their young.

BASKING SHARK
These gentle giants, which can grow up to 11 metres long, feed on the smallest of creatures, called plankton. The basking shark swims along the surface of the water with mouth open, filtering the plankton out of the water passing through their mouth and gills. They are the World's second largest fish and are usually seen during the warmer months.

HARBOUR PORPOISE
This small porpoise (1.5 metres), has a compact body, no back, and distinctive short dorsal fin. They are rarely seen, shy of boats and therefore difficult to see. They occur in small groups, except at good feeding sites such as the strong tidal streams around some headlands. Prone to being caught in fishing nets, their numbers are declining around our coast.

ATTENTION Marine Creatures Protection Scheme
Marine creatures are regular visitors to the southwest. They are highly intelligent animals, sensitive to disturbance but can easily be hit. If dolphins approach your craft or bowride, maintain a slow speed and course until clear. Dolphins should never be chased or harassed in an attempt to make them bowride. If you are going out on the water, please follow these simple guidelines:-

CODE OF CONDUCT

- KEEP your distance (see diagram below).
- NEVER drive head on, or move between, scatter or separate marine animals
- PLEASE spend no longer than 15 minutes near the animals
- AVOID groups with mothers and young
- MAINTAIN a steady direction and no wake speed.
- NEVER dispose of any rubbish or contaminants into the sea
- NEVER swim with marine animals for your safety & theirs.
- NEVER attempt to feed any marine creature. They are wild animals.

ST. IVES BAY map showing No Go Zones (red) and Sensitive Wildlife Areas (yellow).

- ALWAYS keep at least 100m from red no go zones shown on the map: sensitive wildlife areas
- NO crossing from the mainland to Godrevy Island
- NO landing on Godrevy Island or coves in the red no go zone

For details of marine wildlife watching, training and accreditation scheme, please visit the WISE website www.wisescheme.co.uk

Logos: Environment Agency, English Nature, Whale & Dolphin Conservation Society, Cornwall Wildlife Trust.

MAXIMUM TIME 15 MINUTES

If you witness any harassment, please report the boat (its type, colour, name and any registration number) and the details to the Police on 08452 77744. Please report any sightings to Cornwall Wildlife Trust on 01872 273939. For dead stranded animals, call the Marine Stranding Network on 0845 201 2626.

*Between 2005/6, 2006/7 & 2007/8 seal disturbance was observed during 15%,18% & 20% of visits respectively.

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Location of Seal haul outs in relation to Hayle Harbour

3 seal haul out sites are located close to St Ives Bay either side of the Hayle Estuary. Two of these sites have been subject to detailed monitoring since 2000 up to the present day.

Site 1 : The Carracks : Maximum number of seals observed hauled out : 31 seals**

Site 2 : Godrevy Island : Maximum number of seals observed hauled out : 40 seals

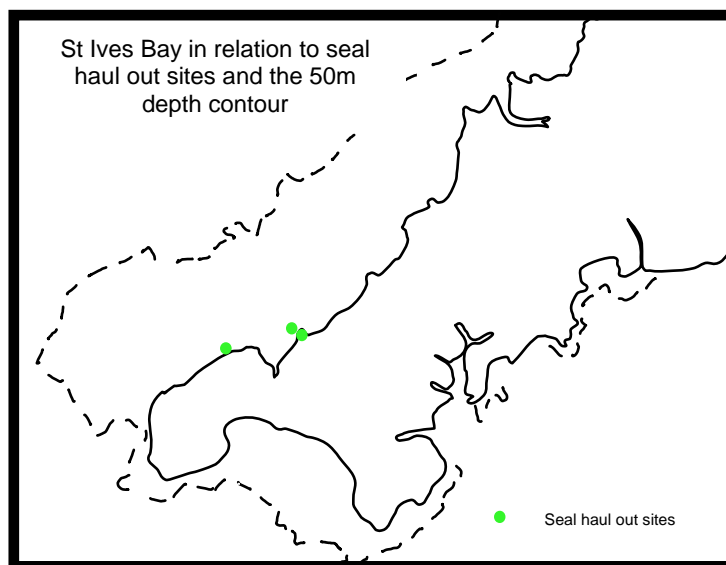
Site 3 : Mutton Cove, Godrevy : Maximum number of seals observed hauled out : 177 seals

Between 2005 and 2006, 227 different seals were identified using the Godrevy sites.

Between 2006 and 2007, 215 different seals were identified using the Godrevy sites.

Between 2007 and 2008, 294 different seals were identified using the Godrevy sites.

As an average of 32% of seals observed are actually identified, the estimated number of seals using the Godrevy sites is in the region of 600 to 900 seals during a 12 month period.

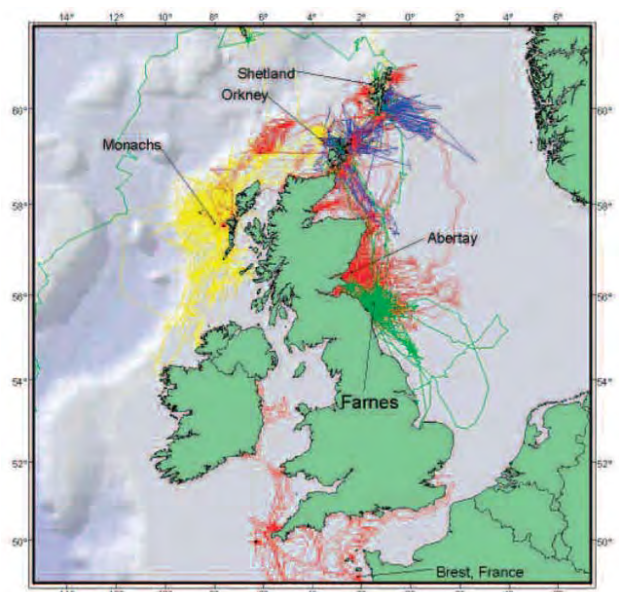


Movement of Seals through the region

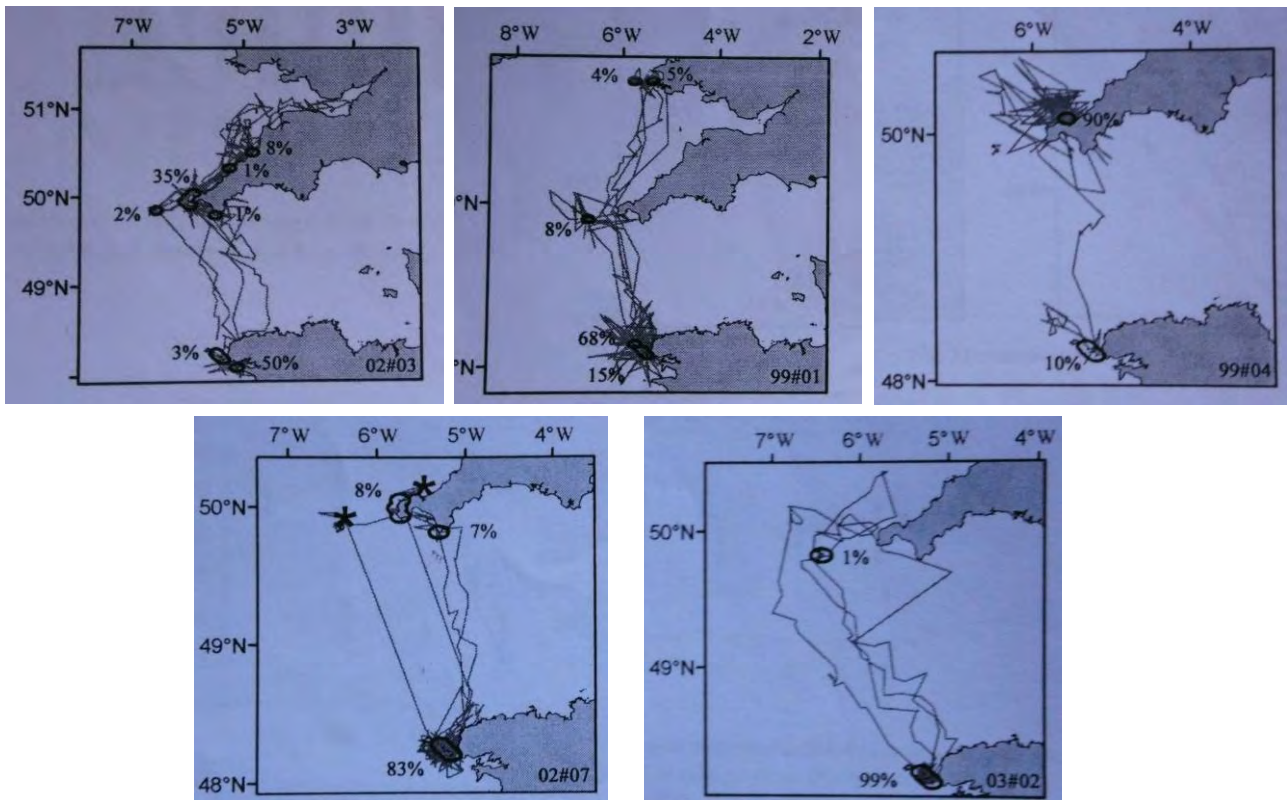
The Sea Mammal Research Unit Scientific Report, published in 2004 contains a map (right), illustrating the movement of 108 grey seals that had been tracked using satellite tags. This map shows that Hayle Harbour lies within a 'hot spot' of seal activity in Cornwall.

The Seals observed in Cornwall are part of a Celtic population that move around the Southwest region of the British Isles.

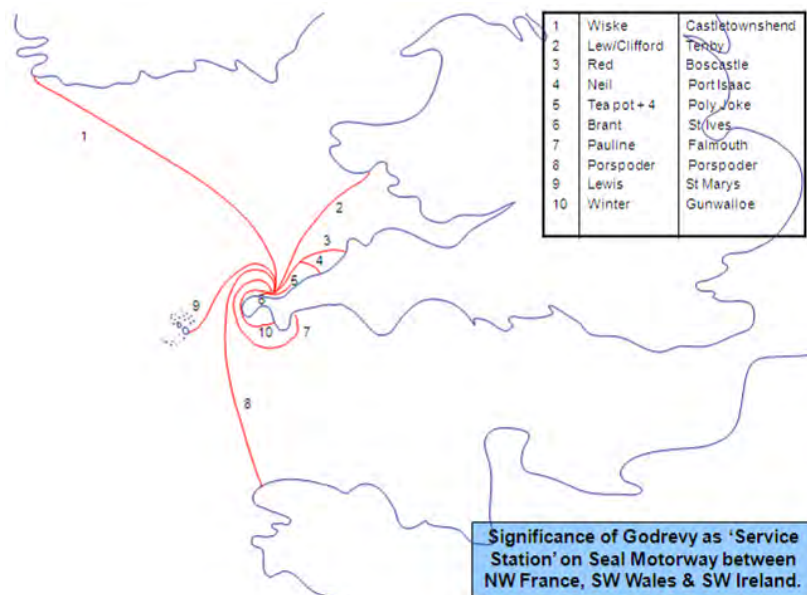
Cornwall is at the 'hub' of seal movement 'spokes' that extend to NW France, SW Wales and SE/SW Ireland. Cornwall is an essential 'service station' along this seal 'motorway'.



The following exemplar maps are taken from the 'Status and conservation of the grey seal, in France' research report written by **C.Vincent et al**, published in Biological Conservation 126 (2005). Out of a total of 16 seals that were satellite tagged as part of this research, 8 seals visited Cornwall and 4 seals visited the 3 seal haul out sites located either side of Hayle Harbour.



Cornwall Seal Group has observed and identified seals at the Godrevy haul out sites that have been observed elsewhere across the Celtic Fringe. These seal movements have been established by Cornwall Seal Group members since 2000, in conjunction with The National Seal Sanctuary at Gweek and Oceanopolis in Brittany. The map below is taken from **Cornwall Seal Group Report Volume 4, published in April 2006**.



Movements of seals between the Carracks seal site (west of St Ives Bay) and Godrevy sites (east of St Ives Bay) were established in a 'Study of a Grey Seal Population near St Ives, Cornwall (with notes on photo identification & disturbance)', written by **Dan Jarvis in 2006.

The potential impacts of the Hayle Harbour Development on Grey Seals

¹ Most likely/Serious impacts : ² Moderately likely/Serious impacts

Underwater noise & vibration during construction & operation of Hayle Harbour & Marina

- Behavioural – changing areas of feeding, breeding, migration patterns and haul outs¹
- Physiological – hearing discomfort/damage and potential energetic/reproductive consequences of disturbance (E.g. abortions reported at Scrobby Sands)¹
- Communication being masked between seals, their prey and their environment
- Navigational – sound masking seals ability to navigate energy efficiently.

Increased human onshore / offshore activity from Harbour and Marina

- Disturbance effects including changing patterns of seal movements and relocation of haul outs (temporarily or permanently.) Potentially major consequences if seals' 'stop off' point between France & Wales/Ireland is disturbed¹
- Energy budgets unbalanced. Seals haul out to digest their food. Disturbance at haul out sites mean seals use more energy & get less energy from their food, due to less efficient digestion.¹
- Injuries from propellers, collisions, disturbance (causes more hurried, careless movements of seals over sharp and uneven substrates) or net entanglement (intensive inshore fisheries mean we already have extremely high rates of net entanglement from discarded and storm damaged net.)¹

Physical interaction with humans and boats in Harbour and Marina

- Physical injuries to seals and humans could be caused by seals exploring the harbour and being fed by humans in or around boats. Feeding of seals in harbours is an issue for seals in both St Ives, Newquay and Looe harbours. Seals in harbours may appear tame, but are observed to integrate with the wild populations.²
- Increased seal interaction with fishing boats as they learn to associate boats with food, after being fed by humans in or around boats – potentially increasing conflict with the fishing industry with negative consequences for seals!²
- Physical injuries to humans could be caused by seals being fed by humans in the harbour, the marina or around boats. Seals are gentle creatures, but accidents can happen.

Seal movements

- Potential 'barrier effect' created by increasing marine traffic in and out of Hayle estuary, reducing access across estuary for seals between key breeding and foraging areas east and west of St Ives Bay

Changing food sources

- Dredging in area, disturbance, contamination or removal of sand could seriously affect the seals' main food source habitat (preferred food is sand eels – mentioned in your Environmental Statement : Non Technical Summary.)¹

Pollution

- Olfactory sense of seals could be affected by chemicals in sea from increased harbour and marina activity, which may affect the seals' ability to feed and breed.
- Chemical leak may affect physiology (eyesight, airways, reproduction, immuno-suppression)
- Marine litter could increase and is already an issue for seals visiting the Bay²

Conservation Status

Grey seals in the UK are an internationally significant species

The UK supports **39% of the World's population** of Grey Seal.

(Source : DEFRA :

<http://www.defra.gov.uk/environment/water/marine/uk/stateofsea/chartprogress-3.pdf> : Page 145.

Please note this is a large document that takes a few minutes to download.)

This makes the UK population **globally significant**.

Grey Seals (*Halichoerus Grypus*) are on the **IUCN Red List of threatened species** (1996) in 9 countries in the northeast Atlantic, where Grey Seals are classified as 'Endangered', meaning 'facing a very high risk of extinction in the wild in the near future'

(Source : IUCN : <http://www.iucnredlist.org/search/details.php/9661/all>)

This makes conservation of the **UK Grey Seal population internationally important**.

Grey seals are one of the rarest seal species in the world and about two thirds of the entire population lives in British and Irish waters

(Source : Mammals Trust UK : <http://www.ptes.org/index.php?page=154> scroll down)

Grey and Common Seals are 2 of the 9 UK marine species described as '**species of conservation importance**'

(Source : Joint National Conservation Committee : <http://www.jncc.gov.uk/page-1445>)

'Within Britain, there is a **clear genetic distinction** between those seals that breed in the southwest (Devon, Cornwall and Wales) and those breeding around Scotland & in the North Sea'

(Source : SMRU Annual Report 2005 :

http://smub.st-and.ac.uk/CurrentResearch.htm/SCOS2005/SCOS%2005_v2f.pdf : Page 10)

This makes the **sub populations of Grey Seals in Cornwall internationally significant**.

The latest Sea Mammal Research Unit (SMRU 2006) pup production data for **British Grey Seals shows a decline of 3%** between 2004 and 2005 **and an increase of 3%** between 2005 and 2006, suggesting the Grey Seal population may be **stable and at carrying capacity**.

(Source : SMRU SCOS Report 2006 : Page 7

<http://smub.st-and.ac.uk/CurrentResearch.htm/SCOS2006/SCOS%202006%20collated%20document%20FINAL.pdf> and

(Source : SMRU SCOS Report 2007 : Page 5

http://smub.st-and.ac.uk/CurrentResearch.htm/SCOS2007/SCOS_2007_FINAL_ADVICE_1.pdf)

UK authorities have an **international responsibility** to conserve and protect Grey Seals from a legal, economic, environmental, social, moral and ethical perspective

Acknowledgements

Cornwall Seal Group members

Sue Wilson

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