

Seal Survey of the River Stour below Stonar Cut in Kent



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Legal protection for Common and Grey Seals in England

Seals have protection under the Conservation of Seals Act, 1970, which is supplemented, to a degree, by their inclusion on Schedule 3 of the Habitats Regulations.

Under the Act it is illegal to poison seals or shoot them with specific firearms. The Act also defines close seasons for grey and common seals, during which time it is illegal to wilfully kill, injure or take them.

The protection of seals can be extended by orders made under the Act. At present the Conservation of Seal (England) Order 1999 prohibits the killing, injuring or taking of common and grey seals anywhere along the east coast of England from the Scottish border to Newhaven in East Sussex

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Introduction

Three species of seal have been recorded around the Kent coastline in the last thirty-five years. Two of these species, namely common or harbour seal (*Phoca vitulina*) and grey Seal (*Halichoerus grypus*), are considered to be breeding UK residents, while bearded seal (*Erignathus barbatus*), represented by one individual record in Kent during that period, is considered to be an occasional visitor to the UK (Harris & Yalden, 2008).

In Kent Victorian naturalists considered seals to be very rare around the coastline of the county with only occasional visitors (Alexander, 1908) and any seals or other marine mammals observed were routinely hunted during that time.

From the 1950's occasional seal records at various places around Kent were being reported, largely from shore based naturalists (Frazer, 1965). The 1970's saw a general increase in seal records, including around Sandwich Bay, and in 1992 a common seal was caught far upstream of Stonar Cut at Sturry Mill Pool and released by members of Canterbury Diving Club (John Abbatt *pers com*).

Regular boat surveys carried out within the River Stour from Grove Ferry to Pegwell Bay during the 1990's to the mid 2000's recorded at first the occasional seal near Richborough Dock but no animals hauled out (Bramley Associates records). Overtime hauled out animals on the river bank near Pegwell Bay were noted, first as individuals, then in small groups, reaching over 20 animals, invariably common seals, by the middle of the first decade (Bramley Associates records).

Since the mid 2000's no survey of seal numbers within any sections of the River Stour has been undertaken, yet seals are locally known to use the lower reaches of this river and several tour boat operators now regularly visit the main seal haul out sites below Sandwich near Pegwell Bay.

Anecdotal records from boat skippers indicate that over 70 seals were recorded as hauling out on the river banks near Pegwell Bay in 2011; while records held by Sandwich Bay Bird Observatory show over 110 common seals as having been recorded hauled out on at least one occasion in that year. These figures are significant and would make the lower reaches of the River Stour one of the largest haul out areas, outside of Norfolk, for common seals in England.

Currently a number of proposals, including new coastal access routes, sea wall renewal works and planning developments within the Discovery Park are being considered in the Sandwich area. Several of these proposals are in places adjacent to the River Stour and therefore have the potential to disrupt the behaviour of seals utilising the river. Bramley Associates was therefore commissioned by Dover District Council to undertake a seal survey of the lower reaches of the River Stour from late December to early October 2012 to ascertain current baseline usage of these sections by this group.

Methods

The seal survey set out to monitor the activity of seals in the River Stour with particular emphasis being placed on the reaches of the river below Stonar Cut to Sandwich and from there to Pegwell Bay (hereafter called the 'survey area').

Anecdotal sightings of seals above Stonar Cut were collected from boat and other river users during the survey period and approximately weekly site visits were taken to the reaches below Stonar Cut from late December 2011 to early October 2012.

Survey visits to the lower reaches consisted of two types, which alternated on an approximately weekly basis. One type of survey consisted of spot checks of haul out areas near Pegwell Bay. These surveys were carried out on foot with observations being made from riverbank areas. These surveys were undertaken during various states of tide and at various times of day.

The second survey type was carried out along the whole of the river below Stonar Cut. The section from Stonar Cut to Sandwich Quay being surveyed on foot and the section from Sandwich Quay to Pegwell Bay being surveyed by boat. To allow sufficient water height for a boat these surveys were taken around high tide times, but at various times of day.

Apart from on one occasion surveys were carried out during daylight hours. One night spot check survey was carried out on the 7th September 2012 with seals being counted using night vision equipment.

On all site surveys a standard survey sheet was completed (Appendix 1) and the species, position, age class and number of seals recorded, as were a range of other factors including seal activity, disturbance events and several environmental factors.

Seal surveys were carried out by Jon Bramley and Jason Armstrong of Bramley Associates, both experienced ecological surveyors and both qualified JNCC Marine Mammal Observers.

This survey was carried out under licence issued by Natural England (Appendix 2) and with the written permission of Kent Wildlife Trust.

Results

Forty three survey visits were carried out to the survey area in the period late December 2011 to early October 2012. Common seals were seen on every visit with a maximum recorded count of 53 animals in August and September and a minimum count of 1 in May (Table 1).

In general across the survey period seal numbers reduced from January (maximum count 50, weekly average 21), to May (maximum count 23, weekly average 11) and then increased again to September (maximum count 46, weekly average 37). This change in numbers may reflect a general movement by common seals away from haul out sites in the survey area in May to birthing places elsewhere, perhaps offshore, and

then a movement back during, or just after, mating, with some very young animals coming in to haul out with their mothers.

There is not though a simple relationship between haul out number and month and there is a significant variation on both a weekly and daily basis. Some of this variation is undoubtedly related to disturbance of hauled out seals by members of the general public. For example on only one survey occasion were no seals actually seen to be hauled out, though three were seen swimming, and this coincided with high levels of human activity in the Pegwell Bay area, including very near the seal haul out areas, during the demolition of the Richborough Cooling Towers, on the 11th March 2012. Seals were also seen to leave haul out areas after being buzzed by a low flying plane on the 14th August 2012.

Seals were most commonly seen hauled on the northern bank out opposite, or within 100m upstream and downstream of, an old jetty structure near Pegwell Bay (Figure 1). Seals were though also recorded hauled out or swimming to the rear of the old Pfizer Sports Ground, near Ricborough Quay, at places between Sandwich and Ricborough Quay and within various places in Pegwell Bay itself (Figure 1).

During the survey period seals were reported elsewhere in the Stour River (Figure 2) as far upstream as Grove Ferry, with several other reports of animals seen around Sandwich (e.g. Jon Brooks *pers com*; Martin Hendy *pers com*).

Grey seals were recorded as single animals on occasion with at least one report of a grey seal as far upstream as Sandwich Town Quay.

Table 1. Showing results from the lower Stour Seal Survey late December 2011 to early October 2012.

Date	Type of survey	Species	No	Behaviour	Position	Disturbance/other notes
22/12/11	Spot check	Common seal	21	17 hauled out, 4 in water	Opposite old jetty on northern bank.	Photographer opposite seal haul out site
05/01/12	Spot check	Common seal	19	18 hauled out, 1 in water	In two grps. Nine opposite old jetty, nine 75m upstream	
07/01/12	Boat/walk	Common seal	50	37 hauled out, 13 in water	Various from old Roll/Roll Off Ferry down to Pegwell Bay	Photographer on bank near one hauled out colony
15/01/12	Spot check	Common seal	14	All hauled out	Mainly opposite old jetty	
21/01/12	Boat/walk	Common seal	21	18 hauled out, 3 in water	Mainly opposite old jetty	Photographer on bank near one hauled out colony
		Grey seal	1	1 hauled out	Opposite old jetty	
29/01/12	Spot check	Common seal	18	All hauled up	In two grps. Two opposite old jetty, sixteen 75m upstream	
31/01/12	Spot check	Common seal	5	All swimming	Various from beacon point upstream of old jetty	
04/02/12	Boat/walk	Common seal	22	20 hauled up, 2 in water	Twenty one opposite old jetty. One in Pegwell Bay	
10/02/12	Spot check	Common seal	4	All in water	Various from below beacon point upstream of old jetty	
18/02/12	Boat/walk	Common seal	31	Various	Various from Pegwell Bay upstream of old Jetty	Kite surfers in Pegwell Bay
24/02/12	Spot check	Common seal	4	All hauled out.	Opposite old jetty	
03/03/12	Boat survey	Common seal	34	All hauled out	Eight hauled out opposite jetty, twenty-six near beacon point	
11/03/12	Spot check	Common seal	3	All in water	Around beacon point	Twenty + members of public and 2 dogs off lead on east bank
17/03/12	Boat/walk	Common seal	8	All in water	Various from Pegwell Bay upstream of old Jetty	
23/03/12	Spot check	Common seal	4	All hauled out	Beacon point	
07/04/12	Boat/walk	Common seal	7	3 hauled out, 4 in water	Various, beacon point to upstream of old Jetty	Three seal tourist boats
13/04/12	Spot check	Common seal	16	All hauled up	Opposite old jetty to 75m upstream	One photographer
21/04/12	Boat/walk	Common seal	7	6 hauled up, 1 in water	Various from downstream of beacon point to rear of Pfizer Sports Ground	Three seal tourist boats
30/04/12	Spot check	Common seal	12	All hauled out	Opposite old jetty	
07/05/12	Spot check	Common seal	1	In water	Opposite old jetty	
		Grey	1	Hauled out	Opposite old jetty	

Date	Type of survey	Species	No	Behaviour	Position	Disturbance/other notes
13/05/12	Boat/walk	Common seal	1	Both in water	1 near old jetty 1 400 metres south of Stonar Cut	Several pleasure boats in attendance
		Grey	1	In water	Near old jetty	
21/05/12	Spot check	Common seal	23	All hauled out	Opposite old jetty and in 3 groups spread across 80m	
26/05/12	Boat/walk	Common seal	18	All hauled out	Mainly opposite old jetty	6 large Rhibs in area
02/06/12	Spot check	Common seal	22	All hauled out	Spread group east of old jetty	
10/06/12	Boat/walk	Common seal	3	2 hauled up, 1 in water	Just east of old jetty	One pleasure boat moored up nearby
17/06/12	Spot check	Common seal	9	8 hauled out and one in water at first	Two groups. One of 6 opposite jetty and one of 3 near beacon point.	Two members of the public walked across saltmarsh from Pegwell Bay, scared some hauled out seals into the water
24/06/12	Spot check	Common seal	14	All hauled up	Opposite old jetty.	One fishing boat nearby moored up.
02/07/12	Spot check	Common seal	15	10 hauled up, 5 in water	Just east of old jetty.	
08/07/12	Boat/walk	Common seal	12	8 hauled out 4 in water	East of old jetty.	Another seal watching boat in attendance. Skipper reported grey seal in Sandwich Quay previous week.
14/07/12	Spot check	Common seal	13	All hauled out in two groups.	7 near beacon, 6 opposite old jetty	One seal with bloody neck
22/07/12	Boat/walk	Common seal	15	13 hauled out 2 in water	13 hauled out east of old jetty, two swimming in Pegwell Bay.	
		Grey seal	1	Hauled out	East of old jetty	
28/07/12	Spot check	Common seal	35	All hauled out in two groups.	One of 12 opposite jetty and one of 23 near beacon point	One 1 common seal pup.
04/08/12	Boat/walk	Common seal	25	23 hauled up and two in water.	Hauled up animals east of old jetty. One animal swimming near beacon another animal near Richborough Wharf.	Approximately 9 other boats on river, including at least one other seal spotting boat. Seal reported previous week by skipper under A256 road bridge above Sandwich.
14/08/12	Spot check	Common seal	26	25 hauled out in two groups and 1 in water.	All between beacon point and old jetty.	Some seals entered water following banging behind Richborough Quay. All except one entered water when buzzed by low flying plane. 2 very young common seals.
17/08/12	Boat/walk	Common seal	53	50 hauled out, 3 in water	All upstream of old Jetty	One grey seal reported previous week just above Sandwich Marina.

Date	Type of survey	Species	No	Behaviour	Position	Disturbance/other notes
25/08/12	Spot check	Common seal	30	29 hauled up, 1 swimming.	All hauled up east of old jetty with one animal swimming in from P. Bay	
		Grey seal	1	Hauled up	East of old jetty	
03/09/12	Boat/walk	Common seal	30	All hauled out	Various places east of old jetty. 1 pup probably suckling.	60 seals reported by skipper in this area on the 2 nd September and common seal seen at Sandwich Quay.
07/09/12	Spot check	Common seal	30	28 hauled out, 2 in water	Various from beacon to east of old jetty.	Night survey. Vocalisations.
08/09/12	Spot check	Common seals	42	39 hauled up 3 in water	Various from beacon to east of old jetty.	
16/09/12	Boat/walk	Common seal	35	29 hauled out, 6 in water	All hauled out east of old jetty. In water from various places including P. Bay to haul out areas.	Several boats seen in river but none moored. 3 very young seals.
20/09/12	Spot check	Common seal	37	34 hauled out, 3 in water	Various areas east of old jetty	Pleasure boat moored up nearby seal watching.
29/09/12	Boat/walk	Common seal	46	All hauled out	Various areas east of old jetty	Decapitated seal reported near Sandwich Town Quay.
07/10/12	Boat/walk	Common seal	53	52 hauled out, 1 swimming	52 hauled out areas east of old jetty. Swimming seal seen opposite Wharf Road in old Pfizers works.	One speeding pleasure boat slowed by skipper of River Bus to non-planing speed.

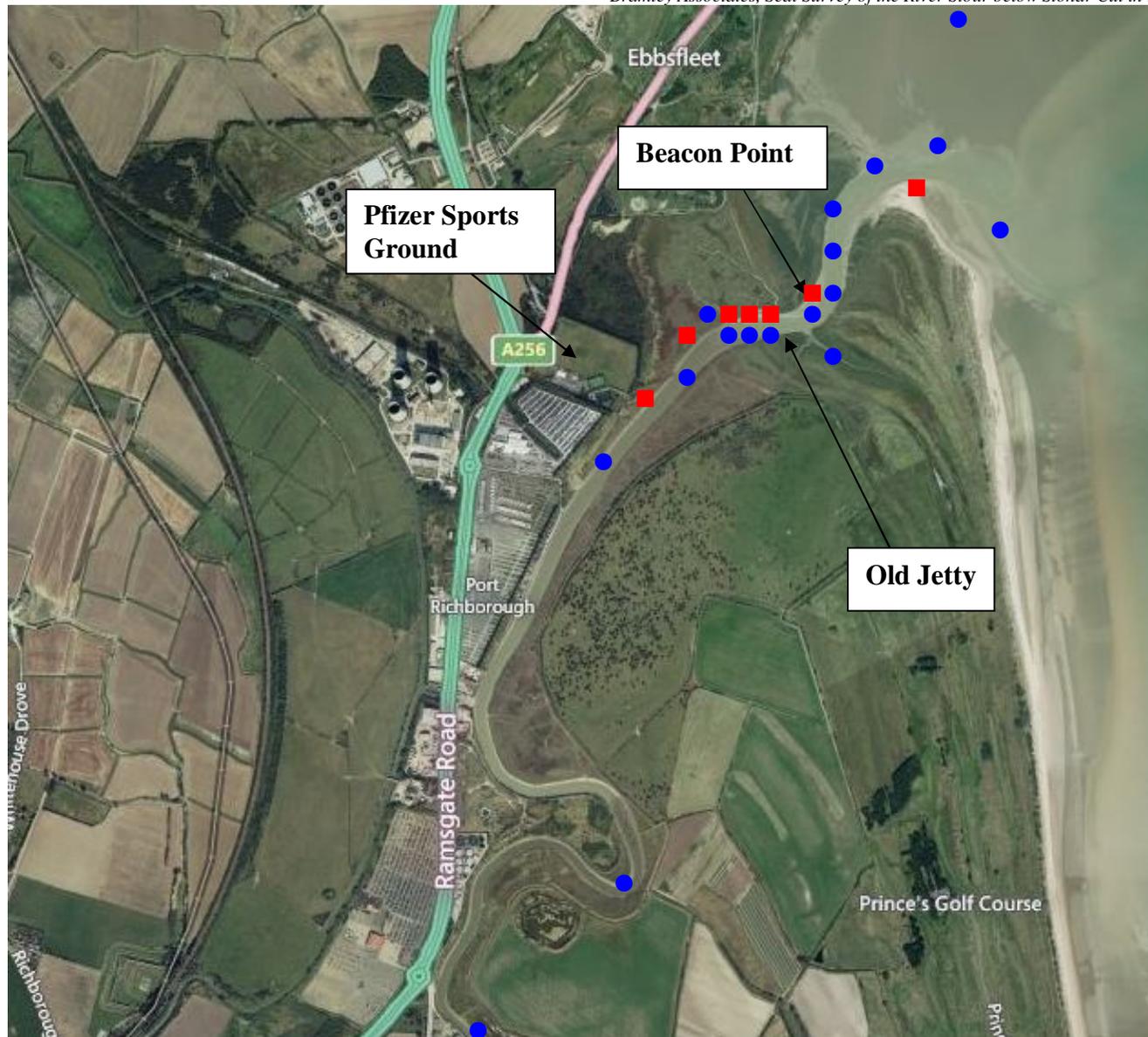


Figure 1. Showing seal activity noted during surveys undertaken from late December 2011 to early October 2012. Red squares are sites where seals were seen to haul up. Blue circles are areas where seals were recorded as swimming. The approximate location of places mentioned in the text or Table 1, such as Old Jetty, are also shown.

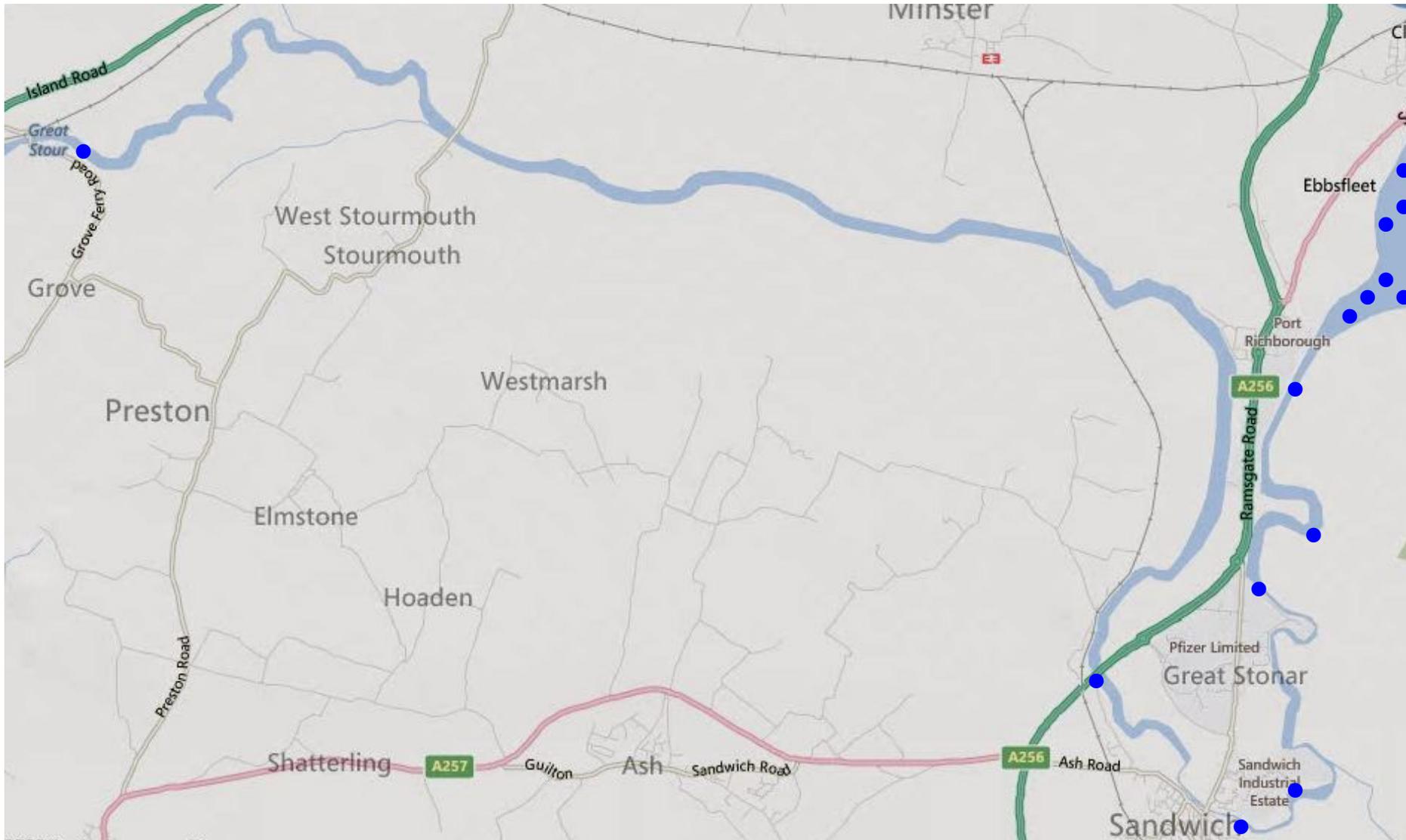


Figure 2. Displaying the recorded location of seals (blue circles) in the River Stour during the survey period from survey data and from other water users reports in the catchment downstream of Grove Ferry to the haul out areas near Pegwell Bay.

Conclusions & Recommendations

The survey showed that common seals use a number of relatively close proximity haul out areas in the lower reaches of the River Stour during all states of the tide and during all periods of the day and night. The number of seals hauling out and the distribution of hauled out animals probably relates to local conditions, such as disturbance levels, but also life history traits, including mating behaviour, and a range of environmental parameters.

Photo analysis indicates that some individual seals do regularly haul out in the same area, though some animals appear to use the river bank haul out spots on rare occasions as part of a wider life cycle.

Grey seals appear to be found in the River Stour on relatively few occasions, though individuals of this species and also individual or pairs of common seals do follow the river upstream for several miles to at least Grove Ferry.

During the course of this survey period seals were seen to be disturbed by a number of largely unregulated human activities, including dog walking where dogs were not being kept on leads, photographers using private land opposite seal haul out areas and by seal watching activities from watercraft and aircraft. An example of disturbance activities by watercraft adjacent to the haul out areas can be found at <http://www.youtube.com/watch?v=TeW7yzdpgqk>

It is recommended that these activities be more strictly controlled and local bylaws enforced as these activities are known to affect seal behaviour and can lead to increased mortalities, loss of fitness and general anxiety behaviours in seals (Allen *et al.*, 1984). It is recommended that all seal tour boat and aeroplane operatives taking members of the public to view seals should be licenced to undertake this work and follow recognised wildlife surveying protocols, such as those set out in the BMF/RYA Marine Wildlife Guide (2010).

Additional access to the riverbank, as currently proposed, where seals may be observed will need to be undertaken cautiously as there is a significant risk that members of the public, with or without dogs, will then walk across saltmarsh areas to gain even closer views of hauled out seals. This behaviour is likely to disturb both seals and bird species within the SSSI and was noted to occur on several occasions within the current survey (e.g. on the 17th June 2012). Examples of this behaviour occurring at Pegwell Bay can be seen on various social media websites including YouTube.

Works to banks and embankments in close proximity to seal haul out areas also have a high likelihood of disturbing seals and other Protected Species. These activities will require a full Environmental Impact Assessment to be undertaken, which should include potential impacts on seals, prior to works being carried out.

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Appendices

Appendix 1: Seal survey recording data sheet
Appendix 2: Natural England Survey Licence