

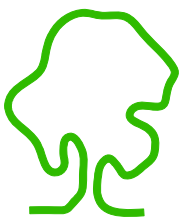
YACHTHAVEN (HAYLING) LIMITED



YACHTHAVEN, HAYLING ISLAND

ENVIRONMENTAL STATEMENT

DECEMBER 2011



eas ltd

Environmental Assessment Services Ltd

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SECTION 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

- 1.1.1 We are instructed to undertake an Environmental Impact Assessment relating to the proposed development at Yachthaven, Copse Road, Hayling Island.
- 1.1.2 Environmental Impact Assessment (EIA) is a process that aims to improve the environmental design of a development proposal and provide decision-makers with sufficient information about the environmental effects of implementing a project.
- 1.1.3 An Environmental Statement (ES) sets out the results of the EIA process. The ES is submitted with an application for planning permission and provides environmental information about the scheme, including a description of the development, its predicted environmental impacts and the measures proposed to ameliorate any adverse effects.
- 1.1.4 The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 include a list of those forms of development that require EIA in all cases (Schedule I) and in certain cases where thresholds are exceeded (Schedule 2). A Screening Opinion was obtained from Havant Borough Council, dated 11 May 2011, which confirmed that an Environmental Statement would be required in support of this planning application.
- 1.1.5 The proposed development involves the clearance of part of the site and the construction of six detached dwellings on the northern part of the site together with some refurbishment of the existing coast protection works and the construction of sheds, a slipway and pontoons in connection with yacht moorings to be provided at the site. The remainder of the site is to be restored for environmental enhancement and amenity use.
- 1.1.6 The location and an outline of the proposed works at the site are shown in Figures 1.1 and 1.2. Full details of the proposal are set out elsewhere in the planning application.
- 1.1.7 It should be noted from the Site Layout drawing 4784 1107 that the development site covered by the application includes the water and seabed to the south of the site across to Verner Common.

1.2 SCOPING FOR THE ENVIRONMENTAL IMPACT ASSESSMENT

- 1.2.1 Following the submission of the planning application for the above development on 20 April 2011, Havant Borough Council (HBC) issued an opinion on 11 May 2011 in which it stated that the application required the support of an Environmental Impact Assessment (EIA) to set out the consequent impacts of the proposed development.

1.2.2 In response to this opinion, a Scoping Report was submitted on 23 June 2011 outlining the scope of the proposed EIA with a request for an opinion on the scope and adequacy of the proposed methodology. HBC replied on 19 July 2011 with its Scoping Opinion in which it set out its requirements for the EIA. Copies of this correspondence and the Scoping Opinion are contained in Appendix 1.1.

1.2.3 This ES sets out to address the issues raised in the Scoping Opinion.

1.3 KEY ISSUES

1.3.1 The key issues identified in the Scoping Opinion are summarised as follows:

- Ecology and Nature Conservation Designations
- Landscape and Visual Impact
- Transport
- Water Resources and Flood Risk
- Noise
- Ground Conditions and Contaminated Land
- Cultural Heritage and Archaeology
- Arboriculture
- Utilities and Services
- Cumulative Effects with Other Projects.

1.3.2 The following report will cover each of the above issues under a separate Section. In general, each aspect identified in the Scoping Opinion is covered by a specialist report. The Sections within this ES summarise these specialist reports which are attached in appendices for reference.

1.3.3 The impact of the proposed development on air quality was considered in the Scoping Opinion but it was concluded that the scale of the project was such that HBC required no further information on this aspect. Air quality is therefore not considered further in this ES.

1.4 CONSULTATION

1.4.1 This ES and its supporting surveys and reports were prepared in consultation with various appropriate bodies to ensure that all available information was taken into account and that the concerns of all appropriate interested bodies were addressed. The Scoping Opinion sets out advice on the appropriate bodies to be consulted which included:

- Natural England
- Environment Agency
- HBC Environmental Health Department
- HBC Transport Department
- Chichester Harbour Conservancy Board
- Hampshire County Council Archaeological Department
- RSPB

- 1.4.2 These and other bodies were consulted in the preparation of this ES and are referred to in the individual supporting reports as appropriate.

1.5 PROCESS AND STRUCTURE

- 1.5.1 Following a Section briefly outlining the scope of the proposed development, this ES summarises the individual studies carried out to address the separate issues identified in HBC's Scoping Opinion. These supporting reports are appended to this ES for reference.
- 1.5.2 Whilst each Section addresses an individual aspect of the assessment, the Sections do cross-refer to avoid unnecessary repetition and in consequence the Sections should not be taken as stand-alone documents.
- 1.5.3 This ES does not include issues relating to the planning for the project, including the Planning Statement and the Design and Access Statement, which have been submitted separately to HBC as part of the planning application.

SECTION 2

THE PROPOSED DEVELOPMENT

2.1 THE SCHEME

2.1.1 The proposed development scheme consists of the following principal features:

- The clearing of the previous development and decontamination of the existing site
- The construction of six detached houses in the northeast part of the site.
- The construction of a marine office and small boatyard for multi-hulled craft
- The reconstruction of the existing slipway and the provision of pontoons and moorings to provide 19 berths
- The reconstruction and improvement of the sea defences
- The restoration of the existing coastal footpath and sluice pond
- The creation of a nature reserve on conservation grassland on the southeast part of the site
- The restoration of the coastal grassland on the western part of the site.

2.1.2 An outline of the proposals are shown in Appendix 2.1 with the full details being set out in the planning application submitted to Havant Borough Council (HBC).

2.2 ALTERNATIVES CONSIDERED

2.2.1 The site was developed from agricultural land for use as a boatyard for commercial vessels in the 1930s. The development of the boatyard involved:

- The filling of much of the site to raise ground levels
- Sea defence works along the southern shoreline to protect from erosion
- The construction of a slipway, jetty and pontoons for shipyard use
- The construction of a variety of buildings and facilities related to shipyard use mainly on the eastern part of the site.

2.2.2 The shipyard fell into disuse in recent times and the buildings have become derelict. The site had been used for other purposes including for the storage of materials, vehicles and plant but has been disused for the past decade. Details of the past uses and of the planning history of the site are set out in the Contamination Risk Assessment reports attached in Appendices 8.1, 8.2 and 8.3 of this report.

2.2.3 Continued use of the site solely for shipyard purposes was considered but the extent of the site was thought to be too large for its likely current use by leisure craft. Proposals were therefore drawn up in around 2002 for the restoration of the site and its redevelopment for up to 15 dwellings with the reinstatement of the slipway, pontoons and moorings for leisure craft. This proposal did not proceed.

2.2.4 The current proposal follows the same logic but in a less intensive manner. The restoration of the boatyard for larger commercial vessels remains unfeasible due to the lack of demand for such services in the area although demand exists for smaller scale usage to serve the leisure market. It was also recognised that the previous proposals included residential development that was out of keeping with the area and did not fully protect the environmental quality of the area. In consequence of the consideration of these alternatives, the current proposal is developed to:

- Provide continuity of boatyard use at the site at a reduced scale but still offering significant employment potential.
- Provide high quality residential development on a reduced scale (six units) located on the previously most developed part of the site and away from the shoreline and the most environmentally sensitive parts of the site.
- Restore the remainder of the site to provide ecological enhancement and environmental benefits over the existing.

2.3 SITE DESCRIPTION

2.3.1 The location and extent of the site are shown in Figures 1.1 and 1.2.

2.3.2 As described above, the site has previously been used as a boatyard but is currently disused. However, a licence remains for 26 swinging moorings within the creek and some remain in use. A detailed description of the current condition of the site is given in Section 8 of this report and in the attached Contamination Risk Assessment reports of 2002, 2010 and 2011, Appendices 8.1, 8.2 and 8.3

2.3.3 The site has been subject to a detailed topographic survey which is attached in Appendix 2.2.

2.4 CONSTRUCTION ACTIVITIES AND PHASING

2.4.1 The construction activity on the site will be divided into four phases covering the following activities:

- | | |
|----------|--|
| Phase 1: | Reconstruction of the access road, tree protection and other preliminary works. |
| Phase 2: | The construction of the residential development in the northeast part of the site. |
| Phase 3: | The construction of the slipway, sea defences, pontoons, moorings and boat storage facilities. |
| Phase 4: | The restoration of the wildlife areas in the west and southeast parts of the site. |

- 2.4.2 Phase 1 includes all preliminary works and will be carried out first. It is likely that Phases 2 and 3 will be carried out, at least in part, simultaneously whilst Phase 4 will follow the completion of the main construction activity on the site.

i. Phase 1 – Preliminary Works

This phase will include:

- The reconstruction of the access road together with the tree root protection recommended in Section 10 and the protection of existing services as described in Section 11.
- Site clearance and the removal of the existing buildings, principally in the northeast part of the site, the debris piles and any contamination hot-spots discovered during clearance.

No special equipment or plant is expected to be required for this phase.

ii. Phase 2 – Residential Development

The proposed residential development consists of six detached dwellings each of two storeys to be constructed using conventional techniques. No special foundations or other works are anticipated.

iii. Phase 3 – Marina Development

This phase includes the construction of the slipway, sea defences, pontoons, moorings and boat storage facilities. This will require:

- The installation of four tubular steel piles and a short run of steel sheet piles; these are likely to be driven using vibration techniques in order to minimise noise disturbance. The tubular piles will be installed by floating plant.
- Some earthworks to realign the shoreline to the west of the slipway and for the reconstruction of the sea defences.
- Clearing of the existing slipway (to the extent required) and other marine debris, and the installation of the pontoons and moorings using marine techniques.

The pontoons are likely to be launched from the slipway although some craneage will be required for placing the pontoons and driving the piles.

iv. Phase 4 – Restoration of the Wildlife Areas

The west and southeast parts of the site are designated as wildlife reserves. Some mitigation works are indicated but are unlikely to require heavy machinery, and therefore unlikely to result in a significant impact.

SECTION 3

ECOLOGY AND BIO-DIVERSITY

3.1 INTRODUCTION

- 3.1.1 This Section assesses the likely significant effects of the proposal in terms of ecology and biodiversity. It is supported by the Ecological Assessment dated November 2011 by Ecosupport Ltd and the Ecological Assessment (Phase II Surveys) dated April 2011 by GPM Ecology (Appendices 3.1 and 3.2). See Appendices 3.1 and 3.2 which include the full baseline information relating to ecology and biodiversity.
- 3.1.2 The purpose of this assessment is to ensure that the proposals are executed within the framework of best practice guidelines, wildlife law, and planning guidance, and to ensure that all potential adverse effects on flora and fauna are identified and mitigation developed, as appropriate. The assessment has been undertaken in accordance with the guidance set out in the Institute of Ecology and Environmental Management's (IEEM) Guidelines for Ecological Impact Assessment (2006) ('the IEEM Guidelines'), in order to provide "clear and concise information about the likely significant ecological effects associated with the project" (IEEM, 2006).
- 3.1.3 The application site boundary is shown on Figure 1.2 and the development proposal is described in Section 2. The ecological baseline against which the likely significant effects are to be assessed comprise the environmental conditions at, and surrounding, the application site. This Section also addresses the 'construction' phase and the completed development (or 'operation' phase) impacts on ecology and biodiversity.
- 3.1.4 This Section outlines the legislation and planning policy context relating to the proposals, and explains the scoping and valuation process which has been undertaken in order to identify the ecological receptors within the application site and its surroundings. The likely effects of the proposals on each of these 'Key Ecological Receptors' has been characterised, and the likely significance of these impacts has been assessed. The measures required to prevent, reduce or offset any significant adverse effects or enhance any beneficial effects have been identified, along with the likely residual effects after these measures have been employed. Finally, where mitigation measures are required for legislative, planning policy or animal welfare reasons, these have also been identified.
- 3.1.5 The planning policy context is set out in Planning Policy Statement (PPS 9): Biodiversity and Geological Conservation (2005). The statutory planning process requires that full account is taken of biodiversity in accordance with international and national law. Key features of PPS9 that seek to safeguard biodiversity include the following:
- Local authorities should maintain up to date information on the environmental characteristics of their area, including identifying areas of ancient woodland and other important habitats that are not already designated;

- Plan policies should aim to maintain, enhance, restore or add to biodiversity interests. They should promote opportunities for the incorporation of beneficial biodiversity in and around new developments;
- Planning decisions should aim to prevent harm to biodiversity. Where significant harm cannot be prevented, adequately mitigated against or compensated for, then planning permission should be refused; and
- Statutory Development Plans and Local Plans have a vital role to play in the protection and safeguarding of important habitats and species.

3.1.6 The Conservation of Habitats and Species Regulations (2010) constitute the UK Government's implementation of the Habitats Directive in England and Wales. The Regulations provide for the designation of both Special Protection Areas (SPAs) (first established under the Directive on the conservation of wild birds (79/409/EEC), 1979) and Special Areas for Conservation (SACs) as part of the Natura 2000 network of protected areas across the European Union.

3.1.7 The Conservation of Habitats and Species Regulations (2010) affords legal protection to European Protected Species (EPS) from deliberate capture, killing or disturbance (such that the disturbance affects the ability of the EPS to survive, breed or reproduce, to rear or nurture their young, or to hibernate or migrate; or the disturbance affects significantly the local distribution or abundance of the EPS). Government policy, as stated in PPS9 and Ramsar Sites in England; a Policy Statement, stipulates that Ramsar sites should be treated as fully designated European Sites for the purposes of considering development proposals that may affect them.

3.1.8 The site is currently largely unoccupied and is located on the boundary of the environmentally important Chichester Harbour. The site is located in countryside with the high water mark along the boundary with the Chichester Harbour Area of Outstanding Natural Beauty (AONB), Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Ramsar site. However, the site itself lies outside these designations. Part of the western part of the site is located in the Fields and Saltmarsh South of Copse Lane Site of Importance for Nature Conservation (SINC).

3.2 METHODOLOGY

3.2.1 The information contained within the Environmental Statement is based on the Ecological Assessment dated November 2011 by Ecosupport Ltd and the Ecological Assessment (Phase II Surveys) dated April 2011 by GPM Ecology. See Appendices 3.1 and 3.2.

3.2.2 Reference is also made to historical data as appropriate.

3.2.3 The assessment has been carried out and presented in accordance with the "Guidelines for Ecological Impact Assessment (EcIA) in the United Kingdom" (2006) published by the Institute of Ecology and Environmental Management (IEEM) and the "Guidelines for Ecological Impact Assessment in Britain and Ireland: Marine and Coastal" (IEEM, 2010) as appropriate.

3.2.4 In view of the activities of site clearance/construction or operational development that have the potential to impact upon valued ecological features at the site, the Environmental Statement includes information identified in the Scoping Report and Scoping Opinion in relation to the following:

- Direct and indirect effects on habitats of ecological value present either on site or within the Zone of Influence (ZOI) of the proposals, including upon Eel Grass *Zostera* beds, migratory fish and other features present in the estuary.
- The potential for protected species, or species of nature conservation interest (including those that are priorities under Local or National Biodiversity Action Plans (BAPS)), to be affected.
- The potential for pollutants, nutrients, or other contamination released by development activities, or the proposed remediation of contaminated land, to reach designated sites of nature conservation importance, or other features of ecological value. The risks raised by residual contamination within the site are assessed in Section 8.
- The potential for disturbance of breeding birds or over wintering waders or wildfowl to be disturbed, either by construction operations (noise, vibration etc), or by terrestrial or marine/waterborne recreational activities.
- The potential effects of proposed changes to the sea wall, including coastal squeeze, upon features of ecological value, including designated sites.
- Potential enhancements to wildlife and nature conservation interests that could be delivered in conjunction with the development.

3.2.5 The assessment of all potentially significant effects on designated sites for nature conservation (before and after the application of impact avoidance or mitigation measures) are also set out below. These include:

- Sites that have been identified as having importance for brent goose and other populations of wildfowl and waders in Chichester and Langstone Harbour (including those identified in the Solent Waders and Brent Goose Strategy 2010; SINC).
- Sites of Special Scientific Interest (SSSIs); Special Areas of Conservation (SACS); Special Protection Areas (SPA); and Ramsar Sites.
- SINC covered by the assessment will include the adjacent "Fields & Saltmarsh South of Copse Lane" SINC (which is adjacent to the development site).

3.2.6 Where potentially significant effects upon features of ecological importance are identified, impact avoidance, mitigation or compensation measures are set out as appropriate. Any potential residual impacts anticipated after the application of such measures are set out.

3.2.7 The surveys were carried out and the reports prepared in consultation with:

- Natural England
- Environment Agency
- Havant District Council
- Sussex Wildlife Trust
- Chichester Harbour Conservancy.

3.3 EXISTING CONDITIONS

The principal features of the existing ecology of the site and of its surroundings are set out in detail in the report in Appendices 3.1 and 3.2 and are summarised below. The summary lists the principal features separately and is subdivided into different areas where appropriate.

3.3.1 Habitat and Vegetation

i. Boatyard Area

The eastern part of the development site consists of derelict and demolished buildings in an area of open and disturbed ground. These areas are dominated by mosses and various smaller grasses and herbs.

ii. Western Part of the Site

This area consists of unimproved moderately herb rich grassland which is mainly well grazed by rabbits although a significant proportion of the area has become scrubbed over.

iii. Hedgerows and Scrub

To the west of the proposed development area is a semi-natural species rich hedgerow. East of the development site there is a thin belt of scrub and immature trees widening out at the southern end into a patch of bramble scrub; this belt is composed of a mixture of native and non-native species.

The trees and hedgerows around the site are covered more fully in Section 10, Trees, Hedgerows and Green Infrastructure.

iv. Intertidal Habitats

The area of saltmarsh adjacent to the western part of the site appears to be a particularly good example supporting a mosaic of different saltmarsh vegetation types and most of the typical associated species. This represents the most important vegetation feature within the site.

3.3.2 Birds

The assessment has found that the majority of the proposed development site supports habitat of low potential for waterfowl species to shelter or roost above high water mark. The character of the creek, being small and narrow with a high foreshore, will make waterfowl unlikely to use the estuary at low tide.

The tidal feeding area surveyed for waders and brent geese is evaluated as an ecological feature of Parish to Borough importance. However, the area within the zone of influence of the new marina is considered as of Parish value for feeding waterfowl.

The areas on the nearby Verner Common and Gutner Peninsular are clearly very important for brent geese and for several wader species.

3.3.3 Reptiles

The survey of the reptile suitable habitat at the site showed a presence of the UK BAP species slow-worm *Anguis fragilis* (one female recorded) and viviparous lizard *Zootoca vivipara* (three male and four female recorded). See Appendix 3.2. The low numbers of reptiles found mean that they are considered to be of low local value.

3.3.4 Bats

The site was inspected in 2010 in order to identify any potential use by bats. A Hampshire Biodiversity Information Centre report records a maternity roost of Soprano Pipistrelles 300 m to the west of the site. See Appendix 3.1.

At the time of the inspection, there were ten buildings remaining on the site but derelict and in a state of disrepair. Of these buildings, only one was identified as offering roosting potential for bats. This building has since collapsed.

3.3.5 Fish

Fish presence data was obtained from the University of Portsmouth 2004 Chichester Harbour fish surveys carried out at the mouth of the channel (Appendix 3.2). The survey showed low diversity of species (Shannon's diversity score of 0.73), with a number of the 12 species caught thought to be almost exclusively associated with eelgrass beds (e.g. pipe and wrasse). Most of the species caught are common, although some are rare in the area and there are a number of species that are likely to use the eelgrass beds during high tides. The eelgrass beds are a valuable resource for many life stages of fish species present within the area.

With no freshwater inlets present and no salmonoid species discovered in the harbour, it is not anticipated that this channel near the site is of importance to migratory fish.

The Zone of Influence is considered to be of local importance.

3.3.6 Other Species

Additional surveys relating to great crested newts, water voles and badgers were recommended in the Scoping Opinion. It is proposed that these will be carried out nearer the time of construction to ensure that the findings are up to date and any protective measures are appropriate for that time. Concerning great crested newts, it is noted that there is no significant open fresh water in the vicinity of the site making a significant population in the area unlikely. See Appendices 3.1 and 3.2.

3.4 IMPACT / MITIGATION

- 3.4.1 The impacts of the proposed development on the ecology of the site and of the surrounding Zone of Influence (ZOI) is summarised below.

TABLE 3.1
IMPACTS OF PROPOSED DEVELOPMENT ON ECOLOGY AND
SURROUNDING ZOI

Feature	Evaluation	Operational Impacts	Positive / Negative	Magnitude	Probability Type of Impact
High tide roost	International	Winter disturbance; sailing boats; walkers	Negative	Insignificant	Unlikely Seasonal
Low tide roost	International	Summer disturbance; boats	Negative	Low level	Unlikely, Seasonal, short duration
Intertidal bird feeding areas	International	Construction works	Negative	Low-level	Unlikely, short-term
Eelgrass beds	National	Disturbance during construction and from boats mooring in creek	Negative	Insignificant	Likely Seasonal
Mixed saltmarsh	County	Pollution and nutrient levels	Negative	Insignificant	Unlikely
Annual Glasswort	Borough to County	Pollution and nutrient levels	Negative	Insignificant	Unlikely
Cord-grass saltmarsh	Borough to County	Pollution and nutrient levels	Negative	Insignificant	Unlikely
Coastal grassland	Borough to County	Management of nature reserve	Positive	Medium-high	Likely
Low-tide feeding	Parish	Disturbance; construction works, boats (moored), walkers	Negative	Insignificant	Likely, seasonal
Inland roosts and feeding	Parish	Damage, construction traffic and works	Negative	Medium-high	Likely, short-term
Native hedgerows	Parish	Damage; construction damage and works	Negative	Medium-level	Likely, short-term
Golden samphire	Parish	Footpath restoration	Negative	Insignificant	Unlikely
Scrub and local lichen	Parish	Management of Nature Reserve	Positive	Low-level	Likely
Reptiles	Site to Parish (local)	Construction works to Yacht Club	Negative	High-level	Likely
Fish	Local	Disturbance from boats mooring in the creek	Negative	Insignificant	Seasonal
SPA / SAC estuary	Site value only	Construction of sea-wall (~100 m ²), removal of sea-defence (~100 m ²)	Neutral	Insignificant	Certain, permanent
SPA / SAC estuary	Site value only	Pontoon and moored boats (about 0.15 ha)	Negative	Insignificant	Certain, continual
Breeding birds	Site value only	Demolition of buildings	Negative	Insignificant	Likely, seasonal
Bats	Site value only	Removal of shed with roost features	Negative	Insignificant	Unlikely

3.4.2 In view of the above impacts, the following mitigations are recommended:

TABLE 3.2
RECOMMENDED IMPACT MITIGATION

Feature	Operational impacts	Positive / negative	Mitigation (and enhancements)	Magnitude after Mitigation
High tide roost	Summer disturbance, sailing boats; walkers	Negative	Signs near high-tide roosts; Code of Conduct	Decrease likelihood to Insignificant*
Low tide roost	Disturbance: construction; boats (moored); walkers	Negative	Restrict construction works to summer or use specialist equipment and screens	No change (Insignificant)
Eelgrass beds	Disturbance as a result of boats	Negative	Code of Conduct and exclude mooring adjacent to Eelgrass beds; review of existing creek swing moorings	No change (Insignificant)
Coastal grassland	Management of Nature Reserve	Positive	Detailed survey and Management Plan	No change (Medium-high)
Inland roosts and feeding	Disturbance: construction; boats (moored); walkers	Negative	Sensitive construction; restrict access to SINC; planting to screen areas from site; site enhancement to create suitable brent geese and waders habitat	Decrease to Insignificant*
Native hedgerows	Damage: construction traffic and works	Negative	Standard tree protection measures	Decrease to Insignificant*+
Scrub and local lichen	Management of Nature Reserve	Positive	Retention of open scrub and removal of dense scrub	No change (Low-level)
Reptiles	Construction works to Yacht Club	Negative	Mitigation Strategy and implementation; habitat creation in Coastal Grassland and relocation from development area	Slight positive impact
SPA / SAC estuary	Construction of sea-wall (~100 m ²)	Neutral	Removal of sea-defence (~100 m ²)	No change (Insignificant)
SPA / SAC estuary	Pontoon and moored boats (~0.15 ha)	Negative	None suggested: small area with habitat of site value only	No change (Insignificant)
Intertidal bird feeding areas	Construction works	Negative	Timing of works to avoid time of year when most birds are in area; screening of site from important bird areas	No change (insignificant)
Breeding birds	Demolition of buildings and scrub	Negative	Check active nests if clearance during breeding period	No change (Insignificant)

* Impacts considered to have become insignificant following mitigation

+ Mitigation proposals included in Section 10 of ES

3.5 INFORMATION FOR APPROPRIATE ASSESSMENT

3.5.1 In recognition of the status of the adjacent Chichester Harbour as European and Ramsar designated sites, the Scoping Opinion recommends that specific information should also be provided in a separate Section to address the requirements of an Appropriate Assessment. The information required is set out in Section 6.2.1 of the report in Appendix 3.1 and is summarised below:

- i. *Quantification of the amount of designated habitat likely to be lost - and in the case of SPA made unavailable to birds*

The reports attached in Appendices 3.1 and 3.2 assess the loss of estuarine SAC habitat at between 250 and 300 m². However, surveys indicate that this is not used at any significant extent as a brent goose or wader feeding ground due to its small size and enclosed nature.

- ii. *Assessment of potential impact of the proposals on estuary function and process (to specifically include any dredging activities if proposed)*

The proposed development will have a minimal impact on the function of the estuary since no dredging or fixed structures are proposed seaward of the sea defences and the locations of those defences remain the same. Four 340 mm diameter piles are required to moor the pontoons but otherwise only floating craft and pontoons will be seaward of the shoreline.

- iii. *Assessment of the potential for pollutants, nutrients or other contamination to enter the watercourse during the construction and remediation proposed*

The site investigation report attached to Section 8 demonstrates a low to moderate level of contamination of the soils on the eastern part of the site but that the groundwater has no significant contamination. This implies that the contaminants present on the site are largely insoluble and will not escape to contaminate the harbour, either during construction or throughout the life of the project.

The proposed reconstruction of the sea defences does not involve the use or reworking of any contaminated material currently on site but instead will be carried out with clean imported rock placed over the existing defences to form a revetment. None of the existing contaminated material will be placed in the harbour or used as reclamation.

It is possible that some fugitive dust will be released during construction but this will only be very minor in quantity and will be controlled where possible. It is not anticipated that this will have any significant adverse impact.

- iv. *Assessment of the suitability of the area to be developed for SPA birds, and a quantification of mitigation area required, this should also consider wider disturbance issues related to both construction and operation*

The area of the SPA affected by the proposal was assessed as being rarely used by waders or brent geese due to its small size and enclosed nature. Overall, the resulting impact has been assessed as insignificant.

The use of areas on Gutner Point and on Verna Common is important, but these areas are too far away from the site or from passing craft to suffer significant disturbance during the operation of the site.

The construction of the proposed development will be carried out in a manner to minimise disturbance (the small amount of piling will be carried out by vibration techniques etc) so the local and overall disturbances will have minimal impact on bird use of the SPA.

- v. *The potential contribution the proposals may have on coastal squeeze issues, particularly the proposed changes to the sea wall*

The proposal is to reconstruct the sea wall along the line of the existing wall. There will be some minor increase in the foreshore affected by the wall (approx 100 m²) since the intention is to reinforce the existing wall with a rock revetment at a shallower slope for the eastern section and a willow revetment for the western section. Refer Appendix 3.3 for details. Whilst in principle this extends the impact of the wall seaward, the wall itself will become more ecologically beneficial offsetting any minor coastal squeeze effect.

- 3.5.2 Other aspects and information relevant to the Appropriate Assessment are covered elsewhere in the reports in Appendices 3.1 and 3.2.

3.6 CONCLUSIONS AND RECOMMENDATIONS

- 3.6.1 The proposal involves the construction of six new dwellings, a yacht brokerage, and a pontoon. The proposal also includes the creation and management of two areas, 'Yachthaven Coastal Meadow and Wetland' and 'Yachthaven Coastal Grassland'. See Appendices 3.1 and 3.2 for details on the proposed nature reserve areas.
- 3.6.2 The southern edge of the site is part of the shoreline within a creek of Chichester Harbour. Adjacent to the site are various statutory designated sites including Chichester and Langstone Harbours Ramsar and SPA sites and Chichester Harbour SSSI, Chichester Harbour AONB, and within the local area is also Gutner Point LNR and the Solent Maritime SAC. These designated conservation sites are designated primarily for their important coastal habitats (including saltmarsh, mudflats, eelgrass beds) and for their internationally important overwintering bird populations.
- 3.6.3 The western part of the site is within the 'Fields and Saltmarsh South of Copse Lane' SINC, designated for its feeding and roosting use by brent geese and for its unimproved grassland; this part is not to be developed. There are five other SINC's within the local area including Verner Common West, West North Hayling V, North Copse, Havant, West North Hayling P and Gutner Farm, most selected for their importance to brent geese (UK BAP species) and wader roosting sites.

- 3.6.4 Concerning coastal squeeze, the project will result in a minor loss of foreshore (approximately 100 m²) as a result of the reinforcement of the existing sea defences. This is offset by the more ecologically friendly construction and the site enhancements elsewhere.
- 3.6.5 A low number of slow worms and viviparous lizard were recorded at the site during the reptile surveys.
- 3.6.6 Data from bird surveys suggested that a small proportion of the birds using Chichester Harbour as a whole are using the creek. Birds use the part of the creek near to the site least, with variety of birds increasing towards the mouth of the creek near Gutner Peninsula and Verner Common. High tide roost sites at Gutner Peninsula and Verner Common have been identified as significant.
- 3.6.7 Disturbance and damage potential at the site from the proposals is summarised in Table 3.1 above. Mitigation and avoidance measures proposed to prevent any impacts on the SPA and other ecological important features are summarised in Table 3.2 above and include (amongst others) consideration of works timing, screening of the site and sensitive areas, introduction of Codes of Conduct, arboricultural protection measure adoption, and enhancement of the site to create suitable brent goose, wader and reptile habitat.
- 3.6.8 In conclusion, it is thought that the proposals for the site will not have a significant ecological impact as long as all of the proposed avoidance and mitigation measures are implemented in full.

SECTION 4

LANDSCAPE AND VISUAL

4.1 INTRODUCTION

- 4.1.1 This Section assesses the potential visual impact of the redevelopment of currently disused industrial land with the construction of six detached houses, a small boatyard and a marine office, together with ancillary landscape improvement works.
- 4.1.2 The site lies in an area that is predominantly flat, with a mosaic of land uses, which includes agricultural land (generally small enclosed fields) and residential areas, consisting mainly of large detached dwellings set within generous gardens. There are also sections of valuable coastal landscapes along the southern edge of the site and a number of established boundary hedgerows and mature hedgerow trees.

4.2 METHODOLOGY

- 4.2.1 In view of the potential sensitivity of the area to visual impact, the Scoping Report proposed that the proposal should be subjected to a Visual Impact Assessment (VIA), the result of which is attached in Appendix 4.1. This proposal was agreed in the Scoping Opinion.
- 4.2.2 The scope of the VIA was discussed with Chichester Harbour Conservancy (CHC) and with Natural England and the methodology and critical viewpoints were agreed.
- 4.2.3 The VIA was submitted in draft to CHC for comment. The VIA concentrated on distant views affecting the landscape value of the Harbour and additional information concerning the nearby views was requested by CHC following this review. Up to date detailed information is being prepared and will be provided to CHC during consultation.
- 4.2.4 The Assessment is based on the Guidelines for Landscape and Visual Assessment, second edition, (GLVIA) published in association with the Landscape Institute.

4.3 EXISTING CONDITIONS

- 4.3.1 The site is currently largely unoccupied and is located on the boundary of the environmentally important Chichester Harbour. The site is located in countryside with the high water mark along the boundary with the Chichester Harbour Area of Outstanding Natural Beauty (AONB), Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Ramsar site. However, the site itself lies outside these designations.
- 4.3.2 The local landscape is of high quality with a sense of openness along the coastline and with attractive views of Verner Common to the south and of Chichester Harbour to the east.

- 4.3.3 The site is identified in the Havant Borough Townscape, Landscape and Seascape Character Assessment as just being within the southern extremities of “Stoke and northwest Hayling Landscape Character Area 30”. The key elements of this landscape include a predominately flat and open landscape of small pasture fields with views across Chichester Harbour.
- 4.3.4 The site is currently largely open with several derelict buildings predominately in the northeast part of the site. However, the existing vegetation around the north, west and east boundaries of the site reduces potential views of the site from north and west whilst neighbouring development limits views from the east. The most significant views are from the open water to the south / southeast although there are no publicly accessible viewpoints from Verner Common.

4.4 IMPACT / MITIGATION

- 4.4.1 The visual impact of the proposed development is assessed from photographs taken from agreed critical viewpoints as shown in the attached Visual Impact Assessment (Appendix 4.1). Of the five views considered, one viewpoint will have no view, two viewpoints will suffer negligible impact and the remaining two views will suffer a slight impact as assessed in accordance with Appendix 6 of the GLVIA. Slight impact is defined as:

The proposals constitute only a minor component of the wider view which might be missed by the casual observer or receptor. Awareness of the proposals would not have a marked effect on the overall quality of the scene.

- 4.4.2 The proposed Landscape Masterplan acknowledges the sensitivity of the site and care has been taken to ensure that the new development sits comfortably in the local landscape. The landscape strategy for the site is shown on drawing 711-101 attached to the planning application and summarised in Appendix 4.2. This strategy includes the retention and strengthening of the existing established hedgerows and boundary trees which provide valuable screening to the site.
- 4.4.3 The landscape proposals aim to protect the countryside character of the area by increasing the tree cover and enhancing the existing screen planting. Some framed views of the new dwellings will be created to add variety and interest for members of the public as they walk along the coastal footpath.

4.5 SUMMARY AND CONCLUSIONS

- 4.5.1 The combination of existing boundary vegetation, the generally flat topography and existing residential development substantially reduces the number of potential viewpoints from which the site can be seen.
- 4.5.2 The Visual Impact Assessment in Appendix 4.1 demonstrates that the visual impact of the proposed development will be limited, with only two viewpoints out of the five visited having any significant views into the site. These views

are ranked as having only slight impact and will not result in harm to the distinctive character of this Area of Outstanding Natural Beauty.

- 4.5.3 Up to date information on the nearby visual impact of the proposals is being prepared and can be provided during consultation if required. This will relate to detailed views from within the creek and from the coastal footpath only; all views relating to any impact on the Harbour are assessed in Appendix 4.1.
- 4.5.4 Overall, the development would have very limited impact on the character of the surrounding countryside. The proposal is to clean up and improve a derelict site by removing existing structures and rubbish. An area of habitat creation close to the shoreline will enrich opportunities for local wildlife. The proposed dwellings are designed to be an attractive feature in the local landscape, to be framed by new tree planting, not to be hidden behind screen planting.
- 4.5.5 The proposal is not large enough to result in a change in landscape character, with the houses well positioned and 'sitting' comfortably in the landscape.
- 4.5.6 It is accepted that the most significant potential impact on views is from the south, from where the greatest extent of the new buildings will be seen. The established boundary tree belts will be retained and this vegetation will form an attractive backdrop to the scheme. The new planting within the site will filter and soften the views from the water and, over time, views of the dwellings from this direction will be framed by the new trees.

SECTION 5

TRAFFIC AND TRANSPORT

5.1 INTRODUCTION

- 5.1.1 The proposed redevelopment of the site will result in a traffic demand to serve the proposed six new dwellings together with employees and customers of the proposed boatyard facility.
- 5.1.2 In view of this, the Scoping Opinion recommended that an assessment should be prepared covering the operational traffic levels, particularly relating to the boatyard operations, together with an assessment of levels, sight lines and turning points arising from the proposals.
- 5.1.3 As a consequence of this recommendation, a Transport Statement has been prepared to address these issues; this Statement is attached in Appendix 5.1.

5.2 METHODOLOGY

- 5.2.1 The traffic usage of the proposed development was assessed using flows derived from the TRICS (Traffic Rate Information Computer System) which provides traffic flow data for a wide range of residential, industrial and commercial sites. This data was used to predict the likely daily and peak flows using the site and was compared with the likely flows from previous uses of the site (it is recognised that these previous uses may not remain viable planning options but represent a useful traffic baseline for comparison).
- 5.2.2 Alignments, particularly at the junction of the access road with Copse Lane, are assessed and compared with recommendations set out in the Manual for Streets 2, dated 2010; this manual is considered more appropriate for junctions onto carriageways with low speed limits.
- 5.2.3 The findings of these assessments are set out in the Transport statement attached in Appendix 5.1.

5.3 EXISTING CONDITIONS

- 5.3.1 The site is currently disused although an individual berth, located on the shoreline of the site but under separate ownership, is accessed along the site access road. Traffic to that berth is only occasional. The junction with Copse Lane is also used by an adjacent house, Yachthaven House, although this house is also currently unoccupied.
- 5.3.2 The existing traffic flows at the junction with Copse Lane are therefore minimal although reference is made to former uses of the site for comparison purposes.
- 5.3.3 Copse Lane is predominately an access road serving a local community and has a 40 mile per hour speed limit in the vicinity of the site. There are no

recorded accidents along this part of Copse Lane within the last five years suggesting that there is no existing safety problem in the area.

5.4 IMPACT / MITIGATION

- 5.4.1 The impact of the proposal in terms of traffic flow is assessed at 239 daily two-way traffic movements with a peak flow of 29 two-way movements per hour (weekday). With the existing traffic flows being minimal, these flows may reasonably be taken as increases in traffic over the existing condition. The existing access track onto the site will be upgraded and widened to 4.8 m to allow two-way flow.
- 5.4.2 It is anticipated that virtually all boat movements into and out of the site will be by water and in consequence there will be few movements of large vehicles or trailers onto or off the site.
- 5.4.3 The access onto Copse Lane has good visibility and is in line with current published guidance and can be used for the anticipated traffic without causing increased danger to road users.
- 5.4.4 As a consequence of the above, the proposed upgraded access road and junction onto Copse Lane appear adequate and no further mitigation is recommended.

5.5 SUMMARY AND CONCLUSIONS

- 5.5.1 It is recognised that the proposed redevelopment of the site will generate additional traffic to the existing situation. This impact has been reviewed by a Transport Statement prepared for the purposes of this assessment which is attached in Appendix 5.1.
- 5.5.2 The additional traffic to be generated by the proposed development is assessed as 239 daily two-way traffic movements with a peak flow of 29 two-way movements per hour (weekday). Virtually all boat movements onto the site will be by water and, in consequence there will be few movements of large vehicles or trailers onto or off the site.
- 5.5.3 The site access road faces onto Copse Lane which is predominately an access road serving the local community. The highway has a 40 mile per hour speed limit at this point and there is no record of any accident in the vicinity of the site within the last five years.
- 5.5.4 It is proposed to upgrade the existing site access road to a width on 4.8 m to allow two-way traffic. The junction of the access road onto Copse Lane has been assessed against current published guidance and is considered satisfactory for the anticipated traffic flows.
- 5.5.5 It is therefore concluded that the additional traffic to be generated by the proposed development can be accommodated without causing increased danger to road users.

SECTION 6 FLOOD RISK AND DRAINAGE

6.1 INTRODUCTION

6.1.1 The site is located on Hayling Island and is adjacent to the shoreline with Chichester Harbour. Havant Borough Council (HBC's) Scoping Opinion identifies part of the site as being within Flood Zone 3 as identified by the Environment Agency and in consequence this proposal will require a Flood Risk Assessment (FRA) in accordance with Planning Policy Statement 25 (PPS25).

6.1.2 A FRA has been prepared for the site and is attached in Appendix 6.1.

6.2 METHODOLOGY

6.2.1 The FRA has been prepared in accordance with the requirements of PPS25 in order to address:

- The risk that flooding poses to the occupiers of the site
- The impact that the proposed development will have on flood risk elsewhere

In addition:

- With parts of the site located within Flood Zones 2 and 3, the proposal will be subject to the Sequential and, if appropriate, the Exception Tests as set out in PPS25.
- With the site being in excess of one hectare in area, the proposal also requires a surface water drainage strategy to demonstrate that surface water will be disposed of in a sustainable manner and without increasing flood risk elsewhere.

6.2.2 Consultation was carried out with the Environment Agency during the preparation of the FRA.

6.3 EXISTING CONDITIONS

6.3.1 The site is currently disused and without formal surface water drainage. Some buildings remain, mainly on the northeast part of the site, but these are derelict and undefended against flooding.

6.4 IMPACT AND MITIGATION

- 6.4.1 As shown in the FRA in Appendix 6.1, most of the eastern part of the site, including the area to be developed for housing, and the southern half of the access road are in Flood Zone 2 with most of the western part of the site in Flood Zone 3. The area designated for boatyard services is largely also in Flood Zone 3.
- 6.4.2 Housing is classified as “appropriate” for Flood Zone 2 whilst the boatyard may reasonably be considered as a “water related” use and is therefore appropriate to Flood Zone 3. The proposed grassland and ecological reserve is also appropriate to Flood Zone 3. The proposals therefore need only satisfy the Sequential Test which will be carried out by HBC.
- 6.4.3 Flood Zone 2 indicates that the housing will be at a risk of between 1 in 200 years and 1 in 1000 years from flooding by the sea. Whilst this risk is considered as acceptable under PPS25 for the proposed uses, the following mitigation measures are proposed:
- The maximum predicted flood level is assessed as 4.95 m AOD in the FRA. In consequence, the lowest finished floor level within the houses is recommended at 5.10 m AOD giving a 150 mm freeboard for safety.
 - A Flood Warning and Evacuation Plan is contained in the FRA for use should an event likely to cause flooding at the site is predicted.
- 6.4.4 The remaining parts of the site are largely within Flood Zones 2 and 3 with the boatyard development partially within Flood Zone 3. This will involve some building within Flood Zone 3 but, with the flood risk being tidal and the site being adjacent to the shoreline, this will have no impact on flood levels elsewhere.
- 6.4.5 It is noted that there is currently no formal surface water drainage for the site with surface water currently infiltrating into the ground or running off into Chichester Harbour. Such runoff will have no discernable affect on tide levels in the Harbour and in consequence does not have any adverse impact on flood risk elsewhere. The risk of the contamination of the surface water from contamination existing in the soils is considered in the Contamination Risk Assessment in Appendices 8.1, 8.2 and 8.3.
- 6.4.6 Full details of the FRA, together with the consequent impacts and mitigation measures, are given in Appendix 6.1.

6.5 SUMMARY AND CONCLUSIONS

- 6.5.1 The site is partially within Flood Zones 2 and 3 and in consequence any development will require a FRA to PPS25 and will need to satisfy the Sequential and, if appropriate, the Exception Test.
- 6.5.2 The part of the site for residential development is within Flood Zone 2 and is therefore appropriate for this use under PPS25. The remaining flood risk is

mitigated by recommendations concerning finished floor levels and a Flood Warning and Evacuation Plan.

- 6.5.3 The remainder of the site is within Flood Zones 2 and 3 but its proposed uses (as a boatyard or open space) are appropriate for these Zones. With the flood risk being tidal and being adjacent to the shoreline, any development will not increase flood risk elsewhere.
- 6.5.4 The site is currently without formal drainage with surface water currently draining from the site into the soil or running off into the adjacent Chichester Harbour. It is proposed to continue surface water drainage in the same manner but the risk of contamination from the ground is noted and is addressed in Section 8 of this report.

SECTION 7

NOISE

7.1. INTRODUCTION AND DEFINITIONS

- 7.1.1 The site on the edge of Chichester Harbour appears to have originally been developed as a wartime camouflage depot and the buildings on the site have been used for various light industrial and commercial activities until recently. The site is presently largely disused, apart from a small boat repair compound in the centre of the frontage. It is proposed to redevelop the site for housing and a boatyard.
- 7.1.2 The principal noise sources at the site comprise distant traffic on the A3023 Havant Road to the west, and Copse Lane to the north, plus some occasional boat maintenance activity in the centre of the frontage.
- 7.1.3 A noise assessment, as part of the Environmental Impact Assessment (EIA), is required to support the planning application for the proposed redevelopment.
- 7.1.4 The nearest receptors are residents in the houses “Yacht Haven” (presently unoccupied), “Rhu House” and “South Winds” to the east, plus residents in “Copsewood House” and any residents in the caravan park to the north.
- 7.1.5 Noise assessment terms used in the report are defined and described below:

dB_(A)	The unit of noise measurement that expresses the loudness in terms of decibels (dB) based on a weighting factor for humans’ sensitivity to sound (A)
L_{(A)10}	A-weighted sound pressure level exceeded for 10 % of the measured time
L_{(A)50}	A-weighted sound pressure level exceeded for 50 % of the measured time
L_{(A)90}	A-weighted sound pressure level exceeded for 90 % of the measured time; defined as ‘background noise level’
L_{(A)eq,T}	Equivalent conditions A-weighted sound pressure level over a given period of time
L_{(A)max}	Maximum continuous A-weighted sound pressure level over a given period of time; defined as ‘maximum sound level’

7.2 METHODOLOGY

- 7.2.1 This assessment has been carried out generally in accordance with Planning Policy Guidance note (PPG) 24 “Planning and Noise” (Department of Environment 110104) with reference to BS 4142:110107, BS 8233:1101010 and the World Health Organisation Guidelines for Community Noise 2003. The methodology has been submitted to Havant Borough Council (HBC) and the Council has advised (by e-mail of 26 September 2011) that this is satisfactory (refer Appendix 7.1).

- 7.2.2 The assessment comprised the measurement of ambient noise at the site and an estimation of the likely noise levels at the site post-development (based on noise monitoring results from an existing marina on Hayling Island), plus consideration of the likely noise impacts from construction.
- 7.2.3 The assessment required the selection of suitable monitoring stations, the installation of the monitors for suitable monitoring periods, general observations of factors affecting noise around the site and a review of the results of the monitoring.
- 7.2.4 The monitoring stations required suitable locations with reasonably free-field conditions and a line of sight towards the principal noise sources. The monitoring station locations were selected to provide representative data to cover all parts of the site. See Figure 7.1.
- 7.2.5 The monitoring was carried out during the periods 13 – 14 July and 5 – 6 October 2011, using a CEL (Casella) Type 490 Precision Sound Level Meter and CEL-110/1 field calibrator (calibrated to national standards on 23 July 2011 and 26 July 2011). The calibration was field-checked before and after each monitoring session. The SLM was mounted 1.5 m above ground level on a tripod during the short-term measurements and was secured with a projecting microphone between 1.5 m and 2 m above ground level during the continuous 24-hour measurements. A Casella CNM 1 integrating SLM was also used for additional noise measurements around the site. The monitoring comprised a series of short-term daytime monitoring sessions at five of the chosen representative locations, plus a continuous 24-hour monitoring session at one selected location.

7.3 EXISTING CONDITIONS

- 7.3.1 The results of the ambient noise monitoring carried out at the site for this assessment are summarised in Tables 7.1 and 7.2 below. Noise monitoring locations are shown in Figure 7.1.

TABLE 7.1
SUMMARY OF THE RESULTS OF DAYTIME MONITORING

MONITORING LOCATION	1. Central south				
PERIOD	12:18 – 12:37 hrs 13 July 2011				
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)50}	L _{(A)10}	L _{(A)max}
	42.7	36.5	40.5	46.0	61.4
WEATHER	Dry, slightly overcast with light southerly wind				
PRINCIPAL NOISE SOURCES	Distant traffic on Copse Lane and Havant Road, birdsong, some slight wind noise				

MONITORING LOCATION	2. Northeast				
PERIOD	12:39 – 12:56 hrs 13 July 2011				
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)50}	L _{(A)10}	L _{(A)max}
	40.0	36.5	38.5	42.0	55.7
WEATHER	Dry, slightly overcast with light southerly wind				
PRINCIPAL NOISE SOURCES	Distant traffic on Copse Lane and Havant Road, birdsong, some slight wind noise				

MONITORING LOCATION	3. Central west				
PERIOD	12:57 – 13:13 hrs 13 July 2011				
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)50}	L _{(A)10}	L _{(A)max}
	46.3	34.5	39.0	47.0	66.7
WEATHER	Dry, slightly overcast with light southerly wind				
PRINCIPAL NOISE SOURCES	Distant traffic on Copse Lane and Havant Road, birdsong, some slight wind noise				

MONITORING LOCATION	4. Central - north 24-hour monitoring location				
PERIOD	13:16 – 23:00 hrs & 07:00 – 12:54 hrs 13/14 July 2011				
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)50}	L _{(A)10}	L _{(A)max}
	43.7	39.3	41.3	45.2	76.1
WEATHER	Dry, slightly overcast with light southerly wind				
PRINCIPAL NOISE SOURCES	Distant traffic on Copse Lane and Havant Road, birdsong, some slight wind noise.				

TABLE 7.2
SUMMARY OF THE RESULTS OF NIGHT-TIME MONITORING

MONITORING LOCATION	4. Central - north 24-hour monitoring location				
PERIOD	23:00 – 07:00 hrs 13/14 July 2011				
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)50}	L _{(A)10}	L _{(A)max}
	36.1	30.9	34.9	38.1	68.9
WEATHER	Very light southerly wind.				
PRINCIPAL NOISE SOURCES	Distant traffic on Copse Lane and Havant Road, birdsong, some slight wind noise				

- 7.3.2 The meteorological conditions during the monitoring were favourable and should not have adversely affected the results. Monitoring locations were in the open and not adjacent to any façade or significant obstruction and hence may be considered free-field. No adjustment of the results is indicated.
- 7.3.3 The results of the monitoring carried out at The Hayling Yacht Company Limited marina off Mill Rythe Lane are given in Tables 7.3 and 7.4.

TABLE 7.3
SUMMARY OF THE RESULTS OF DAYTIME MONITORING AT THE
HAYLING YACHT COMPANY LIMITED MARINA

MONITORING LOCATION	A. In the boatyard at the marina				
PERIOD	11:09 – 23:00 hrs & 07:00 – 11:37 hrs 05/06 October 2011				
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)50}	L _{(A)10}	L _{(A)max}
	54.5	49.6	52.5	56.8	93.1
WEATHER	Dry, slightly overcast with moderate southwesterly wind				
PRINCIPAL NOISE SOURCES	Activity in the boatyard/marina and pinging halyards, distant traffic on Havant Road				

TABLE 7.4
SUMMARY OF THE RESULTS OF NIGHT-TIME MONITORING AT
THE HAYLING YACHT COMPANY LIMITED MARINA

MONITORING LOCATION	A In the boatyard at the marina				
PERIOD	23:00 – 07:00 hrs 05/06 October 2011				
NOISE LEVELS dB _(A)	L _{(A)eq}	L _{(A)90}	L _{(A)50}	L _{(A)10}	L _{(A)max}
	52.7	44.5	49.5	56.1	75.0
WEATHER	Moderate southwesterly wind occasional light shower				
PRINCIPAL NOISE SOURCES	Wind noise in boat rigging and pinging halyards, distant traffic on Havant Road				

7.4 IMPACTS

- 7.4.1 The Noise Exposure Categories (NECs) are given in the table in Annex 1 of PPG 24 for a range of noise sources. In this case, “mixed sources” would appear the most appropriate, and the relevant section of the table has been reproduced below as Table 7.5.

TABLE 7.5
RECOMMENDED NOISE EXPOSURE CATEGORIES FOR NEW
DWELLINGS NEAR EXISTING NOISE SOURCES

Noise Levels Corresponding to the Noise Exposure Categories For New Dwellings $L_{(A)eq,T}$, dB				
	Noise Exposure Category			
NOISE SOURCE	A	B	C	D
Mixed sources				
07:00-23:00	<55	55 - 63	63 - 72	>72
23:00-07:00	<45	45 - 57	57 - 66	>66

7.4.2 The apparent NECs for the monitoring location, as indicated by the results of the monitoring, are summarised in Table 7.6 below:

TABLE 7.6
NOISE EXPOSURE CATEGORIES AT THE MONITORING LOCATIONS

Location Time	Noise Exposure Categories				
	1	2	3	4	A
Daytime	A	A	A	A	A
Night-time	A*	A*	A*	A	B

* Based on the 7.6 dB_(A) difference between day and night $L_{(A)eq}$ measured at Monitoring Location 4

7.4.3 NEC A is defined in Planning Policy Guidance Note PPG24 “Planning and Noise” 1994 as: “Noise need not be considered as a determining factor in granting planning permission, although noise in the high end of the category should not be considered a desirable level”. NEC B is defined as: “Noise should be taken into account when determining planning applications and, where appropriate, conditions imposed to ensure an adequate level of protection against noise”.

7.4.4 PPG24 states that: “Sites where individual noise events regularly exceed 82 dB L_{Amax} several times in any hour (between 23:00 and 07:00 hrs) should be treated as being in NEC C.” In this case (as can be seen from the night-time periods in the traces from the continuous monitoring in Figure 7.2) individual noise events did not exceed 82 dB $L_{(A)max}$ at all, let alone “several times an hour” during the period 23:00 – 07:00 hours.

7.4.5 The NEC B result for the night-time monitoring at The Hayling Yacht Company Limited marina was largely due to the increase in wind velocity during the night, a rain shower, the location within 10 m of boats (on cradles) with pinging halyards and one of the adjacent boat owners commencing work on his boat early in the morning.

- 7.4.6 It should be noted that none of the proposed residences at Yachthaven should be less than 90 m from the moorings.
- 7.4.7 From the results of the monitoring, it is concluded that the site is generally quiet and will remain so after the redevelopment. Ambient noise levels at the site will not significantly impact on the proposed residents and bedrooms may be ventilated by opening windows as desired.
- 7.4.8 The probable impact of the proposed Yachthaven redevelopment (in service) on the nearest residential receptors (based on the noise levels measured at the existing The Hayling Yacht Company Limited marina) is summarised in Table 7.7 below.

TABLE 7.7
SUMMARY OF PREDICTED IMPACTS

Receptor	Distance to moorings (m)	Noise at source (moorings) worse case as $L_{(A)eq}$ day/night (dB _A)	Ambient noise at receptor $L_{(A)eq}$ & $L_{(A)90}$ day/night (dB _A)	Noise impact at receptor post-redevelopment day/night (dB _A)
Yacht Haven (house)	169 m	82.5/80.7	40.5 & 36.5/ 36.1 & 30.9	30.0/28.2
Rhu House	188 m		40.5 & 36.5/ 36.1 & 30.9	29.0/27.7
Copsewood House	200 m		46.3 & 34.5/ 36.1 & 30.9	28.5/26.7
Residential caravans	180 m		40.5 & 36.5/ 36.1 & 30.9	29.4/27.6
Proposed Plot 1	90 m		42.7 & 36.5/ 36.1 & 30.9	35.4/33.6

- 7.4.9 Outside noise levels (as $L_{(A)eq}$) at the nearest receptors are predicted to remain below the 55 dB_(A) “annoyance” criteria given in the World Health Organisation Community Noise Guidelines post-redevelopment.
- 7.4.10 From Table 7.7 above, it is immediately apparent that the proposed marina moorings and operation will have minimal perceptible impact on the nearest residential receptors.
- 7.4.11 British Standard BS 8233 and the World Health Organisation guidelines on community noise recommend 30 dB_(A) $L_{(A)eq}$ as the permissible maximum noise level in a bedroom and 35 dB_(A) $L_{(A)eq}$ as the appropriate threshold for other habitable rooms. This means that (assuming the attenuation provided by an open window is around 15 dB_(A)) no attenuation will be required as the external noise levels will not exceed 45 dB_(A) as $L_{(A)eq}$.
- 7.4.12 There is an existing boat repair yard in the centre of the site frontage and the continuation of this operation should result in no change in the ambient noise levels at the nearest receptors.

- 7.4.13 Noise impact at the nearest receptors will be most likely during the demolition of the existing buildings, site clearance and construction of the new proposed development.
- 7.4.14 Impacts on the existing residential receptors will be greatest during the demolition works at the north end of the site and should be least during the construction activities at the southern edge. However, it is likely that the pontoon piling will cause some noise impact at the nearest residential receptors, depending on the driving method used (low noise vibration methods are presently proposed). Some of the marine works at the southern edge are likely to require tidal working, which could mean working outside normal business hours.
- 7.4.15 It is to be assumed that some mitigation will be required for the construction phase of the redevelopment. See recommendations in the following Section.

7.5 MITIGATION

- 7.5.1 No requirement for noise mitigation works is indicated for the proposed redevelopment in service.
- 7.5.2 The following mitigation would be recommended for the construction phase to minimise the potential noise impacts on the nearest residential receptors:
- Confine demolition, site clearance and construction work to normal weekday and Saturday morning working hours. Some marine work may require special consideration where tidal working is necessary.
 - Select quiet types of plant and construction methods where practicable.
 - Place an impermeable hoarding of a suitable height on the site boundary between the site and the nearest residential receptors during the construction period.
- 7.5.3 The principal mitigation for the construction noise impacts will be the relatively brief duration of the construction phase.

7.6 SUMMARY AND CONCLUSIONS

- 7.6.1 This assessment has been carried out generally in accordance with Planning Policy Guidance note (PPG) 24 “Planning and Noise” (Department of Environment 110104) with reference to BS 4142:1997, BS 8233:1999 and the World Health Organisation Guidelines for Community Noise 2003.
- 7.6.2 The assessment comprised the selection of suitable monitoring stations for monitoring ambient noise at the site, the installation of the monitors for suitable monitoring periods, general observations of factors affecting noise around the site and noise monitoring at an existing nearby marina to give an approximation of probable noise levels post-redevelopment.

- 7.6.3 The results of the assessment place the site within Noise Exposure Category (NEC) A, as defined in PPG24 *Planning and Noise* 1994. In terms of the ambient noise levels, the site may be considered suitable for redevelopment for a residential land use without recourse to mitigation or attenuation work.
- 7.6.4 Superimposing the likely post redevelopment noise levels (based on the noise monitoring carried out at the existing and active marina operated by The Hayling Yacht Company Limited) does not indicate any significant adverse noise impacts at the nearest residential receptors, nor at the proposed residential receptors within the proposed redevelopment. No mitigation or attenuation requirement to reduce noise impacts at receptors is indicated.
- 7.6.5 The construction phase will comprise the demolition of existing buildings (mainly towards the north of the site), site clearance, the construction of the housing (in the north east of the site) and the construction of the marine works (at the southern edge of the site and furthest from the existing residential receptors). The marine works will require some piling work for the pontoon moorings. It is proposed to use vibration methods for pile driving.
- 7.6.6 Measures to reduce construction impacts would include placing impermeable hoardings on the site boundary between the working areas and the nearest residential receptors, the selection of low noise plant and piling methods and limitation on out-of-hours working (although some flexibility may be required to permit tidal working for some of the marine works).
- 7.6.7 The principal mitigation for the construction noise impacts will be the relatively brief duration of the construction phase.
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SECTION 8

SOIL QUALITY AND CONTAMINATION

8.1 INTRODUCTION

8.1.1 The site of the proposed development is currently disused industrial land previously used for a boatyard and subsequently for materials, vehicle and plant storage. The levels of much of the site were raised with fill as part of this earlier development.

8.1.2 It is now intended to restore and redevelop the site partially for residential use, partly for use as a small boatyard for leisure craft with the remainder returned to a natural habitat for environmental enhancement.

8.1.3 As a consequence of:

- The site's previous history and use as a commercial boatyard since the 1930s and subsequently for materials and vehicle storage.
- The extensive made ground covering the site.
- The proximity of the site to Chichester Harbour and to environmentally important areas

it was required that the risk of soil and groundwater contamination should be assessed particularly in respect to:

- The risk to users of the site, particularly within the gardens of the residential development
- The risk to persons involved during construction, particularly on earthworks
- The risk of contaminated runoff into the Harbour with its consequent impact on the neighbouring ecologically sensitive areas.

8.1.4 In view of the above, the site has been subjected to the following site and soils investigations:

- The Contamination Assessment carried out by Environmental Assessment Services Ltd and dated September 2002.
- Desktop Study Report prepared by L R Pimenta dated October 2010
- Contamination Risk Assessment Update Report prepared by EAS Ltd October 2011.

8.1.5 Copies of these reports are attached in Appendices 8.1, 8.2 and 8.3 respectively.

8.2 METHODOLOGY

8.2.1 The first Contamination Risk Assessment, dated September 2002, related to an earlier redevelopment proposal, included:

- A review of the development history of the site
- A site investigation including 73 trial holes and four boreholes with the findings logged to provide a record of the soils across the site
- The taking and the testing of 105 soils and groundwater samples. Landfill gas monitoring was also carried out at the four borehole positions.
- An assessment of the results of the testing against the then current ICRCCL standards and recommendations concerning the overall contamination risk at the site and remedial measures required.

8.2.2 The October 2010 desktop study was carried out for the purposes of the present planning application and forms an update to the earlier 2002 report.

8.2.3 The October 2011 study included a schedule of soils and groundwater testing as recommended in the 2010 study to identify any changes since the testing in 2002. This study updates the findings of the earlier investigations as recommended in the Scoping Opinion and assesses those findings against the current risk management framework provided in the CLR11 Model Procedure.

8.3 EXISTING CONDITIONS

8.3.1 The broad conclusions of the 2002 study were that the site was moderately contaminated as a consequence of its previous usage, although testing indicates that the concentrations of the contaminants tested are generally below acceptable levels for residential development with plant uptake (gardens), but there are likely to be individual “hot-spots” requiring treatment.

8.3.2 The testing of the groundwater and the types of contaminants found in the soils suggests that little of the contamination is capable of leaching into the groundwater or escaping offsite by surface water runoff into the Harbour.

8.3.3 These conclusions were supported by the desktop study of 2010.

8.4 TESTING OF OCTOBER 2011

8.4.1 Additional samples were obtained from six trial pits adjacent to the 2002 trial pits referenced D33, D11, D21, F20, E25 and G5 in order to give comparative results at these typical positions. The location of these trial pits is shown on the plan attached to the 2002 report. The results of this testing is attached in Appendix 8.3 of this report.

8.4.2 Gas tests were carried out at the four original borehole positions. It is reported that:

“The gas measurements were much the same as before and no detectable concentrations of methane were found and the carbon dioxide levels were not significantly above normal background.” [see Appendix 8.1]

8.4.3 No groundwater samples could be recovered, probably due to the recent long period of dry weather.

8.4.4 The conclusion is that there has been no significant change in the contamination in the site over that period. The soil gas readings support the previous view that the elevated readings obtained in 2002 were due to pockets of trapped gas without potential for continued gas generation.

8.4.5 The soil sample pH values were found to be generally neutral to alkaline (7.0 – 10.1) with two samples (E25 and F21) giving acid results down to 6.2.

8.4.6 The results of the analysis of the soil samples have been compared with the current CLEA Soil Guideline Values for metals and the LQM/CIEH Generic Assessment Criteria Values for Human Health Risk Assessment (2nd edition 2009) for a residential + plant uptake land use.

8.4.7 It is apparent from the results of the analysis that:

- Site average results as shown in Table 5.2 (Appendix 8.1) are within guideline values for a residential land use - except for mercury, which is within guideline values for allotments.
- There is a substantial variation in potential contaminant concentrations across the site but with the exceedences over current guidelines for a residential land use confined to the previously developed eastern part of the site.
- PAH values are within current guidelines for a residential land use and the TPH values in the 2011 testing do not indicate any evidence of significant fuel spillage or leakage.
- An asbestos content survey was carried out on ten surface soil samples at the site. There were no samples containing significant levels of asbestos dust recorded during this survey. See Appendix 8.1

8.4.8 Three groundwater samples were obtained in 2002 at the site, again these showed no significant contamination. These results imply that there are no significant contaminants leaching into or onto the neighbouring SSSI and Ramsar Sites.

8.5 IMPACT AND MITIGATION

8.5.1 In order to mitigate the remaining impacts and risks, we propose:

- To clear the site of all dumped material and the arisings from the demolition of the remaining structures and equipment except for clean concrete, which may be crushed and reused on the site.
- To inspect the site following demolition and to identify any evidence of remaining contamination and arrange removal and disposal in an appropriate manner. Similar inspection of excavations for foundations etc should be carried out.
- Garden and soft landscaping areas within the housing development to be provided with 600 mm of certified clean topsoil from an uncontaminated source to be placed over a geotechnical membrane and sand capillary breaker layer (where not directly on undisturbed natural soil).
- In the wildlife areas, the superficial waste deposits should be removed and the area should be enhanced with brush and wood piles, south facing soil banks (where practicable) and open compost heaps. Apart from the foregoing suggestions, the wildlife areas should be disturbed as little as possible.

8.6 SUMMARY AND CONCLUSIONS

8.6.1 The studies above conclude that the site is moderately contaminated but, if the above recommendations are followed, the levels of contamination are unlikely to cause a significant risk to the future users of the site or to escape offsite. However, it is clear from the sparse vegetation that the existing surface of the site is restricting to plant growth.

8.6.2 In consequence, we conclude that the bulk of the made ground will not have a significant adverse impact on the proposed use of the site and need not be removed but that clean topsoil should be provided where plant growth is required.

SECTION 9 ARCHAEOLOGY

9.1 INTRODUCTION

- 9.1.1 This Section reviews the archaeological significance of the site and assesses the likely impact of the proposed works on the archaeological value of the area.
- 9.1.2 The proposed development involves the construction of six detached dwellings on the northern part of the site together with some refurbishment of the existing coast protection works and the construction of sheds, a slipway, an open storage area and pontoons in connection with a boatyard and yacht moorings to be provided at the site. No major landscaping operations are proposed at the site.

9.2 METHODOLOGY

- 9.2.1 This archaeological assessment of the site is based on existing information obtained from the Hampshire County Council's Archaeological Department 9 (Appendix 9.1) and from the Chichester Harbour Conservancy. The existing ground conditions at the site are derived from the extensive site investigation work (including 73 trial pits and four boreholes) set out in Section 8 of this report.
- 9.2.2 No onsite archaeological investigation was carried out at the site.

9.3 EXISTING CONDITIONS

- 9.3.1 The site is located on the shoreline of Chichester Harbour facing onto a small inlet on the east side of Hayling Island.
- 9.3.2 Enquiry of Hampshire County Council's Archaeological Department indicates that there is evidence of extensive prehistoric occupation of the margins around Hayling Island with widespread finds along the shorelines. Although there is no record of an archaeological find at the site, there are several finds on the shoreline immediately to the east (see Appendix 9.1) and it is likely that the site would have been occupied at some stage and that artefacts may have been present in the upper topsoil layers.
- 9.3.3 Records indicate that the area was occupied in the late Neolithic and Bronze ages when the shoreline of Hayling Island was used for seasonal grazing, butchering and hide preparation. Evidence of Bronze Age permanent settlement has been found elsewhere on the Island. The finds in the vicinity of the site appear principally to consist of hearths and flint pot boilers and may have been associated with salt workings.
- 9.3.4 We were therefore advised by Hampshire County Council's Archaeological Department that the site would be considered as an area of potential archaeological interest.

- 9.3.5 Records of the archaeological finds in the area are set out in Appendix 9.1.
- 9.3.6 The recent development history of the site indicates that the area was agricultural land in the late 19th Century before development in the 1930s. The site was occupied by a small boatyard but more recently has been used for vehicle and construction plant storage and maintenance.
- 9.3.7 The exact extent of this development is uncertain although it involved filling, particularly of the eastern part of the site, and the construction of a variety of buildings and workshops, mainly again on the eastern part of the site, together with a slipway, jetties and coast protection works. The site survey, attached in Appendix 2.2, shows the arrangement of the buildings remaining on the site although there is evidence of further buildings (base slabs and foundations) that no longer exist.
- 9.3.8 Trial pits and boreholes undertaken during the soils investigation indicate the depth of the made ground to vary between 0.3 m and 1.1 m over soft to firm silty clay. There is no evidence of topsoil layers remaining between the made ground and the natural clay beneath. We therefore conclude that any topsoil was removed before the site was filled prior to development.
- 9.3.9 Details of the trial pits and boreholes taken across the site are given in Appendix 8.1.

9.4 IMPACT / MITIGATION

- 9.4.1 The impact of the proposed development on the archaeological value of the site will be restricted to the northeast section of the site, (where the foundations for the houses will penetrate the soils) to the slipway and coast protection areas (where these facilities will be reconstructed and to locations of underground services. No work that is likely to significantly affect the soils below the current made ground levels are proposed elsewhere in the site.
- 9.4.2 Considering the areas most likely to be affected by the proposed development:
- The northeast section of the site, where the houses are proposed, has the most history of previous development with several substantial buildings and other groundworks remaining on the site. This suggests that the subsoil in this part of the site is already likely to have been heavily disturbed. Additionally, the evidence from the trial pits and boreholes indicates that the topsoil, which we understand is most likely to contain material of archaeological value, was stripped from this area before the existing fill was placed.
 - The southern central part of the site to be used for the slipway, pontoons and boat storage sheds. These proposals largely replace the previous works in this area and, with the exception of the pontoon piling, will not involve deep foundations. The pontoons will be located out over the water and in the location of similar previous works. Overall, it is reasonable to conclude that this area will also have been compromised by its previous use.

- Coast protection works. The existing margin of the site consists largely of an eroding face of made ground reinforced with ad-hoc concrete defences. It is intended that these will be reinforced by a natural bank protected with stone revetment or similar; the site has good natural protection so that substantial works will not be required. Again, this is an area of substantial previous disturbance and the proposed works are unlikely to compromise the site further.
- The remainder of the site is to be restored and turned over to a natural habitat. This work will involve minor re-landscaping of the area but it is not intended to remove significant quantities of made ground or excavate back to the natural ground levels. In consequence, the subsoils will not be disturbed by this work.

9.4.3 In view of the above, we conclude that the site of the proposed housing and other development is already so disturbed that any archaeological value of the area is already compromised and the other works are unlikely to affect the natural soils.

9.5 SUMMARY AND CONCLUSIONS

9.5.1 Consultation with the Hampshire County Council's Archaeological Department indicates that the vicinity of the site is likely to have been occupied during the late Neolithic and Bronze ages when the shoreline of Hayling Island was used for seasonal grazing, butchering and hide preparation. Finds within the area principally consist of hearths and flint pot boilers which are found in the superficial / topsoil layers.

9.5.2 The recent uses of the site as a boatyard included the raising of ground levels, particularly over the eastern part of the site, by filling. The main proposed development likely to affect the subsoils is located in this part of the site. Evidence from ground investigations on the site indicates that the topsoils were removed prior to the filling. This would also have resulted in the damage or removal of any archaeological interests in that area.

9.5.3 In consequence of the above, it is likely that any archaeological remains on the site will have been so damaged or compromised by previous development that the proposed development will cause no further damage.

SECTION 10

TREES, HEDGEROWS AND GREEN INFRASTRUCTURE

10.1 INTRODUCTION

10.1.1 Whilst the proposed development site is devoid of trees within the site, trees and hedgerows bound the site on the west, north and east sides and also border the access road to the north into Copse Lane.

10.1.2 The proposed development will involve the upgrading of the access road and construction close to the northern boundary of the site which may impact on the existing trees. Overall, it is intended to retain the trees of value within the proposed development.

10.1.3 In recognition of the possible impacts of the proposed development on the trees surrounding the site, an arboricultural report was commissioned to establish the value and condition of the trees, the likely impacts of the proposals and the measures required to mitigate any damage. The report and recommendations from this study are attached in Appendix 10.1.

10.1.4 The location of the trees is shown in Appendix 10.1.

10.2 METHODOLOGY

10.2.1 As indicated above, an arboricultural study was undertaken to:

- Survey the existing trees and tree groups on the site and assess their value for protection. It should be noted that this value was assessed on the basis of the trees themselves and not on any contribution that they might make to the support of wildlife in the area; this is addressed under the ecological assessment.
- Assess the impact of the proposed development on the welfare of the trees. This impact will be assessed both for the completed project and for the construction phase.
- Recommend any work required on the trees to be retained and advise on the protective measures required to minimise damage, particularly during the construction phase of the project.

10.2.2 The inspections carried out were visual and did not involve climbing or intrusive investigation.

10.2.3 Enquiry was also made from Havant Borough Council (HBC) concerning the presence of any tree preservation orders (TPOs) that might be affected by the proposed development. The response to this enquiry is also attached in Appendix 10.2.

10.3 EXISTING CONDITIONS

- 10.3.1 The arboricultural survey (Appendix 10.1) identified eight trees or groups of trees to be present on the site of which seven are to be retained following the development. Four groups of trees are identified as being likely to be affected by the proposed development. Two of the tree groups border the access road with the remainder around the boundaries of the site. See Appendix 10.1.
- 10.3.2 The schedule of the existing trees lists the types and category of each tree group; these are predominately oak with an understorey of other species, mainly hawthorn and field maple (Appendix 10.1). All trees are in Categories A to C under BS 5837 with no trees identified as requiring removal for safety reasons. See Appendix 10.1.
- 10.3.3 TPOs have been identified on seven individual oak trees along the northern and northwest boundaries of the site together with groups of oak trees along the western side of the access road and site. (Appendix 10.2)

10.4 IMPACT AND MITIGATION

- 10.4.1 Four groups of trees are identified as likely to be directly affected by the proposed development. The groups affected are those adjacent to the existing access road to be upgraded and the new road close to the northern boundary of the site. These roads will affect the Root Protection Areas (RPA) and may therefore cause damage to the trees unless mitigation is applied.
- 10.4.2 One group, along the eastern boundary of the site, will require substantial remodelling and thinning; this group does not contain any trees affected by a TPO.
- 10.4.3 Trees will also require trimming adjacent to the roads and will benefit from thinning of the undergrowth.
- 10.4.4 It should be noted that trees are particularly susceptible to root damage during the construction phase of the project when heavy plant and vehicles may be used on uncompleted roads.
- 10.4.5 Proposals are set out in the report in Appendix 10.1 for the protection and maintenance of the trees during construction and following completion of the project including recommendations for the construction details for the access roads.
- 10.4.6 It is concluded that the proposed mitigation measures are adequate to protect the trees from significant damage and in consequence the overall proposals are acceptable. However, it is noted that a number of the trees and groups of trees affected are covered by TPOs and in consequence HBC's consent will be required for any work affecting those trees. (Appendix 10.2)

10.5 SUMMARY AND CONCLUSIONS

- 10.5.1 The site and access road are bounded by trees some of which are covered by TPOs. There are no significant trees within the site or within the area to be developed.
- 10.5.2 A survey and study have been carried out to assess the condition of the existing trees and the maintenance and protection work required for the inclusion of the trees into the proposed development. No significant trees or trees covered by TPOs will be removed as part of the proposed development.
- 10.5.3 Recommendations are made concerning the protection of trees, particularly their root zones, from damage during construction.
- 10.5.4 Overall, it is assessed that the proposed development is arboriculturally acceptable provided that the recommendations contained in the report attached to Appendix 10.1 are followed.

SECTION 11

UTILITIES

11. INTRODUCTION

- 11.1.1 This Section identifies the risks arising from utilities placed within the site or which are likely to be affected by the proposed works.
- 11.1.2 The utility companies listed which are assessed as being those most likely to have equipment in the vicinity of the site were contacted for utilities information. The details of the information provided are included in 11.2 to 11.5 of this Section. Omission of other utility companies' information does not imply that other utilities may not also be in the vicinity of the site. Abandoned, redundant or unrecorded equipment may also be found.
- 11.1.3 The information given is also current at the date of issue by the utility company and usually carries a brief period of validity. This information is therefore for planning purposes only and should not be relied on when carrying out the works; a new enquiry should always be made.

11.2 ELECTRICITY

- 11.2.1 Enquiry of Scottish and Southern Energy (SSE) shows that there are LV and HV (11 kV) underground cables running down the west side of the access road, crosses the road and then runs along the northern boundary of the site (see Appendix 11.1 for the details).
- 11.2.2 SSE should be contacted before any work is carried out in the vicinity of their apparatus and any advice given should be followed. Care will be required in carrying out works in the vicinity of these cables.

11.3 SEWERS

- 11.3.1 Enquiry of Southern Water (SW) shows that a foul sewer runs eastward just north of the northern boundary of the site, across the access road and connects to the Lower Tye Pumping Station just to the west of the northwest corner of the site. The rising main from the pumping station then proceeds to the west. Details of the layout are shown in Appendix 11.2.
- 11.3.2 SW should be contacted before any work is carried out in the vicinity of their apparatus and any advice given should be followed. Care will be required in carrying out works in the vicinity of this equipment.

11.4 GAS

- 11.4.1 The location of Southern Gas Network's equipment in the vicinity of the site is attached in Appendix 11.3. This drawing indicates that there are no gas pipes or other equipment within or bordering the site.

11.5 WATER

- 11.5.1 Enquiry of Portsmouth Water indicates that there is a 125 mm MDPE pipeline running along Copse Lane and passing under the entrance to the site access road on the south side of the Lane.
- 11.5.2 The location of the pipeline is shown on the drawing attached in Appendix 11.4.

11.6 SUMMARY AND CONCLUSIONS

- 11.6.1 Existing electricity and sewer equipment within the site will require protection or diversion during the works; care will need to be taken to identify this equipment accurately and to protect it from damage during construction and subsequent use on the site.
- 11.6.2 The presence of the existing water pipeline will need to be noted during any works on the entrance to the access road while the gas equipment is too remote from the site to be affected by the proposed works.

SECTION 12

CUMULATIVE EFFECTS

12.1 INTRODUCTION

12.1.1 We are requested in the Scoping Opinion to review the impact of the proposed development in the context of other development which may have been recently completed, is planned or may reasonably be anticipated.

12.1.2 The proposed development is on the boundary of, but outside, an area of environmental and ecological importance as signified by:

- The Chichester Harbour Site of Special Scientific Interest (SSSI)
- The Chichester and Langstone Harbours Ramsar and Special Protection Areas (SPA)
- Solent Maritime Special Area of Conservation (SAC)
- Gunter Point Local Nature Reserve (LNR)
- Adjacent Site of Importance for Nature Conservation (SINC) designated HV0096 which partially extends onto the west of the site which is not covered by the proposed development
- Nearby Gutner Farm and Gutner Lane SINC
- Chichester Harbour Area of Outstanding Natural Beauty (AONB).

12.1.3 Past and current development in the area is therefore strictly controlled and the consequential impacts on the environment minimised to the extent reasonably possible.

12.1.4 In view of the sensitivity of the adjacent areas and the location of the site, the cumulative effects considered will include.

- The impact of the development in the context of other developments on the features of Chichester Harbour
- The impact of the construction and use of the proposed development on the surrounding area of Hayling Island.

12.1.5 The individual impacts on various environmental features are discussed elsewhere in this report; this Section addresses the possibility of more widespread impacts arising from the proposed development when considered in conjunction with other developments. These impacts will be assessed principally against the above two features.

12.2 CUMULATIVE IMPACTS ON CHICHESTER HARBOUR

- 12.2.1 The site is located on the north side of an inlet facing onto the west side of Chichester Harbour with its environmentally sensitive designations. The western part of the site is within a local SINC although this part is intended to retain its natural features and not be developed.
- 12.2.2 The inlet itself forms part of the overall site and is intended for use for pontoon moorings; this area is already used for individual moorings and the proposed use is likely to be more intensive.
- 12.2.3 The impacts on Chichester Harbour beyond this inlet have been assessed in previous Sections of this report as low. The only impacts likely to affect the Harbour are visual and from the use of leisure craft; the visual impact is assessed as low while leisure craft already use the inlet and the overall usage will be small.
- 12.2.4 With a low overall impact on the Harbour, the cumulative effect will also be low since the proposals can have little overall impact on any wider schemes.

12.3 CUMULATIVE IMPACTS ON HAYLING ISLAND

- 12.3.1 Hayling Island offers principally residential accommodation and leisure and tourist facilities, based largely on water based activities, together with their associated supporting commercial and infrastructure facilities. There are considerable constraints on development, both environmental as outlined above, and on available infrastructure which limit the past, present and future development opportunities.
- 12.3.2 The Havant Borough Council (HBC) Local Development Framework and associated Strategic Housing Land Availability Assessment (SHLAA) identifies sites of further development potential on Hayling Island and also lists the additional sites that have been considered but rejected as unsuitable. The recommended sites are all within the urban areas on the south of the Island and will have no interaction with the proposed development except for the effects on the transport links over Langstone Bridge.
- 12.3.3 Recent reports indicate that there are now 600 dwellings planned for Hayling Island; the proposed six dwellings will therefore have little cumulative impact in the infrastructure demand from future development.
- 12.3.4 Although the proposal includes residential development, it also provides boatyard facilities in support of the important tourist and leisure industry on the Island as well as offering additional employment.

12.4 CONSTRUCTION EFFECTS

- 12.4.1 Whilst the above assessment relates principally to effects resulting from the use of the proposed development, a different set of impacts will arise from its construction.
- 12.4.2 As set out above, the development is intended to have minimal impact on the environment, both during construction and during subsequent use. The project is small scale, involving no significant earthworks and the construction of only six dwellings together with a small leisure boat storage and maintenance facility. This is not anticipated to involve the use of any heavy or special plant or construction techniques and will not result in excessive noise, dust or contamination being released from the site.
- 12.4.3 Additionally, the nature of construction impacts are that they are transitory, occurring only during a short period, and in consequence can only contribute to a cumulative effect from another development being carried out at the same time. We are not aware of any such development in the vicinity of the site or that is likely to be affected by the proposals.

12.5 SUMMARY AND CONCLUSIONS

- 12.5.1 The individual impacts of the proposed development on the surrounding environment, particularly on Chichester Harbour, are assessed elsewhere in this report. This Section considers the extent, if any, that those impacts may add to similar impacts from other past, current or future projects in a manner that may result in more than the sum of the individual impacts.
- 12.5.2 The site is on the boundary of the environmentally sensitive Chichester Harbour and an analysis of the anticipated impacts is set out above. These impacts are assessed as being between low and insignificant.
- 12.5.3 Future proposed development within Hayling Island has been noted but the scale of the project is small in comparison with these proposals. The cumulative impact of the project on the infrastructure and the environment on the Island is therefore also assessed as low to insignificant.
- 12.5.4 Overall, any cumulative impact will therefore be low to insignificant.

SECTION 13

SUMMARY AND KEY IMPACTS

13.1 INTRODUCTION

13.1.1 It is proposed to redevelop the existing derelict industrial site with a scheme consisting of the following principal features:

- The clearing of the previous development and decontamination of the existing site
- The construction of six detached houses in the northeast part of the site
- The construction of a marine office and small boatyard for multi-hulled craft
- The reconstruction of the existing slipway and the provision of pontoons and moorings to provide 19 berths
- The reconstruction and improvement of the sea defences
- The restoration of the existing coastal footpath and sluice pond
- The creation of a nature reserve on conservation grassland on the southeast part of the site
- The restoration of the coastal grassland on the western part of the site.

13.1.2 The site is on the eastern side of Hayling Island and is located on the shoreline of an inlet into Chichester Harbour. The Harbour is identified as an area of environmental and ecological importance of both national and international importance. Although the site itself is not within such a designated area, it is recognised that the proposal may have an impact on the environmental value of the Harbour and in consequence Havant Borough Council (HBC) requested an Environmental Impact Assessment of the proposed development in its Screening Opinion of 11 May 2011.

13.1.3 Following the submission of a Scoping Report on 23 June 2011, HBC issued a Scoping Opinion on 19 July 2011 setting out the issues to be addressed in the Environmental Impact Assessment for the project.

13.1.4 In consequence of the Scoping Opinion, various specialist studies were carried out to assess the impact of the proposed development on Chichester Harbour and on other environmental and cultural features of the area. The key issues identified requiring assessment were:

- Ecology and Nature Conservation Designations
- Landscape and Visual Impact
- Transport
- Water Resources and Flood Risk
- Noise
- Ground Conditions and Contaminated Land
- Cultural Heritage and Archaeology
- Arboriculture
- Utilities and Services
- Cumulative Effects with Other Projects.

13.1.5 As a result of these studies, an Environmental Statement has been prepared that assesses the impacts of the proposed development on the environment in the area and recommends mitigation measures where appropriate.

13.2 KEY IMPACTS

13.2.1 Whilst all the aspects requested in the Scoping Opinion have been assessed, the following issues have been identified as resulting in key impacts for which significant mitigation will be required.

Ecology and Nature Conservation Designations

13.2.2 The possible impact of the proposals on the internationally important Chichester Harbour is recognised and has been analysed in detail. The outcome of this analysis is set out in Table 3.1 of this report with the recommended mitigation measures set out in Table 3.2. All impacts within the zone of influence of the site operations are assessed as insignificant or low level except for:

- Coastal grassland for which the impact will be medium-high positive due to the restoration of the grassland on the west of the site.
- Inland roosts and feeding for birds for which the impact will be medium-high negative but short term during construction. This impact can be mitigated to insignificant if recommended measures are taken.
- Native hedgerows for which the impact will be medium negative but short term. This may be mitigated to insignificant if suitable protective measures are taken.
- Reptiles for which the impact will be high level negative. This will be mitigated by relocation to the recreated coastal grassland habitat resulting in a slight positive impact.

Landscape and Visual Impact

13.2.3 The site is well screened by trees and distant views from the sensitive Chichester Harbour are severely restricted. No significant adverse impact is therefore identified.

Transport

13.2.4 The traffic generation, resulting from the proposed development, is assessed and will be within the safe capacity of Copse Lane and the junction of the access road onto the highway. No significant adverse impact is therefore identified.

Water Resources and Flood Risk

- 13.2.5 The site is in an area subject to flood risk but that risk is assessed as manageable and without adverse impact on the safety of users of the site or on flood risk elsewhere.

Noise

- 13.2.6 The site at present experiences low background noise. The proposed boatyard use is expected to generate some additional noise and this was assessed by comparison with measurements taken at a similar nearby facility. The noise impact at the nearest receptors was assessed as insignificant. The impact of construction noise was also assessed but considered acceptable subject to mitigation recommendations.

Ground Conditions and Contaminated Land

- 13.2.7 Parts of the site are identified as moderately contaminated as a result of their earlier use as a boatyard. The contamination is assessed as local and of a type which will not spread into adjacent properties or into Chichester Harbour. Remediation measures consisting of local “hot-spot” clearance and the replacement of topsoil in garden areas are recommended but otherwise no further remediation is considered necessary.

Cultural Heritage and Archaeology

- 13.2.8 Whilst the site is within an area of archaeological potential, its previous development history indicated that any value will have been previously compromised and that no further adverse impact is identified.

Arboriculture

- 13.2.9 Whilst the site is surrounded by hedgerows of value, there are no significant trees within the site to be developed. Recommendations are made for maintenance of the hedgerows and for the protection of their roots during construction. No significant trees or trees covered by Tree Preservation Orders will be removed. Subject to the recommendations, no significant adverse impact is identified.

Utilities and Services

- 13.2.10 The utilities and services in the vicinity of the site are identified. Medium voltage cables and sewer pipes are identified as crossing the site and will require protection or diversion. Subject to this, no adverse impact is identified.

Cumulative Effects with Other Projects

- 13.2.11 Whilst some proposed development on Hayling Island is identified, no significant cumulative impact is assessed principally due to the small scale of the proposal and the strict planning control that will be applied. No significant impact is therefore identified.

13.3 CONCLUSIONS

- 13.3.1 The proposed development will result in some negative impacts during construction and in operation as well as a few positive impacts. Mitigation measures are proposed for all significant adverse impacts which, if followed, will reduce all negative impacts to insignificant. Overall, it is therefore assessed that the proposed project will have no significant adverse impact on the adjacent environmentally sensitive Chichester Harbour or on the wider environment.

YACHTHAVEN, HAYLING ISLAND

ENVIRONMENTAL STATEMENT

DECEMBER 2011

FIGURES



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Scale 1 : 20,000

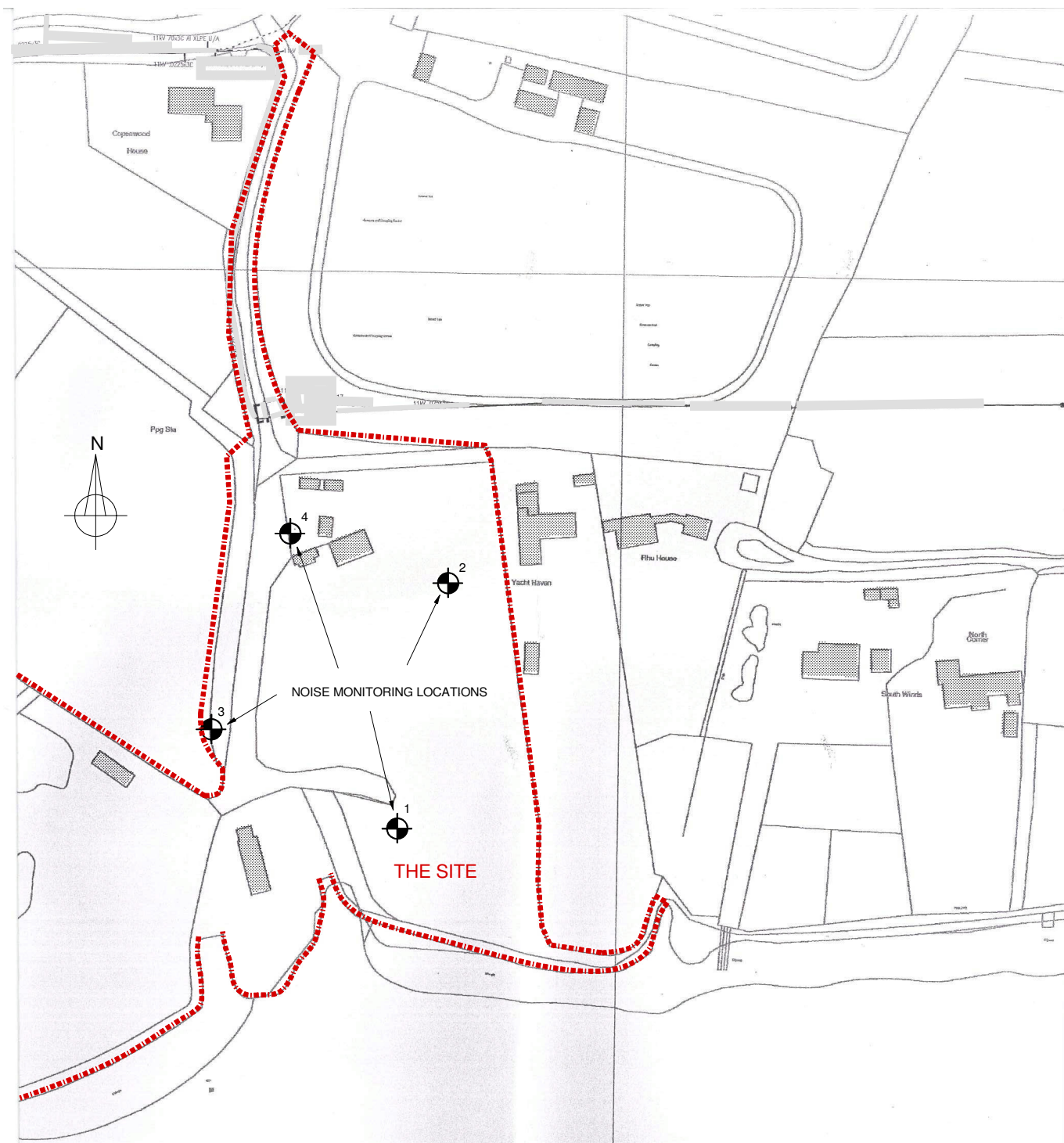
Yachthaven - Hayling Island Environmental Statement - Section 1 - Introduction and Background Location Plan

FIGURE 1.1



Yachthaven - Hayling Island
Environmental Statement
Section 1 - Introduction and Background
Proposed Layout

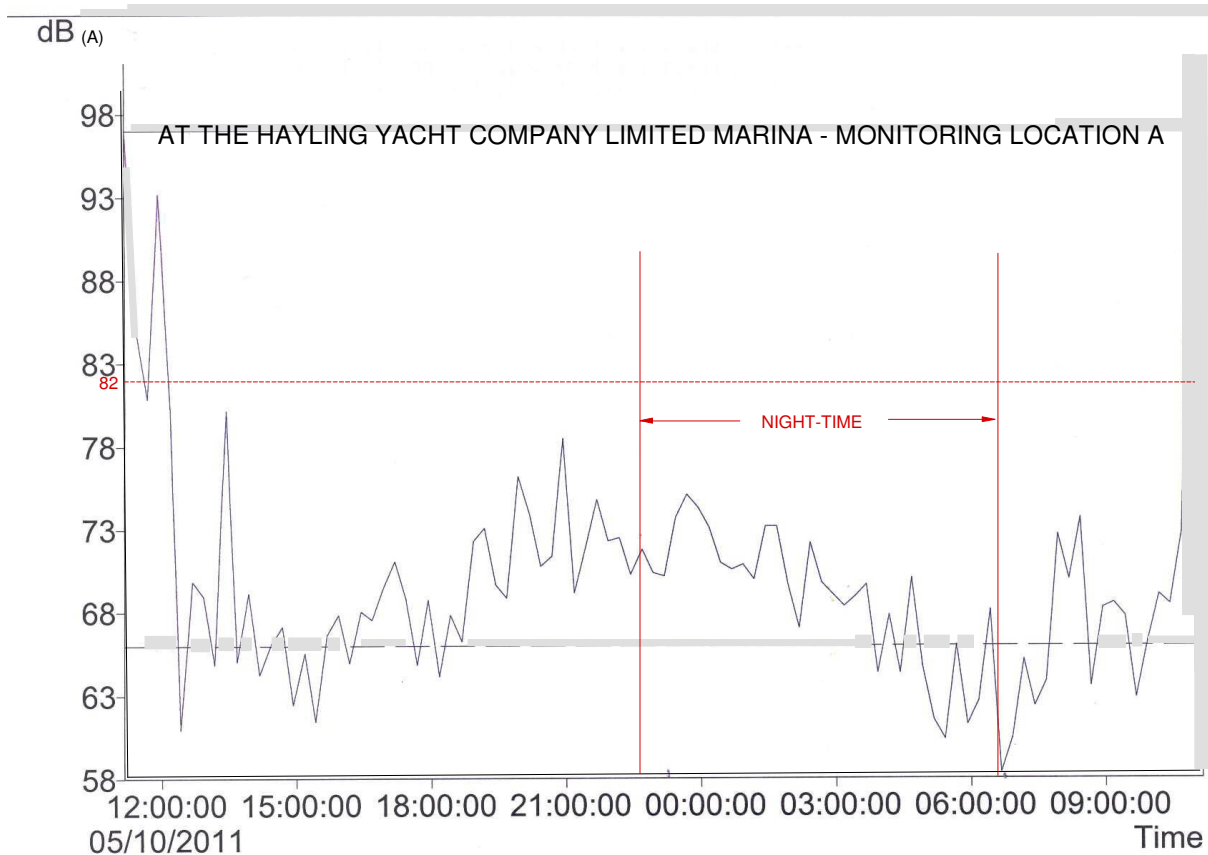
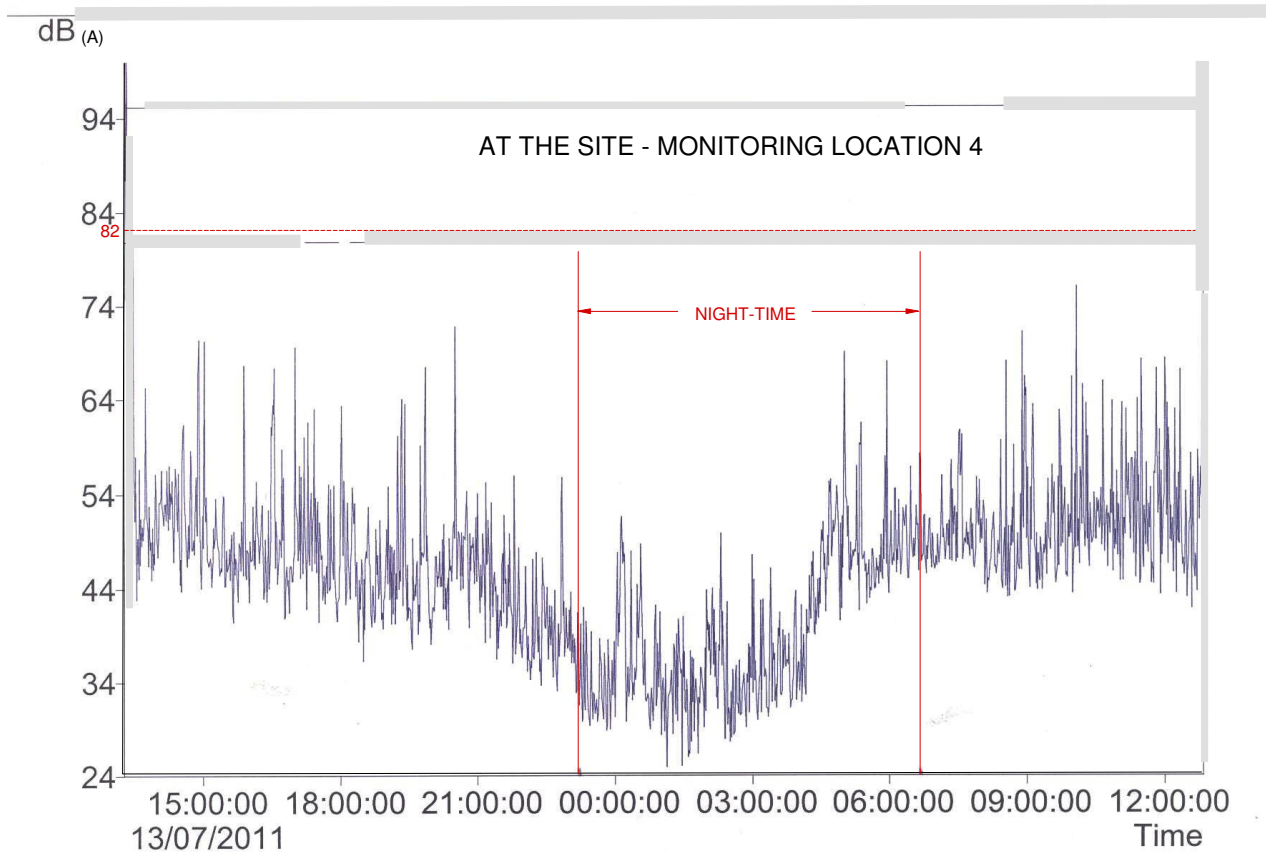
FIGURE 1.2



Not to Scale

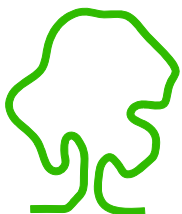
Yachthaven - Hayling Island
 Environmental Statement - Section 7 - Noise
 Noise Monitoring Locations

FIGURE 7.1



Yachthaven - Hayling Island
Environmental Statement - Section 7 - Noise
Sample Noise Monitoring Output

FIGURE 7.2



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