

cruising hovercraft

– a management guide for authorities

foreword

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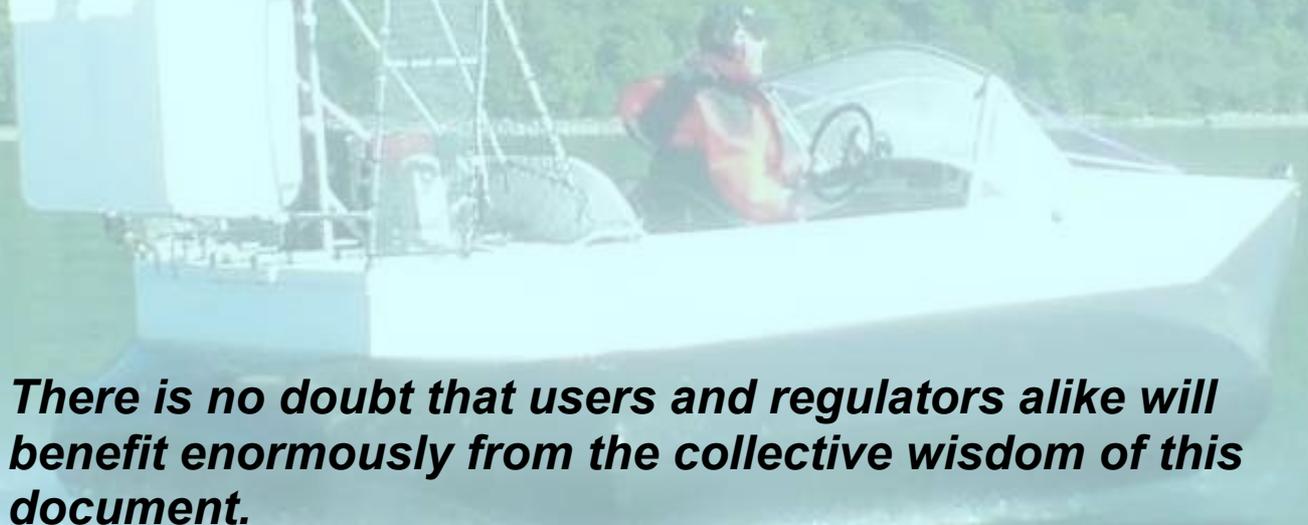
In busy coastal areas, the presence of leisure hovercraft can present a challenge to local and harbour authorities. The problem of conflicting interests and priorities will never be completely solved, and the risks associated with multi-activity areas will never be completely eliminated.



This guide has proved to be an invaluable tool in helping authorities implement management schemes to deal with marine activities and to encourage the cooperation that is required to make these schemes work safely and successfully.



There is no doubt that users and regulators alike will benefit enormously from the collective wisdom of this document.



introduction

2.1 WHAT ARE CRUISING HOVERCRAFT?

A cruising hovercraft is a small recreational water craft which has some amphibious capability. Unlike other watercraft, it “glides” **over** the water surface on a cushion of air rather than being **in** the water. It is unlike any other craft and its capabilities, limitations and low environmental impact are not fully understood by most water users and authorities.

It is normally propelled by an air-moving fan or propeller and steered using rudders in the air stream.



There are many different designs and styles of hovercraft but, in general, the occupants sit **inside** the craft hull in a similar way to a motor boat. The power (used to produce the air cushion and to push the craft along) is usually provided by an efficient, modern 4 stroke industrial engine

A cruising hovercraft's main characteristics and design features are:

- Rides on a cushion of air – no hull contact with the water surface
- Responsive steering, giving good manoeuvrability,
- Efficient propulsion system – typically 30-50% less fuel consumption than a boat
- No underwater moving parts, unlike a propeller driven boat
- Simple launch requirements – because of the amphibious capability, a slipway or mooring is not needed – a simple slope into water (of almost any type of surface) is sufficient.
- Low environmental impact – it has virtually no impact on the surface it travels over. No sub-surface effects or hydrocarbon pollution (unlike most other water craft with underwater exhausts)

Personal hovercraft have evolved significantly over the last 50 years (they were invented in the UK) to become sophisticated and capable “boats” suitable for short to medium distance leisure cruising. They are usually one to four seater machines with positive buoyancy and powered by reliable four stroke engines. Their inherent efficiency



results in very low atmospheric emissions (and **zero** water pollution).

2.2 WHY A MANAGEMENT GUIDE?

Cruising hovercraft are fun and are easily launched and manoeuvred on and off the water. They are becoming an established form of water activity with a band of enthusiastic participants who enjoy the unique capabilities this kind of craft can provide.

They are normally used for river, estuary and inshore coastal cruising and sightseeing - 100miles per day is not uncommon.

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The primary requirement of hovercraft owners is access to suitable launch sites. Unlike most other water craft, once launched they normally vacate the immediate area. This pattern of use makes any impact on the local environment very small. The main concern for coastal managers is how to provide suitable launch facilities for users to enjoy themselves without risking the safety and enjoyment of others. This guide has been designed to help meet that challenge.

The objectives of this guide are to ensure:

- Opportunities for recreational use of hovercraft are safeguarded and enhanced for the benefits of current users and future generations
- Cruising hovercraft use is carried out in harmony with other users, with the natural environment and with local amenity and economic interests
- Hovercraft can be used without detriment to others



2.3 THE HOVERCRAFT CLUB

The Hovercraft Cruising Club UK was set up in 2010 to bring together cruising hovercraft enthusiasts. It is the main UK body involved with recreational hovercraft. The club is fully democratic and provides a wealth of practical information and support to hovercraft users around the world.

Cruising Hovercraft

It should be noted that the type of hovercraft used for racing (UK racing series are run by the Hovercraft Club UK – www.hovercraft.org.uk) is very different to the design used for cruising. Racing hovercraft are, in general, unsuitable for use in a public area, both in terms of noise, speed and marine safety.

The larger cruising type craft are based on sound marine engineering and provide for economic, quiet and comfortable leisure use.

The two types are as different as a Formula One racing car and a family saloon.

In addition, cruising hovercraft are of a completely different design to commercial passenger carrying craft that most are familiar with – both in terms of noise and environmental impact.

Cruising events (Hoverins) are regularly held at various locations around the UK during the year.

Hoverclub Mission Statement

- To service the needs and aspirations of the sport effectively and professionally
- To promote participation
- To continually promote, educate and train users in best practice in relation to safety and due consideration to other water users
- To promote positive management of hovercraft activity by relevant authorities at a local level
- To provide and maintain a hovercraft registration and pilot licensing system for members,
- Support and promote RYA Training schemes for all users
- To encourage environmental awareness and responsible behaviour.

2.4 A NEED FOR REGULATION?

Historically, use of hovercraft in the inshore coastal zone has involved a mixture of self regulation and more active management by coastal authorities. As with most sports affecting the amenity of others, it is the inconsiderate or reckless behaviour of a relatively few which creates the pressure for a more regulated regime. This guide recommends that Authorities take a proactive stance and do not simply manage hovercraft as a response to conflicts and issues. It identifies the range of management options available from voluntary to statutory approaches that may be implemented depending on local circumstances. Voluntary measures such as codes of conduct, training, provision of signage and information may be sufficient in some areas, whereas more formal statutory schemes may be appropriate in areas where current use raises nuisance, environmental and safety concerns

The Hoverclub Code of Conduct for Cruising

All members of the Hoverclub agree to conform to the Code of Conduct for Cruising (see <http://hoverclub.org.uk/index.php/topic,6.msg8.html>). The basic code covers Planning, Safety and Courtesy and is intended to provide a reminder to operators of their duties and responsibilities:

Planning a Cruise

Fuel management

Craft performance envelope

Keep within the Law

Safety equipment

Communication gear

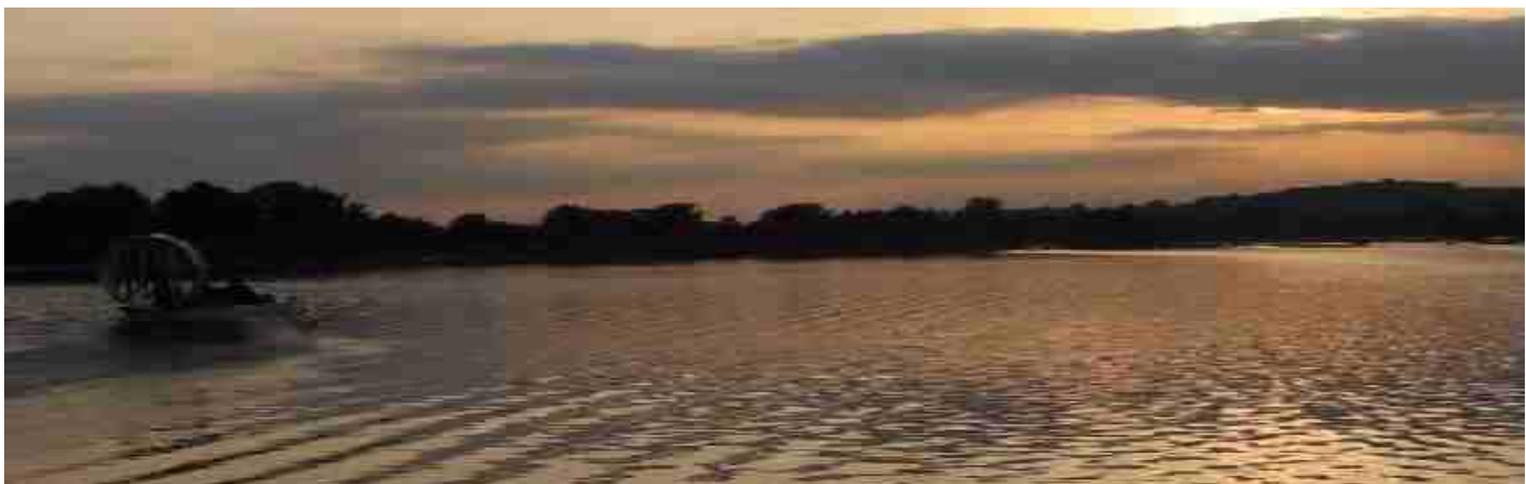
Don't drink and drive!

Considerate operation

Noise minimisation

Beach buzzing is discouraged

Speed limits



This section attempts to acknowledge and quantify the issues and conflicts created by personal hovercraft use, to help coastal authorities assess the relevance of these for their area.

The main issues are:

- **Sound emissions**
- **Safety**
- **Natural environment**
- **Marine species**

3.1 SOUND EMISSIONS

One of the most frequently debated aspects of recreational boating in recent years has been the noise that they make. Hovercraft create varying pitch noises that could be described as ‘annoying’. These noises can be exacerbated by certain patterns of use and increase when hovercraft are used in a small area for extended periods of time and either operated close inshore or in groups.

What can be done?

In recent years the Hoverclub has made significant technical advances in the analysis and reduction of the primary sources of noise in hovercraft.



The result is that noise levels for a typical cruising hovercraft are currently around 74-79dBA (at 25 metres) at cruise speed. (similar to a small van or car passing by) and are falling rapidly as new data becomes available.

However, the basic design of an air propelled craft, patterns of use and the continued use of older craft may limit what can ultimately be achieved.

Coastal management authorities should therefore try to minimise noise impact by distancing launch facilities and operations from sensitive populations or areas.

The normal pattern of cruising activity encouraged by the Hoverclub will produce minimal local disturbance. In addition, the Hoverclub provides robust advice to members on methods and techniques used to minimise potential noise impact on others.

3.2 SAFETY

There are dangers in all forms of recreation. The reality is that there have been no fatalities or serious incidents throughout the forty year history of light hovercraft usage in the UK. Statistics show that hovercraft do not feature significantly in the overall picture for UK marine rescue at sea. There have been very few insurance claims involving hovercraft – this is reflected in the low insurance premiums available to cruising hovercraft owners.

What can be done?

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Authorities can undertake a thorough risk assessment of the area under their jurisdiction and also within neighbouring authorities.

Hovercraft use is a sport and willing and informed participants in sport accept a degree of risk. However where craft are used in areas of multi-use such as the coastal zone, many other users of the water will not be as aware of the risks involved. Authorities should therefore be mindful of such risks and identify exclusive or zoned areas where risks are acceptable.

Authorities with a responsibility for recreational beaches and launching sites should carry out a survey, assessing the extent and pattern of use and produce a systematic risk assessment and then make an informed decision on the level of management required.

Risk Assessment for Cruising Hovercraft

To help authorities, the Hoverclub can provide a standardised risk assessment covering the hazards specific to the launching and operation of light hovercraft from the shore.

A significant safety advantage of hovercraft is that the risks inherent in “wet” launching and retrieving a watercraft can be avoided entirely if suitable land de-trailering areas are made available (hovercraft, being amphibious, can be driven directly from land onto water).

Hovercraft users can develop competence and acquire the skill and knowledge of experienced pilots through training schemes such as those run by the Hoverclub and the RYA. Users can also take safety precautions by wearing appropriate clothing and wearing CE approved lifejackets. Owners of the craft should only allow other users to use their machines if they are under close supervision and ensure that children under the age of 16 do not operate craft individually without appropriate competence training.

3.3 NATURAL ENVIRONMENT

Interactions between hovercraft users and the natural environment are not generally a major concern. It is very difficult to quantify the significance of hovercraft disturbance at a national level, however, localised problems may occur and management may be needed to reduce any environmental impacts, particularly for sensitive species and in sensitive areas such as European sites, or areas where the concentration of use is high.



Environmental Impact of Leisure Hovercraft

This report (available from the Hoverclub) contains full details of all of the worldwide research carried out on the environmental impact of hovercraft in sensitive areas. It is available to help authorities determine any potential impact on their specific area.

Summary of potential environmental impacts:

- Launching of craft from formal access points such as slipways is likely to have minimal impact on marine features except where it involves trampling and erosion of the features by vehicles and trailers (the hovercraft themselves cause no damage) . However, where such a facility encourages high levels of usage, the nature conservation value of access areas may be affected.
- The zero draft and air drive systems of hovercraft allow the craft to enter areas which are not normally navigable. This may cause noise disturbance to sensitive wildlife if not managed (there is no effect on fauna or sub-surface features) There are potential disturbance issues relating to breeding birds, where

hovercraft enter otherwise inaccessible areas close to saltmarsh and shingle spits. In addition to breeding birds, disturbance can arise in mudflat areas populated by birds feeding or roosting. Disturbance of birds is a seasonal concern, in particular the over wintering period when the largest numbers of birds are present. Management options should reflect this, however there are very few powers currently available to restrict, except through the use of byelaws in European Marine Sites.

- Authorities should be aware of the issue of decanting petrol and filling fuel tanks at launch sites and may want to provide appropriate facilities and equipment, this is also an issue to be aware in terms of safety onshore.



- Direct collisions and physical damage are caused when dolphins are unable to move out of the way of fast moving water craft.
- Stresses on the animals caused by harassment affect the energy levels and consequently the growth and reproduction of individuals
- Repeated harassment may result in the animals moving away from areas important to them for communication or feeding

Indirect impacts on habitat including noise pollution, all of these impacts are explained in more detail in the WDCS Report²

What can be done?

A “collision” between a cetacean and a hovercraft is very unlikely to result in injury to the cetacean - the hovercraft hull “floats” above the water surface (at around of 200-400mm) and there is no surface-piercing propulsion device, hot exhaust or rudder.

Responsible hovercraft users do not deliberately harass marine animals and such impacts are often the result of a lack of awareness. Dolphins may appear to be playful and enjoy the presence of small craft. Information displayed at launch sites and circulated can help to provide users with general guidelines for responsible behaviour in the presence of marine wildlife.

Voluntary codes are in place in a large number of areas, especially where populations of dolphins are found, such as the Moray Firth and Cardigan Bay. Also general guidelines have been published by DEFRA and voluntary organisations such as the WDCS, this can be found on their website: <http://www.wdcs.org.uk/> These codes should be followed and care should always be taken when handling hovercraft around marine species. Coastal managers can help to promote campaigns such as the stickers under the Active Seas initiative run by the WDCS and any local codes or promotional schemes.



What can be done?

Sufficient launch sites should be provided away from valuable habitats and people should be encouraged to use these facilities to avoid spreading impact. Users should be informed at the launch points about the sensitivity of important habitats and the times of years additional care is needed. Users should also be encouraged to take care when decanting and refuelling close to the water and ideally this should be done at an appropriate facility provided for that purpose.

3.4 CONFLICTS WITH MARINE SPECIES

There is evidence from around the UK that conflicts do arise between whales and dolphins (collectively known as cetaceans) and other marine species including basking sharks and some motorised craft. Studies carried out by the Whale and Dolphin Conservation Society (WDCS)² have highlighted impacts on a number of levels:

3.5 DESIGNATED AREAS / LEGISLATION

Wildlife legislation in the UK is very complex, the level of protection afforded to a site depends on whether the site supports habitats or species of local, national or European importance and whether the site has been designated to protect those features. Legislation also varies between England/Wales, Scotland and Northern Ireland. The main pieces of legislation that offer coastal authorities an opportunity to manage hovercraft use are detailed below:

Part I of the Wildlife & Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000 makes it an offence for any person to intentionally or recklessly disturb any Schedule 5 animal while it is occupying a structure or place which it uses for shelter or protection. It is additionally an offence to intentionally or recklessly disturb cetaceans (whales and dolphins) or basking sharks in the wild. As with the

1 UK CEED 2000. A Review of the Effects of Recreational Interactions within UK European Marine sites. (UK Marine SACs Project)
2 WDCS (2000) Chasing Dolphins!
3 Council Directive on the conservation of wild birds (79/409/EEC).
4 Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC)
5 The Conservation (Natural Habitats, &c.) Regulations 1994

protection of birds, it is a defence that an act was the incidental result of a lawful operation and could not be reasonably avoided. This raises the necessity to inform and educate hovercraft users of the appropriate and responsible way to behave around marine species.

Directive, in addition to this the appropriate nature conservation body (English Nature, Countryside Council for Wales, Scottish Natural Heritage) may make byelaws for the protection of a European Marine Site under section 37 of the Wildlife & Countryside Act 1981 (byelaws for protection of marine nature reserves)



Relevant sections of the 1981 Wildlife & Countryside Act provide the principle national site protection designation in England and Wales; Sites of Special Scientific Interest (SSSIs) but also provides for the designation of Marine Nature Reserves (MNRs). SSSIs only

extend down to the mean low water mark, however within many estuaries, the designation can cover the whole area to the mouth of the estuary. Much of the provisions of section 28 impose duties on the owners and occupiers of SSSIs and on public bodies who may exercise powers in relation to designated sites. However, there is also an offence of intentionally or recklessly damaging or destroying notified interest or disturbing notified fauna. For further advice on the location of SSSIs refer to your local/regional Nature Conservation office (English Nature, Scottish Natural Heritage, Countryside Council of Wales).



International/European Sites in coastal areas protected under the Birds and Habitats Directive³, management and the development of a management scheme is the responsibility of all authorities who have a statutory responsibility (relevant authorities) for management within or adjacent to the site.

Any activity considered to have an impact upon the features of nature conservation importance can be managed through the statutory management scheme. Local and harbour authorities are relevant authorities for the purposes of the regulations affecting management of these sites and can manage use of hovercraft through the management scheme process

In general relevant and competent authorities have a duty under the Habitats Regulations⁴ to exercise their existing functions so as to secure compliance with the



All relevant sports agencies and Government bodies advocate a number of principles for coastal management, which include access for everyone, sustainability, stakeholder participation and integrated coastal zone management.

Components of a Management Scheme

These principles follow the Government's agenda, and local and harbour authorities should be taking a strategic approach to management of all watercraft, and not simply responding to conflicts and issues as they arise. There are a number of guiding principles identified below to bear in mind when designing a scheme for planning and management of hovercraft.

- i. **Sustainable use:** including the provision of access and management of recreational access and opportunities for water sports whilst ensuring long-term conservation of the natural environment.
- ii **Open and objective planning process:** management statements should be derived from a sound and objective understanding of local circumstances, developed in partnership with interested parties. Stakeholder cooperation and involvement is required for regulating bodies, local residents, water users and other interested parties.
- iii. **Safety:** management arrangements should provide for, enhance and ensure safety of watersports participant and all other users
- iv. **Watersports and access for all:** opportunities should be available to all members of the community, not just those who are physically able or economically advantaged. Opportunities should also be available for all levels of watersports, in particular the entry level sports which include hovercraft.
- v. **Consideration of wider contexts:** proposed restrictions at one site should take account of the potential displacement of activities to other areas, which may not be managed effectively and may be environmentally sensitive
- vi. **Fit for purpose:** often simple, informal arrangements will be sufficient and voluntary schemes do work in many areas. Management plans should be suited to local circumstances, they should not impose excessive restrictions, but apply a proportional response; for example, restrictions may only be required at peak periods and specific locations.

Components of a Management Scheme

Development of a strategy to manage hovercraft should be carried out preferably prior to any conflicts arising. However management is very often responsive and the result of objections and conflicts between other users or local residents. All too often this has resulted in an overreaction and a total ban of hovercraft use. The main steps to consider when establishing a management scheme are as follows:

1. Assess the situation
2. Set common objectives
3. Identify tools available
4. Implementation and enforcement
5. Monitoring and evaluation

4.1 CONSULTATION

Stakeholder participation is a key theme for Government and accumulating experience of coastal management planning suggests that the process of designing and implementing a plan, and the consultation that goes with it, is one of the most effective ways of changing recreational behaviour and obtaining compliance with the eventual plan.

User involvement and peer pressure can often be far more effective compliance measures in many areas. Where voluntary measures have been applied, the measures have involved relatively small changes to the existing pattern of an activity. However, they are only as effective as the willingness of users to support the measures, which in turn depend on the benefits expected from the voluntary measures or likely cost. Both of which can only be determined through consultation.



Whilst their role is therefore limited, particularly when it comes to dealing with more significant management issues, they are able to secure initial support in situations where a statutory approach would have caused significant resentment for little additional gain.

Consultation with all the stakeholders is essential for developing a management scheme for recreational watersports, current experience suggests that a substantial proportion of hovercraft users will support a sensible, fairly administered scheme. The needs of such users may not be self evident to managers and it is worth finding out what these are, either through public meetings or direct liaison with user groups and agencies.

Likely consultees include:

- Local clubs and associations
- Casual hovercraft users
- British Marine Federation
- Hovercraft Club of Great Britain
- Harbour Authorities
- Beach safety managers
- Land owners
- Police
- Maritime and Coastguard Agency
- HM Coastguard
- Rescue Services RNLI

- Royal Yachting Association
- Neighbouring Local Authorities
- Conservation Agency officers
- Local residents
- Other beach users

4.2 STEP 1: ASSESS THE SITUATION

The need for management depends upon the scale and pattern of use, interaction with other users and whether the hovercraft are being used in a responsible manner, it will also depend on whether use is thought to be having an impact on any nature conservation features. Such issues can be identified through a systematic risk assessment, which will inform the management process.

In addition to identifying and acknowledging the issues highlighted in section 3, it will be necessary to assess the current facilities and management structure, including the location of clubs or associations within area. Much of this information can be gathered from consulting with the users and other stakeholders. Identifying the various stakeholders and how to reach them is an important part of assessing the situation.

Early and continued consultation will increase the potential of success of the management scheme. Consultation will identify the various perceptions of the different user groups, which is likely to play an important role in management. It will also be valuable to analyse the current situation in terms of existing



management and facilities such as signage, access and parking and other shore side facilities and then to identify any gaps and weaknesses. Identification of access points (use and ownership) within the authorities jurisdiction. Once this information is known any management decisions can be balanced the need for

management of use against the resources available to do so, staffing, equipment and enforcement.

Assessment should also be made of what is the most appropriate style of management for the local area. This may include self management where a club structure exists to promote this. Management styles tend to differ dependent on the scale of use and the area covered, harbour authorities tend to be concentrated into a smaller area and therefore can enforce any byelaws or regulations more effectively,

Example of a local authority – North Somerset County Council

North Somerset Council operated a ban on the launching of hovercraft in the Weston-super-Mare bay and surrounding areas. This ban had arisen from the inappropriate use of unsuitable hovercraft in the area several years ago.

The Hoverclub approached the Council with a view to allowing access again. After consultation, a scheme was successfully put in place that defines a safe hovercraft “launch corridor” across the beach to the waterline together with a permit scheme for licensed and insured operators and improved signage at the access points.

4.3 STEP 2: REACHING COMMON OBJECTIVES FOR THE SCHEME

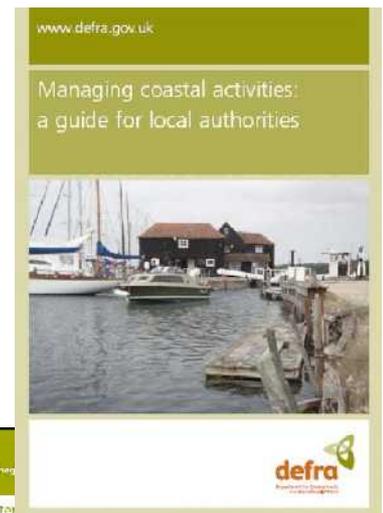
This guide attempts to address all the issues concerned with use of hovercraft and identifies solutions and examples where such issues have been addressed and managed, with the objective of supporting authorities who have a problem and encouraging them to resolve the issues through management and not prompt an outright ban. The overall objective should be to improve opportunities for the recreational use of hovercraft and ensure use is carried out in a safe and responsible way, respecting other water users, local amenities and the natural environment.

More specifically this means:

- Promote safe and responsible use of the water area
- Improve facilities for water based recreation
- Minimise the impact of recreational activities on natural and cultural environment
- Promote safe and responsible use around the shore

4.4 STEP 3: IDENTIFY TOOLS AVAILABLE

This section identifies the tools available for implementing formal statutory management, either to support voluntary schemes or to secure compliance and enforcement where voluntary measures are not sufficient or practicable. These tools have been split into management actions from shore based perspective that control access to the water and those that manage activities on the water. Further information on the range of tools and options available for maritime coastal authorities



Managing
Coastal
Activities

1. Introduction
2. Organizations with a role in the coast
3. Voluntary approaches
4. Byelaws
5. Designing a management scheme
6. Enforcement
7. Disseminating information

5 Atkins
(2003)
Managing
Recreational
Activities: A
Guide for
Maritime Local
Authorities
(Defra,
London)

can be found in a guide published by DEFRA entitled 'Managing Recreational Activities – A Guide for Maritime Coastal Authorities's.

SHORE-BASED MANAGEMENT TOOLS

ACCESS

Local Authorities (LA) can control access to water as there is no general right of access across the foreshore and neighbouring land, LAs who own or control launch sites have the option to manage access through a number of conditions. There are a number of factors, which will affect the success of controlling access points:

- Depending on the demand identified in the situation assessment, it may be appropriate to identify single use or multi use water access points or slipways for launching of craft. Consideration needs to be given to the demand for other facilities such as the provision of car and trailer parking as well as changing and toilet facilities. Provision of freshwater for engine flushing and sound baffling will also encourage the use of certain access points. Users will be more tolerant of regulation and charges if facilities are adequate and the site is a prime site locally for launching and use. A management decision to welcome users to a suitable location and to improve facilities there is likely to relieve pressure on less suitable places.
- The likelihood of significant nuisance or interaction with other users, can also be addressed by identifying single use access points. Consideration will also need to be given to safety considerations, bathing zones are an example where bathing beaches will need to be zoned to protect the physical safety of bathers. There may be a need to liaise with beach safety organisations.
- Environmental sensitivities of nearby areas can also be protected through the encouragement of clearly identified access points. Adequate liaison with the local conservation agencies and their officers should help identify local solutions to these issues. The provision of information and codes of practice developed with the users can help address these environmental issues.

A local authority's primary function is to administer the land, including the seashore down to low water. Its powers reflect this. However activities also take place in the water margin, there has been a gradual accretion of additional powers for example to provide facilities and to protect users of beaches. The powers of a local authority to administer a site registration and launch permit schemes derive from its rights as the land owner, and from s.19 Local Government (Miscellaneous Provisions) Act 1976. The Act empowers the authority to provide recreational facilities for boating and water skiing on coastal waters, together with associated facilities (such as car parks) and to make available to those the authority thinks fit, either with or without charge. This power enables an authority to set up a scheme involving:

- Identification of user and craft

- Registration of craft
- Payment of registration and launch fees
- Proof of competence
- Proof of third party insurance cover
- Prohibition of use by those affected by drugs or alcohol

No byelaws are required to actually implement such a scheme, but if an authority decides it needs to penalise unauthorised use of the site, it may introduce byelaws using:

s82 Public Health Acts Amendment Act 1907 (for the seashore) s235 Local Government Act 1972 (facilities above the seashore)

Before restricting use of a site in this way, the authority must satisfy itself that no right exists by custom or usage for the public or local inhabitants to launch their vessels there.

Launching a Hovercraft

Due to the amphibious nature of hovercraft they do not require the costly launch infrastructure needed for other watercraft. Slipways, piers and moorings are not needed (although they are usable). A simple sloping ramp-like surface onto the water, beach or mud that leads onto water is adequate. The ramp surface can be almost any type of material – the hovercraft air cushion will not damage vegetation or fauna on the surface. Hovercraft can easily traverse relatively smooth surfaces (a one mile journey across a zoned area on a tidal beach or mud flat to reach the water edge is perfectly acceptable)

Trailer and vehicle parking near to the launch area is the only additional requirement.

IDENTIFICATION OF USER AND CRAFT

The ability to identify craft has many advantages and serves to help authorities with enforcement and security.

Craft operators can be identified using normal personal ID methods (ID card, driving license, etc) in addition to the Hoverclub Pilots Licence. The Licence (see below) can be used to determine the operators level of competence.

Hovercraft can be identified using the recognised SSR (Small Ship Register) number – all Hoverclub craft display this number.

REGISTRATION AND LAUNCH FEES

Management of the launch site may include registration of user and craft and payment of a reasonable registration and launch fee. It is also worth considering whether there is scope for making links through clubs, or training establishments to ensure co-operation and support for implementation of the management scheme. A commercial operation could be offered a franchise arrangement and a club given reduced launch fees for members and privileges such as sole access at certain times. This approach encourages self-regulation and reduces the enforcement burden on the authority.

The Hoverclub Hovercraft Registration System

The Hovercraft club operate an online craft registration system for members. The system allows club members to register craft they own or operate using their SSR (Small Ships Register) registration number (the SSR system is familiar to water authorities and available to the emergency services). The registrant agrees to conform to the Hoverclub Code of Conduct (see below) which provides the Hoverclub with a means to encourage responsible and safe behaviour and to improve competence levels.

All hovercraft registered using this system display the SSR registration number. This allows authorities to restrict site access if required. The Hoverclub hovercraft database contains the following information:

- Keeper's name
- Keeper's address & post code
- Keeper's telephone number & email address
- Registration number (displayed on the craft)
- Craft model, type and primary colour
- Picture of hovercraft
- Details of previous owners

PROOF OF COMPETENCE/TRAINING

This is a widely debated aspect of hovercraft management, with views held both for and against local rules requiring proof of completion of an approved training course.

The Hoverclub Training Scheme

The Hoverclub Basic Training course is a one day course with continuous assessment throughout the day. The aim is to teach safety, basic craft handling skills and to impart confidence and a responsible attitude to use of the craft.

The training scheme syllabus includes:

Onshore and offshore safety

Collision Regulations

Route planning

Basic Manoeuvres

Emergency procedures

Further Training

A requirement for all users to show proof of competence before using a launch site would probably be lawful but training is not easily available nationwide. Using training as a gatepost is likely to devalue its effectiveness. A number of incentives are being developed to encourage users (particularly those new to the sport) to take an Hoverclub training course.

The Hoverclub Pilot Licensing System

The Hovercraft Club online Pilot Licence System (PLS) encourages pilots to improve their skill and competence levels through three incremental grades of licence based on experience, RYA qualifications and safety knowledge. Applicants are required to successfully complete a short safety "exam".

PLS1:

Requires 5 hours operational experience in a protected environment where rescue facilities are instantly available (completion of the Hoverclub Basic Training course is adequate). This is a basic competence level – pilots are not considered experienced enough to operate unsupervised or anywhere other than protected locations.

PLS2

A further twenty hours experience is required in open water within 3 miles of shore in conditions up to Beaufort 4. Applicants are advised to take the RYA "Basic Navigation and Safety" and "Marine Radio (Short Range Certificate)" courses. This grade is more than adequate as a launch site access condition onto tidal or inshore coastal water.

PLS3

An additional twenty hours experience is required in open water up to Beaufort 5. The RYA "Basic Navigation and Safety" and "Marine Radio (Short Range Certificate)" courses are mandatory with the RYA "Day Skipper" and "First Aid" courses recommended. This level is aimed at the pilot wishing to take part in long distance or offshore cruising.

HOVERCRAFT INSURANCE

Within the past 10 years, hovercraft insurance has become available at reasonable rates. Only a small number of specialist insurers are involved and terms, conditions and premiums tend to be susceptible to change in these circumstances. Nonetheless, premiums and coverage are comparable to those available for motor boats.

Third party liability insurance for an experienced pilot currently costs around £100 per annum (2010).

Insurers generally provide a certificate, bearing the insurers name, the registration number or name of the hovercraft, the policy number and its expiry date and the amount of cover provided.

Such certificates will help both the user and the managing authority



Some questions about hovercraft Insurance

Are users of the insured hovercraft other than its owner covered for third party risks?

Normally, no. Like motor car policies, only named drivers are insured. Policies may be able to be extended to cover drivers between the ages of 12 and 15 years subject to certain criteria. It would be unusual

for cover to be available to anyone under the age of 12 years. If a hovercraft is being used by several people, shore management staff should be prepared to check the scope of cover with its owner.

What are the practical implications for managing authorities who require users to have third party cover?

Managers need to decide whether to:

- Rely on a declaration by users that they are covered for third party risks
- Require evidence of insurance and then check this systematically when users register
- Operate some kind of spot check system

A declaration is simple, but its effect may be zero on evaders prepared to move on if later required to produce evidence of cover. This also applies to spot checks.

A system of spot checks works within a community of users, such as a club. But users of a public facility may, reasonably say they had the paperwork when registered and don't carry it round all the time.

Universal adoption of a waterproof mini certificates would solve this, but does not cope with the determined evader. 100% checks at registration put additional burdens on staff, who will have to check currency of cover and its expiry; and if necessary limit the duration of the permit accordingly. To avoid discrimination against users whose cover expires mid season, some form of retrospective credit on seasonal launch fees would be needed.

What level of cover should users be required to have?

Insurers suggest £2 million. Insurers provide this as standard and regard it as an adequate amount.. Recent changes to the International Convention of Limitation for Maritime Claims, now being implemented into UK law, increase the level to which personal injury claims can be limited from (about) £250,000 to £1 million for all UK sea going vessels up to 300 tons. Theoretically, non-limitable claims for over £2million involving hovercraft could occur, but to require a higher level of indemnity would increase premiums and be counter productive.

Authorities who systematically check insurance compliance should bear in mind the possibility of a legal claim by a person injured by an uninsured hovercraft, who blames the authority for allowing the craft to launch. An authority should check that its own public liability insurance extends to such a risk.

It is also worth noting that evidence of cover is not quite the same thing as cover being in force. For a variety of technical legal reasons (e.g. serious breach of warranty) an insurer may

in some circumstances be entitled to avoid a claim

even though a certificate has been issued. To do so would be unusual, particularly in a personal injury case. There is little an authority can do about this possibility except instruct its staff to act if they notice e.g. a grossly unseaworthy craft, or use by a member of a group of unsupervised children.

The Hoverclub Discount Insurance

To encourage members to take up liability insurance the Hoverclub actively negotiates discount insurance with interested companies. Currently, 3rd party liability insurance is available for £105pa..

COMPREHENSIVE ACCESS CONTROL

Some authorities will use all of the tools available to control access or others only implement one or a combination of others dependent on local conditions.

TOOLS FOR THE REGULATION OF USE ON THE WATER

HARBOUR AUTHORITIES

Harbour Authorities are created by statute to serve a public interest and their main role is to administer the ports and coastal waters within their jurisdiction. As a general rule where a harbour authority exists there is a public right of navigation in harbour waters and a public right to use the harbour for the shipping and unshipping of goods and passengers.

Harbour authorities have duties to ensure the safety of waters within their jurisdiction and every harbour authority is given general and specific statutory powers to enable it to discharge these duties. Some harbour authorities are managed under powers conferred by local legislation, which is specific to each harbour authority and may vary between them. Partly this is a matter of history; harbours have acquired their present forms of constitution by a number of routes, but a harbour authority's powers also reflect local circumstances and the level and nature of harbour activities.

The powers and duties of harbour authorities are defined by government in the form of the *Port Marine Safety Code* and *Modernising Trust Ports – a Guide to good Governance*.

General Environmental duties

Harbour authorities have a general duty to exercise their functions with regard to nature conservation and other environmental considerations. The Transport and Works Act 1992 Schedule 3 imposes or confers on the harbour authority environmental duties or powers, including powers to make byelaws, for the conservation of the natural beauty of all or any part of the harbour. Harbour authorities must have regard for the conservation of flora, fauna and geological or physiological features of special interest.



Byelaw Powers

Harbour authorities are empowered to make byelaws, which empower them to regulate activities for specific purposes.

When creating byelaws, for example to make access to the harbour subject to conditions or charges, harbour authorities should consider their specific powers in relation to the making of byelaws. Byelaws are generally available to regulate rather than prohibit, and are a means of reflecting the local needs and circumstances of an individual harbour authority.



Harbour byelaws are the authority's main tool for management of the harbour. Some Harbour's powers, including those to make byelaws, still derive from the Harbours, Docks and Piers Clauses Act 1847. In recent years more

modern powers, generally following a common pattern, have tended to replace these old fashioned provisions.

A typical modern power is that contained in the Medway Ports Act 1973, which states that the authority may make byelaws, amongst other purposes:

'for regulating the use of yachts, sailing boats, pleasure craft and other small craft...'

and

'for regulating the launching of vessels within the port'

As subsidiary legislation, byelaws require confirmation by the relevant Government Department, which for harbours is the Department for Transport, who have responsibility with respect to shipping, harbours, pollution from ships and offshore safety. The process of making byelaws can be slow, although Government are looking at ways to speed up the process. Despite the availability of various 'model' byelaws, the drafting, submission and confirmation process is less than straightforward.

Typical byelaws relevant to hovercraft use may include:

- **Vessels to navigate with care:**
The master shall navigate his vessels with such care and caution, and at such speed and in such manner, as not to endanger the lives of or cause injury to persons or damage to property, and as not to interfere with the navigation, loading or discharging of vessels or with moorings, river banks or other property.
- **Speed of vessels:**
except with the permission of the harbour master, and subject to Collision Avoidance Regulations, the master of a vessels shall not cause or permit the vessels to proceed at a speed greater than [x] knots.
- **Small vessels not to obstruct fairway**

A byelaw that is sometimes used:

'No person shall operate or cause

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to be operated a [craft type] except with the written permission of the Authority given either specifically or generally and only (in such areas as) may be designated by the Authority and in accordance with such reasonable conditions as the Authority may impose'.

In a harbour with a very large area such a byelaw could be a benefit to avoid the risk to the safety of other vessels and to direct hovercraft to an area to reduce the impact of noise or to minimise nuisance to other users. However, it is unreasonable to prohibit the movement of those hovercraft whose pilots wish to use the harbour in the same way as other vessels i.e. to go to and from the open sea, while observing the speed limit.

The flexibility of byelaws means that the confirming Department will consider the need for byelaws in the light of circumstances of that particular harbour and byelaws can be adapted to suit the needs of the Authority and users.

LOCAL AUTHORITIES

A local authority's primary function is to administer the land, including the seashore down to low water and their powers reflect this. However, because activities also take place in the water margin, there has been a gradual accretion of additional powers to, for example, provide facilities for the orderly enjoyment of the seaside, and protect users of beaches. Local Authorities do have powers to manage inshore waters, but these powers are not as extensive as those available to a Harbour Authority.

In 1998 an Inter-Departmental working group published the findings of a review of byelaw powers on the Coast, the main recommendations from this review were:

- Local authority powers should be consolidated and updated. That would mean local coastal byelaws being consolidated under a single statutory provision and updated to reflect modern forms of coast related recreation, such as hovercraft.
- Powers should include the ability to provide exclusive bathing zones, areas where all types of craft, powered and non-powered can be excluded;
- In addition to specific powers, local authorities should be given more general byelaw powers to regulate activities affecting the wider environment.

The Government are committed in the long term to introducing legislation to implement the review's recommendations where changes to the law are needed.

One recommendation that has been progressed by DEFRA is the development of a Guide for local authorities on coastal byelaw powers available to them and to provide information on the use and scope of these powers and the



relevant procedures for implementing byelaws – ‘Managing Recreational Activities – A Guide for Maritime Coastal Authorities’.

Powers also exist to regulate the use of boats on the water, enabling the local authority to regulate for prevention of danger to bathers by restricting the navigation of vessels used for pleasure purposes within an area allotted for public bathing during the hours allowed for bathing. Such byelaws may impose a speed limit or stipulate that a type of boat, or boats in general may not be used in such a way as to endanger bathers within a defined area.

An Authority may also (for the prevention of danger, obstruction or annoyance to persons bathing in the sea or using the seashore) regulate the speed of pleasure boats, and to regulate their use so as to prevent dangerous, careless or inconsiderate behaviour. These powers extend 1000 metres seawards from the low water mark.

The tools available to local authorities for on water management include:

- Speed restrictions
- Zoning
- Rules prohibiting dangerous or inconsiderate behaviour
- Help from regular site users

Speed restrictions

Speed restrictions do not impose any infringement on the public rights of navigation and, coastal authorities are able to limit the speed of vessels. Speed limits are likely to be needed in harbours and estuaries and less so on the open coast. But because hovercraft use and bathing beaches are not compatible, coastal bathing beaches are likely to need additional protection through zoning and the area close to swimming zones will be speed limited.

An authority should first decide on its policy for action after a byelaw offence has been committed. Effective policing is one of the most crucial elements of a management scheme. Patrol or beach staff employed by a harbour or local authority will need to be properly trained in recognising potential offences. For example, whether a hovercraft is speeding can be extremely difficult to judge because of the lack of a wake or bow wave. Dangerous or careless navigation requires subjective judgement but in some cases can be quite obvious, for example a watercraft weaving in and out of swimmers in a bathing area.

Obtaining evidence of speeding offences

There are several forms of evidence acceptable to the court:

- Measurement of speed of a craft on radar. Only harbour authorities are likely to have the necessary equipment to do this.
- Measurement of speed by a radar gun. This can work satisfactorily if the gun is operated ashore, as it is awkward to use from a vessel particularly in choppy conditions, where wave reflection can interfere with the signal. The greater the angle directly ahead of a moving craft, the less accurate the measurement of speed. Radar guns must be

calibrated, and a certificate of calibration produced in court. Authorities should anticipate the likelihood of technical challenge to such evidence if a defendant denies a speeding offence. A failed prosecution, or successive failures will damage the credibility of the scheme. Also bear in mind that the normal fluttering movements of a hovercraft skirt can cause false readings on radar guns

- Time and distance. If the time for a vessel to move between two fixed objects is measured and the distance apart of the objects is accurately known, then an average speed can be calculated.
- Following a vessel at a set distance astern. A patrol vessel suitably equipped with an accurate log can follow an offender for several hundred metres to ascertain his speed. This method is widely used by Harbour Authorities. The log should be checked and adjusted as required on a regular basis, and proof of this should be available to the court.
- The judgement of a suitably experienced officer, corroborated by a second equally experienced person would normally be acceptable. However, as mentioned above, subjectively judging the over water speed of a hovercraft is extremely difficult

Hovercraft Operating Speed

Sometimes a speed limit is stated as ‘through the water’ rather than ‘over the ground’. This can pose difficulties for authorities when dealing with hovercraft as they are not *in* the water but rather *above* the water - their speed can only be measured by the pilot using a GPS device. It is not possible for a pilot to measure the underlying water flow rate or direction making it impossible to accurately measure their speed *through* the water.



Due to the unique characteristics of hovercraft they are not significantly affected by water flow rate or direction – they are, however, affected by wind speed and direction. In order to safely maintain adequate steerage it may be necessary, in the interest of safety, for a hovercraft pilot to temporarily exceed a speed limit while travelling downwind. Most byelaws permit this specific exception for all watercraft.

Another characteristic of hovercraft is that, due to their ‘frictionless’ nature, the hull rarely ‘points’ in the same direction as they are travelling. This can be extreme – craft can have a 30 to 40 degree ‘yaw’ due to a strong sidewind.

When dealing with hovercraft, Patrol officers should be aware of wind direction and strength before making a judgement on speed.

Zoning

A general speed limit can be as bad as a total ban for a user whose enjoyment of his hovercraft consists of the fun it provides at speed. A compromise which provides opportunities for hovercraft use within an area which is otherwise speed limited is to create a zone, with suitable access, within which a speed limit is removed.

The zone should be well publicised and physically marked as the hovercraft zone. It is unlikely that such an area will be made exclusive to hovercraft, because

doing so would infringe the public right of navigation. So when not in use by hovercraft, other craft may transit the zone. But signage and information make it clear that this is area for hovercraft when they want to use it.

Beach or shore side launching sites need clear, physically lanes both on land and on water to provide hovercraft (and other craft) with safe route to waters outside the beach/bathing areas.



Laying obstructions to navigation in tidal waters requires Coast Protection Act Consent. This is unlikely to be a problem, but authorities should allow 2-3

months, because all such applications are subject to a statutory consultation procedure.

ALTERNATIVES TO REGULATION

A non regulated approach to hovercraft management through voluntary measures and education can be equally effective in certain areas. Those whose coastlines are free from pressure spots and problem areas or where regulation of access is impracticable may find it easier to adopt a scheme which does not rely primarily on compliance with conditions or on-water regulations.

This may also be preferable for authorities who do not have sufficient resources, either to implement a formal scheme or to police and enforce offenders. However, voluntary measures are only as effective as the willingness of users to support the measures, which in turn depend on the benefits expected from the voluntary measures or conversely the likely cost. Whilst their role is sometimes limited, particularly when it comes to dealing with more significant management issues, they are able to secure initial support in solutions where a statutory approach would have caused significant resentment for little additional gain.

Informal measures available to authorities include:

Good signage and information

Good quality site based information needs to be provided to raise awareness of local regulations and sensitivities. Information needs to be well presented, clearly written and effectively distributed.

Users often travel considerable distances to the coast, therefore signs are particularly useful at launch sites without regular staff. As hovercraft users are unlikely to be the only site users, information should be integrated with other safety and environmental information. Ideally one informative sign is required per launch point.

When regulating activity and promoting good practice, clarity and consistency are key factors to consider. Clarity is fairly achievable, consistency less so. There are a number of different systems of conventional signs for water recreation and no consensus as to which is the most appropriate for the coastal zone.

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The first system is the ROSPA Water Safety Range, which follows the well established shapes, colours and general logic of road traffic signs.

The second is the CEVNI Rules, developed for regulation of inland water transport in Europe. The system is not mandatory in the UK, although the Environment Agency now uses its signs for regulating navigation on those UK rivers for which the Agency is the navigation authority.



Whichever system is implemented, a coastal authority should ensure consistency across all sites within its management. Zoned water areas are marked by laying buoys at suitable intervals, to ensure users understand their significance and zoning buoys cannot be confused with buoys or markers laid to assist navigation. These should be reinforced by signage at the launch points and be made clear for who the zones apply and how they should be used.



Buoys should also be consistent with International Collision Regulation standards, liaison with regional



MCA offices will provide advice on this area.

Consistency can also be achieved through liaison and consultation with neighbouring authorities.

Publicity

Good publicity is essential to give advanced warning of a new scheme, to notify changes to existing procedures and to explain the operation of seasonal regulations.

This can be achieved through:

- notices and leaflets at launch points
- local media
- through the Hovercraft Club (Hoverclub)

Authorities should identify the target audience through the consultation process and identify the most appropriate form of publication and promotion relevant to the user. Distribution of material direct to the population can be achieved through the club/association structure but also distribution of material through mailshots to registered users or circulation at access points.

Examples of user information include:

- Code of Conduct for non regulated pleasure vessels available from the MCA
- Safety Guidelines for hovercraft Users, one of the Safety on the Sea range produced by the RNLI Sea Safety Liaison Working Group.

4.5 STEP 4: IMPLEMENTATION AND ENFORCEMENT

A management scheme will not be effective without clear and equitable enforcement of the rules. This can be achieved through formal or informal enforcement by peer pressure and information. On shore administration should be relatively straightforward but dealing with on water offences is a more difficult and expensive.

The specific offence of exceeding speed limits have already been dealt with but for more general enforcement hovercraft users would like to see consistency in enforcement. It is unrealistic to expect to find the same management scheme at each site. Scale of use, number and type of access points and whether these are authority-owned, resources available to local staff, and the management philosophy of the authority itself: all these factors will influence choice of scheme and style of enforcement. But an authority should always aim for consistency - the like treatment of infringements within its jurisdiction.

When engaged in enforcement duties, staff must be able to spot an infringement, intercept and identify the offender, and decide on appropriate action. An initial warning is often sufficient, but the ultimate sanction is prosecution. To be credible, an authority must be prepared to carry a prosecution through. Staff (ashore and afloat) should to be properly trained and authorised to issue warnings or notices of prosecution.



Use of patrol craft

Although it may be possible to take action at the launch point following an on-water infringement, doing so lacks the immediate effectiveness of a patrol vessel. A patrol craft can also be a deterrent to offenders and help to prevent incidents.

The Government Review has recommended that authorities should have powers to operate a fixed penalty system for offences such as speeding or entering a prohibited area. Such powers may improve user compliance in areas where resources permit the use of patrol staff.

Hovercraft

Because of the zero-draft operating capability of hovercraft, when patrol craft are approaching or following a hovercraft they should take care to avoid underwater obstacles or running aground.

The Hoverclub recommend that all hovercraft pilots use their flashing yellow beacon when in non-displacement mode as a warning to displacement watercraft

4.6 STEP 5: MONITORING AND REVIEW

It is unlikely that an authority introducing a scheme from scratch will get it right straight away. There are bound to be mistakes with over optimistic assumptions or changes in external factors. Building in a monitoring and review process will enable necessary changes to the scheme to be made in a systematic way on the basis of best available information.

ORGANISATIONS

Prime Contact:

The Hovercraft Cruising Club UK
info@hoverclub.org.uk
<http://www.hoverclub.org.uk>

British Marine Federation
Marine House
Thorpe Lea Road, Egham
Surrey TW20 8BF
T: 01784 473377 F: 01784 439678
info@britishmarine.co.uk
<http://www.britishmarine.co.uk>

Royal Yachting Association
RYA House
Ensign Way, Hamble
Southampton SO31 4YA
T: 023 8060 4100 F: 023 8060 4299
info@rya.org.uk
<http://www.rya.org.uk>

Personal Watercraft Partnership
PO BOX 1906
Salisbury SP5 2ZL
Mobile: 07836 695999
T/F: 01725 513775
candice@pwpuk.org
<http://www.pwp.org>

Our sincere thanks go to the PWP for their assistance in preparing this guide

GOVERNMENT DEPARTMENTS & AGENCIES

DEFRA (Department for Environment, Food and Rural Affairs)
Countryside (Recreation & Landscape) Division
Temple Quay
Bristol BS1 6ED
T: 0117 372 8000

DFT Ports Division
Great Minister House,
76 Marsham Street
London SW1P 4DR
T: 0207 944 8300

MCA (Maritime and Coastguard Agency)
Spring Place, 105 Commercial Road
Southampton
Hampshire SO15 1EG
T: 023 80329100 F: 023 80329298
<http://www.mcga.gov.uk>

Environment Agency
Recreation & Navigation
Rio House, Waterside Drive
Aztec West, Amondsbury
Bristol DS32 4UD
T: 01454 624376

The Crown Estate, Marine Estates,
16 Carlton House Terrace
London SW1Y 5AH
T: 0207 210 4377

CIEH (Chartered Institute of Environmental Health)
Chedwicks Court
15 Hatsfields
London SE1 8DJ
T: 0207 328 6006

SAFETY ORGANISATIONS

RNLI (Royal National Lifeboat Institution)
West Quay Road, Poole
Dorset BH15 1HZ
T: 01202 663000

ROSPA (Royal Society for the Prevention of Accidents)
353 Bristol Road, Edgbaston Park
Birmingham B5 7ST
T: 0121 248 2000

RLSS (Royal Life Saving Society)
River House, High Street
Broom
Warwickshire B50 4HN
T: 01789 773994