

RYA Planning and Environmental Handbook

SECTION 02: Environmental Management

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1. Introduction

This section of the handbook deals with the environmental issues which affect clubs. Each section focuses on the legal duties of each club for that particular topic and then provides information on how to manage the issue. It also contains relevant case studies and sources of further information.

Environmental issues are increasingly coming under the spotlight within all organisations, whether commercial, charitable or social and there is a growing raft of environmental legislation which now affects most organisations. For the following reasons it makes sense to pay attention to the environmental impacts your club may have, and how best to manage them:

1. Compliance with environmental legislation which will affect every club in a number of ways
2. Cost savings – especially through more prudent use of energy and water and through managing waste effectively
3. Conservation of the boating environment – we are highly dependent on clean, high quality water and surroundings for the enjoyment of our sport. We therefore have a collective responsibility to help promote and maintain a healthy natural environment.

2. Disposing of waste

Your legal duty

Whether as an individual or an organisation, if you are in possession of household, commercial or industrial waste you are responsible for its disposal into a licensed waste facility¹. On club premises, individual club members are responsible for their waste until they deposit it into the club's facilities when the club then becomes responsible for its disposal into a licensed waste facility. Waste produced at a club will be categorised as commercial waste² and should be disposed of accordingly.

The key points of the law to note are:

- You must ensure your waste is stored correctly
- You must ensure your waste is taken away by an authorised waste contractor
- You must fill in the appropriate paperwork and keep records

Under new regulations introduced in 2007, all non-hazardous waste must be pre-treated before being sent to landfill. "Pre-treatment" in the case of clubs, essentially means separating and segregating waste. You can pay your waste contractor to separate the waste for you.

Breach of your legal duty is a criminal offence and fines and penalties can be incurred.

Identifying waste

The waste produced at a club is likely to fall into one of the following categories:

1. General waste
2. Recyclable waste
3. Hazardous waste
4. Catering and international catering waste

General waste is waste that does not have any alternative recycling or disposal routes or is not classified as catering or hazardous waste. Common examples would be plastic wrapping, yoghurt pots and crisp packets.

Recyclable waste may vary depending on the facilities offered in a particular region. The most obvious is paper and glass but may also include some plastics and cans. Disposing of recyclable waste is often cheaper than disposing of general waste and therefore separating your waste at the club could generate significant savings on costs of waste disposal.

Hazardous waste is waste that can be harmful to human health or the environment. Common forms of hazardous waste are: oil, batteries, paint tins, trays and used brushes, contaminated rags and fluorescent

¹ This is the Duty of Care that applies to individuals and organisations under the 1990 Environmental Protection Act.

² Commercial waste is waste from premises used wholly or mainly for the purposes of a trade or business or the purposes of sport, recreation or entertainment (EPA 1990 Section 75)

light tubes³. If boat maintenance is allowed on club premises then it is likely hazardous waste is being produced. If more than 200kg of hazardous waste is produced in a 12 month period you need to register with the Environment Agency as a Hazardous Waste producer. You can do this online and its costs £18. As an indication, 200kg equates to approximately 10 small TVs, or 14 lead acid car batteries, or 500 fluorescent tubes, or five domestic fridges.

Catering waste is waste food from restaurants, catering facilities and kitchens. **International catering waste** is defined as catering waste from means of transport operating internationally⁴. This means that clubs where vessels arrive from outside the EU need to make provision for disposal of their food waste.

Storing waste

Storage of waste must be secure and the club must ensure that no waste is able to escape whether through vandalism or accidents. Keep waste in suitable containers – preferably with lockable lids. If your bins are blown over or vandalised and waste escapes into the wider environment, you will be held responsible and could be penalized by the Environment Agency.

- Clear signage and information is also important for members to dispose of each type of waste in the correct bins. Mixing of hazardous and non-hazardous wastes for example is prohibited (i.e. you can't put oily rags in the same bin as you use for food waste and plastics). In addition, the various streams of hazardous waste must also be stored separately (i.e. do not mix fluorescent light bulb tubes with used paint tins for example)The cost of disposal of hazardous waste is expensive and it is vital that club members understand and dispose of the correct waste in the correct bins.
- If wastes are mixed, the waste contractor can pronounce the whole container as hazardous waste and you will be charged for removal of the whole lot at hazardous waste prices. This is a lot more expensive than the removal of non hazardous waste. Waste contractors are actually responsible for reporting to the Environment Agency any waste producer who knowingly or otherwise includes hazardous waste with the general waste they collect.

Disposing of waste

Transport of waste to a licensed disposal site must be done by an authorised person. You should check that your waste carrier is properly licensed to transport each particular type of waste you produce and takes it to the correct disposal facility. You are required to keep records of your waste in the form of waste transfer notes for a period of two years.

General waste may be taken to landfill or incinerated. In areas where the landfill capacity is reaching its maximum, waste transfer stations may be used to separate the recyclables from the general waste. This is why general waste disposal tends to be more expensive than disposal of already sorted recyclable waste.

Hazardous waste is pre-treated before being landfilled in special sealed landfills which are limited in number throughout the UK. Therefore specialist waste contractors are required for the disposal of hazardous waste.

³ The European Waste Catalogue lists all types of hazardous waste.

⁴ EU Animal By-products Regulation (1774/2002/EC)

Catering waste can go directly to landfill for disposal. This includes cooked or processed meat and fish, bakery products, fruit and vegetables. Catering waste needs pre-treatment if it is going to a composting or biogas facility. Raw or lightly cooked meat, fish or eggs require special disposal and incineration.

International catering waste is slightly more complex and your local Port Health Authority, the Animal Health and Welfare service (part of Defra) and Marine and Coastguard Agency (MCA) offices should be able to help you develop a suitable plan to manage international catering waste, and help you identify cost effective ways of disposal. As with all waste disposal, it is up to the individual to dispose of the waste correctly and in the case of international catering waste, large scale on site facilities may not be available, in which case individuals should contact the club secretary or bosun to find out the arrangements.

Out of date flares (Time Expired Pyrotechnics) should not be disposed of in your club's bins. Small quantities can be taken to your local Coastguard station who should take them back at no cost if they have storage space available. You do need to phone them first however, to check that they are able to take your flares and to tell them how many you will be bringing. If your Coastguard station is unable to take them, then you can contact Seaweathers on 01322 275513. They will send a carrier to collect up to 20kgs of TEP for £25 (costs increase for more than 20kg) and in addition they charge £1.20 per hand flare and £1.45 per parachute flare for disposal.

If you have a significant quantity of TEP, you can also contact Pains Wessex (a major manufacturer) who will quote you a price for collection and disposal.

Disposal of TEP is an ongoing problem for individuals, clubs and marinas and discussions are underway between manufacturers, the MCA and organisations such as the RYA to find a solution that is both safe and cost effective.

Keeping the costs down

1. Identify the wastes your club produces and see if there are any waste streams that could be reduced – e.g. if paper / plastic cups are used for refreshments, could glass ones or mugs be used instead?
2. Ensure that waste types are properly separated. Provide bins for general waste, for waste to be recycled and for the various types of hazardous waste that your club might produce (e.g. oil, used paint tins). Label the bins clearly and publicise the fact that the club is pursuing a policy of separating and recycling as much waste as possible.
3. Shop around for waste contractors. It may be more cost effective to use a number of different waste contractors for disposing of the various waste streams. There will be a number of local operators for the various different waste streams including your local authority which may or may not offer the most suitable cost-effective service. The Environment Agency has established an online directory of waste contractors which can be searched on postcode and waste stream. See: <http://ea.wastedirectory.org.uk/>
4. Waste is paid for in terms of volume produced so reduce costs by packing down card and paper, crushing cans and other types of crushable materials. You may be able to reduce the frequency of your waste collections if you can pack more into the bin! The Green Blue has looked into establishing waste cooperatives to reduce costs and has facilitated the establishment of the recycling trial

programme on the River Hamble. See: www3.hants.gov.uk/hambleharbour/hamble-environment/gobar.htm

Waste at coastal facilities

If you operate a coastal club and provide a landing place for boats coming from the sea you should provide adequate waste facilities which are detailed in a Port Waste Management Plan. If your club falls in a Harbour Authority area then the Harbour Authority might produce one for the whole area asking for your contribution to the plan. More information can be found from the Guide to Port Waste Management Planning: www.rya.org.uk/KnowledgeBase/environment/Managingwasteashore.htm

Case studies

The UK Sailing Academy in Cowes has implemented a range of measures to reduce, reuse and recycle its waste: www.thegreenblue.org.uk/practicalprojects/documents/CaseStudy2UKSA.pdf

The clubs and marinas around the River Hamble, facilitated by the Green Blue and the River Hamble Harbour Authority have established a recycling trial: www3.hants.gov.uk/hambleharbour/hamble-environment/gobar.htm

Salcombe Harbour Authority has implemented a recycling scheme for visiting boats www.thegreenblue.org.uk/practicalprojects/documents/Practcial-SalcombeHarbour_000.doc

More information

Environmental Code of Practice: Chapter 2 Waste Management and Legal Aspects
http://www.thegreenblue.org.uk/practicalprojects/documents/Practcial-SalcombeHarbour_000.doc

Hazardous Waste on the EA website: <http://www.environment-agency.gov.uk/subjects/waste/1019330/1217981/?version=1&lang=e>

Net Regs: Waste and recycling:
http://www.netregs.gov.uk/netregs/mgmt_guidelines/1409205/?version=1&lang=e

3. Controlling Pollution & Discharges

Your legal duty

You may not allow any polluting, poisonous or noxious material (including solid waste matter) to enter controlled waters⁵ without consent issued by one of the UK's environmental agencies⁶. This is regardless of whether the discharge was accidental or not⁷.

Identifying sources of pollution

Pollution from sailing clubs may arise from a variety of sources e.g. runoff from car parks and boat wash down facilities, fuel spills from refuelling areas, leaching from shore or bank protection materials. These may reach the controlled water directly or via the storm drain or empty into the foul sewer.

Storm-water drains

The storm-water system collects rainfall from outdoor areas through grates possibly around buildings, in yards or car parks. Pipes then carry the rainwater to the controlled water (i.e. the lake, river, estuary or sea). Any contaminants contained in this rainwater could therefore enter the controlled water which would be considered illegal. Only clean uncontaminated rainwater should go down the storm water drain. It is therefore important that the club identifies any potential contaminants to the storm water drain and addresses these. Examples include oil leaks, or residues from waste storage areas.

The following will help you keep storm water run-off clean:

- Keep waste storage areas covered up and secure
- Store and handle hazardous and trade wastes away from storm water drains – i.e. don't site your oil store next to the storm water drain.
- Install oil interceptors in refuelling areas and car parks (which is a legal requirement for car parks for over 50 cars). As the name suggests, these intercept any oil in the rainwater and separate it out. Maintain oil interceptors regularly and keep detergents out of them
- Clearly mark storm water drains by painting them blue

Foul sewers

The foul sewer collects waste water flows from inside buildings e.g., water from sinks, toilets and showers. Most foul sewers carry sewage to sewage treatment works which treat the sewage to improve its quality so

⁵ Controlled waters are virtually all fresh and saline waters extending up to 3 miles offshore

⁶ Environment Agency in England and Wales, SEPA in Scotland and Environment and Heritage Service in Northern Ireland

⁷ The Water Resources Act 1991

that it can then be discharged to rivers, land or the sea. The sewage is usually treated biologically, which means that it is broken down by micro-organisms.

Any liquids other than domestic sewage (or uncontaminated rainwater) are classified as “trade effluents”. You need a **trade effluent consent or agreement** from your Water Company or Water Authority to discharge ‘trade’ effluent or contaminated surface run off or to use a sink or toilet to dispose of liquid wastes to the foul sewer. This means that any boat maintenance activities that generate liquid waste may require a trade effluent consent

Hazardous waste, such as used oil, oily water, paint and varnish may not be disposed of through the foul sewer.

The following will help you keep your ‘trade’ discharges legal:

- If the club has a trade effluent consent, ensure club members are aware of this and what can be disposed of through this route.
- Store and handle hazardous wastes carefully and away from foul sewer drains on site
- Clearly mark foul sewer drains by painting them red

Direct surface water run off

As with storm water discharges, only uncontaminated rainwater should discharge directly from your site surface to controlled waters. Removal of fouling from boat hulls is common practice at clubs. This may be done against piles or by hauling the boat out of the water. In all cases, care must be taken to avoid polluting matter entering the waters.

Using piles, care needs to be taken to ensure that only the fouling is removed and the water running off from the hull is not contaminated with paint. If using a pressure-washer to remove fouling, it is highly likely that the water runoff will be contaminated with paint. A permanent bund or even a hawser lain across the hard standing can be used to collect any paint residue which, once the hull is clean, can be collected and disposed of appropriately as hazardous waste.

Boats that are removed entirely from the water and pressure-washed on land are likely to produce contaminated water. In which case arrangements to collect the water and dispose of it legally should be made. Disposal options could be either into the foul sewer by prior arrangement with the relevant water company or with the approval of the Environment Agency in the form of discharge consent. The cost of a discharge consent is substantial and involves a calculation based on the volume, content and type of controlled water where disposal is occurring but will be upwards of £760 annually and an additional initial charge of £117, more information can be found on the Environment Agency website.

Systems such as SeaLift2 (www.sealift2.com) will hopefully become increasingly available to the individual boat user. The system is a relatively cost-effective means of scrubbing the hull and capturing the waste which is then disposed of to the foul sewer.

A closed loop (portable and fixed) wash down system has been designed by WashTek and is available in the UK from ASAP supplies. This system captures all the waste and is able to recirculate and reuse the water. The

system has been tested at Galleon Storage and Mooring in Beccles, Norfolk Broads. A case study on the trial is listed in the Case Studies section: www.thegreenblue.org.uk/practicalprojects/index.asp

Site drainage plans

In order to know where your drains are going you need an up-to-date site drainage plan. Without one you could unknowingly be causing pollution and opening the club to environmental liability. If you do not have a drainage plan for your site you may be able to get hold of one through your landowner if it is rented. Otherwise it would be wise to get one through a surveyor or drainage engineer.

The plan should identify:

- 1) All site boundaries, outdoor spaces, buildings and access routes
- 2) Storm water pipes, grates and manholes
- 3) Open drains and areas where runoff might pond
- 4) Storm water treatment systems (e.g. oil interceptors)
- 5) Sanitary and trade waste sewers including all inlets, traps, drains and manholes
- 6) Closed loop systems, inlets, outlets and overflows
- 7) Location of the mains water supply stopcock
- 8) Location of pollution prevention materials (e.g. spill kits)
- 9) What activities are carried out where
- 10) Neighbouring sites and sensitive areas
- 11) Nearby water courses

Your drainage plan should enable you to check where your drains go and that they are connected up correctly and to ensure they are being used for the right purposes.

Dealing with spills

Each club should have an incident response procedure for dealing with spills. Members handling oils and fuels on site need to be aware of the plan and be able to implement it should the need arise. The requirements are detailed in the later section on incident response planning.

Case studies

Boat wash down capture and filtration system at MDL Hamble Point marina:
www.thegreenblue.org.uk/docs/CaseStudy1MDL.doc

A closed loop (portable and fixed) wash down system has been designed by WashTek and is available in the UK from ASAP supplies. This system captures all the waste and is able to recirculate and reuse the water. The

system has been tested at Galleon Storage and Mooring in Beccles, Norfolk Broads. A case study on the trial is listed in the Case Studies section: www.thegreenblue.org.uk/practicalprojects/index.asp

More information

NetRegs section on trade wastes: www.netregs.gov.uk/netregs/275207/275506/1767408/?lang=_e

Environment Agency site on applying for Discharge Consents: www.environment-agency.gov.uk/business/1745440/1745496/1754268/?lang=_e

4. Transporting & storing oil & fuel

Your legal duty

You have a legal duty to ensure that oil from your site does not cause pollution, either deliberately or accidentally. In England and Scotland oil storage is regulated through the Oil Storage Regulations. These regulations do not apply in Wales and Northern Ireland, however, you would be advised to follow the regulations as you still have a legal duty to avoid pollution from oil stored on your site.

The Oil Storage Regulations apply to all type of oil stored in tanks, intermediate bulk containers, oil drums and mobile bowsers. In England, the regulations apply if you store more than 200 litres of oil. In Scotland, the regulations apply if you store oil of any kind at your premises regardless of volume. The regulations do not apply to oil stored inside a building.

All types of oil (excluding waste oil) are covered including petrol, diesel, vegetable, synthetic and mineral oil. In the case of flammable liquids (petrol) additional health and safety requirement may apply.

Storage of oil and fuel at your club

Oil storage containers brought into use since 2002 in England and 2006 in Scotland and located within 10 metres of surface waters or wetlands or 50 metres of a well or borehole must be sufficient strength to avoid bursting or leakage under normal operating conditions. The containers must be securely stored in a secondary containment system (SCS) or bund.

The bund must be large enough to hold 110% of the largest container or 25% of the total volume if you have more than one container - whichever is larger. The bund should not contain any drainage holes or be permeable to water and/or oil. All valves, filters and pipe work when not in use should also be stored in the bund. It is advisable to cover the bunded area if possible to prevent rainwater from entering. Any rainwater in the bunded area is almost certain to be contaminated by fuel residues and would be classified as hazardous waste. A single drum requires a drip tray to be able to hold 25% of its volume and a mobile bowser also requires a drip tray.

If your club stores more than 30 litres of petroleum in any one area but less than 275 (45 gallons) then you must notify your local authority. The storage facilities should be self contained and set at least 6 metres away from other premises or public areas.

There are also regulations regarding the storage of fuel in fixed tanks and below ground storage which may be relevant to larger facilities. More information can be found on the NetRegs website.

Transportation of petrol

If you are filling portable petrol containers at a filling station for use in your club, boat or sailing school you should be aware of the regulations which govern the type and quantity of containers that can be transported in cars and vans. Details can be found in the RYA leaflet Carriage and Storage of Petrol, in summary:

In a car

- 2x 10 litres in a suitable metal container
- 2x 5 litres in a suitable plastic container
- 1x portable petrol tank of upto 30 litres

In a van or trailer:

- Up to a maximum of 333 litres using suitable containers with a 2kg suitable fire extinguisher (dry powder or foam) and driver training on how to respond in an emergency

Refuelling

Refuelling from portable containers should be undertaken in the bunded area where possible. When refuelling takes place on the boat from a portable container then precautions can be taken to minimise the risk of fuel entering the water. Non-spill nozzles or funnels should always be used and a spill kit available and used should fuel be spilled into the boat. Safety boats can also be fitted with bilge filters to extract any oil or fuels before pumping the bilge water.

Dealing with oil spills

If you store oil and fuels on site you should have an incident response procedure that members are aware of and are familiar with how to implement. Measures should be identified to prevent spills from entering drains or watercourses. For example, use earth to block the flow of spills, or sand or commercial absorbents to soak them up. Keep a **spill kit** and **absorbent materials** near to your oil store so that you can access them easily when they are needed. Never hose an oil spill down or use **detergents** to disperse it. Detergents only increase the pollution load to the watercourse.

Report pollution incidents immediately to the **emergency hotline** on **0800 80 70 60**.

Guidance is available from the combined environmental agencies in PPG 21 – see Section on More information below.

Suppliers of spill kits can be found on the Green Blue Green directory – see the more information section below

Case studies

South Cerney Sailing Club have built their own oil and fuel storage which is both a lockable and bunded facilities and was designed by the club to cover their specific needs:

www.thegreenblue.org.uk/practicalprojects/documents/CaseStudy13SouthCerney.pdf

More information

Pollution Prevention Guidelines (PPGs) from the Environment Agency:

- PPG14: Marinas and Craft publications.environment-agency.gov.uk/pdf/PMHO0204PP14-e-e.pdf
- PPG2: Above Ground Oil Storage Tanks: publications.environment-agency.gov.uk/pdf/PMHO0204BHTN-e-e.pdf
- PPG 8: Safe Storage and Disposal of Used Oil: publications.environment-agency.gov.uk/pdf/PMHO0304BHXB-e-e.pdf
- PPG 21: Pollution incident response planning: publications.environment-agency.gov.uk/pdf/PMHO0204BHUP-e-e.pdf

RYA leaflet Carriage and Storage of Petrol:

www.rya.org.uk/WorkingWithUs/clubs/premises/clubscarraigeandstorageofpetrol.htm

Net Regs Oil Storage: www.netregs.gov.uk/netregs/275207/275441/585275/?version=1&lang=_e

The Green Blue advice: www.thegreenblue.org.uk/tradetalk/oilandfuelspills.asp

The Green Directory - spill kits: green.sailingnetworks.com/green/category?category=26

5. Energy Use

Your legal duty

Although there is no legal duty for clubs to manage energy use, it nevertheless makes sound financial sense to reduce energy consumption as much as possible as well as cutting carbon emissions. Introducing simple energy saving measures could save as much as 20% of your energy bill.

Auditing the site

The best way to manage energy use is to conduct a site audit to identify where energy is being used and possibly wasted. Such an audit will also highlight if there are any maintenance issues that need to be dealt with. This does not need to be carried out by an expert and can be conducted fairly quickly depending on the size of your site. A site audit checklist is included in this handbook as part of the Information Bank. Once sources of energy consumption have been identified, an energy saving plan can be drawn up and measures can be put in place to reduce energy usage.

The most obvious sources of energy use will be lighting and heating but clubs will also be using energy to power refrigeration units, showers, hand and hairdryers, vending machines, and possibly office equipment. Many clubs will have power available outside for maintenance activities.

It is helpful to conduct a site audit at least twice a year so that seasonal differences can be taken into account – i.e if you conduct an audit in summer, you may not notice if heating controls are set correctly.

It is also prudent to monitor energy bills so that any steep increases in energy use will be spotted. If the heating controls are set incorrectly for example, heating may come on at night when club buildings are empty, but this would not necessarily be noticed unless someone is monitoring the bills.

Energy saving measures

No cost and low cost measures

- Installing low energy lightbulbs around the site
- Having a “switch off” policy for lighting, equipment etc that is left on when not in use (consider colour coding switches so that members know what can be switched off when leaving the club and what must be left on).
- Ensuring windows and light fittings are clean
- Insulating heating pipes
- Having boilers and heating systems regularly serviced
- Ensuring fridges and vending machines are installed away from heat sources

- Ensuring radiators are not obstructed by furniture and equipment
- Ensuring thermostats and heating timers are set correctly
- Fitting draught excluders around doors and window
- Using slimline fluorescent tubes – 24mm tubes give an 8% energy saving over 36mm tubes
- Installing automatic switches on hand and hair dryers

Higher cost measures

- Installing daylight / occupancy sensors so that lights switch off when there is no-one around
- Insulating wall and roof cavities
- Replacing water tanks which heat and store water with instant heat on demand systems
- Investing in renewable energy technologies such as solar thermal heating systems (to provide hot water for showers etc) and small scale wind turbines

If you wish to install some renewable energy technologies at your club, you may be able to access grant funding to help you do this. If your club is run as a business, then you could get an interest free loan of up to £100,000 from the Carbon Trust to use on renewable energy equipment. The repayments are based on the savings you will make on energy costs.

http://www.carbontrust.co.uk/energy/takingaction/loans_renewables.htm

If your club is run as a charitable organisation, then look at the Low Carbon Buildings Programme (<http://www.lowcarbonbuildingsphase2.org.uk/>) . You could get up to 50% funding for the purchase and installation of solar photovoltaic systems, solar thermal systems, ground source heat pumps, wind turbines or wood pellet boilers and stoves

Case studies

Colwick Park, an Inland Training Centre was built using the latest energy efficient technologies and uses renewable energy too

http://www.thegreenblue.org.uk/practicalprojects/documents/Casestudy6ColwickPark_000.pdf

More information

Environmental Code of Practice: www.ecop.org.uk/docs/ecop4.pdf

Ideas and tools to help you save energy from the Carbon Trust: www.carbontrust.co.uk/energy/startsaving/

6. Water use

Your legal duty

As with energy, there is currently no legal duty to conserve water but it does make environmental and financial sense not to waste water, particularly if you consider that you pay for water twice – for supply and for the removal of waste water.

Auditing the site

As is the case with energy use, the best way to ascertain ways to save water is to do a walk-round of your site and to identify where and how water is being used. This site audit will also help to highlight any maintenance issues, which may also be costing you money. Any leaking water pipes on your property are your responsibility so you should look out for any patches of particularly lush vegetation for example, as this could be a sign that there is a water pipe leak.

It is important to monitor water bills so that you have some idea of average water use for your club over the year. Water use may increase in the summer as boats are used, and washed down, more frequently. By monitoring your bills you will be able to see if there are any unexplainable increases in usage which could also indicate a water leak.

The main areas where a club will be using water are in showers and toilets, in the bar and kitchen areas and outside in the form of hoses for boat washdown. By using the checklist attached with this handbook, you can identify where water is being used and how water could be saved. The potential for water savings in showers and toilet facilities for example can be significant, and simple devices can be installed which save water and reduce bills. Many devices provide savings which will quickly cover their initial cost, in some cases within only a couple of months.

It is helpful to conduct a water audit on a regular basis so that any leaks can be quickly spotted and repaired and so that water saving measures can be evaluated and further measures identified.

Water saving measures

No and low cost measures

- Put a cistern displacement device in toilets to reduce water consumption. This could be a 1-litre plastic bottle filled with water or a ceramic brick placed in the toilet cistern. Water is saved each time the toilet is flushed.
- Install toilets with a dual-flush facility, with instructions clearly marked. These use only 6 litres of water as opposed to 10 litres for the conventional toilet
- . Install urinals with flush controllers or waterless (these can save around 65,000 litres of water a year per urinal)

- Install tap aerators wherever possible (reducing amount of water used by up to 80%) and water-saver shower heads which typically halve flow rates while still providing a powerful water flow
- Install automatic shutoff taps or timing devices which will prevent water loss from people forgetting to turn the tap off. Likewise coin operated showers will also limit water usage
- Flow restrictors on taps will limit the amount of water discharged when the tap is fully open
- Fit plugs into basins to encourage users to fill the basin rather than use running water – captive plugs will prevent plugs disappearing
- Cover water tanks to prevent evaporation
- Install trigger devices on all hoses to provide automatic shutoff
- Consider installing rainwater collection devices outside your club buildings so that the water collected can be used for boat wash-down purposes. Ordinary garden water butts will of course be too small, but you can purchase 1,000 litre Intermediate Bulk Containers (IBCs) which will stack one on top of the other to give you potentially 2,000 litres of rainwater. These are available in black (so the collected water does not discolour) for about £75 each – see more information section below.

Higher cost measures

The following options require greater investment but should be considered, especially in the construction of a new building:

- Rainwater harvesting systems collect rainwater from roofs or large paved areas such as car parks. The collected water can then be used for toilet flushing or vehicle washing. However, just collecting rainwater in water butts can reduce the need for mains supply water when watering external plants and washing down vehicles.
- Grey water recycling involves using wastewater from washroom basins and showers and using it for flushing toilets or outside watering. In an office it will account for more than 35% of water use. Grey water from showers and hand basins is usually clean enough for flushing the toilet with only basic disinfectant or microbiological treatment. Problems can arise, however, when the warm, nutrient-rich grey water is stored, since it quickly deteriorates and bacteria multiply. There is also a reduction in sewage volume as a consequence of using grey water systems. For those who pay for mains drainage, a reduction in sewerage charges may be negotiable with their sewerage authority

Case studies

The UK Sailing Academy in Cowes has implemented some measures to reduce water consumption with excellent results: <http://www.thegreenblue.org.uk/practicalprojects/documents/CaseStudy2UKSA.pdf>

More information

The Environmental code of practice gives more information and advice on water efficiency (see page 28) www.ecop.org.uk/docs/ecop4.pdf

Envirowise is a Government organization which helps businesses and organizations with their environmental issues. They provide detailed advice and guidance on water management and include a list of water saving technologies.

www.envirowise.org/water

Recycled IBC rainwater collectors are available from www.smithsofthedean.co.uk/index.html

They cost £75 each and delivery for up to 2 IBCs is £50 for almost anywhere in the UK.

7. Supplying Water on Pontoons

Your legal duty

Anyone who installs or uses plumbing systems has a legal duty to comply with regulations⁸ that are intended to prevent waste, misuse, undue consumption, contamination or erroneous measurement of the public water supply. This is of relevance to clubs who have pontoons and provide water on these pontoons. There are two issues to be addressed. The first is to ensure there is no contamination of the mains water supply and the second is to ensure the provision of wholesome drinking water supply to members.

Identifying the risk of contamination

Contamination of the mains water supply may occur if there is a break in the mains supply ashore which causes the non-return valves to fail and a hose is left in the water. Whilst this may seem to be an unlikely event, water companies have identified it as a risk to the contamination of the mains supply.

Controlled waters (all inland and coastal waters) are categorised as high risk areas and therefore are coming under stringent requirements to prevent risk of mains contamination.

Water pipes that are exposed to UV degradation or excessive wear could also be a risk factor.

There is also a risk of contamination of the potable supply of drinking water. Hoses left dangling in the water could result in contamination of a drinking water tank aboard.

Managing the risk of contamination

On inland waters contamination to the mains water supply can be managed by a double check non-return valve which is accepted as adequate protection to the system.

The requirements to comply with the regulations for coastal sites are currently being discussed. Some Water Companies have interpreted compliance as requiring a break tank but RYA and BMF have recently been advised by the Water Company that this might not be required. RYA and BMF are working on an acceptable 'water supply management system' that contains the following four items:

1. **Site protection:** Installation of double check valves at the site boundary and additional valves as required depending on site layout and size. Values at draw off points will be installed as part of the site maintenance programme. Manage any serious risk of water supply contamination through regular maintenance of supply pipes and hoses, ensuring

⁸ The Water Supply (Water Fittings) Regulations 1999 in England and Wales, the Scottish Water Byelaws 2004 and the Northern Ireland Water Regulations

pipes are not submerged or run through contaminated land. Ensure back pressure from site equipment is not possible.

2. **Supplying drinking water on pontoons:** To avoid any risk from legionella disease or other contamination of the boat's water tanks we recommend that where members are filling tanks from the water supply on pontoons they provide their own hoses.
3. **Water consumption:** The club will monitor its water consumption through regular meter readings. Where appropriate trigger guns will also be installed on hose pipes to ensure water is not left to run whilst washing down boats.
4. **Signage:** Information will be given to the user at the draw off point/ stand pipe regarding the following:
 - Use own hoses when using the water for drinking water/ filling boat water tanks
 - Under no circumstances leave hoses running or hanging in the water

Case studies

RYA and BMF have a number of different case studies which they are using to work with DEFRA, WRAS and the Water Companies to develop an acceptable Water Supply Management system. Contact RYA on environment@rya.org.uk.

More information

Contact environment@rya.org.uk for the latest advice and position from WRAS, DEFRA and the Water Companies.

8. Operating in a nature conservation site

Your legal duty

Many clubs may well be located in areas where there are conservation designations. These may be international, national or local designations. Conservation sites are the responsibility of the relevant conservation agency. The relevant conservation agency⁹ is required to undertake an assessment of the site. For a Site of Special Scientific Interest (SSSI) the conservation agency is required to report whether the site is favourable or otherwise. The target is to reach favourable condition. Local designations are generally the responsibility of the local planning authority.

The main designations affecting clubs are:

International Sites: Ramsar sites protecting wetlands of international importance - All terrestrial areas included within listed Ramsar sites in the UK are currently Sites of Special Scientific Interest (SSSI)

European Sites: Special Areas of Conservation (SAC) protecting the specific habitat or a Special Protection Area (SPA) protecting specific birds under European law.

National Sites: Sites of Special Scientific Interest (SSSI) protecting the habitat under national law. Marine Nature Reserves cover intertidal areas.

Local designations: Local nature reserves, Tree Preservation Orders (TPOs) and Conservation Areas regulate the felling, lopping and topping of trees.

In most cases these sites have been designated and the importance of these sites will come into play when a club wishes to change its activities or its premises.

Land designated as SSSI

Sites of Special Scientific Interest (SSSI) are designed to conserve and protect the best wildlife, geological and physiographical heritage for the benefit of present and future generations¹⁰.

Notification of an SSSI will include a statement of the nature conservation agencies' views about the management of the land, as well as a list of operations that may be harmful to the special interest. If the owner or occupier wishes to carry out any of these operations they must first obtain consent from the relevant conservation agency. The agencies then have 4 months to consider all options. They may permit the operations (with or without conditions) or may refuse consent. The owner or

⁹ The conservation agencies are Natural England in England, Countryside Council for Wales in Wales, Scottish Natural Heritage in Scotland, Environment and Heritage Service in Northern Ireland

¹⁰ They are designated under the Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000.

occupier may appeal to the Secretary of State if consent is refused. The conservation agency may also choose to negotiate a management agreement for the positive management of the land for nature conservation.

Many of our inland and coastal waters are adjacent or incorporate areas which are designated as SSSIs. This does not mean that activities should cease, it means that the area has a special value which should be conserved and which it is an offence to actively or deliberately damage or destroy.

DEFRA has produced a guide to the management of SSSIs as has the countryside Council for Wales, both of which are particularly useful. The DEFRA guide states that the management of these areas should reflect the general principles of sustainable development set out in the government's strategy and that English Nature should develop mutually supportive and constructive relationships with land managers and with public bodies to secure position management. By January 2006, every owner or occupier should have had a short but clear statement of the proposed management requirements for the SSSI providing the basis for future discussions and decisions.

A copy of the DEFRA guide can be found at:

<http://www.defra.gov.uk/wildlife-countryside/ewd/ssi/ssi-code.pdf>

A copy of the CCW Guide can be found at:

www.ccw.gov.uk

If you want to carry out work that may affect a Site of Special Scientific Interest (SSSI) you must tell the relevant conservation agency in writing so that they can assess the likely effect. A letter of consent may be required.

Wind sheltering from surrounding trees

Trees surrounding inland water bodies can cause problems with sheltering and may need to be controlled either by lopping, topping, pollarding or even felling. Works to trees can raise concern from adjacent landowners and it would always be wise to consult widely explaining what is planned before carrying out any works or applying for relevant permissions.

You will normally need a felling licence from the Forestry Commission to fell growing trees. In certain circumstances you may also need permission from other organisations. This sometimes applies even if you do not need a felling licence. If there is no licence or other valid permission or the wrong trees are felled, anyone involved can be prosecuted under the Forestry Act 1967 as amended.

You do not need permission from the Forestry Commission if you fell less than 5 cubic metres on your property and sell less than 2 cubic metres. You also do not need permission from the Forestry Commission for lopping, topping, pollarding and felling small trees, more details can be found in the Forestry Commission booklet *Tree Felling: Getting Permission* available on their website

[http://www.forestry.gov.uk/website/pdf.nsf/pdf/wgsfell.pdf/\\$FILE/wgsfell.pdf](http://www.forestry.gov.uk/website/pdf.nsf/pdf/wgsfell.pdf/$FILE/wgsfell.pdf).

The Forestry Commission booklet also explains other controls on felling of trees which you may need to take into account.

A Tree Preservation Order (TPO) is made by the Local Planning Authority (LPA) usually a local council to protect specific trees and woodland from deliberate damage or destruction. TPOs prevent felling, topping, lopping or uprooting of trees without permission from the planning authority. .

If you are in a Conservation Area, you must also give the local planning authority 6 weeks notice before work is to be carried out. The work must then be completed with 2 years of date of first giving notice. You are likely to require a Felling Licence from the Forestry Commission

9. Managing Algae & Weed growth

A number of clubs are affected by various types of aquatic weed and algae growth. Blue-green algae can be toxic and if present risk assessments should be undertaken before carrying out activities in these contaminated areas.

Blue-Green algae

Blue-green algae (cyanobacteria) are natural inhabitants of many inland waters, estuaries and the sea. When the numbers of blue-green algae are not excessive they, together with other algal groups, are important contributors to the aquatic biology of natural waters. However, under certain conditions, the algae may form a bloom and result in a scum forming on the water surface. The type of cyanobacteria that form these blooms and scum is capable of producing toxins that can prove harmful to humans and animals. Typical symptoms may be skin rash, headaches, fever, diarrhoea, nausea and vomiting.

The algae sometimes make water seem green in colour or sometimes form a blue-green scum on the surface of the water, they can also produce musty, earthy or grassy odours. In fresh water they are found in suspension and attached to rocks and other surfaces at the bottom of shallow water bodies and along the edges of lakes and rivers. During calm weather, blue-green algal blooms can rise to the water surface to form a SCUM, which may look like paint, jelly or floc.

Who is at risk?

Risk of exposure to toxic algae in descending order of risk:

1. Swimmers, paddlers, dogs, children playing and fishermen using the bank and water's edge
2. Windsurfers whose level of competence puts them at risk of being blown into areas of algal scum or being immersed
3. Dingy and catamaran sailors, canoeists, competent windsurfers for prevailing conditions
4. Fishermen fishing from boating or pontoon, pleasure cruisers

Your legal duty

The COSHH Regulations 1999 (Control of Substances Hazardous to Health) apply to work with, or involving, exposure to blue-green algae. COSHH assessments should include the risk of exposure to algae where appropriate, and means of preventing exposure. You may well need a qualified professional to carry out a risk assessment.

Management of an algal bloom

The development of a blue-green algae bloom depends upon local conditions and site specific characteristics. In addition, where a water body is enriched with nutrients that the algae require for

growth, then blue-green algae populations can grow rapidly, forming a bloom. Algal scum can form quickly on calm days, but can disperse rapidly, or move if wind and wave action increases.

If you are concerned that your water body is affected by a blue-green algae bloom you should contact your environmental agency¹¹ the Environment Agency/SEPA who will arrange for a sample of the water to be taken and analysed. Once analysed, the Environment Agency/SEPA will contact you. In addition, they will contact Local Authority Environmental Health Departments, Health Authorities, and DEFRA. Environmental Health will advise on the necessary precautions which should be taken to protect those using the water body.

Dinghy or sailing activities may still be able to take place provided certain conditions have been met. Risk assessments should be undertaken.

The following good practice advice is recommended:

1. To avoid any legal liability on the club or school in the event of any damage, illness or death, every person wishing to sail on potentially affected water may be required to sign a declaration at least once in each sailing season – examples can be provided by the RYA.
2. Undertake a risk assessment to ensure that activities taking place are safe to do so. When water is affected by algal scum the following categories are at particular risk – paddlers, trainees doing capsizing drill, swimmers (including immersion sports), small children, pregnant women, domestic animals (if allowed to play in the water, or to drink it).
3. On a lee shore on a windy day algae and scum can be found at some distance from the water – keep activities away from these areas.
4. Dinghy sailors and windsurfers should wear clothing which is close fitting at the wrists and neck, also boots and sailing suits which fit into the tops of their boots to minimise contact with algae or algal scum
5. Minimal time should be spent in shallow water launching and recovering boats should be in areas away from thick aggregations of algae or scum
6. Provide wash down facilities outside to avoid algae and scum being brought into changing rooms
7. Patrol the water by safety boat whenever tuition is taking place.
8. Provide adequate information on notice boards

Aquatic weed management

The most common nuisance weeds that cause problems in sailing lakes are Canadian and Nuttalls pondweed which originated from America. Both species will have been introduced into the system and the type of weed arising probably depends on the amount of nutrient enrichment in the water

¹¹ Environmental agencies are the Environment Agency in England and Wales, Scottish Environmental Protection Agency (SEPA) in Scotland and the Environment and Heritage Service in Northern Ireland.

(eutrophication). Identification of the weed may be important to decide on the appropriate form of treatment which essentially falls into chemical or mechanical options.

In sailing lakes, chemical treatment has been used but tends to be prohibitively expensive. There are several mechanical options available from specifically designed weed cutting boats to clubs designing and constructing their own mechanisms dragged behind a club boat.

Forthcoming legislation

There are several pieces of legislation that affect the management of water bodies. The recently implemented Water Framework Directive covers all water bodies, whether natural or artificial and is concerned with reaching good ecological status. The Directive includes an assessment of water bodies affected by 'alien species'. Water bodies at risk of failing to meet standards will be subject to a programme of measures. River Basin Management Plans will be developed to tackle the management of the water bodies. Part of the Directive requires stakeholder involvement which could result in positive progress in the management of these introduced species.

Chemical treatment by the application of herbicides in or near water is regulated by the Control of Pesticide Regulations. Users must be trained and licensed in the application of these herbicides and written permission from the relevant environmental agency is likely to be required. Contact your local agency office for details.

Chemical treatment

Chemical treatment may be an option for small areas of the lake and application must be done by a licensed person. It generally takes several weeks to take effect. However it is probably cost prohibitive on the scale of a sailing lake. Glyphosate can be used on emergent and floating weeds and 2,4-D amine is recommended for emergent broad leaved weeds.

Barley straw can also be used. Whilst it is not a herbicide it releases a naturally occurring chemical which as it rots acts as an algaecide. Barley straw has been found to give effective long term control of algae and weed without damaging other plants or aquatic fauna. See the "more information" section below for a link to detailed guidelines for using straw to control weed and algal growth.

Mechanical removal

Cutting of Canadian/ Nuttall's pondweed needs to be undertaken early in the season with trailing knives or chains. This will limit the early season growth and give approximately 8-10 weeks control. If regular treatments are made in this way at 6-8 week intervals then maximum biomass should not be reached. Some clubs have constructed their own mechanism which is essentially a 'V' shaped piece of angle iron wrapped with barbed wire, or pulling chains that is able to rip up the roots and stir up the lake bottom as much as possible.

If left too late and weed has taken hold it may be more difficult to cut effectively with club boats. Cutting may need to be done more frequently, every 3-4 weeks. Blunt saw blades may be effective as they rip up the weed rather than cut it. Trailing knives are also available to cut weed when it is denser and can be pulled on a twisting mechanism that does not clog up so quickly as a fixed

mechanism. However, these tools will require a strong boat to pull them. Some clubs have invested in specialised weed cutting boats which are available in the UK and abroad.

You will need EA permission if this is part of a watercourse or the lake belongs to someone else.

Contractors

There are a number of specialised contractors who can carry out the weed cutting, chemical application, hire equipment and provide the necessary training.

Contact the RYA for further details on aquatic weed management and contractors.

More information:

Guidelines for the use of straw to control weed and algae:

<http://www.nerc-wallingford.ac.uk/research/capm/pdf%20files/1%20Barley%20Straw.pdf>

10. Incident Planning

Why prepare a plan?

In the event of a pollution incident, the legal consequences and clean up operations can be costly and it would be prudent for each club that stores or handles fuels, oils and other forms of hazardous waste to have an incident response plan.

In addition, clubs in both coastal locations and inland locations may also be at risk from external pollutant sources and other risk factors such as flooding where they have little control over the actual event but with careful planning may be able to mitigate against some of the impact. Impacts in these circumstances may be pollution from oils and fuels stored on site or from boats as well as damage to the club and club members, property.

Managing internal incidents

It may be helpful to appoint a designated member or member of staff to co-ordinate dealing with a pollution incident. This person should be aware of the procedure to follow if a pollution incident occurs and should be trained in the use of spill kits.

Prepare a pollution incident response plan for dealing with spills and use it in conjunction with your drainage plan.

The plan should include:

- Contact details for the designated incident co-ordinator and the relevant Environment Agency.
- Details of where the site drainage plan is kept (this should be easily accessible so that those present when the spill occurs can quickly find out which drains, soakaways and watercourses need immediate protection).
- Details of who to report the incident to. Report all pollution incidents as soon as they happen to the emergency hotline on **0800 80 70 60**. Should pollution enter the drainage system you must also inform your water company or water authority's trade effluent officer.
- Information on how best to deal with the pollution incident. Ensure that you have absorbent materials, such as sand and other containment equipment suitable for the type and quantity of fuel, oil and chemicals you store and use on your site. Ensure that they are located close to where they might be needed, and that members know they are there and how to use them. Safety boats can be fitted out with spill kits and bilge filters to pick up small spills and refuelling incidences.
- The plan should also detail how the materials used in cleaning up a spill should be disposed of (see section on waste management) as these could be classed as hazardous waste.

Managing external incidents

A statutory duty is imposed on harbour authorities, harbours and oil handling facilities to respond to marine pollution incidents in their waters to underpin a national duty accepted by the UK Government to respond to such pollution incidents.

In the case of a major pollution incident (e.g., a spill from an oil tanker) the responsibility for cleaning up resides with the following bodies:

Location of pollution	Responsibility for clean up lies with:
On the water	Harbour Authority
Jetties / wharves / structures owned by Harbour Authorities	Harbour Authority
Beach / shoreline owned by the harbour authority	Harbour Authority
Shoreline (incl. land exposed by falling tide and other structures)	Local authority / EHS

Clubs at risk from flooding may also want to identify an incident plan. There may be opportunities to work with local marinas or facilities to store boats in flood conditions. Club Houses at risk should look at locations of electrical supplies, oil and fuel storage and other equipment storage that could be damaged as a result of flooding. Currently insurance is available as part of the RYA club insurance scheme for flood damage and those clubs at risk should ensure they are adequately insured.

Case studies

None to date

Further Information

Advice from the joint UK environmental agencies: PPG 21 Pollution incident response planning: publications.environment-agency.gov.uk/pdf/PMHO0204BHUP-e-e.pdf?lang=_e

Spill kit products are available on The Green Blue's Green Directory green.sailingnetworks.com/green

11. A ‘Greener’ Club

In order to make your club a “greener” one, you will not only need the commitment of the various staff and officers, you will also need the support and help of your membership. Once the club has decided that it wants to take steps to deal with environmental issues, it is vital to communicate what is happening to its members.

Environmental policy

It will help everyone to understand what the club is trying to achieve if you draft and publicise a short environmental policy. By doing this, you will have a checklist to adhere to and you will have stated your commitment to monitoring and improving your environmental performance.

The environmental policy need not be long and complicated, it can consist of a few short statements about the general aims and principles the club wishes to follow in handling its environmental responsibilities. A policy could be as simple as:

This Sailing Club

is committed to ensuring that its operations take into account the possible impacts on the environment

It will work towards:

- *Ensuring that all relevant Environmental Legislation and Regulation is applied and complied with*
- *Operating the Club in an environmentally sensitive manner*
- *Purchasing environmentally friendly materials when appropriate*
- *Raising the awareness of members so that everyone may be involved*
- *Reducing energy and water usage by increased efficiency*
- *Re-using or recycling waste when possible*
- *Handling fuels and other hazardous materials in an environmentally responsible manner*

It will aim for Continuous Improvement.

Signed Dated.....

Coordinating responsibilities

Consider making a Club Officer or a specific member of staff responsible for environmental matters. This ensures that someone has the mandate to take on tasks such as conducting the site audit and members will then know who to direct environmental concerns and questions to. Ideally this should be someone with the authority and resources to see the job through from start to finish. It will save

a lot of time if the coordinator can take executive decisions such as what new paper to buy, what recycling system to implement etc. However, regardless of who does the job do not underestimate the time needed to do it properly.

Conducting a site audit

A site audit is one of the first steps in assessing what environmental issues there might be for the club and such an audit has already been referred to in earlier sections. Using the checklist supplied with this handbook (which can be amended to suit the circumstances and scope of individual clubs), walk round the club site and answer the questions on the checklist. It may be helpful to gather some information in advance, such as utilities bills. The initial audit provides a baseline against which an action plan can be formulated and future actions can be measured.

The audit does not need to be carried out by an expert.

It may prove worthwhile to canvass your members on what environmental issues they have noticed and what they think needs to be tackled as a priority. Involving members in the identification of environmental problems and the development of an action plan will mean more people to help bring about the improvements.

Formulating an action plan

After the audit has been conducted, the club can decide which environmental issues are in need of the most urgent attention. If you find that you are storing oil next to a surface water drain for example, then this would be a priority to sort out as it is a) illegal and b) poses an immediate risk of a pollution incident. If you find that you are complying with your legal obligations in all respects, then you may like to focus on energy and water saving measures as a way of saving money.

The plan should say what you are going to do and how you are going to achieve your goals. Set a timescale, but do not be too ambitious as this is a long term project and each step may take longer than you think to implement. The plan may include initiatives such as introducing recycling, avoiding using disposable products reducing energy consumption and fitting spill kits to safety boats.

Monitoring and Communicating

It is important to monitor progress against your plan and to communicate this progress to your members. It is also important to explain to members why certain measures are being taken. Some people may object to having to separate their waste into separate containers for example, but if it is explained that this is a legal requirement (in the case of hazardous waste) then a higher level of compliance can be expected. The club newsletter, notice board and club meetings can be used to give information on what is happening and why.

Materials to help you communicate about environmental issues for boaters are available from the Green Blue (link below): www.thegreenblue.org.uk/publications/index.asp

Basic Environmental Audit for club sites

SITE	
COMPLETED BY:	DATE OF AUDIT:

ENERGY	Yes	No	Comments/ Actions	Handbook Section
Current energy supplier				5
Average quarterly bill				5
Are automatic/timed sensors fitted to any lights?				5
Are low energy bulbs fitted to any lights?				5
Are any lights left on overnight or in areas that are empty for much of the day?				5
Are trees/shrubs or furniture blocking windows, necessitating additional use of electric light?				5
Are windows/light fittings kept clean?				5
Are there automatic switches on all hand/hair dryers?				5
Are all photocopiers/printers switched to "sleep mode" or turned off when not in use?				5
Are computer monitors switched off when people are away from their desks?				5
Are PCs shut down overnight?				5
Does any office equipment have the "energy star" low –energy use label?				5
Are there any "switch off" signs displayed to encourage members to save energy?				5

Are heating pipes insulated?				5
Are automatic heating sensors / thermostats installed and set correctly?				5
Are members able to regulate heating temperatures to avoid overheating premises (ie windows open and heating on)?				5
Are radiators obstructed?				5
Are fridges and vending machines located away from heat sources?				5
SUMMARY – ENERGY				
SECTION 2 – FUEL	Yes	No	Comments / Actions	Handbook Section
Are storage containers fit for purpose, regularly inspected and maintained?				4
Are storage areas and containers sited away from watercourses, drains and un-surfaced areas?				4
Do storage containers have secondary containment, such as a bund, to contain any leaks or spills?				4
Is the bunded area covered to prevent rainwater collecting?				4
Is there an oil spill kit?				4
Is it kept in an accessible location?				4

Is there an incident plan in the event of a spill?				10
Are members aware of fuel spill procedure?				10
Do safety boats have spill kits on board?				10
SUMMARY – FUEL				
SECTION 3 – WASTE	Yes	No	Comments / Actions	Handbook Section
Name of waste contractor(s)				2
Frequency of current waste collection				2
Cost of current waste collection				2
Is there litter around the site?				2
Are there adequate refuse bins?				2
Are there adequate waste oil reception facilities?				2
Is the waste oil tank bunded?				2
Are there facilities for oil and fuel filter disposal?				2
Are there specific waste facilities for paints, solvents, cleaners and hazardous wastes? (including fluorescent light tubes?)				2
Are there specific facilities for waste battery disposal?				2

Are there recycling points for glass?				2
Are there facilities for recycling cardboard?				2
Are there facilities for recycling paper?				2
Is all office paper recycled?				2
Are there facilities for recycling cans?				2
Are refuse / waste / recycling facilities well maintained and in good condition?				2
Do all waste containers have lids and are secure?				2
Are refuse / waste / recycling facilities contained within purpose built compounds?				2
Are refuse / waste / recycling facilities easily accessible, well signposted and advertised?				2
Is your waste compacted to minimise volume?				2
Is there an appropriate system in place to record Waste Transfer Notes?				2
Are toner and inkjet cartridges recycled?				2
Is your Port Waste Management Plan up to date? (if applicable)				2
SUMMARY – WASTE				

SECTION 4 – WATER	Yes	No	Comments / Actions	Handbook Section
Name of water supplier (and wastewater company)				6
Average quarterly cost of water				6
Are spray/push down taps fitted in all washing facilities?				6
Are there flush control valves fitted to urinals in gents toilets?				6
Are there displacement devices in toilet cisterns?				6
Are showers on a timer / coin operated?				6
Are water guns fitted to hoses?				6
Are regular checks for leaks and dripping taps/ overflows carried out?				6
Is water consumption monitored to highlight leaks?				6
Are soakaway, sewer, and storm drain covers colour coded?				3
Do you have a copy of your site drainage plan?				3
Have oil separators been installed to surface drains?				3
Are they emptied on a regular basis?				3
Is wash down from boat scrubbing filtered or captured?				3
Are water butts used to collect water for use in the grounds?				6

SUMMARY – WATER	
GENERAL NOTES	

12. Running ‘Green’ Events

Why green your event?

Part of the RYA’s Strategic Plan (RYA, 2004) is focused on raising performance standards. Underpinning this is raising the quality of the event itself. UK Sport recognises that environmental issues form an increasingly significant aspect of bidding for and hosting major sporting events and has produced practical guidelines on how to manage them (UK Sport). The Sydney Olympics were a watershed in ‘green’ event management demonstrating how environmental issues can be cost-effectively addressed without impacting on the delivery of the event (ref). The London 2012 Olympics has been branded the “zero waste” games. While these examples are large scale events, smaller club events can also benefit both in image but also through attracting sponsors and saving money through good housekeeping.

Which bits can be green

It may not be immediately obvious how a racing event can be green, particularly a powerboat event. But there are a number of steps both on and off the water that can be taken to improve the event. Many of the steps have been covered in more detail in the earlier sections of this handbook and can become part of the club’s general activities.

General preparation

The first step is to take the decision for whatever reason (image, sponsor, cost-saving) to develop a greener event. Cost-savings and environmental benefits tend to be focused around reducing your use of resources whether this be energy consumption, water which is paid for on use and disposal or waste management. In addition, has the event got the potential to contribute to water pollution, has the risk been minimised and planned for?

Then examine the various aspects of the event and identify the areas where savings can be made.

All competitors can adopt the Green Blue Boat’s environmental code of conduct- copies of which (in a sticker format) are available from the Green Blue.

<http://www.thegreenblue.org.uk/about/documents/codeofconductfinal.pdf>

It may be helpful to include a briefing about the environmental “features” of your event so that competitors know what you are trying to achieve and so will co-operate with activities such as recycling waste. You will also need to ensure that there are plenty of signs up so that competitors know where to refuel, recycle, top up drinks bottles etc.

On land activities

Resource to target	Activity	Environmental Options
Water use	Washing boats down	Use rain water collected from roof (see earlier section on water use for details of large water butts) Fit triggers to hoses so water supply shuts off automatically
Water use	Showers and toilets	Use taps and showers with cut off so none left running. Use low/ high flush toilets or install 'hippo' bags in them (usually available free from your water company).
Waste	Drinking water for competitors	Provide competitors with refillable drinking bottles to reducing waste from disposable cups but ensure potable water is available for refilling
Waste	Provision of food and drink	Try to cater for the needs of the competitors to ensure waste is minimised. Try and avoid the use of disposable cups and plates. Use locally produced food wherever possible. Provide items such as milk sugar, jams etc in large jugs and bowls rather than as individually wrapped portions. Minimise on food that is wrapped, allow competitors to select own lunch components to avoid waste and packaging.
Waste	Boat maintenance	Ensure competitors carrying out boat maintenance dispose of the waste materials correctly using the recycling facilities or hazardous waste facilities as appropriate. Ensure these are clearly marked to avoid confusion
Fuel/ carbon emissions	Travel to the event	Encourage car sharing to the event wherever possible, making use of the Green Blue or other car share websites http://green.sailingnetworks.com/green/liftshare . Limit car parking available per boat.
Paper use/ waste	Publication of results	Use websites and email as much as possible for communicating pre and post event information. During the event, use screens if possible to post results or make available on a single notice board rather than to individuals. Important information can be distributed on arrival and registration to avoid duplication and loss of originals.

On water activities

Resource to target	Activity	Environmental options
Fuel and oil	Refuelling	Ensure refuelling is done in secured areas. On water refuelling should be done with funnels and/ or safety spill nozzles or with spill kits available,
Fuel and Oil	Safety Boats	Ensure all safety boats are equipped with spill kits
Waste on board	Safety and competitor boats	Ensure no waste is blown off boats and left in the water. Encourage the reduction of potential waste taken on board. Provide all competitors with a bag/ receptacle to stow rubbish safely on board.

Case studies

ISAF youth worlds at the Weymouth and Portland National Sailing Centre:

www.thegreenblue.org.uk/practicalprojects/documents/WPNSAPracticalProject_000.pdf

Further information

Practical Environmental Guidelines: World Class Events – a blueprint for success: UK Sport. Available from UK Sport major.events@uksport.gov.uk

13. Information Bank

Further and more detailed information about environmental issues that may affect clubs can be found on the following sites:

The Environmental Code of Practice

Website: www.ecop.org.uk

The Environmental Code of Practice has been developed by the British Marine Federation (BMF) in partnership with the Royal Yachting Association (RYA). The code is aimed at providing the legal framework and good practice advice for BMF members and RYA affiliated clubs and training centres. The Environment Agency has been instrumental in providing support and advice on their statutory legislative requirements, and also in supporting good practice and advice to members. This code is based on the original BMF Environmental Code of Practice first published in 1997 and revised in both 2000 and 2005. It is the nature of the changing legislative requirements and increasing number of Directives from Europe that necessitate this further revision. The Code is supported by a series of case studies, illustrating best practice.

The Green Blue

Website: www.thegreenblue.org.uk

The Green Blue is an environmental awareness initiative by the British Marine Federation and the Royal Yachting Association. Its aim is to promote the sustainable use of coastal and inland waters by boating and watersports participants, and the sustainable operation and development of the recreational boating industry.

Its programme consists of academic research, information provision and practical projects, focusing on 6 impact areas:

- Oil and Fuel
- Cleaning and Maintenance
- Anti-fouling and Marine Paints
- Waste Management
- Resource Efficiency
- Effects on Wildlife

The Green Blue website provides a range of resources for clubs including publications that can be displayed around club sites, fact sheets that give details of the latest scientific research on topics such as antifouling, effects of anchoring and mooring, oil and fuel spills from boats etc. It also contains a comprehensive database of scientific research papers on the effects of recreational boating on the environment, which clubs may find useful if they are required to supply additional information on environmental factors when submitting a planning applications

RYA Guidance on Blue Green Algae and Weils Disease

Website: <http://www.rya.org.uk/WorkingWithUs/clubs/premises/environmentalissues/>

On the RYA website there is advice for clubs on the recommended procedure for running activities on water if a Blue Green algal bloom is present and also measures that clubs should adopt to minimize the risk to members from Weils disease (carried by rats)

Guide to Port Waste Management and Planning

Website: <http://www.rya.org.uk/WorkingWithUs/clubs/premises/disposalofwaste.htm>

This section of the RYA website provides guidance on waste management planning for coastal clubs. It also explains the impact of recent Government initiatives to prevent waste produced on board ships from getting into the sea.

Government regulations (the Merchant Shipping Regulations 1997) now make port waste management planning a legal requirement and this section explains how the process will affect marinas and coastal clubs.