BRITISH ROWING

HRSA Monthly Report

January 2019

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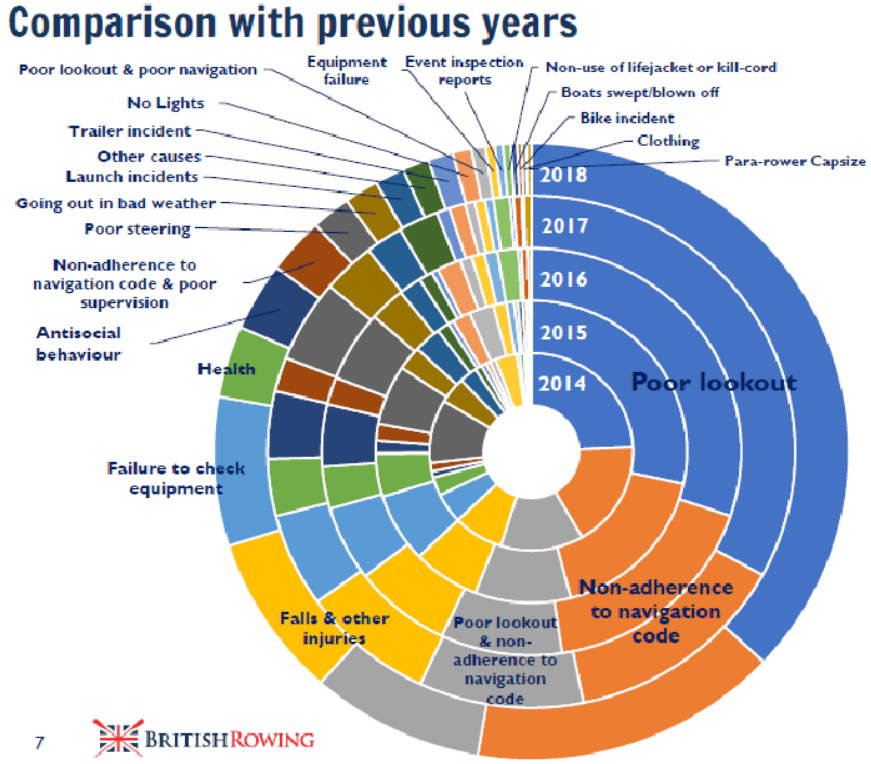
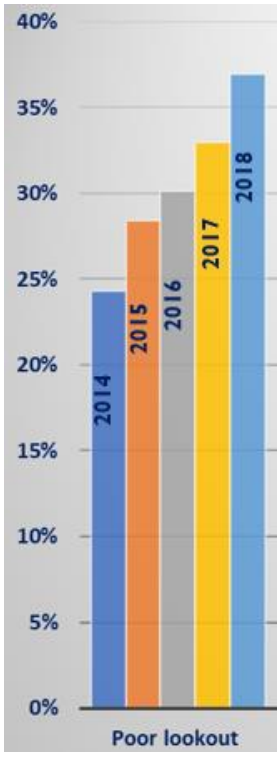
TEAMWORK | OPEN TO ALL | COMMITMENT

BRITISH ROWING

Analysis of 2018 Incident Reports

The detailed study of 2018 reported incidents has been completed and resultant analysis is included with this report, both in detail and in summary. The trends over the last five years are summarised in these graphs:





It is disappointing to note the consistent year-on-year increase in the proportion of incidents caused by failure to keep a good lookout.

It is interesting to note that 30 of the 31 incidents that caused serious injuries, involving a-week or more off rowing, occurred on land. Clearly more care is needed there too.

The Top 5 clubs, who reported the most incidents, have been identified, these are the clubs who were most often the "primary club involved". These clubs are: -

Position	Club	Incidents reported
1st	Lea RC	75
2nd	Marlow RC	51
3rd	Christchurch RC	50
4th =	Avon County RC	35
4th =	Tyne RC	35

A "Safety Good Practice Award" certificate, signed by the Chairman and me, is being sent to each of these clubs.

"League tables" of the clubs in each region have been compiled and will accompany this report. It is generally understood that all clubs have incidents but only the clubs that are not safety conscious fail to report them.

I would like to take this opportunity to thank everyone who has submitted an incident report. Submitting an incident report is a very public spirited gesture as it enables learning opportunities to be shared with the rowing community.

Incident Reports in 2019

In January there were five collisions due to the inability of coxes to be aware of the presence of other boats directly ahead. Section 5.1 of RowSafe states: -

"*Coxes and steers (including scullers) are expected to:*

- *Keep a good lookout at all times when afloat. Coxes who cannot see directly ahead should enlist the help of members of their crew.*"

Do not forget: rowing is supposed to be a non-contact sport!

There was an incident in which an 8 with an inexperienced cox supported by an ineffective coach tried to navigate between a pier and a boat on a mid-river mooring. At the time only some of the crew were rowing. The 8 was swept by a strong flood tide into the moored boat, broke into several pieces and was swamped.

The junior female crew was deposited in the water but they were quickly rescued by the coordinated efforts of coaches from another club and their own coach.

The best way to cross between two fixed objects in a strong stream is to start by positioning the boat at right angles to the flow, upstream of the gap, then row at maximum speed (whole crew rowing) while the boat drifts towards the gap, aim to cross the gap at its extreme upstream end. The boat should only turn to proceed parallel to the bank once the entire length of the boat has cleared the gap.

On a tidal river, crews who are incapable of executing this manoeuvre safely in strong flows should only attempt it within one hour of high tide or low tide when the stream is less strong.

There were three incidents where rowers slipped in the launching area. In one case the rower slipped on a wooden ramp, hit his head on a concrete block. became unconscious for a short time and was taken to hospital. In another case a rower slipped on a landing stage and fell onto a boat that was in the water; the rower suffered a slight injury and the boat was severely damaged. In another incident, a rower slipped on a pontoon and suffered a badly bruised wrist and arm.

Incidents like these can be avoided if clubs identify the areas where rowers could slip and treat them with an anti-slip material (Google "outdoor anti slip"), and encourage rowers to wear appropriate footwear and take care.

There were two incidents in which boats or sections of boats became loose on a trailer, when the trailer was in motion. In one case a section of boat fell off the trailer.

Drivers should ensure that their load is properly secured to trailers with good quality straps or ties. Sections of larger boats can be tapered so that a small longitudinal movement of the boat will remove the tension on straps, these sections should have additional strapping to ensure that they cannot move longitudinally. Boat ties should pass around the vertical sections of the trailer framework so that boats cannot slide sideways across the trailer.

In one incident a launch engine failed but the launch driver was able to paddle away from a weir. Remember to always carry a paddle in the launch.

In one incident a junior rower found a syringe on the foreshore whilst preparing to go afloat. It had clearly been in the water for some time. The rower was told to put the syringe down, check that he had not been scratched or pricked by the remnants of the needle, and told to wash his hands thoroughly with disinfectant gel. All juniors were also reminded not to touch dangerous items on the beach but report them to an adult. The syringe was placed in the club sharps box.

Safety Alert - Flow around bends in rivers

A new Safety Alert has been prepared and is included with this report. This describes the complex flow around bends and the ways in which it can endanger rowers. In addition to the normal downstream flow, there is also a rotational flow with the surface water moving towards the outside of the bend and the water close to the river bed moving in the opposite direction.

There is a problem with the issue of Safety Alerts. The previous Safety Alert (from November 2018) has still not been issued to CRSAs. Please forward this Safety Alert as widely as possible.

Medical Issues and Rowing

There have been two recent serious incidents at one club at Henley. In the first, a rower collapsed was quickly taken ashore, CPR was delivered and an ambulance called but, unfortunately the rower subsequently died. Our sympathies and condolences go to his family and club.

In the second incident, a rower collapsed and was rapidly taken ashore, CPR was delivered, a defibrillator was sought and used, and he was taken to hospital by ambulance. It is understood that his recovery continues.

In both cases chest compressions were commenced early and continued until the ambulance and advanced medical help arrived. There are many differences between the two incidents and the non-use of a public AED in one should not be assumed to be significant.

The club involved has conducted a detailed and comprehensive investigation of this incident in order to identify any lessons that can be learned. These lessons will be further studied and the learning used in the forthcoming update of RowSafe and, possibly, in a Safety Alert. The crew and club (Upper Thames Rowing Club) should be congratulated both for the way they responded to the rower's collapse and the conduct of such a thorough and detailed investigation.

The Medical Panel guidance on Rowing and Epilepsy has been updated and can be found at https://www.britishrowing.org/knowledge/safety/health-and-fitness/rowing-and-epilepsy/ .

There was a request for information on the "rest timeframe" following concussion, especially when compared with concussion advice in other sports. This was referred to the Honorary Medical Adviser, Dr David Zideman, whose advice was as follows: -

Rowing is a 'non-contact' sport and concussion should only occur as a result of an accidental injury or event. Although the overall management of concussion remains the same the initial management and the resulting advice may differ from that given in contact sports such as rugby. The length of the post-concussion 'rest timeframe' is totally dependent on the advice of the healthcare professional. The healthcare professional should take the following into consideration (not fully inclusive):

- *Cause of injury*
- *Type of injury*
- *Loss of consciousness*
- *Current symptoms/signs of concussion (remembering that signs and symptoms can evolve as time progresses)*
- *SCAT5 test (compared with baseline where possible)*
- *Possibility of further head injury/concussion*

The healthcare professional will also recommend the level of activity the casualty should undertake during the 'rest' time (no activity, no screen time, no studying etc.) and how and when to start returning to normal function. The return to normal function should only occur after a follow-up assessment by the healthcare professional. More information can be found at:
https://www.wru.co.uk/downloads/SCAT5_Adult.pdf

The relationship between Rowers and Canoeists

There was a request for information on the navigation rules that apply to canoeists following an incident in which canoeists claimed that *there are no rules and that they can go six abreast across the river.* The response was: -

"*It is neither acceptable or permissible for anyone to navigate on any waterway in such a way as to block the passage of other vessels. The legal basis for this is depends on which type of waterway it happens on. For example, if it is an a canal then section 13 of the British Waterways Board Bye Laws apply. This states:-*

"*13. Every vessel navigating on any canal shall at all times be navigated with care and reasonable consideration for all persons using the canal or being on the banks thereof and in particular in such a manner as will not obstruct the passage of any other vessel using the canal or involve risk of collision or endanger the safety of other vessels or their moorings or cause damage thereto or to the banks of the canal or to any part of the Board's property .*"

If you are on a waterway where the International Regulations for the Avoidance of Collisions at Sea (the COLREGs), then Rule 9 a should be considered, the states: -

"*Rule 9 Narrow channels (a) A vessel proceeding along the course of a narrow channel or fairway shall keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable.* "

This is relevant in more areas then you may expect as many navigation authorities base their rules on the COLREGs. You may wish to check with the navigation authority where you row.

Now we can get legalistic about this but that may not be the best approach. It may be better simply to make friends with the canoeists and find a way so that each of you can enjoy your sport without upsetting the other. Some time ago we worked with colleagues at British Canoeing to develop joint guidance to rowers and canoeists (attached). This may help you both to understand each other."

This matter was discussed with colleagues at British Canoeing with the suggestion that they educate the canoeing community. The response was disappointing.

Throwlines

The British Standards Institution has constituted a panel to develop a new British Standard. The first meeting of the panel was on 17th January. It was agreed that the title of the draft standard should be "BS xxxxx Small craft – Specification for throw-lines for use in water safety and rescue equipment".

It was further agreed that the standard should have three parts, i.e. The experts decided the draft standard should be split into 3 parts, to cover all potential uses:

Part 1 – Recreational use (amateurs, leisure)
Part 2 – Professional
Part 3 – Public

Use by rowing clubs would be covered by Part 1.

The scope of Part 1 and 2 were agreed to be:

- The design, construction, manufacture and maintenance of a throw-bag for use in water safety and rescue.
- This standard does not cover the specifications for working at height, lifting or suspending a load.'

The topics outlined in my previous note were all accepted and discussed. The following topics were added: -

- UV resistance
- Retaining water was a contentious issue
- Clean line principle (so the user could not be caught in the loop – 'snagability').
- Bag mouth size – for re-packability in the field.
- Bag buoyancy
- Bag degradation.
- Metal fixings must not rust.
- The belt system, if used, must meet certain criteria.

The next meeting will be in April.

IPV Code

The Maritime and Coastguard Agency has produced a video to help explain the Intended Pleasure Vessel (IPV) Code has been issued and is available at here.

Part 2 of the code deals with vessels that accompany races at sea, and could potentially impact on rowing activities. It should be remembered that the code only covers private vessels that are not being used for the pleasure of their owner or the owners family and friends. The payment of expenses does not exempt vessels from being private. Commercial (or "coded") vessels that are being used for this purpose are also exempt from this requirement.

Where compliance with the code is required then this is relatively simple to achieve. All that is required is to download and complete a declaration (a form). There is no requirement to submit this but it should be retained.

Work with the Canal and River Trust

The number of leisure motor boats on the inland waterways continues to grow and the need for mooring space is putting increasing pressure on some rowing clubs. Clubs on the River Lea have been working for some time with the C&RT to introduce Water Sports Zones and to limit mooring in local areas. These discussions have included the All Party Parliamentary Rowing Group.

A draft definition of a Safe Rowing Environment has been produced in order to provide a structure with which to evaluate various proposals. This draft currently focusses on available space on the water and does not yet include the effect of moving motor boats. It is included in Appendix 1 and comments would be appreciated; please send comments to safety@britishrowing.org .

The use of a front-loaded 8 in competition

There was a request for information on the acceptability of a front-loaded 8 in competition. This is a primarily matter of rules and was referred to colleagues. Their response was that: -

"There are no restrictions on front-loader eights being used in competitions run under the Rules of Racing. Some competitions have put restrictions on using them in the past (HORR, W8H, possibly) and might still do but that would be covered by a local rule and should be made clear in the competition's instructions."

From a pure safety (collision avoidance) point of view, front loaded boats have an advantage because the cox has an unobstructed view of the waterway in front of the boat.

Qualification of Launch Drivers

There was a request from a club for advice on the need for launch drivers to be qualified. The club provides internal basic launch training to interested people. There is concern that the RYA L2 course is too extensive and expensive for their needs.

The club would like to deliver some equivalent internal training to allow members to drive the club launch. They have one experienced member who has offered to do this. The club believes that if they deliver this training, launch accidents would be highly improbable because:

- We have experienced launch drivers able to cover the same points on the RYA L2
- We have only 1 tin fish, stored on land
- Its only regular use is as support for our two regattas, mainly for transporting people to and from stakeboats
- It is almost never called upon for rescue: the narrowness and lack of flow on the river means that most capsizes can be dealt with from the towpath, with throw lines if necessary
- It is never used for coaching or taken off the river

The response was: *If you look at RowSafe section 5.2, Launch Driving then you will see that: -*

"Launch drivers are expected to be appropriately qualified and competent to drive a launch correctly in the conditions that are likely to be encountered."

I feel that competence is the most important factor. The Health and Safety Executive defined competence as able to complete the specified task to the required standard by virtue of education, experience or training. It is correct to suggest that being competent to drive on this river and perform the tasks that described is not the same as being competent to drive on the Tideway (for example) and perform the tasks that are expected there.

In the situation described, I feel that it is entirely reasonable that you should train you own drivers but then only permit people who have demonstrated competence (e.g. passed the club's own launch driving test) to drive the launch.

The training (and test) should include how to approach a person in the water. In the test please use a floating object rather than a person, and please ensure that the rescuer stops the engine or has another way to prevent a moving propeller hitting the person being rescued. It is important to understand that the launch driver may be called upon to do a little more than just basic driving.

A review of section 5.2 of RowSafe also identifies a few more expectations of drivers, these too should be included in the training. Please take particular care with checking the launch prior to use.

I worry a bit about people being trained to do something that they only do rarely, competence tends to decline with lack of practice.

I think that your plan is quite workable and, as far as I can tell, is appropriate for your venue. Please review the relevant content of RowSafe (sections 5.2, 7.4 & 7.4.1). Please also check that no qualifications are specified by your insurance company or navigation authority.

British Coxswain Lifejacket Requirement

There was a protracted and very amicable email exchange with the mother of a student cox in the USA. She is keen to encourage her daughter to wear a lifejacket when coxing and to persuade her coaches that this is the correct approach. She asked whether there is a stated reason why British Rowing requires life jackets for coxswains.

The response was that:-

"… we require coxes in races to be equipped with lifejackets and advise that they should wear lifejackets at all times when they are afloat. This requirement is included in the Rules of Racing and the advice is included in RowSafe. Coxes wearing lifejackets has become standard practice and it is no longer a safety action that we have to encourage, it has become habit. I would be amazed to see a cox not wearing a lifejacket.

RowSafe contains extensive guidance on rowing safety and is freely available world-wide. It also contains links to more detailed information on the British Rowing website and beyond.

The cox is the master of the crew, they are in charge at all times, so in the event of a capsize or swamping it is important that they continue to be in a position such that they can instruct the crew on the action to take. They cannot do this if they are struggling to stay afloat.

We advise (and in the rules of racing we require) that coxes in bow-loaded boats wear manual inflation lifejackets (and not auto-inflation ones or buoyancy aids). A bow-loaded boat is one where the cox sits or lies in the bows of the boat. The problems we are trying to avoid are those of a cox becoming trapped in the seat by the inflating lifejacket and the cox becoming pinned against the inverted boat following a capsize. Neither of these is a problem in conventional boats where the cox sits in the stern.

Also coxes tend to be more encumbered with clothing than most rowers, they need additional support to stay afloat.

If your coach is still of the opinion that he can take rowing safety for granted then please suggest that he looks at https://dailynorthwestern.com/2017/10/13/campus/northwestern-crew-team-enforce-mandatory-swim-test/ . He should understand that rowing is safe because we make it safe, and that he has a role to play in doing so.

When I teach coaches about Capsize and Recovery (I am also a Coach Educator) then I labour the point that "Cold Water Kills", or it would if we were not careful to ensure that it does not. We teach coaches how to fit lifejackets correctly and the importance of using a crotch (or thigh) strap.

A reply contained the following: -

Again, I can't thank you enough for your thoughtful responses because they put the entire and not insubstantial weight of British Rowing behind what I'm telling my daughter.

Safety and Coaching Requirements

There was an enquiry from a University Sport Club Manager who, as part of a wider 'health & safety' project, is reviewing the level of coaching that the University needs. Specifically he wanted to know:-

1. Does the sport require a qualified coach/leader to lead on sessions/attend fixtures?
2. If so what level of qualification is expected as a minimum?
3. What would the cost be to enrol on this coaching course?
4. What are the ratios of coach : participants?
5. Do you have any other advice or good practice guidelines to your specific sport & coaches/leaders?

The response was as follows: -

Rowing safety is all based on Risk Assessment and the provisions and precautions that a club needs to have are determined from that Risk Assessment.

Safety advice is contained within RowSafe, this is updated every year in April. We would expect every club to have a Club Rowing Safety Adviser (there is a job description in section 3.4 of RowSafe) and for them to have a level of expertise. It is their role simply to provide advice and not to manage the club.

Coaching ratios are determined from the risk assessment. The club rows on a Lake so the risk assessment may define the circumstances in which a safety boat is needed and the skills requirements for the driver.

We have a scheme for coach qualification based on the UKCC approach. I expect it would be appropriate for the club to have a coach but that may depend on the size of the club and the capacity of neighbouring clubs to provide coaching support.

The basic qualification is the Level 2 Session Coach, this is intended to prepare a person to coach individual sessions, ideally under the overall guidance of a more qualified coach. This costs about £230 per person and takes about three days.

The next qualification is the Level 2 Club Coach, this is intended to equip a person to plan and deliver a linked series of sessions. This costs £530 to £550 per person (including the pre-requisites) and takes about 6 days altogether including an assessment day.

The next qualification is the Level 3 Senior Club Coach, this is intended to equip a coach to plan and deliver an annual program for rowers. We also have a fourth level.

As a general rule, for club activities, we have safety guidance rather than safety rules. It is up to clubs to set their own rules.

To answer the specific questions: -

1. *We do not require that a club has a qualified coach/leader to lead on sessions*
2. *Not applicable*
3. *The cost of a coaching course would be £230 or £550 per person depending on the level required.*
4. *There are no specified coaching ratios but this could be determined from the risk assessment.*
5. *There is further advice and good practice guidelines in RowSafe*

Boat Buoyancy

There was an enquiry about the need for buoyancy bags in an 8 with no under seat buoyancy compartments used on the Cam. Advice was sought on the need for additional buoyancy and, if applicable, the quantity needed.

The response was: -

The relevant guidance in RowSafe is in section 7.2.1 (Boat Checking) where it states

Buoyancy compartments, seals, hatch covers, boat hull and ventilation bungs are secure and watertight. Buoyancy Bags have been installed if no under-seat buoyancy compartments are fitted.

There are other references to boat buoyancy, for example in 7.1:-

Club Officers are expected to:

- *Ensure that all boats have sufficient buoyancy and provide extra buoyancy if needed.*
- *Keep a record of the manufacturer / supplier's information regarding the inherent buoyancy of the boat.*

Your risk assessment should help. Perhaps you have considered the risk of swamping and the boat subsequently sinking (not being able to support the weight of the crew) and concluded that the probability is low but the severity could be high. However, it may help to think about the effect of the wind (rather than rough water) and the chances of the boat being swept into a solid obstruction. There are other ways that it can be swamped.

If you conclude that the probability of this boat capsizing or being swamped, when it is being used on the Cam at Cambridge are vanishingly small then it may be safe to not fit extra buoyancy. However, you should review the risk assessment if you ever use it elsewhere. If you take it to a competition then umpires at the Control Commission may reasonably conclude that it is not safe to use.

It is easy to calculate how much buoyancy you can achieve but difficult to predict how much you will need. The calculation is based on the bags, when inflated and immersed, providing 1kg of buoyancy for each litre of air they contain.

You could estimate how much buoyancy you will need by thinking of lifejackets, A 150 Newton lifejacket has a volume of about 15 litres and a 50 Newton buoyancy aid has a volume of 5 litres.

Please do not rely on the air trapped under the "canvasses" alone. This will provide some, but probably not enough, buoyancy but the lifting forces will be at the ends of the boat whereas the weight being supported is in the middle. The hull may not be strong enough to support the bending moment and may well break.

Guidance on cleaning oar handles

Guidance was sought on the cleaning or oar handles. The club is trying to reduce risk of infection and this is something they are questioning.

The response was " *There is some guidance in RowSafe, this includes: -*

8.6 Coping with Illness and Diseases

Club Officers are expected to:

- *Provide hand washing/cleansing facilities.*
- *Provide disinfection materials for cleaning equipment.*

11.1 Indoor Rowing

Everyone is expected to:

Follow rules on the use of rowing machines including:

- *Cleaning of the rowing machine after use.*

Club Officers are expected to:

- *Provide materials for cleaning and disinfecting the rowing machines.*

We do not have anything specific on oar handles and we do not make detailed recommendations on what materials should be used for cleaning and disinfection.

I understand that another club in has taken extra efforts to improve hygiene by wiping down equipment and found that there have been fewer infections. This is anecdotal information from a reliable source.

I can see no harm in your taking extra care to wipe down or disinfect equipment. Antibacterial wipes are often used on indoor rowing machines and oar handles can be washed with water and left to dry in the air. You could also use a dilute solution of a household disinfectant in water to disinfect oar handles.

Appendix 1 - Safe Rowing Environment

There are several aspects characteristics of a rowing environment that are required to permit a rowing club to operate safely. When space is considered then it is clear that larger clubs using larger boats will need more space than smaller clubs or clubs using smaller boats.

Rowing boats are designed to travel at high speed (~15 km/hr) in straight lines. They can accelerate and decelerate rapidly but they are not particularly manoeuvrable. The hulls are long and narrow and are built to be light; they offer little or no protection in the event of a collision with a large or heavy vessel.

The combination of boats and oars results in the effective width of boats being up to 7 metres. The width needed for boats to pass, or for one boats to overtake another, is considerable as boats need to maintain a safe distance of at least 2 metres between the oar tip and the bank (or any moored boat, etc.). and 2 metres between the oar tips of the passing boats. This results in rowing boats needing a navigable channel width of at least 20 metres.

Rowing boats are designed to move in straight lines so extra space is needed at bends. There are hazards at bends because the view around the bend is limited and care should be taken to ensure that this view is not obstructed. Extra space (channel width) is needed at bends.

From time to time boats need to turn. This is best completed at recognised turning points where the channel width should be considerably greater than the length of the largest boat used.

When turning, boats are not making progress through the water and are susceptible to the effects of wind and movement of the water. Turning points should not be situated close downstream of a lock. A racing 8 is approximately 20 metres long so a navigable channel width of at least 24 metres is required for each turning point. Additionally, turning points should not be positioned close to a bend or bridge as the restricted view in these areas will be hazardous.

Turning points should be situated at both ends of the rowing area. There may be a need for additional turning points within the rowing area.

Recent events have shown that if a rower collapses then they must be taken from the boat, onto the tow path without delay. Effective CPR can then commence and continue until an ambulance arrives. It is therefore important that there are clear areas of tow path, preferably close to ambulance access points.

We should consider the logistics of a rowing outing. Rowing clubs normally have a landing stage close to the clubhouse. Boats are placed on the water by their crews and depart from the landing stage in an upstream direction. Where the boathouse is situated on the left bank of the navigation (when facing downstream) departing from the landing stage in this way is relatively straightforward as the rowing boat will be positioned on the starboard side of the waterway.

When departing upstream the fact that the stream speed increases with distance from the bank tends to assist the movement of the boat away from the bank.

(Departing in a downstream direction is hazardous as the stream can tend to sweep the boats past the landing stage and the fact that stream speed increases with distance from the bank tends to make it difficult to turn the bows away from the bank.)

Returning to the landing stage at the end of the outing should also be undertaken in an upstream direction, this will be discussed later.

Rowing clubs need a clear, unobstructed area close to the launching area so that rowers, particularly new rowers, can be coached. There should be an unobstructed view of the rowers by coaches on the tow path. It is also important that coaches should be able to ensure the safety of their rowers and be able to rescue them by using a throw line and able to bring them, unobstructed, to the tow path.

This coaching area should extend for a length of at least 250 metres and preferably 500 metres.

The area close to the boathouse will tend to become congested with boats departing and returning so extra space will be needed as beginner rowers still have to learn how to control and steer their boats. The maximum channel width available will be needed.

Boats returning to the landing stage at the end of their outing will do so in a upstream direction. If the boathouse is on the left bank (when facing downstream) then they will have to cross the river, from the starboard to the port side, to do so. They may have to wait for other boats arriving or leaving to clear the landing stage. It is important that they have a clear holding area, outside of the normal navigation channel, in which to wait. This waiting area should be immediately next to the tow path so that coaches can assist by marshalling them onto the landing stage.

There are other considerations relating to the depth of water and the absence on underwater obstructions or debris, and to the freedom from chemical, and biological contamination.