



Rowing Safety Briefing

Updated 11 November 2024



GENERAL BACKGROUND



Who is responsible?

- Each member/rower/coach is responsible for their own safety.
- The Club Committee is responsible for enabling activities to run safely.
- Each Cox/Steer/Launch Driver has legal responsibility for their own boat and crew at all times (not the coach – they are responsible for the launch).



Key information

- As a member of TwRC you have agreed to be familiar with
 - British Rowing's RowSafe 2024
 - TWRC Boating Safety Plan
 - TWRC Emergency Action Plan
 - The Tideway Code (as applicable between Teddington and Sion Crossing)
- For convenience we have prepared one page summaries
 - Boating Summary
 - Safety Summary
- All documents are on the website on the **Safety** page. The summaries also on posted on the Safety Notice Board in the corridor by the Ergo Room.



Boating Summary

General:

Make sure that:

- you have read the Club Boating Safety Plan and RowSafe, know the Club Rules and adhere to the Club's values.
- you are familiar with the navigation route, the relevant parts (to TWRC) of the Tideway Code and the major hazards in our stretch of the Thames.
- you know how to manage in event of a capsized.

Pre-outing

- Wash down any mud and goose poo before moving boats around (or anything else).
- Ensure that your cox/steer has the sign-off appropriate to the conditions
- Do a risk assessment of conditions – including light and visibility
- Pre-outing safety check: bow ball, hatches, heel restraints, rudders
- Write your crew/boat/departure time on the white board
- Always boat and land with bows into the stream, remembering that the stream flows upriver when the tide is rising.

On the hard and boating at busy squad training times:

- leave sufficient space clear for boats to be carried into or out of the bays
- minimise the time boats are on trestles on the hard before and after outings
- Don't hang around by the hard - finish adjusting in the middle of the river if necessary.
- singles on trestles at each end of the hard and at right angles to the water's edge



On the outing

- Keep regular lookout (every 3-5 strokes for bow steers)
- Don't hug the bank: leave room inside for paddlers etc.

Overtaking:

- Whenever possible overtake on the port (stroke) side of the boat you are passing and then only when it is safe to do so.
- "Undertake" ONLY if there is plenty of space AND the way is clear. TELL the boat you are passing on their starboard before making the manoeuvre.

During the club Time Trial:

- Do not go up-river on the Surrey/South side of Eel Pie Island or of Glovers Island – go on the Middlesex side of both.



Returning to the boathouse

- Paddle light after passing Orleans garden heading up river (finish pieces before then).
- Before approaching to land be sure there is enough space for you on the hard: boats about to depart have priority.

Incidents, damage, faulty equipment

- Report any incidents, near misses, bad behaviour or issues with other river users to the Captains, Safety Advisor or Boatman WITHOUT DELAY
- Report any damage or equipment failure to the Captains or Boatman without delay.
- Never go on the water with any deficient equipment hoping for the best.

Life Jackets – Coxes and coaches: please return all life jackets to their appropriate hangers as soon as you return to land.



TWRC Safety Essentials

ALL prospective members of TWRC must agree to:

- Be able to swim 100m in rowing kit, or wear a lifejacket on the water at all times.
- Read the Boating Plan before getting in a boat or on the erg.
- Not use a boat without permission.
- Be aware of the responsibilities of their cox, steer and coach.
- Know what to do in event of an incident, on or off the water.

All Coxes, Steers and Scullers must

- Be signed off by the Safety Committee.
- Only go out in conditions they are signed off for, with appropriate supervision.
- Unless in a coached outing, write their outings onto the Outings Board and remove on return.
- Make sure their boats are properly lit.
- Make sure all safety equipment (bow ball, heel restraints, hatch covers, lifejacket, cox box, launch kit...) is in working order.
- Perform a risk assessment before and during every outing.

Seen someone misbehaving?

Crews or launches on the wrong side of the river?
Coaches washing you down? Report them asap to hwrcwsa@gmail.com

Risk Assessments

Before every outing, consider the risks that day. This is a list of some of the things you should think about, but it is by no means exhaustive!

The Water

- What are the conditions like? Is it windy; is it choppy; is it dark; is the stream running very fast; is the tide very high or very low?
- Is there ice on the hard or fog so bad you can't see the Eel Pie bridge? If so, don't go out.

The Crew and Coaches

- Is your coach and cox or steer certificated to handle the conditions?
- Does your cox have a lifejacket with crotch strap and working cox box?
- Is everyone appropriately dressed?
- Is anyone sick or injured?

The Equipment

- Do you have a bow ball, all heel restraints at 50-70mm and all hatch covers?
- Are your boat, buttons and blades in good condition?
- Do your boat and launch have appropriate lights?
- Does your launch have all its safety equipment (launch kit, bailer, paddle etc.), enough petrol, a kill cord for each person and a lifejacket with crotch strap for the driver?

Lights for rowing boats

- White lights at both ends, front one flashing and visible through at least 180°.
- Must be attached to the boat, with a permanent bracket and not to the crew or rigger.
- Must carry a spare and a means of fixing it to the boat.
- Must be Safety Sub-Committee approved lights.
- Wear light or reflective clothing.

If there is an accident...

- If you fall out, stay with your boat. Get as much of your body out of the water as possible, and paddle your boat to the bank with your hands.
- If your boat gets damaged, tell your coach, tell Adam Berry, and report it to the CRSA as soon as possible.
- If you have or see an incident, anything out or the normal that could pose a risk, email the CRSA and/ or tell a member of the Safety Committee immediately. They will help you prepare the necessary reports for THEM to forward to BR.
- If you see an accident happen, offer what help you can, but do not put yourself at risk.
- Use the emergency numbers on the safety noticeboard to call for help. (Save the numbers in your phone now!)

Sound Signals

Large cruisers will sometimes use sound signals to let you know what they're doing...

- I am steering right
- I am steering left
- What the ****?

Please DO NOT...

- leave damage unreported. It can't be fixed if no-one knows about it!
- steal parts off other boats.
- go into the workshop uninvited.
- leave one single sculler to lock up the whole boathouse and put all the trestles away.
- leave buckets, trestles and other equipment lying on the hard to float away in the high tide.
- use equipment that is not allocated to you without getting permission first.
- Go below Richmond Lock without Level 3 sign-off and having passed the Tideway Code test.

Sign-off Levels for Coxes, Steers and Scullers

Please talk to any member of the Safety Committee for further details.

Level	Competency
0	Minimis
1	Competent
2	Experienced
3	Advanced/Tideway

Conditions	Coaching		
	1-1	Group	None
Normal	L0	L0	L1
Challenging	L1	L1	L2
Dark or 2x Challenging	L1	L1	L2
Dark and Challenging	L1	L2	L3

Emergency Stop – "Hold it Hard!"

- Put the blade flat on the water at hands away - straight arms body upright.
- Carefully rotate the handle slightly (5°) towards you until the blade enters the water.
- With the blade parallel to the surface of the water, raise your hands progressively until the water is half way up the loom.
- If you haven't stopped yet, keep rotating the handle towards you VERY SLOWLY until the blade is at 90° to the water (backing position).
- Keep control of the handle as it comes towards your chest.

Basic Tool Kit

- 10mm and 13mm spanners
- Flat head and cross head screwdrivers
- 5m tape measure
- Permanent marker pen
- Duct tape or electrical tape
- Spare nuts, washers and shoe laces

Launch Essentials

- A paddle, in case of engine failure
- A bailing device
- A water-proof safety box containing: an anchor, throw line, thermal blankets, safety knife, first aid kit, rigger jigger and a whistle
- Kill cord for the driver
- Enough petrol for the outing
- Lifejacket or buoyancy aid for the driver
- Proper (PLA compliant) lighting at night
- A driver certificated by the Safety Committee!

Emergency Phone Numbers

Emergency services, including Lifeboat 999 or 112
Teddington Lifeboat Station (non-emergency) 020 8995 5534





Competency Assessment

- TwRC is required to ensure that Steers/Coxes/Launch drivers are competent and to maintain registers of authorised steers.
- For steers and coxes we have three levels of Sign-off:
 - Level 1: Basic competence. Allows independent outings in benign conditions and daylight/good visibility.
 - Level 2: Intermediate competence. Allows independent outings in challenging conditions or at night/lower visibility conditions.
 - Level 3: Advanced competence and tested knowledge of the Tideway Code and Tideway navigation hazards. Permits independent outings in the Tideway and above Teddington.
- Details on the website on the [\Rowing\Competency Sign Off](#) page.
- All rowing members please take the online [Level 0](#) test - accessible on the same page. Most of the questions are answered in this presentation.



Capsize Training

- All rowers (not just single scullers) are encouraged to undertake capsize training so they will know how to manage in event of a capsize
- Capsize training should take place 1-2 times annually
 - Sessions are normally held at Hampton Pool
 - Details released by Club Comms
 - In addition to the capsize drill, participants will do a 50 metre swim test
- All rowers strongly encouraged to learn about capsize and cold water/hypothermia by taking the British Rowing on-line course:
[\(https://www.britishrowing.org/knowledge/online-learning/safety/capsize-drill/\)](https://www.britishrowing.org/knowledge/online-learning/safety/capsize-drill/)



BEFORE AND AFTER YOUR OUTINGS



Before you go on the water:

- Make sure the boat you are using is booked in your name
- Do your risk assessment of the conditions and adjust your outing plan if necessary
- **Wash off mud and goose poo from the hard before moving boats around (this is important – build up of mud makes the hard unsafe)**
- Do a thorough safety check of your boat and blades
- Write up your outing in the outings sheet hanging on the inside of the 8's bay door.



Pre-outing equipment safety checks

- A bow-ball is fitted securely and has no cracks or splits
- Heel restraints are in good condition and not loose or frayed
- Hatch covers and bungs are correctly and securely fitted
- Rudder cables are in good condition and move freely
- Rigger nuts and top nuts are secure and pins and oarlocks are in good condition
- Stretchers straight & secure
- Rudders and fins are straight



Pre-outing risk assessment

- **River flow**
 - Follow the Club rules on rowing in a fast stream.
 - Larger boats only on Orange status (Risk Level 3-4) and spin above Glovers.
 - No rowing on Red status (Risk Level 5+).
- **Wind conditions**
 - Use a reliable weather app such as Windy as a guide.
 - If gusts of over 50km/hr are forecast, we recommend using larger boats – 4s or 8s only
 - In case of Yellow storm warnings, refer to Captains, Boatman or RSA. Outings may be suspended
- **Visibility**
 - Impaired visibility caused by fog or heavy rain
 - Use lights in conditions of reduced visibility and in hours of darkness.
 - Do not go out if visibility is < 100 metres
- **Thunder storms and lightning**
 - Absolutely no rowing during thunder storms and for 30 minutes after the last crack of thunder.
 - **Abandon outings immediately** if thunder is heard when on the water.



Risk assessment table

Use your eyes: if it doesn't look safe, it isn't. Better to be on land wishing you were on the water than on the water wishing you were on land.

Risk Score		0	1	2	3	4	5
River flow conditions (Flow rate in m ³ /s from Hogsmill Gauge at Kingston) <i>The numbers in this table refer to the actual flow rate applicable at the time of the outing</i>							
Tide status	Flood tide (During the 2 hrs before high water)	< 180	180-220	220-240	240-260	260-280	> 280
	No tide (Richmond lock closed)	< 100	100-140	140-160	160-180	180-200	> 200
	Ebb tide (During the 2 hrs after high water)	< 60	60-100	100-120	120-140	140-160	> 160
Rowing Restrictions		None	Level 2 sign off required for 1x	4 blade rule Spin at Glovers	4x, 4+, 8+ Spin at Glovers	8+ only Spin at Glovers	No rowing
			L2 sign off for steer/cox or L1 with coach.	Experienced crews only, L2 sign off or 1-1 Coaching			
Wind conditions: speed and direction – gusts in km/hr <i>The risk score from this and the visibility conditions should be added to the river flow risk score</i>							
Risk score		0	1	2			
Wind direction: W/SW		Light wind (<50)	Windy (50-60)	Strong wind (60-70)	Storm (> 70)		
E/NE (adds rough water)		Light breeze (< 40)	Light wind (40-50)	Windy (50-60)	Strong wind (> 60)		
Visibility conditions							
Fog/mist/rain visibility		> 180 m	100-180 m (lights required)	< 100 m No Rowing			
Lighting		Day	Low light/Night				

- Risk scores of 0-5 based on
 - Flow rate at Kingston
 - State of the tidal flow
 - Wind speed (adds to the flow rate risk score)
 - Visibility (low light or fog = +1 to the risk score)
- Rowing restrictions
 - Risk score 0 = general conditions
 - Risk score 1-2 = L2 sign-off or Coach present
 - Risk score 2, 3, 4 = Larger boats only and spin at Glovers
- Bear in mind
 - Change of tidal flow during the outing (flood to ebb in particular)
 - Weather conditions may change, be prepared to change/end the outing



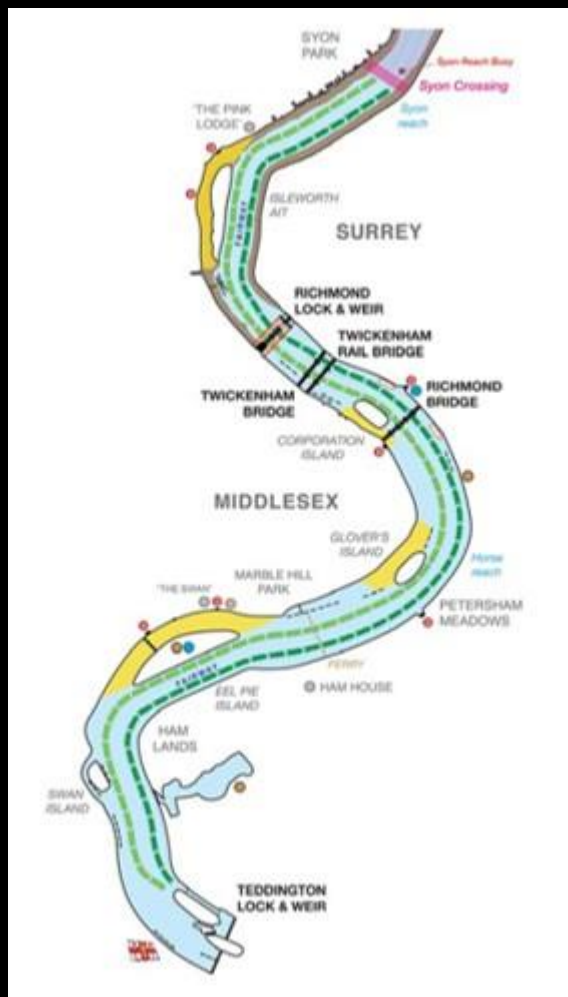
When you return:

- Wash down and wipe your boat and blades.
- Fix any minor issues with your boat BEFORE putting it back on the rack.
- Check for any damage to equipment AND REPORT IT.
- Put the equipment away securely, having made sure it is ready to go out for its next outing. (Coxes – have you put the Cox Box battery back in the charger?)
- Make sure there is nothing left out on the hard (eg buckets, trestles, water bottles) that can be carried away by the tide.
- Log your return on the outings sheet.
- **Did you have any incidents? If so, REPORT THEM.**



BOATING & NAVIGATION

Our stretch of the river



- Between Teddington and Richmond locks the river is semi-tidal. Richmond lock gate opens approximately 2 hours before and after high water and in that period the flow matches that of the Tideway.
- The convention in a sea way is to use the terms Port and Starboard instead of Left and Right. It would be useful to get used to this:
 - PORT = Stroke side
 - STARBOARD = Bow side
- Col Reg (Rule 9a) requires all vessels to navigate to the starboard side of the navigation channel, so as to pass port-to-port.
- Between Teddington and Sion Crossing the navigation channel is as shown. The water behind islands (as in front of the club) is outside the main navigation channel.



Boating and navigation essentials

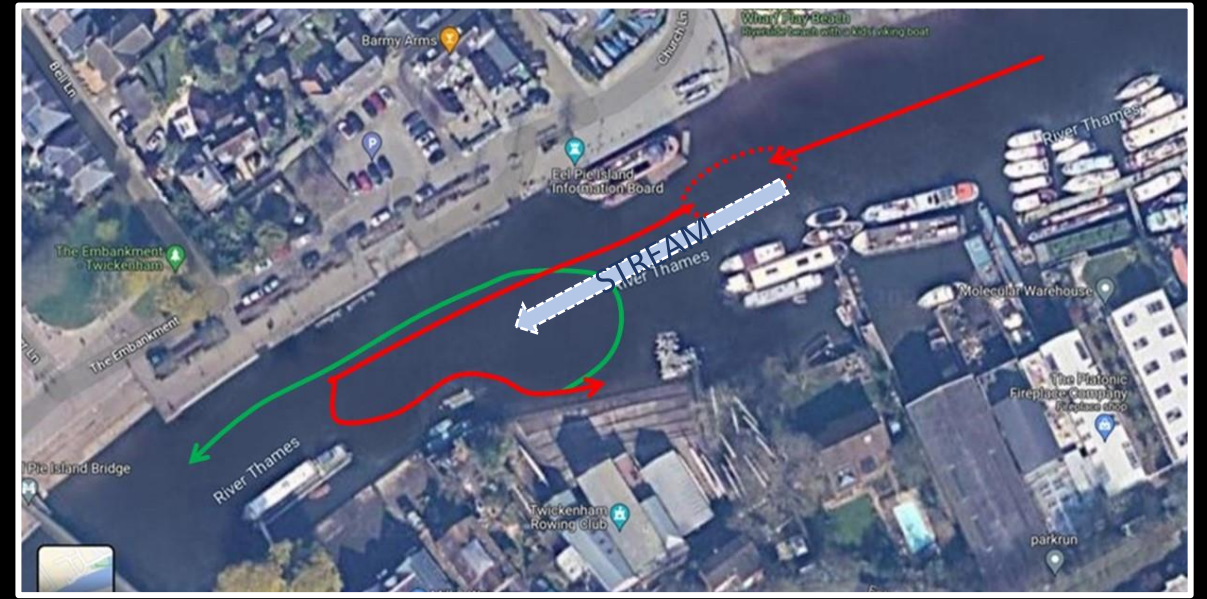
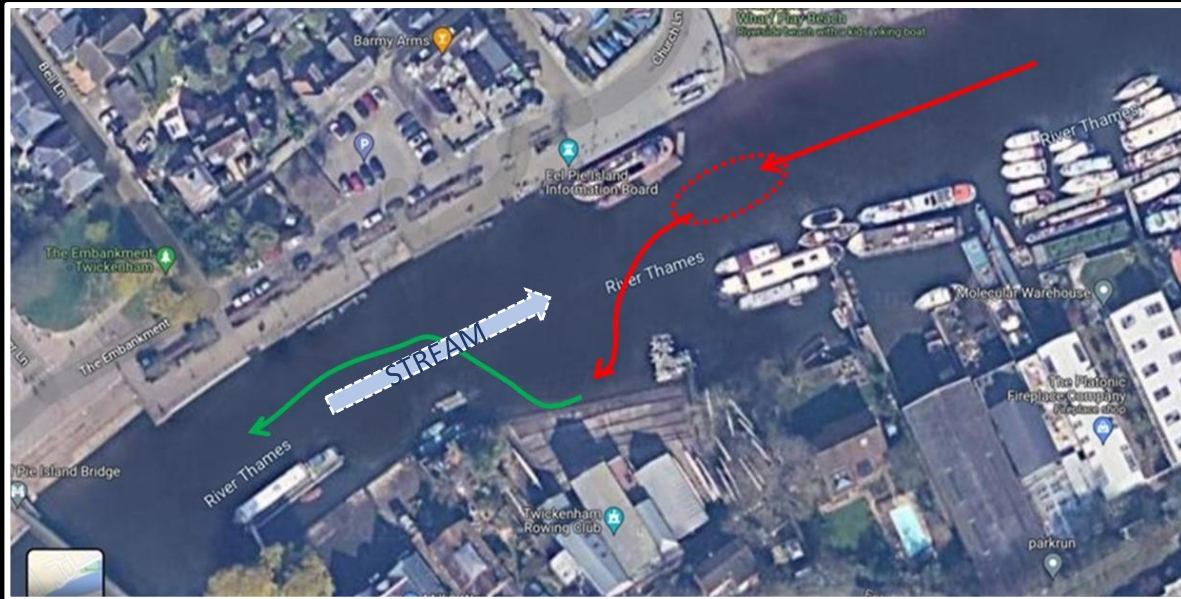
- Boat and land with bows pointing towards the stream
 - Be aware of the tidal state and stream – use visible clues.
 - Possible effect of wind direction – **STRONG WINDS CAN OVERRIDE THE STREAM**
 - Returning to the hard – remember that crews boating have priority
 - If necessary, hold water down river from the hard until and departing crew has cleared the way.
- Navigation
 - Navigate with starboard/bow side closer to the bank
 - Do not hug the bank – keep clear of trees, leave room for paddlers, swimmers.
 - Remember navigation routes for boats progressing upstream during the Time Trials
 - Rowing 2 abreast is permitted **BUT** only if the river is sufficiently wide **AND** both boats remain on the correct side of the river.

Circulation pattern

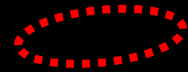


When the flow is down river (normal flow or ebb tide)

When the flow is up river (flood tide)



Incoming crews



Incoming crews should hold water here to allow any outgoing crews to depart



Outgoing crews

Except in emergencies, do not proceed down river in front of Eel Pie Island



Boating and navigation essentials (cont.)

- Overtaking
 - In general always overtake by passing the port side of the slower boat
 - Overtaking boats DO NOT have right of way
 - Be sure the way is clear for you to overtake safely
- Easy-ing
 - Do not stop upstream near a bridge, mooring or other large fixed hazard.
 - When stopped be sure to leave room for boats to pass safely to your port side.
 - Keep a good lookout for oncoming boats and for drifting into trees/moored boats.
- Spinning
 - Do not spin on the spot: turn towards your new navigation channel, then complete the turn facing the correct way in your new channel.
 - Do not turn immediately upstream of a bridge, mooring or other large fixed hazard
 - Be sure there is enough room to cross the river and spin safely



Fast stream

- There are two factors behind the stream in our stretch of water
 - Fluvial flow – water flowing over Teddington lock
 - The ebb flow as the tidal water retreats after high tide.
- Fluvial flow
 - indicated by the flow of water (cubic metres per second) measured and reported hourly by the Environment Agency at Kingston.
 - In summer it is a mere 3-4 m³/s and often exceeds 300 m³/s after extended rain in winter.
 - Data can be accessed from the TWRC website
 - Check the Environment Agency's Thames River Conditions
- Effects of tide
 - Varies with the height of high tide and is fastest just after the tide turns
 - Rule of thumb indicates that the ebb tide adds about 60 m³/s to the fluvial flow.
 - Conversely the flood tide is deemed to offset the fluvial flow by about 80 m³/s
 - Use the PLA Tidal Thames App for Ebb tide warnings/flags

Boating in fast stream

The moored boats immediately down from the Club (and the launch pontoon) present a particular hazard for boating AND landing in fast stream. KEEP WELL CLEAR OF THEM.

DO:

- Be ready to row as soon as you push off.
- Get your bows straight in the stream at the earliest opportunity.
- Be sure every crew member is able to respond promptly and effectively to the steer/cox's commands



DO NOT:

- Allow your bows to drift out – the stream can rapidly turn the boat side-on to the stream and carry you onto the moored boats.
- Fiddle with shoes, wellies, adjustments etc mid-river.

Landing in fast stream

The moored boats immediately down from the Club (and the launch pontoon) present a particular hazard for boating AND landing in fast stream. KEEP WELL CLEAR OF THEM.

DO:

- Row beyond the moored Windrush before you turn to head in to the hard.
- Keep your bows pointing towards the hard – the stream will push you towards the hard and assist your landing.
- Be sure every crew member is able to respond promptly and effectively to the steer/cox's commands



DO NOT:

- Cut across the bows of Windrush – it will get you too close to the moorings and the launch pontoon.
- Let your bows point into the river as you land – the stream WILL pull you out rapidly and carry you towards the launch pontoon.



Rowing in faster stream conditions

HAZARDS:

- The stream speeds up in narrower channels and on the outside of a bend in the river.
- Bankside trees are challenging to extricate yourself from against a strong stream.
- Bridges, moored boats, buoys etc. present greater challenge. When spinning, don't allow your boat to be propelled sideways onto these hazards – it never ends well.
- Fast stream can push you way off your navigation line when going round bends.
- TURBULENT WATER: below bridges (especially Richmond), below the weir at Teddington, near moorings and buoys. Be aware also fast flowing water can behave in a complex manner below the surface.

COUNTER MEASURES

- Restricting outings to the wider and straighter sections of the river: above Glovers.
- Restricting to progressively larger and stabler boats as the conditions become more challenging.
- Stronger crews and more experienced steers/coxes.

REMEMBER: Your cox/steer is in charge of the boat. If you do get into difficulty, keep calm and act promptly to instructions from your steer/coach/rescuer. It does not help if crew members try to give orders or override instructions from the steer.



Night time rowing

- When do we need lights?
 - Whenever you are on the water during lighting up time (i.e. when street lamps are lit) even if it only for part of your outing
 - Early morning before sunrise
 - Evenings
 - When there reduced visibility caused by fog or heavy rain.
- What kind of lights?
 - White lights only (NOT red lights or any other colour)
 - Constant beam at the stern, flashing beam at the bow
 - Lights need to be visible for 800 metres and through 180°
 - Bike lights are normally fine – but be sure they are fully charged so they will work for the whole outing
- Be visible – wear reflective or white clothing



Night time rowing

- Fixing lights onto the boat
 - Taping to the hull using electrical tape is fine provided it is done securely.
 - Jonny Cantwell's proprietary light fittings are also good and less messy
- Special advice when out rowing at night
 - Fixed hazards – moored boats, moorings, trees – are not lit. Be more vigilant when looking out. Special mention of the moored boats and buoys above Glovers
 - Be aware there may be river users not using lights – keep your ears open to give yourself a chance to hear them. Swimmers and paddle boarders especially.
 - Enjoy it. It is actually often a rather nice thing to do when conditions are good.



WHILE ON THE WATER



Keep a good lookout

- This is THE most important safety rule.
- Look over every 3-5 strokes and ALTERNATE left and right shoulders.
- When eased take a good look ahead before you start.
- Before starting a piece of firm/race pace rowing take a good look for any slower boats ahead of you.



Leave room for others

- All vessels in the navigation fairway have right of way. Do not stop or cross in front of them.
- If a faster boat is catching up with you, pull towards the bank and let them pass on your strokeside.
- If you are overtaking move towards the middle of the river to pass. (But, if the crew you are passing are ignoring the rule above, you can “under-take” but WARN them you are doing so.)
- DO NOT overtake:
 - If doing so puts you in the way of any vessel heading in the opposite direction.
 - When you are approaching a bridge
- You may row 2 abreast provided both boats remain on the correct side of the river. A single boat may overtake two rowing abreast (if it is safe to do so).



Watch out for:

- Canoes, paddle boarders, swimmers, rented rowing dinghies. All of these can be in unexpected parts of the river.
- Anglers. They mostly fish from the bank but some have been known to sit in boats in the middle of the river.
- Sailing boats – especially during the TYC racing sessions (Wednesday evenings and Sunday mornings). They have been known to emerge from behind trees unexpectedly. It is better just to paddle light when in the sailing area to minimise the risk of collision.
- Wild fowl and animals (dogs and our visiting seal). Lets do our best to give space to the river birds.
- Logs and other flotsam. They have been known to damage boats on collision.
- Fixed hazards – mooring buoys, moored boats, overhanging trees etc.



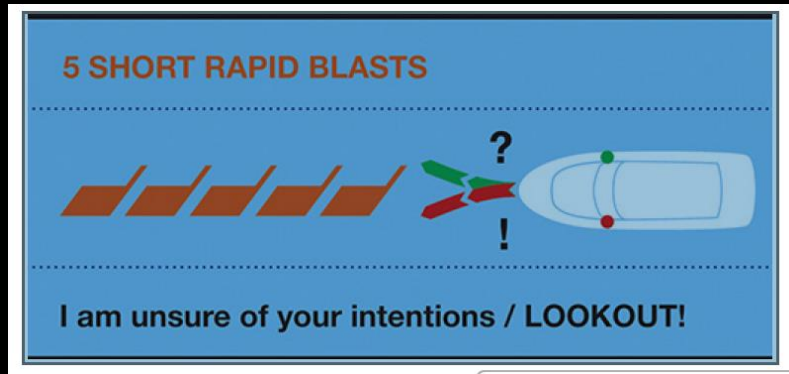
Interacting with other river users

- If you see someone about to collide with you or someone/thing else SHOUT OUT loud and warn them.
- However, always be polite and never get into any kind of altercation.
- If you experience inconsiderate or dangerous behaviour by another river user, try to take a note of their identity or vessel name.
- If necessary call the London Vessel Traffic Service (VTS) on 0203 260 7711. For emergencies call 999 and ask for the coastguard.

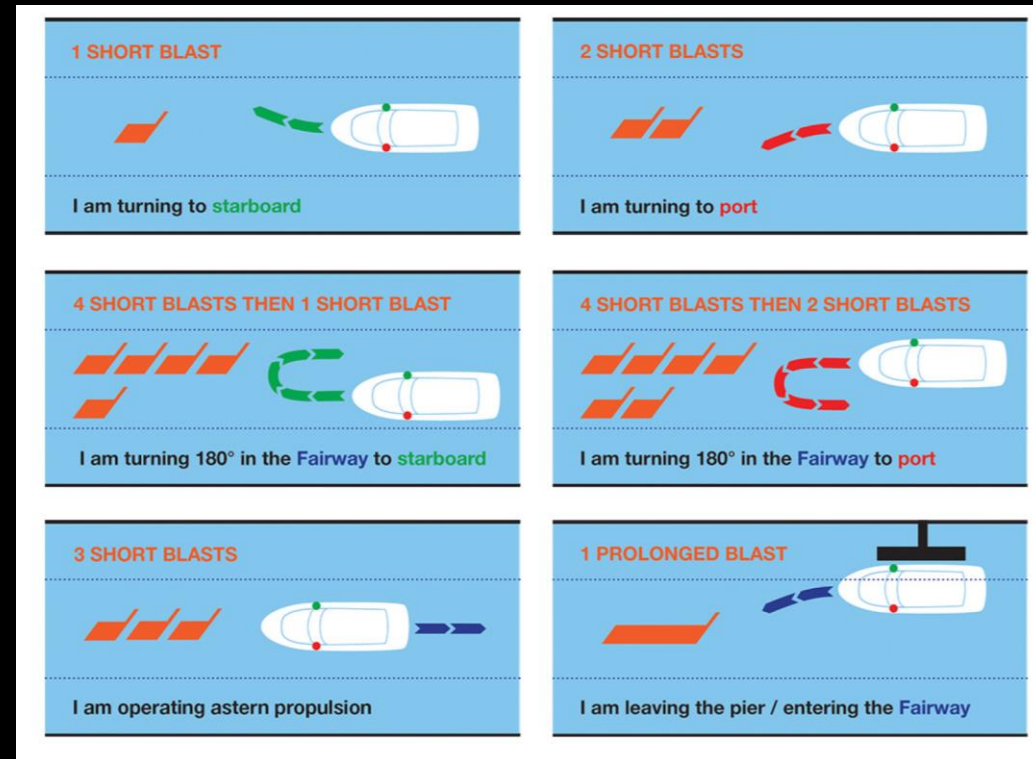


Motor Vessel Sound Signals

These signals are used by the Class V passenger vessels operating from Richmond Bridge (and elsewhere on the Tideway)



This is the signal you really need to know: it means the vessel is warning that you may be in its way.





River pollution

- Unfortunately this has become a serious and recurring issue. Try to minimise the risk of ingesting river water. Avoid touching your eyes, ears, nose or mouth when out on the water. A water bottle with a lid is probably a good precaution as well.
- Thoroughly wash your hands and face after your outing and before handling any food.
- There have been reports of oil spills which the PLA have been alerted to. If you see any, report them asap to VTS (0203 260 7711). The same advice applies to any significant pollution event you witness.



INCIDENT REPORTING



Why report incidents?

Incident reporting is not about apportioning blame, but to help all of us in TWRC, the rowing community and river users alike to learn how accidents happen and to reduce the likelihood and severity of future incidents. This will help us avoid needless damage to equipment and, more importantly, avoid injury to our members or other river users.

All rowing clubs are expected by British Rowing to cooperate with this, and they do look into clubs that apparently never have any incidents to report.




Incidents and near misses

- Incidents and near misses must be reported ASAP to the Captain, Safety Advisor or Boatman.
- Keep calm and composed when experiencing an incident or near miss
- Do not get into altercations over incidents/near misses
- Stop to check on damage or injuries and summon help or rescue if necessary
- If you have any complaints about someone's actions or behaviour, raise them with the Captain or Safety Advisor who will deal with them.
- Incidents occurring anywhere: at the club, training outings, races and training camps.



Incident reporting

 **TwRC Incident Report** TwRC I/R Rev 01

Please complete the description, immediate action and causes (where known) as follows:

Date/Time	Boat /Crew	I/R No.
Description of Incident: PLEASE GIVE AS MUCH INFORMATION AS POSSIBLE:		
Nature of: Accidents/ Collisions/Boat Damage/Etc.		
All Parties involved (Squads e.g. Senior or Junior; Other Clubs / private boats):		
Witnesses (Where applicable)		
River conditions (Ebb/Flood/Flow Rate):		
Weather (Wind Speed/Direction/Precipitation/Visibility):		
Location (stating as exact positions/references as possible):		
Immediate Action to Resolve:		
Causes:		
Preventive Action: (To be completed by the CWSA after Committee Meeting)		
Closure:		

Incident report form

- Download Word doc from the Safety page of the website.
- The Captains or Safety Advisor will make the submission to BR

Examples of incidents you need to report

- Capsize or falling out of a boat.
- Collision with static or moving objects.
- Swamping
- Health related issues.
- Equipment failure
- Land training accidents.
- Behaviour: vandalism/violence.
- Trailer towing accident.

Examples of 'near incidents' you need to report:

- Sudden need for evasive action to be taken to avoid a collision,
- A boat is flouting navigation rules,
- A boat not displaying the required lights at night.

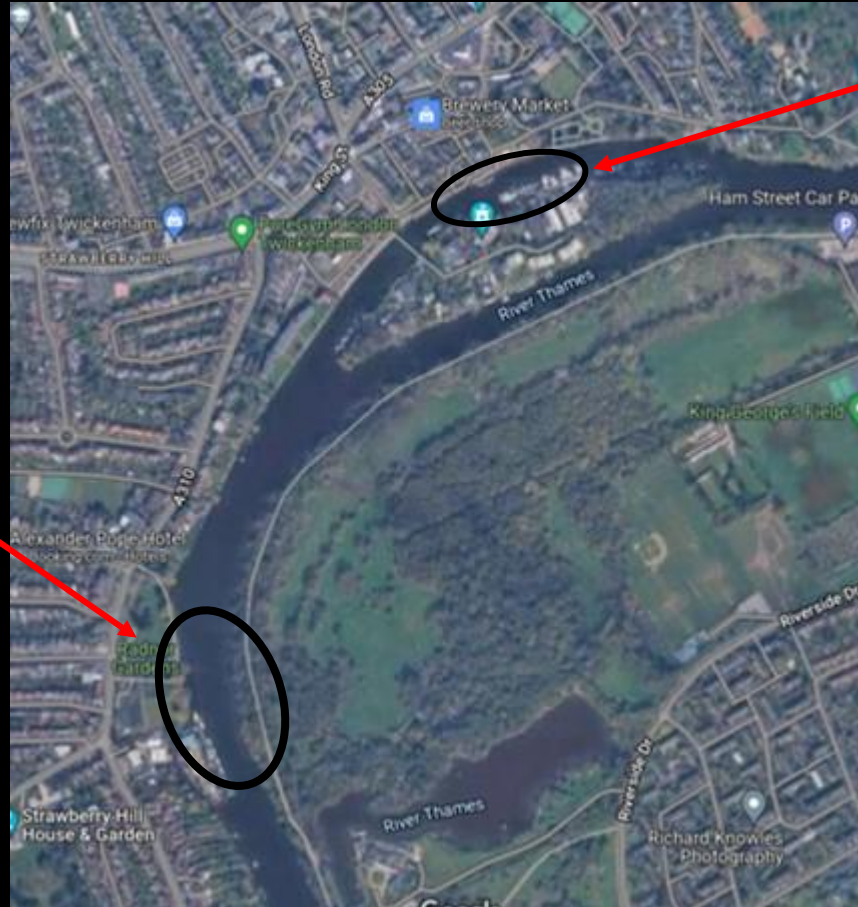


NAVIGATING OUR STRETCH OF THE THAMES

TWRC to Swan Island

Overhanging trees and Swan Island moorings

Fast water can push you towards the Middlesex bank as the river bends. Take care to be sufficiently far out to avoid these hazards



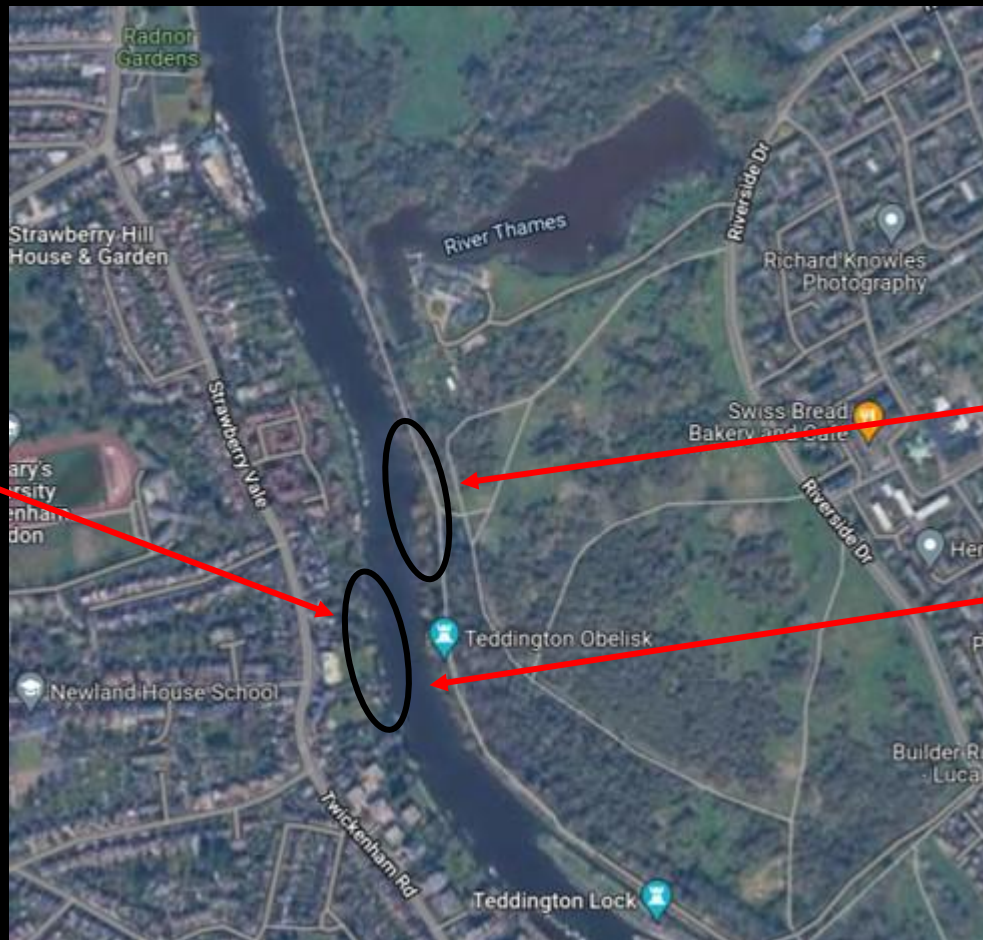
Moorings below TWRC

Keep well clear at all times and take special care during fast water. This hazard provides probably the greatest danger to life and equipment but is also the easiest to avoid.

Swan Island to Teddington Lock

Going upstream

Boats coming downstream can be pushed towards the Middlesex bank by the flow, watch out for these to avoid clashes/collisions.



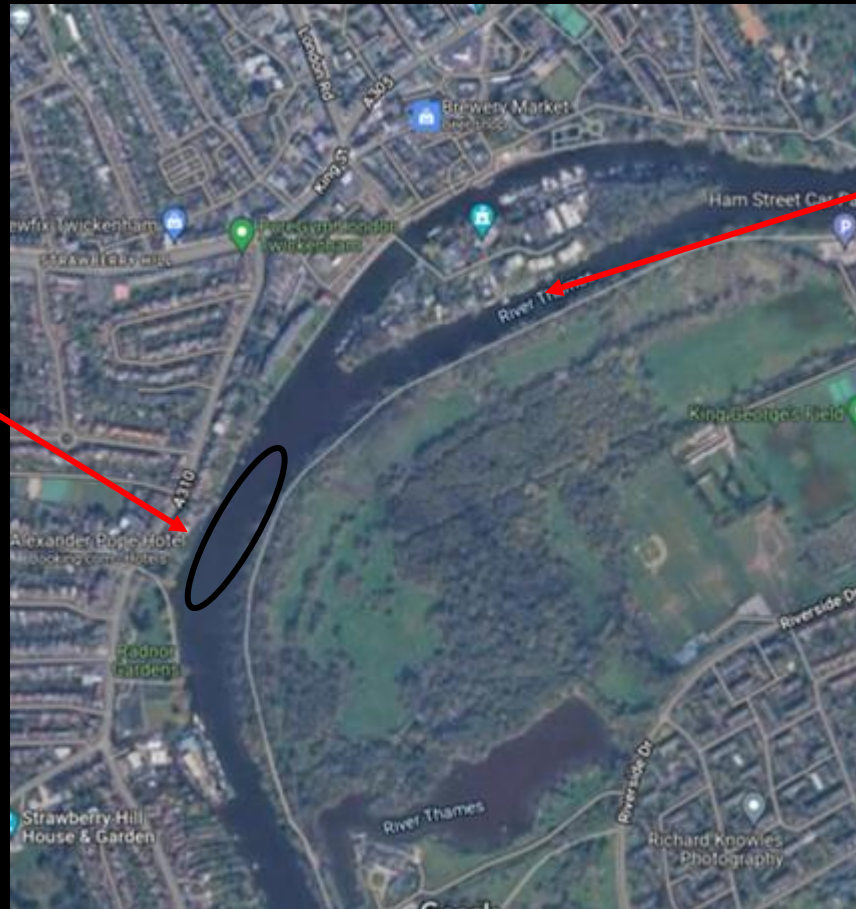
Going downstream

Take care to avoid being caught in the bankside willows, especially at the left bend just above the Young Mariners. A fast stream makes extrication more difficult.

Take care to stay in your correct navigation channel.

Radnor and the Surrey side of Eel Pie Island

Take care to stay on the correct side as you pass Radnor House (while also staying clear of the sandbank)



While staying clear of the trees on the Surrey bank, look out for boats – especially motor boats – coming upstream.

Motor boats – more prevalent while Richmond Lock gates are open – can be a particular hazard as they tend to take the middle of this narrow channel

Twickenham/Horse reach - downstream



Shallow water and rocks just below the water surface. Risk of grounding.

Be sure to stay on the correct side after passing the end of Eel Pie Is.

There is a slight left bend opposite Hammertons – steer clear of the trees here

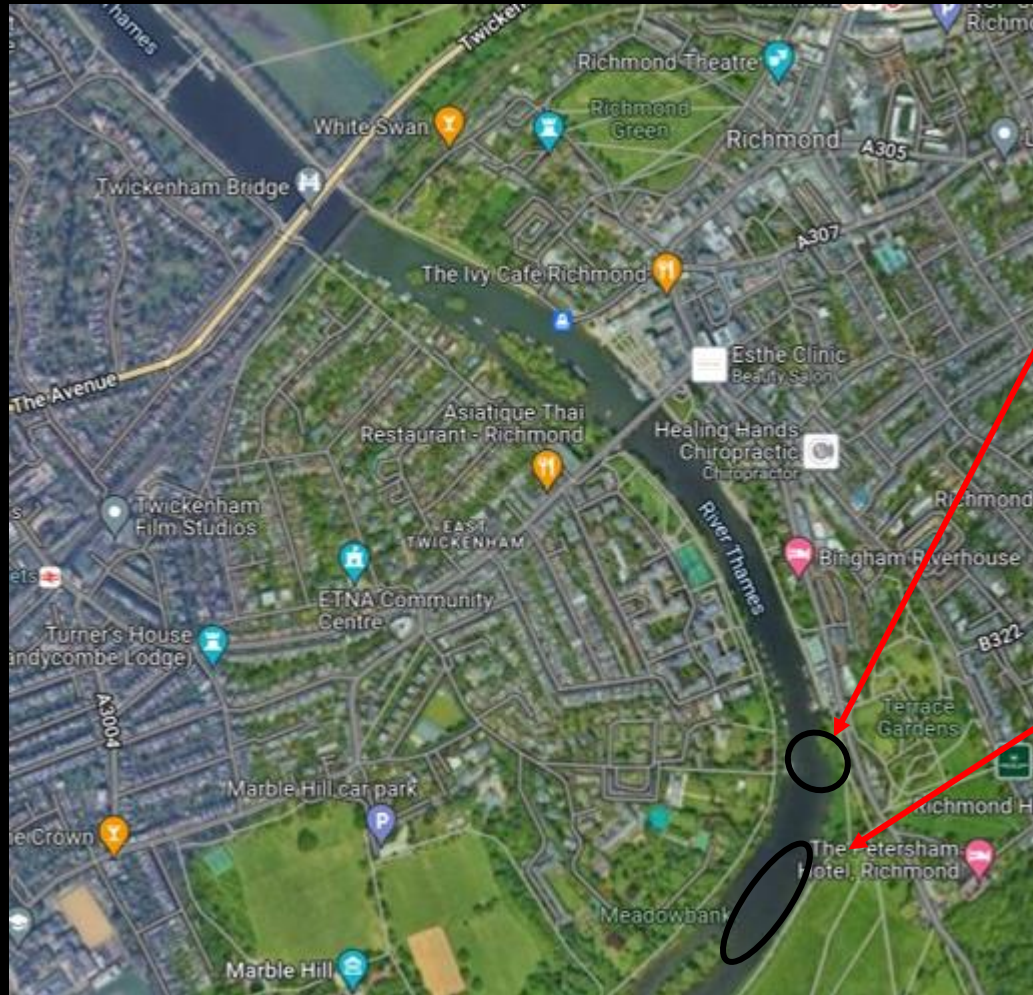


Glovers to Richmond Lock

The arches in Richmond Bridge amplify the stream and can be turbulent on the downstream side.

Richmond Bridge moorings: advise using the middle arch

On ebb tide or strong fluvial flow spin well above the bridges and the lock to avoid being drawn sideways onto them.



At this point the river narrows considerably and the stream become much stronger. Look out for the willow tree just above these moorings. The stream and wind can easily push you into it and getting out is difficult.

Best to turn here or above Glovers when mandated to spin at Glovers



Twickenham reach - upstream



Watch out for boats coming downstream as you approach Glovers. Motor boats often go well over to port to keep off the shallow water.

Be sure to go in the middle of the channel here to avoid the mooring column at the end of Eel Pie.

Watch out for the moored boats above Glovers – and don't forget about the mooring buoys above them!

Behind Eel Pie Island - upstream



Keep to the Middlesex side until you are opposite the Ham House car park. Then a slight turn to port will keep you on the correct navigation channel

Keep a good lookout for boats heading down river.



Don't wander over to the Surrey side here. It is one of the hot spots for collisions between TWK boats

AOB



Any Questions?