



Est. 1890



Member of the
Civil Service Sports Council



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Amateur Rowing Association

Steering & Navigation

Contents

1 Introduction	page 3
Statutory Framework	3
Before You Get On The Water	3
Getting on the Water	4
Look-Out	4
2 General Tideway Navigation	5
3 Steering Rules	7
Overtaking	7
Head-On Meeting and Right Hand Rule	8
Crossing The River And Spinning	9
4 Other River Users	10
Sailing Dinghies	10
Commercial Vessels	10
Launches	10
Lights	10
Swans, Geese, Dogs, Divers, Swimmers etc	11
5 Tideway Knowledge	12
Stream Direction And Tide	12
Bad Shallows At Low Water	12
Obstacles	13
6 Rowing Custom And Practice	14
Tideway Steering and Hazards Map	Back cover

*For further information about Safety, Steering and Navigation please check the Cygnet Rowing Club website at **www.cygnet-rc.org.uk***

This document is based on the "Coaching: Tideway Navigation and Steering" issued by the Thames Downriver Coaching Commission of the ARA for use by all rowing clubs. It outlines the minimum general navigation knowledge needed to safely control rowing outings on the Tideway. Like all such summaries it runs the risk of omitting or skimming over useful material in the pursuit of brevity. There is no substitute for reading and understanding the Rules of the Road, the PLA Byelaws, the relevant Notices to Mariners and building up your local knowledge.

Additions have been made to this document, to include conditions that relate to boating from the Civil Service Boathouse, and coxing instructions by Cygnet RC.

Statutory Framework

The Tideway is controlled by the Port of London Authority (PLA). The PLA issues the Port of London Byelaws which incorporate the International Rules for the Prevention of Collision at Sea ('Rules of the Road', Colregs or IRPCS) and the Notices to Mariners which include the 'Rules for Navigation of Vessels Under Oars' setting out the traffic pattern for rowing boats between Putney and Richmond.

Before You Get On The Water

Coxswains/Steersmen/Scullers

If you are an inexperienced coxswain/rower, or if you have coxing/steering experience, but not on the Tideway, you have to have the Captain's permission to take a crew/boat out. Usually, a coach in a launch will accompany inexperienced coxswains/steersmen for a number of times, before they are allowed to venture out on their own. Alternatively, a crew member with extensive experience of steering on the Tideway will be part of the crew being coxed or steered. The names of authorised coxswains and steerspeople are listed on the Notice Board.

Coxes must always wear buoyancy aids or a life jacket when on the water, without exception. These are kept in the men's changing room in the Boathouse. Make sure you know how to don, adjust and operate the life jacket, and ensure that the inflation toggle is accessible before you go out. Groping feverishly when it is needed is too late. Our lifejackets also have a whistle attached to them, which can be used to draw attention when you need assistance.

Getting on the Water

Take care when putting the boat on the water. At low tide, the shallows can extend a lot further towards the centre of the river than you think. As crews rowing against the flow use our (Middlesex) side of the river, ensure that none are around when you tell the crew to put the boat down in the water. Once you are ready to boat, again ensure that there are no other crews coming up from behind you who may be hindered by you pushing off the shore. Keep in mind that you may not be able to move away quickly once you have pushed off, so leave plenty of room behind you and keep a good lookout.

When leaving the foreshore in front of the Civil Service Boathouse, especially with an outgoing stream, be aware that the stream coming from Barnes Bridge will push your bows around if you don't keep the bows pointing into the shore. This is particularly hazardous because the shallows extend quite far towards the middle of the river at low tide and actually make you having to point your bows away from the shore. While the crew is getting ready, keep the bows towards the shore, and only point your bows towards the middle of the river as you set off towards the bridge.

Look-Out

You must keep a good lookout AT ALL TIMES, especially dead ahead where it is most difficult for rowing boats. Most accidents and near misses are avoidable if only the crews had seen the danger in time. In over 80% of head-on collisions NEITHER boat saw the other in time.

Steersmen of coxless boats should look forwards at least every 3-5 strokes, more often when things are tight. Don't forget to check over both shoulders. When rowing in shallows it is tempting just to watch the shore, but the biggest risk of head-on collision is from the other direction.

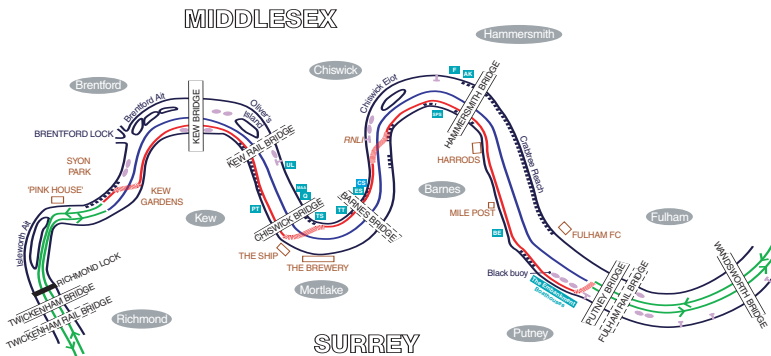
If a risky situation is developing do not assume that the other boat has seen it, call out in good time. If they do not seem to look round, turn up the volume until they do. The conventional calls are:

- "Take a look (eight)" - A situation is developing and I am not sure that you have seen it.
- "Head (four)" - I think you should be doing something by now. Things are getting a bit tight.
- "Hold it up (sculler)" - Collision imminent unless you stop.

If you are in, for example, a quad, don't assume that a call to a "four" cannot possibly be about you!

On the Tideway rowing boats should stick to the traffic pattern as detailed below and shown in the map (larger version on the back cover). This pattern separates the flow of boats going upstream and downstream, except when the stream changes direction. Should a risk of collision arise then the steering rules (page 7) should be used to avoid the immediate danger.

- When proceeding with the stream, keep to the starboard side of the fairway (i.e. keep to the right of the middle of the river).
- When proceeding against the stream, navigate as follows
 - (a) Between Syon crossing and Chiswick Bridge crossing (opposite the Ship public house), keep to the Surrey shore.
 - (b) Between Chiswick Bridge Crossing and Chiswick Steps Crossing (upriver of Chiswick Pier near Chiswick Steps), keep to the Middlesex shore.
 - (c) Between Chiswick Steps Crossing and Putney Pier, keep to the Surrey shore.
- Please note that you always navigate relative to what the stream does. In the summer months, the stream generally goes towards Putney when the tide is going out, and towards Richmond when the tide is going in. However, in winter, when there is a lot of landwater coming down the river, the tide may be coming in (i.e. the river water level rises) but the stream may still be going towards Putney. In this case, you must stay close to the relevant shore whilst going up towards Richmond, and row to the starboard side of the fairway when going down to Putney.



Key	
—	Route when proceeding AGAINST the flow
—	Route when proceeding WITH the flow
— —	Crossing point (when proceeding AGAINST the flow)
— —	Crossing point (when proceeding WITH the flow)
— —	Right Hand Rule applies
—	Tricky shallows at low Water
	LANDMARK
+	Moored Craft
+	Pier

Surrey	Middlesex
Putney Town	University of London
St. Pauls School	Mortlake Anglican and Alpha
Barn Elms	Quaint
	Tideway Scullers School
Includes: Imperial College,	Thames Tradesmen
London, Thames,	Emanuel School (& Dacre)
Vesta, HSBG,	Civil Service (Cygnet & BBLRC)
	Furnival
	Aurial Kensington

This Map is not to Scale

NOTES :

- Keep a good lookout at all times ESPECIALLY AROUND THE TURN OF THE TIDE. At the turn the traffic streams get mixed up and until they settle down again in the opposite pattern the risk of head-on collision is very high. See below about stream direction.
- When crossing the river, boats must give way to any vessel proceeding along the fairway.
- Do not stop close to bridges or obstacles, especially upstream of them. Try and pick a place to stop that will not get in the way of other boats. If you are a group of stopped boats try to leave a viable path for other boats, do not force them to steer out wide into danger.
- When steering in the shallows allow adequate clearance from the shore to avoid grounding. Be aware of specific hazards, especially at very low water (see below).
- When steering in the shallows, go through the side arches of all bridges provided that there is enough water (2-5m clear either side of your blades usually does OK). If there is not enough water, creep around the pier of the central arch after taking a very careful look for boats coming downstream.
- When steering in the fairway, keep to the right of centre and go through the central arch of all bridges. Steer wide around all bends, especially when there may be boats on the inside shallows.
- At Putney, boats going against the stream should steer between the buoys and the hard. Boats going with the stream should keep outside the buoys. Do not cut between the buoys. Do not paddle at high pressures inside the buoys. Watch out for boats cutting through the buoys, you may only spot them very late.
- Below Putney pier and above Syon crossing, the normal 'right hand' rule applies and rowing boats should normally use the starboard side of the fairway both with and against the stream. Change position if necessary once safely clear of Putney pier and remember that boats crossing the river must give way.
- For full details see the PLA Notice To Mariners 'RULES FOR NAVIGATION OF VESSELS UNDER OARS ON THE TIDAL THAMES FROM 1 MAY 2002'. This is displayed on the Cygnet notice board in the boathouse.

When an immediate risk of collision with another boat arises, follow the rules below. These are a summary of the "Rules of the Road" as modified by the PLA by-laws.

Make any corrections boldly and in good time so that the other boat can clearly see what you intend to do. Remember that rowing boats can stop very easily. Generally when things get very close it is best to stop rather than try and steer your way out, especially if it is not clear what the other boat is doing.

Remember that nothing in the Rules entitles you to run down another boat. Even if they have messed it up big time it is still your duty to avoid collision by all possible means "in extremis". The Rules are about avoiding collisions, not allocating blame. It is almost impossible for two moving rowing boats to be in collision without both boats being at fault, hence the "abide your own damages" convention among rowers.

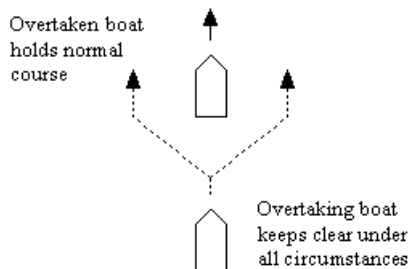
Overtaking

The overtaking boat keeps clear at all times (for races see below). Generally in the shallows the overtaking boat must steer out towards the middle of the river to go round the slower boat. The overtaking boat must allow the overtaken boat sufficient room to steer normally around any shallows or obstructions ahead. Do not barge up the inside unless the boat in front has clearly decided to leave you room to do so.

There is no particular side to overtake on when you are on the fairway, pick the side that seems best.

NOTES:

- Do not row two or more abreast for any length of time when overtaking.
- Different overtaking conventions may apply between racing crews during Tideway head races. See the race rules for specific events. Generally slower racing boats are asked to move over to allow faster boats to stay on the stream. Note that you must follow the normal right of way rules with all non-racing vessels (e.g. if the river is not closed).



3 Steering Rules

- Never assume that a boat coming up behind you has seen you, especially in the shallows. Call "head eight" or similar if they get too close for comfort.
- Rights of way when overtaking is currently one of the least understood areas of Tideway steering. Expect funny ideas from other coxes. These may include:
 - (a) Course boat has right of way (i.e. when it is doing a piece)
 - (b) Overtaken boat must move over
 - (c) Always overtake on the right (or left...)
 - (d) My boat is bigger than yours

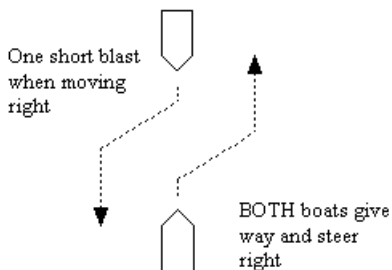
If the other boat is stationary, you must steer round it! The stationary boat should remain still until the "overtaking" boat is clear. Remember that a stationary boat may have a problem that you are unaware of and may not be capable of moving even if it wanted to (beginner scullers are a case in point).

Head-On Meeting and Right Hand Rule

Where two boats are meeting each other head-on both boats must steer to their right. This is the "right hand rule" and is general river usage. Normally when on the fairway boats should keep to the right at all times so that steering corrections are not usually required.

NOTES:

- Shout and slow down or stop if things are too close to easily steer away in good time.
- If the collision risk arises because one or both rowing boats have strayed out of their water in the normal rowing traffic pattern, you can expect many coxes to steer back towards their water, which is usually to their LEFT on an ebbing stream on most of the Tideway. Watch out and improvise as necessary. Best not to get out of position in the first place.
- If you meet a passenger cruiser or other commercial vessel in the fairway it will usually sound one short blast on its whistle to indicate that it is steering or keeping right. Very rarely it may sound two short blasts indicating that it is steering or keeping left in which case co-operate as required. There are other





sound signals, if you hear them take a good look and keep out of the way.

SOUND SIGNALS

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

- Five or more short blasts indicate doubt in the mind of the other boat as to what is going on.
- Note that due to the nature of the river you can be on a head-on collision course with a boat that is around a bend and not yet directly in front of you.
- Head-on collisions are very dangerous. Never take chances.

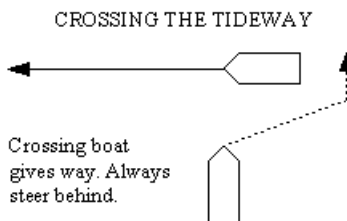
REMEMBER - KEEP A GOOD LOOKOUT AT ALL TIMES

Crossing The River And Spinning

On the Tideway all boats crossing the river or spinning (i.e. doing anything other than proceeding along it) must keep out of the way of and give way to all other vessels. See diagram below.

NOTES:

- When crossing at the crossing points or Fulham Rail Bridge, always check carefully that there is room to cross safely. For coxless boats it is safest to easy and take a good long look round. A glance is not enough - it's too easy to miss something.
- Do not spin or cross close to blind bends or bridges. Make sure you have an adequate view to judge whether you have enough time and space to complete the manoeuvre.
- When spinning, ensure that the stream cannot push you into obstacles before you have had time and space to complete your manoeuvre. Going with the tide, you are better off spinning after a bridge or other obstacle than before it. At least then the tide will carry you AWAY from the obstacle, rather than INTO it.
- Coaches sometimes ask for silly things, take your time and do it right.
- Never steer across the bows of another boat. Think of another plan.



Sailing Dinghies

If there is a fleet of dinghies racing on the river, slow down and/or stop until you see a gap. Proceed slowly, steering to keep away from any race marker buoys. Once you decide to go, keep it straight and steady and let them steer around you.

Commercial Vessels

Be aware that commercial vessels are often restricted in their steering by lack of water depth at low water, so keep out of their way. Generally you only meet them in the fairway where the right hand rule applies. If you have the space, gently ease off the fairway in good time to give them plenty of room.

Listen for and act on any sound signals commercial vessels give, see section 3 Steering rules.

Launches

Coaching launches follow the same traffic pattern and observe the same steering rules as rowing boats. Launches may only go over the 8 knot power boat speed limit when accompanying rowing boats.

Launches should cut their wash as required to avoid endangering rowing boats, especially pairs and single scullers. Alternatively steer over to the other side of the river if there is no immediate need to be close by.

Lights

Between sunset and sunrise all rowing boats must carry two white lights, one pointing forwards, one backwards. Lights should be mounted in front of bow and behind the cox to avoid obstruction from any angle. Rigger mounting is not acceptable. Red lights must not be used in place of white lights.

White clothing on bow and cox makes a big difference during twilight.

Launches ideally should carry proper navigation lights, but white lights as for rowing boats is currently acceptable.

In addition to the above practicalities, Cygnet RC has adopted the following rules to ensure that the risks of rowing in the dark are reduced to an acceptable level:

- Outings are only to be commenced, or continued, after sunset (or before sunrise) with the prior approval of the Captain.
- Rowing in the dark is only to be conducted between Chiswick Bridge and Putney Bridge, where street lights and light from buildings help to illuminate the river.
- Coxes/Steersmen should be familiar with the Tideway, its navigation rules and areas of potential danger; throughout the outing they should maintain a proper lookout.
- Each crew, or sculler, rowing after dark must be accompanied by two coaches in a launch; one to watch the launch's course, and one to watch the crew. The launch must be equipped with an ARA approved safety kit and a powerful torch. It is recommended that coaches carry a mobile phone/radio to call for assistance in the event of an emergency.
- Boats are to be clearly illuminated in accordance with PLA rules (TWO WHITE LIGHTS on racing craft).
- Oarsmen should wear light coloured clothing. One member of each crew should wear a whistle on a cord around his neck.
- In the event of the boat capsizing or sinking, crew members should adopt the "buddy system" as outlined in the Cygnet "Code of Conduct" section 2 Safety - Capsize Drill. Especially in the dark, it is very important that individuals remain with the boat, both to make use of its buoyancy and to aid location. Use the whistle on the lifejacket to attract attention.

Swans, Geese, Dogs, Divers, Swimmers etc.

Never row over or close to anything swimming in the water under any circumstances. Oar blades can easily stun or kill. Either go round, stop and wait or easy and glide through with the crew watching their blades.

REMEMBER - KEEP A GOOD LOOKOUT AT ALL TIMES

The Tideway is a tricky beast with more than a few traps in it. Learn to recognise the main hazards listed below and keep an eye out for new ones and any others that may give you trouble.

Stream Direction And Tide

Always be aware of the direction of the stream/tide/water flow, especially when the tide is due to turn during your outing (check the tide tables). When the stream changes, the traffic pattern reverses and until it settles down (10-20 mins) there is a period of severe danger. Check the stream direction by observing buoys, bridge piers, debris in the river, etc. If necessary stop and square blades in the water to see how you drift. **Be aware that:**

- You have to navigate relative to what the stream does, not the tide. Especially when there is a lot of landwater coming down river because of long periods of rain, the tide may be coming in (i.e. the water level is rising), but the stream is still flowing towards Putney.
- The stream changes progressively along the river. It is possible for a boat to move faster than the low water change, i.e. it can have changed where you are but still be going the old way at the next bridge you reach.
- The stream changes at the edges before it does in the middle.
- At slow or slack water the wind can blow moored boats the "wrong" way.
- The apparent direction of movement of waves on the surface can be deceptive. The best indicator is the movement of floating debris.

Bad Shallows At Low Water

See the attached map. Tricky shallows at low water occur at the following places working up to Kew:

- On Surrey upriver of the Putney buoys up to about the mile post.
- On Middlesex all the way up Crabtree Reach.
- Surrey side arch of Hammersmith Bridge dries out on most low tides.
- Under Hammersmith Bridge from the Middlesex shore to mid river.
- Above St Paul's slipway (worst when the bottom of the concrete ramp is exposed).
- The outfall opposite the top of Chiswick Eyot (The "Island") and up to the bend.

- At spring low tides on Surrey just above the Chiswick Steps crossing point.
- Middlesex shore either side of Barnes Bridge and either side of Chiswick Bridge.
- Under and above the Surrey side arch of Kew Railway Bridge.

Make sure that you give extra room to the shore when steering in the shallows in these places and look out for headlands, islands and debris out in the river. When going with the stream expect boats to be further out from the bank than normal at these places.

Obstacles

See the attached map. The following obstacles in the river are particularly dangerous for scullers and coxless boats. Be aware that mobile obstacles such as anchored barges or boats moored to bridges can appear anywhere at any time. Memory helps, but it is no substitute for a proper look-out.

- All bridges (!)
- All sorts of stuff on both banks below Fulham Rail Bridge
- Putney pier and the line of buoys
- Hammersmith Pier
- Chiswick Steps line of buoys and Chiswick Pier below the crossing point
- Mortlake boat race marker post on Middlesex just below Chiswick Bridge at high water
- Pilings and petrol pier below Kew Railway Bridge
- Kew Pier
- Moored houseboats above Kew Bridge
- Driftwood barges and buoys above Brentford Marina/Dock

Bridges on the Tideway have one or more of the following markers:

- Two amber lights mark the arch(es) over the fairway.
- Three red discs, red balls or red lights mark a closed arch, usually due to bridge works.
- A hanging straw bale marks an open arch with reduced head room, not usually a problem to rowers.





...or "common deviations from ⁵Tideway Knowledge at the time of writing"

Coxes are too often chosen for their size and availability rather than their navigational ability or knowledge of the steering rules. Generally the coxes you meet on the river can be taken to know about keeping to the shallows and to have some local knowledge. Few will have read or even know of the existence of the PLA byelaws and the Rules of the Road. The standard of look-out is far too often poor or non-existent.

Note that the 1994 "Navigation on the Tideway" sheet published by the TRC is a good summary of the shallows steering traffic pattern but it is misleading on steering as it contradicts the Rules of the Road and PLA by-laws or is ambiguous in some key areas. It is still in common use and is the only document many coxes have read. It should be replaced by the PLA poster "Code Of Conduct, Rowing Boats And Their Escorts" (1997).

There are too many coaches and coxes out there who seemingly cannot tell the difference between reckless and incompetent steering during training and "aggressiveness" during racing. Some of them appear to think that they are racing at all times. If you can spot such an attitude problem in advance just avoid them if you can.

Likewise there are crews who blunder around having arguments with other boats every ten minutes. It is an observable fact that the crew shouting is usually the one that messed it up and they are unaware of it. Empty vessels really do make the most noise. There is usually no point trying to reason with them as their whole position is based on ignorance, just avoid the accident, ignore them and enjoy the rest of your outing. The level of verbal abuse audible on the river is the most common complaint about rowers from the public and other river users. It does our sport no good at all and is usually completely unnecessary.

If you do end up crossed up by another boat and sitting there looking at them, there is no point being offensive. One sensible approach is simply to say what you think happened and how it should have been avoided, bleak smile, shrug of shoulders and paddle off. You never know, everyone might learn something. If you were wrong, apologise, it does not hurt.



If you have understood and put into practice all the material in this document then you will be doing better than the current average cox on the Tideway. If you do see an accident or near miss on the river it is useful as an exercise to try and work out what happened and what should have been done to avoid it. Learning by other people's mistakes is the easiest way to learn. Sadly there is all too much material to do it with!

Generally it is best to act defensively to protect your boat at all times during training. KEEP A GOOD LOOKOUT. Make sure that you are clearly in the right place on the river at all times. Always be aware that the other boat is likely to do something odd. Never put yourself in a position where you are depending on the actions of another boat as you will often be disappointed.

Good luck. You will need some of that too.

REMEMBER - KEEP A GOOD LOOKOUT AT ALL TIMES

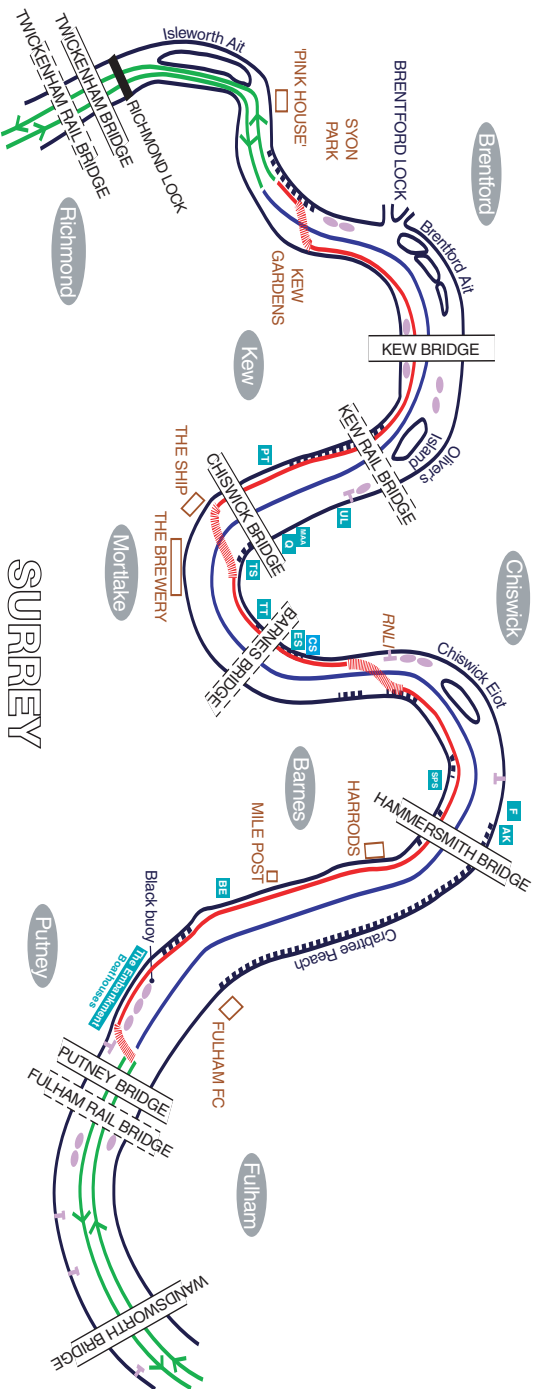
For anyone who is interested in further Tideway steering , navigation and safety advice, the club has copies of the "Row Safely" video from the ARA and the "Coxing a Tidway Head – a guide for coxes" video issued by the various Head of the River Committees.

Further information is also available from the following websites:

www.ara-rowing.org

www.portoflondon.co.uk

MIDDLESEX



SURREY

Key	
	Route when proceeding AGAINST the flow
	Crossing point (when proceeding AGAINST the flow)
	Route when proceeding WITH the flow
	Flight Hand Rule applies
	Tricky shallows at low Water
	Mooried Craft
	Pier
	LANDMARK

This Map is not to Scale

Surrey	Middlesex
Putney Town	Putney Town
St. Pauls School	University of London
Barn Elms	Mortlake Anglian and Alpha
	Quintin
	Tridway Scaillers School
	Thames Tradesmen
	Emanuel School (& Dacre)
	Civil Service (Oyner & BBLFC)
	Furnival
	Aurrol Kensington

Includes: Imperial College, London, Thames, Vesta, HSBC

Boathouse Key