

British Canoeing Awarding Body

SUP Safer – Tideway Training

For Tutors of the SUP Safer course, it is important to understand who and why participants are engaging with the safety programme. If they are indicating that they will be venturing onto the Thames, then the additional content should be delivered to raise their awareness and understanding of the Tideway.

All Tutors providing this additional aspect to the SUP Safer programme need to be confident that they have both the experience and knowledge of paddling on the Thames to ensure accuracy and provide context, as well as considering that the environment is appropriate for the delivery of the SUP Safer programme. Additional training will be provided by the Paddles Up Training Delivery Centre for SUP Safer Tutors who want to offer the SUP Safer Tideway Training.

We recommend that the training is provided as part of the course as outlined below, allowing an additional 30-45 mins for delivery. However, the content can be delivered independently to experienced Stand Up Paddleboarders who only require the Tideway knowledge, but this will not be certificated.

A separate SUP Safer certification will indicate that the participant has engaged with both the SUP Safer course and the Tideway content.

The Tideway content covers:

- The Tideway code, navigation rules and river traffic,
- The Thames tides and tidal flows,
- Hazards and how to control risks.


It has been identified that modules 2 and 3 of the SUP Safer programme can be used as a platform to deliver the content in the context of paddling on the Upper Thames Tideway between Teddington and Putney.

Module 2 – Environment and Weather

- Where to find information on Thames tides and what to look for
- How to interpret Thames tidal information

- The effect of springs and neaps
- Flow rates and hazards/risks including appropriate leash choice
- Interaction and effects of tidal flow and rainfall

Learning Outcomes	Learning Materials
<p>Understand the tidal range of the Thames; tidal directions; tidal streams; practical methods of recognising tidal stream flows.</p>	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); background-color: #f4a460; padding: 5px; font-weight: bold; margin-right: 10px;">TIDE & STREAM</div> <div style="flex-grow: 1;"> <p>Ebb tide, flood tide and the tidal stream</p> <p>The Thames below Teddington Lock is a tidal river and navigation is essentially based around the behaviour of the tide, which changes regularly.</p> <p>The tidal rise and fall can be as much as 7m and the flow can reach 4 knots (more around bridge, piers, moorings etc.) so attention must be paid to both the direction and the strength of the tide and the stream. On the Tideway the tide will always turn first downriver (i.e. at the estuary).</p> <p>Both rowers and paddlers (including coaches and group leaders) need to be especially aware of the tide direction with regard to working the slacks against the tide and how this affects navigation within the Tideway Code Areas (pp.59-62).</p> <p>It is therefore vital for safe navigation that the tidal stream conditions and tidal sets (p.14) are understood and situational awareness is maintained at all times.</p> <p>What is 'the stream'?</p> <p>The visible flow on the surface of the river is referred to by many Thames boaters as 'the stream'. Although they almost always flow in the same direction, the stream's direction can occasionally differ from that of the tide:</p> <p>A less common effect, known as swelling, happens during periods of prolonged, heavy rainfall when there is a visible outbound flow even though there is an inbound/flood tide. Swelling usually occurs during the winter months and steers above Putney should always navigate according to the visible stream direction and not the predicted tide.</p> </div> <div style="margin-left: 10px;"> <p>To avoid any confusion, this Code presumes the normal state of the stream and tide flowing in the same direction. This direction of flow is referred to as the 'tidal stream'.</p> <p>Knowing the tide direction is critical and tables of predicted tide times are available online at – tidepredictions.pla.co.uk/ or on the PLA smart phone app (p.16). Various other websites and apps also provide this information.</p> <p>Apart from tide tables, which only give predicted tide times, there are several practical ways to check the tidal stream direction, although you must always allow for the strength and direction of the wind:</p> <ul style="list-style-type: none"> • Look at boats moored only at one end, they will hang downstream from their mooring. • See what direction floating objects drift in. • Look at which direction the water is flowing past a bridge buttress or buoy (see below). </div> </div> <div style="text-align: right; margin-top: 10px;">  </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); background-color: #f4a460; padding: 5px; font-weight: bold; margin-right: 10px;">TIDE & STREAM</div> <div style="flex-grow: 1;"> <p>Factors affecting the tidal stream</p> <p>Wind</p> <p>The wind can have a considerable effect on the river. If the wind is in the same direction as the tide it will speed up the tidal stream. If it is against the tide (wind-over-tide), it will 'chop-up' the top of the water and can make for very difficult conditions, especially at high tide. Sometimes a very strong wind can even give a false impression of the tidal stream direction. The Tideway meanders considerably so it is important when planning a trip to remember that wind will affect the river differently along its course.</p> <p>Thames Barrier closures</p> <p>When the Thames Barrier is closed (see opposite) it will have a noticeable and confusing effect on the tidal stream (similar to swelling, p.12). It may be hard to tell in which direction the tidal stream is flowing and the flood tide may not really feature at all. In doubt, navigate to starboard/ Col Regs (p.58) since there will be no slacks to work in!</p> <p>Draw-offs (normally October – November)</p> <p>The draw-off usually lasts for four weeks and is when the half-tide barrier at Richmond is left open during low water for maintenance. This allows the river to drain to its natural level, which is much lower than usual. This also has an effect on the river flow and low water level down as far as Kew Bridge and sometimes beyond.</p> <p>Neap tides (weak tides with a small tidal range)</p> <p>On rare occasions a particularly weak, flooding neap tide can cause similar effects to swelling (p.12).</p> </div> <div style="margin-left: 10px;">  <p>Tidal 'set'</p> <p>Small boats in particular need to be aware of the tidal set. This is caused by the tidal stream which will always 'set' to its natural course around the outside of a bend. However, the natural course of the tidal stream may not follow the correct navigational course.</p> <p>In the example above, heading outbound around the bend on an ebb tide, the correct navigation is to stay on the starboard side of the Fairway, towards the inside of the bend. However the tidal set will naturally push boats towards the outside of the bend. Steers must be aware of the need to pro-actively adjust their course to correctly remain on the starboard navigational line and avoid their boat being pushed out of position (and possibly into danger) by the tidal set.</p> </div> </div>
<p>Read and understand a tide table, where to find the information and how to interpret it. Appreciate how weather conditions may affect the interactions of tide and fluvial flows.</p>	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); background-color: #f4a460; padding: 5px; font-weight: bold; margin-right: 10px;">TIDE & STREAM</div> <div style="flex-grow: 1;"> <p>Wind</p> <p>The wind can have a considerable effect on the river. If the wind is in the same direction as the tide it will speed up the tidal stream. If it is against the tide (wind-over-tide), it will 'chop-up' the top of the water and can make for very difficult conditions, especially at high tide. Sometimes a very strong wind can even give a false impression of the tidal stream direction. The Tideway meanders considerably so it is important when planning a trip to remember that wind will affect the river differently along its course.</p> <p>Thames Barrier closures</p> <p>When the Thames Barrier is closed (see opposite) it will have a noticeable and confusing effect on the tidal stream (similar to swelling, p.12). It may be hard to tell in which direction the tidal stream is flowing and the flood tide may not really feature at all. In doubt, navigate to starboard/ Col Regs (p.58) since there will be no slacks to work in!</p> <p>Draw-offs (normally October – November)</p> <p>The draw-off usually lasts for four weeks and is when the half-tide barrier at Richmond is left open during low water for maintenance. This allows the river to drain to its natural level, which is much lower than usual. This also has an effect on the river flow and low water level down as far as Kew Bridge and sometimes beyond.</p> <p>Neap tides (weak tides with a small tidal range)</p> <p>On rare occasions a particularly weak, flooding neap tide can cause similar effects to swelling (p.12).</p> </div> <div style="margin-left: 10px;">  </div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); background-color: #f4a460; padding: 5px; font-weight: bold; margin-right: 10px;">TIDE & STREAM</div> <div style="flex-grow: 1;"> <p>Factors affecting the tidal stream</p> <p>Wind</p> <p>The wind can have a considerable effect on the river. If the wind is in the same direction as the tide it will speed up the tidal stream. If it is against the tide (wind-over-tide), it will 'chop-up' the top of the water and can make for very difficult conditions, especially at high tide. Sometimes a very strong wind can even give a false impression of the tidal stream direction. The Tideway meanders considerably so it is important when planning a trip to remember that wind will affect the river differently along its course.</p> <p>Thames Barrier closures</p> <p>When the Thames Barrier is closed (see opposite) it will have a noticeable and confusing effect on the tidal stream (similar to swelling, p.12). It may be hard to tell in which direction the tidal stream is flowing and the flood tide may not really feature at all. In doubt, navigate to starboard/ Col Regs (p.58) since there will be no slacks to work in!</p> <p>Draw-offs (normally October – November)</p> <p>The draw-off usually lasts for four weeks and is when the half-tide barrier at Richmond is left open during low water for maintenance. This allows the river to drain to its natural level, which is much lower than usual. This also has an effect on the river flow and low water level down as far as Kew Bridge and sometimes beyond.</p> <p>Neap tides (weak tides with a small tidal range)</p> <p>On rare occasions a particularly weak, flooding neap tide can cause similar effects to swelling (p.12).</p> </div> <div style="margin-left: 10px;">  <p>Tidal 'set'</p> <p>Small boats in particular need to be aware of the tidal set. This is caused by the tidal stream which will always 'set' to its natural course around the outside of a bend. However, the natural course of the tidal stream may not follow the correct navigational course.</p> <p>In the example above, heading outbound around the bend on an ebb tide, the correct navigation is to stay on the starboard side of the Fairway, towards the inside of the bend. However the tidal set will naturally push boats towards the outside of the bend. Steers must be aware of the need to pro-actively adjust their course to correctly remain on the starboard navigational line and avoid their boat being pushed out of position (and possibly into danger) by the tidal set.</p> </div> </div>

Learning Outcomes	Learning Materials
<p>Learn how the ebb tide flag warning system works, why it exists and where to find the information.</p>	<p>Fluvial flow and the ebb tide</p> <p>Fluvial flow is the amount of water flowing outbound (down-river) from the non-tidal Thames. There is always water flowing outbound and is the reason that the river fills up very quickly when it meets the inbound flood tide. After heavy rainfall, the fluvial flow will increase causing the outbound stream to increase in speed. When combined with an ebb tide it can make the river more difficult to navigate on – and in some cases dangerous – which is why a warning system has been put in place...</p> <p>Ebb Tide Flag Warning system (see panel, right)</p> <p>Between Teddington and Putney, an Ebb Tide Flag Warning system is provided by the PLA to help indicate the speed of the fluvial flow to small boat users. It is similar to the red and yellow board system used by the Environment Agency above Teddington but on the Tideway it only applies to the ebb tide.</p> <p> The system is updated daily on the Tidal Thames App (iOS and Android) and is also displayed as a widget at pla.co.uk. This widget is freely available to all Tideway clubs and should also be installed on their own websites.</p> <p>Prior to boating, rowers and paddlers are expected to have completed a risk assessment which ensures an adequate Passage Plan. The Ebb Tide Flag warning system is a key element of any risk assessment and thus should be always monitored and adhered to. Those boating in contravention of the Ebb Tide Flag Warning advice would be in breach of the Tideway Code.</p> <p>Other information regarding scheduled Thames Barrier closures and draw-offs are available via the PLA website, Notices to Mariners page at pla.co.uk/notices-mariners</p> <div data-bbox="1117 235 1449 846"> <p>Ebb Tide Flag Warning system</p> <p>TIDE & STREAM</p> <p>Ebb Tide Flag Warning Extreme Caution – Very Strong Fluvial Flows The Port of London Authority advise all river users that the Ebb Tides are very strong and conditions are difficult and dangerous. All non-powered vessels are advised not to go about on the Ebb Tide.</p> <p>Ebb Tide Flag Warning Caution – Strong Fluvial Flows The Port of London Authority advise all river users that the Ebb Tides are very strong and conditions are difficult and dangerous. All non-powered vessels are advised not to go about on the Ebb Tide. All river users should be aware of the risk of collision with other vessels and should be aware of the risk of collision with other vessels and should be aware of the risk of collision with other vessels.</p> <p>Ebb Tide Flag Warning Average Fluvial Flows The Port of London Authority advise all river users to navigate with caution and maintain a proper lookout.</p> <p>Ebb Tide Flag Warning Caution – Low Fluvial Flows The Port of London Authority advise all river users that the Ebb Tide is less than usual and power than predicted tides may be expected, especially around the barrier.</p> <p>GO BACK TO CONTENTS < 15 ></p> </div>

Tutors are encouraged to refer to and allow participants to explore and use the following resources during the delivery of the programme, as well as sent out as participant post course information.

[Boating on the Thames - Port of London Authority](#)

[PLA App](#)

[Live Tides](#)

[Notice to Mariners](#)

[Ebb Tide flag warnings](#)

Module 3 - Planning

Journey planning and navigation rules on the Upper Tideway following the Tideway code.

- The upper Tideway area
- Navigating the Tideway – working the slacks
- Warning signage and buoyage
- Other river traffic and effects of wash
- Pollution
- Paddling with others – Delivery Partners and Clubs on the Tideway

Learning Outcomes

Learn the role of Authorities (PLA & VTS) and the importance of correct communication

Identify lines of communication for general safety and in case of an emergency.

Learning Materials

INTRODUCTION

Port of London Authority (PLA)

The 95 miles of tidal Thames stretching between the estuary and Teddington Lock comes under the jurisdiction of the PLA whose role is to keep commercial and leisure users safe, protect and enhance the environment and promote the use of the river for trade and travel.

The PLA is ultimately responsible for regulating Tideway navigation and does that in a number of documents:

- Collision Regulations (Col Regs)
- Port of London Act
- Thames Byelaws
- General Directions
- Notices to Mariners (NtMs)
- Port Information Guide

By its very nature, the Tideway Code must refer to and recognise these regulations. Wherever navigational regulations are quoted they are enclosed in a coloured panel, such as this one, for ease of recognition.

The PLA keeps all of its regulations under review and the latest additions can be found in their entirety on the PLA website – pla.co.uk

Ignorance of these regulations is not an acceptable defence in the event of an incident.

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Why does this Code of Practice exist?

The Tideway Code is a special navigational concession for users of man-powered boats – specifically rowing boats, canoes, kayaks, dragon boats and stand-up paddleboards.

Its origins, known as “Working the Slacks”, are explained on the opposite page and it exists to allow for the easiest navigation on such a large tidal river. A study by the Salvage Association in 2004 concluded that: when used properly, these special navigation rules are also the safest option for small man-powered boats.

There are two Tideway Code Areas, Upper and Lower (see next page) where these special navigation rules apply and within which users are expected to navigate according to the Tideway Code. Outside these areas Col Regs or the starboard-side rule must be observed.

However, it must be made clear that being allowed to navigate by working the slacks, for sport and leisure, is a privilege conditional upon responsible, safe navigation, which may be removed if not adhered to. It is therefore up to the rowing and paddling communities – clubs, associations, commercial providers and individuals – to take responsibility for following the Tideway Code thus ensuring that the traditional privileges historically enjoyed in these areas are not taken away for good, to the detriment of their sports.

This Code of Practice is specifically aimed at rowing and paddling on the Tideway. For guidance and advice on other recreational sports and activities on the tidal Thames please see the PLA publication ‘Tidal Thames: Recreational Users Guide’ or visit the PLA leisure users website – activeriverthames.co.uk

COMMUNICATION & REPORTING

VHF Radio

There is constant VHF communication between London VTS (who regularly broadcast Notices to Mariners and other pertinent information), commercial and commuter vessels and London Coastguard. They all work closely together and will also coordinate any emergency response that may be required on the river.

A personal VHF handset is advised in busy commercial traffic areas where it can be invaluable for keeping a listening watch on the intentions of other vessels or to receive critical information. *SUPs must carry VHF below Putney Bridge.*

Users do not need a licence to listen on VHF but do need the appropriate licence to broadcast. Having such a licence means small boats are also able to make other river users aware of their intentions.

Many modern VHF sets also include the option of a Digital Selective Calling (DSC) button which will send a pre-defined distress signal, including your location. This is recommended for small boats.

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London Vessel Traffic Services (VTS)

River section	Phone	VHF
Teddington to Crayfordness	0203 2607711	Channel 14
Crayfordness to Sea Reach 4	01474 560311	Channel 68
Sea Reach 4 to Seaward Limit	01474 560311	Channel 69

London VTS is a division of the PLA which oversees day-to-day safety and navigation across the whole of the tidal Thames, 24/7, 365 days a year. They are the shipping equivalent of Air Traffic Control and have a great deal of information to hand such as river works, arch closures and traffic movements as well as being in close contact with the emergency services.

For small boats, being involved in this communication network is extremely beneficial, particularly in Central London where river traffic is very busy.

When to contact London VTS

- All small boats are *advised* to inform London VTS before navigating below Wandsworth Bridge
- All small boats *must* inform London VTS before navigating between Chelsea Bridge and Cherry Garden Pier (Central London)
- All small boats *must* inform London VTS when they are afloat in the dark below Wandsworth Bridge
- Events organisers *must* inform London VTS that the event is about to start and again once the event has finished

Emergencies: where there is immediate or potential threat to life

Primary emergency option:

Phone: 999 or 112 and ask for the Coastguard who will coordinate the appropriate response.

VHF: See listings opposite for appropriate channels.

London VTS will either alert the Coastguard, who will task the appropriate emergency service, or other vessels in the vicinity who may be able to offer even more immediate assistance.

In all cases callers will need to provide details of their location on the river and the direction of the tide. Use landmarks and bridge names to detail that position.

Secondary emergency option:

If you are unable to communicate by either phone or VHF then attempt to attract attention from other vessels nearby or people on the shore. A whistle is very effective for doing this as it carries further than a shout. You may also be able to attract attention by waving or flashing a light.

If in doubt, report it

River users are the best eyes and ears on the river and emergency services may depend on you to report an incident – don't presume that someone else has already reported it.

You should immediately report the following if:

- You see or hear someone in difficulty
- You think someone might be in danger or is about to do something reckless – report it before it happens!
- A boat or group is significantly overdue back at your club and you are unable to contact or locate them

Carry the kit

It is recommended that below Richmond Lock, all small boats, particularly coaches, group leaders and soloists carry a mobile phone (in a buoyant, waterproof case) or a personal VHF handset to summon help in emergencies.

Phones or radios should be carried where they are readily accessible (on a lanyard for example) and not tucked away in a hatch or bag.

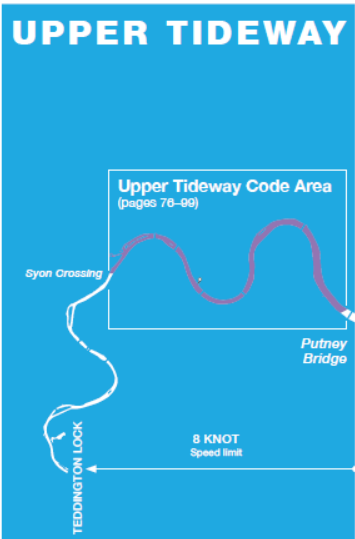
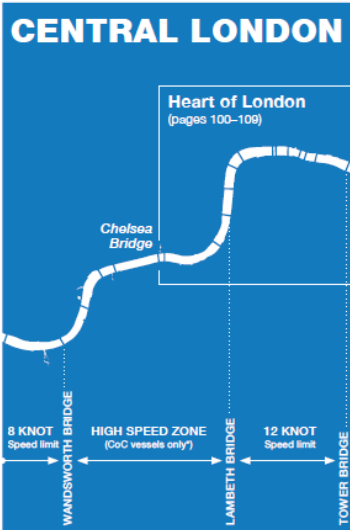
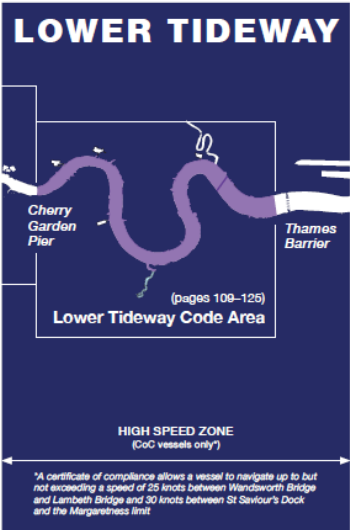
SUP leaders and solo paddlers *must* carry VHF below Putney Bridge.

Be aware that the RNLI, police, fire service or PLA may need to respond to incidents at speed, signified by flashing blue lights and/or sirens. Be prepared for wash and give them space in which to work.



COMMUNICATION & REPORTING

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Learning Outcomes	Learning Materials
<p>Tideway Traffic – Learn where to find information on other craft using the tideway and their operational characteristics and behaviours</p> <p>Using the tideway directions to understand the craft and risks in the area of paddling.</p>	<div style="display: flex; flex-direction: column;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; color: white; background-color: #0070C0; padding: 5px;">TIDEWAY DIRECTIONS</div> <div style="flex-grow: 1;"> <p>Tideway directions</p> <p>The following section of the Code as been split into three Tideway Directions sections, which provide more specific navigational information that pertains to each section of the river, starting at Teddington and working downriver:</p> <p><u>Upper Tideway</u></p> <ul style="list-style-type: none"> - Teddington to Syon reach buoy. - Syon reach buoy to Chiswick Bridge. - Chiswick Bridge to Putney Bridge. <p><u>Central London</u></p> <ul style="list-style-type: none"> - Putney Bridge to Chelsea Bridge. - Chelsea Bridge to Tower Bridge (Heart of London). <p><u>Lower Tideway</u></p> <ul style="list-style-type: none"> - Tower Bridge to Greenwich. - Greenwich to Thames Barrier. <p>As well as highlighting specific areas of navigational concern to small boats, each section describes the navigation patterns expected of small boats. The Tideway Code Areas in particular also include the direction of the tide, in the order of:</p> <ul style="list-style-type: none"> ▶ Ebb tide. ◀ Flood tide. </div> <div style="writing-mode: vertical-rl; font-weight: bold; color: white; background-color: #0070C0; padding: 5px;">TIDEWAY DIRECTIONS</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="width: 30%; text-align: center;">  <p>UPPER TIDEWAY</p> <p>Upper Tideway Code Area (pages 78–99)</p> <p>8 KNOT Speed limit</p> </div> <div style="width: 30%; text-align: center;">  <p>CENTRAL LONDON</p> <p>Heart of London (pages 100–109)</p> <p>8 KNOT Speed limit</p> <p>HIGH SPEED ZONE (CoC vessels only)</p> <p>12 KNOT Speed limit</p> </div> <div style="width: 30%; text-align: center;">  <p>LOWER TIDEWAY</p> <p>Lower Tideway Code Area (pages 109–125)</p> <p>HIGH SPEED ZONE (CoC vessels only)</p> <p><small>*A certificate of compliance allows a vessel to navigate up to but not exceeding a speed of 25 knots between Wandsworth Bridge and Lambeth Bridge and 30 knots between St Saviour's Dock and the Margarethe's limit</small></p> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div style="font-size: small; color: gray;">GO BACK TO CONTENTS</div> <div style="font-size: small; color: gray;">< 74 ></div> <div style="font-size: small; color: gray;">GO BACK TO CONTENTS</div> <div style="font-size: small; color: gray;">< 75 ></div> </div> </div>

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[PLA Upper Tideway Navigation video](#)

[Map extract page 60 of Tideway code](#)

[Use of PaddlePoints and tideway information](#)

[PLA – Environment/Water quality](#)