

Risk assessment

UHBC/ULBC Regattas – Chiswick Reach

There have been recent minor resurgences of Covid-19 and a surge in infection rates could impact the race, perhaps with short notice absence of officials. However it appears unlikely that there would be a return to the restrictions seen in 2020-21. Please refer to the 2022 and 2023 safety plans for relevant supporting documentation.

The risk assessment shown below is designed to cover foreseeable risks in the conduct of the UH Autumn regatta (incorporating the University of London Allom Cup) and the UH Winter regatta. These are usually held in the late autumn or winter months, at the weekend, and last for one day only. The foreseeable risks are common to both events. Boating for these events occurs mainly from University of London boathouse (ULBH), but competitors may boat from from Tideway Scullers School boathouse (TSSBH) and elsewhere.

The events are held in accordance with the principles set out in the PLA Tideway Code. The events are marshalled in a similar fashion to the various British Rowing affiliated regattas on this stretch including Chiswick Amateur, Barnes & Mortlake and Borne and the risk assessments conducted by these regattas will have considerable overlap with the UH/UL events.

History of the UH/UL regattas.

These events have been held in this location for at least fifty years. There have been no fatalities related to the conduct of these events known to the author in this period.

Established accident history (updated August 4.

There have been three significant incidents since 2000:

2001: A race start in the ULBC Allom Cup collided with a crew crossing against the stream from ULBH resulting in significant injury. Issues were identified relating to the adequacy of look out on the part of the cox of the crew crossing and the failure to identify an obstruction on the part of the relevant marshal involved in starting the race.

2002: An eight capsized on the second pier of the railway bridge on a strong ebb tide whilst being marshalled in a UH regatta. There were no injuries but the boat was written off. Issues identified included the potential for foresight on the part of the relevant marshal which was not acted on.

2015: Incident report 5383: capsized eight on downriver-most wooden pile on Middlesex side above ULBH during flood racing session of novice regatta. Contributory factors included moderate S-SW tail wind, adequacy of launch-based finish marshal and the course of the two boats conflicting (one turning according to marshalling plan into ULBH and the other turning in the opposite direction to the Surrey in-shore zone in order to return to TSSC). Action plan discussed by UHBC committee:

1. Minimise use of flood racing pattern where-ever possible (ebb pattern predominates in these events anyway).
2. Start manager and other key race officials need to monitor wind conditions and stream strength during flood racing; caution with strong cross/tail winds which might drive crews onto the wooden piles or the pier beyond the finish.
3. In flood races aim to draw crews who will not be returning to ULBH following the race on the SURREY station so that they can access the Surrey in-shore zone with less potential for conflict (i.e. KCL drawn on Surrey)
4. Clarify the flood navigation/marshalling plan to highlight the availability of the 'figure of eight' navigation around the UL buoy as a safe alternative to immediately turning into the Middlesex

side at ULBH (but note the potential for conflict with other river users and the need for more turning which may not make this suitable for all crews)

5. Ensure that the tasking of the finish marshal is reviewed carefully, and consider whether placing a licenced umpire at this position would be appropriate when drawing up the duty roster.

Issues relating to watermanship:

There are often lapses in steering of boats from a variety of clubs against the stream along the Surrey side opposite ULBH as the river bends gently to Surrey, with the result that crews often swing into the centre of the stream when proceeding against an ebb tide despite the provisions of TC. This comment relates to all oared boats in the area.

There may be lapses in watermanship in competing crews either at the point of turning or during the race, with the possibility of crews departing from the course and potentially infringing the starboard hand rule. This is particularly likely in the novice event (but not exclusively so), with individual competitors with limited racing experience and the ever-present risk of catching crabs and similar mishaps. However the event is run on the basis of providing such experience in a relatively safe environment and all officials need to be prepared to provide appropriate support.

Experience of officials:

The RCC is assisted by licenced umpires who will occupy key race official positions. There may be inexperienced other race officials in other roles supplied by the UL/UH based clubs. In general these will be nominated by club captains on the basis of previous experience and all officials in each event will have previous experience of the event either as a competitor or official.

The number of races involved is usually quite small and usually the chief umpire is able to control the event from the start area.

The flood finish marshalling role is one which requires careful tasking given the potential difficulties in this area.

There is an officials' briefing before each event which has the same format for each event in keeping with briefing prior to affiliated events.

Flood finish arrangements

The 2015 incident has resulted in a review of the course to be followed by competitors in the event. In general, the course followed by boats on the ebb racing pattern is in keeping with the other affiliated regattas on this course and no changes are required. The flood racing pattern finish has been clarified to ensure that crews understand the danger of the fixed obstructions at the upriver end of the course. These events are different to the affiliated regattas on this course as the vast majority of crews will need to return to UL rather than MAA or Quintin (which requires turning to the Surrey ISZ as a matter of course).

Crews should ensure that they do not attempt to turn across each other at the end of the flood course; and that unless it is safe to turn immediately to Middlesex crews should proceed upriver in accordance with the (revised) course diagram. Crews should either perform a 'figure of eight' around the UL buoy or proceed upriver on the stream until they reach the gap between the Kew RZs. However if crews opt for the 'figure of eight' then they are in danger of potential conflict with other vessels in the fairway or the ISZ and this requires careful monitoring by the finish marshal, who should be suitably experienced.

Table of risks and control measures

Risk Assessment Matrix¹

	Most likely severity of harm		
Likelihood of harm	Slight harm	Moderate harm	Extreme harm
Very unlikely	Very low risk 1	Low risk 2	Low risk 3
Unlikely	Low risk 4	Medium risk 5	Medium risk 6
Likely	Medium risk 7	Medium risk 8	High risk 9
Very likely	Medium risk 10	High risk 11	Very high risk 12

Note that the risk assessment matrix is a subjective tool and the individual cells are numbered for reference purposes only. Updated in accordance with suggested risk level estimator: Row Safe 2008 v1 section 1.2
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Summary of key risks and mitigation process

Key risk	Measured variable	Risk level	Risk status	Mitigation	Responsibility
Changes to fluvial flow	PLA fluvial flow flag	Black flag	Black	Consider impact of delay in establishing ebb stream	RCC (CU)
		Green flag	Green	Nil	N/A
		Yellow flag	Amber	Consider: exclusion of novice crews; scheduling races in nominal flood stream	RCC (CU)
		Red flag	Red	Aim for decision > 24 hours prior to race time	RCC (CU)
High wind speeds ²	Forecasted wind direction and speed (mean and gust speeds)	Forecast Mean < 15mph or Gusts < 25mph	Green	Course inspection by CU prior to racing	RCC (CU)
		Forecast Mean 16-20mph or Gusts 25-35mph (especially SE)	Amber	Decision may need to be made on race day following change of tide based on course inspection by CU and review of actual wind speed and direction Consider: <ol style="list-style-type: none"> Continue with racing Cancel or defer racing Shortening of course (?) If the wind direction is SW with an ebb stream then the course may be relatively sheltered.	RCC (CU) Decision may need to be made on race day following change of tide. Care with high wind speeds from cross or head direction (NW) on the flood stream at the finish.
		Forecast Mean > 20mph or Gusts > 35mph	Red	Decision may need to be made on race day following change of tide based on course inspection by CU and review of actual wind speed and direction (note that forecast may > actual gust speeds) Consider: <ol style="list-style-type: none"> Cancel or defer race Continue with race Contingency plan 	RCC (CU) Decision may need to be made on race day following change of tide. Care with high wind

² High forecast wind speeds have resulted in the decision to cancel the HRR (in advance) in 2013 and 2017 and abandon the HRR in 2014 (during the race) and the HRRs in 2009 (prior to race start)

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					speeds from cross or head direction (NW) on the flood
Transmission of coronavirus infection ³	National or British Rowing restriction	No restriction	Green	Follow any British Rowing guidelines or UK Government legislation	SA/CU/CM
		Restriction	Amber		

³ And similar virus infections

	Non-Covid Risk	Issues	Probability of accident	Likely severity	Risk estimation	Control measures
1	Risk of collision with other oared boat, powered vessel or fixed obstruction	Novice and inexperienced coxes. Coxswains fail to attend coxswains' pre-race meeting Lack of adherence to marshalling instructions	Likely	Slight Harm	Medium 7	UH/ULBC sets basic minimum coxing experience criteria (min 20 hours); attendance register at coxes meeting; UH/ULBC places emphasis on responsibilities of individual club captains to ensure compliance with marshalling instructions and attendance at coxswains' meeting. Club captains responsible for ensuring that novice crews are not coxed by novice coxes. Ensure marshalling launches in correct position throughout marshalling and race. Ensure designated safety launch in position and available throughout; if primary safety launch responding to incident then RCC to either designate another launch as back-up safety or suspend racing until primary safety launch available. Launches in correct position throughout marshalling and race.
2	Radio communication failure	Immersion of handset/ severe rain Handset failure.	Unlikely	Slightly harmful	Low 4	Mobile phones as back-up Move to digital radio system (2023) Total system failure will require the UH/UL control to consider suspension of event.
3	Use of inexperienced race officials	Use of relatively junior personnel for non-key race official positions Moderate availability of licenced umpires	Likely	Slight harm	Medium 7	Briefing by chief umpire Invitation of other licenced umpires by RCC to fill key race official positions Overall control by chief umpire waterborne in start area Adherence to radio code Ensure racing timetable suitable intervals (average > 5 minutes)
4	Lack of functioning launches	Borrowed launches. Engine failure/ lack of petrol during event; but 4 other launches in action Launch failure prior to event, with no available spare	Very unlikely	Slight Harm	Very Low 1	The regatta will not commence without four fully functioning launches (excluding safety). If a launch failure occurs during the regatta, then the UH/UL control will take immediate steps to identify a reserve launch. If one is not available, then the control/CU will review whether suspension of racing is appropriate. If reduced to four launches then these will take up positions 2-5 only.
5	Inadequate launch safety equipment	Borrowed equipment (responsibility rests with the individual club captains)	Very unlikely	Moderate Harm	Low 2	Attention must be paid by UH/UL control in checking launches in advance. UH/ULBC to identify responsibility of individual club captains to provide equipment in line with British Rowing 'Row safe'.
6	Immersion in the Tideway	Risk of immersion, hypothermia and drowning.	Very unlikely	Extreme Harm	Low 3	All private matches based at ULBH will have appropriate rescue boat provision from a recognised provider. The regatta cannot commence without adequate safety boat cover. Event will designate a further launch as 'back-up' if the safety boat is dealing with an incident. Back up via RNLI if needed.

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						All coxes will wear buoyancy aids/lifejackets in line with BR Row safe Rowers will need to satisfy individual clubs regarding competence to swim; if not competent then they must wear an appropriate buoyancy aid or lifejacket. If rowers are competent to swim then they will not wear specific buoyancy aids in line with national standards for rowing as set out in BR Row Safe
7	Medical evacuation	LAS ambulance. Evacuation route via ULBH	Very unlikely	Extreme Harm	Low 3	CU medically qualified. Other officials will also have basic life support provision ability. LAS outside of UH/ULBC control. Designated primary evacuation route via ULBH.
8	Poor water quality due to high chemical or microorganism levels	High rainfall associated with local sewage releases Competitor and officials risk acquiring E Coli and similar bacterial infections from contact with polluted water	Likely	Moderate harm	Medium 8	The event endorses current British Rowing advice to mitigate the risk of bacterial illness- https://www.britishrowing.org/wp-content/uploads/2024/03/Guidance-for-Rowing-When-Water-Quality-is-Poor-March-2024.pdf If excess sewage load risk in local environment consider cancelling event.
9	Fast ebb stream conditions (high fluvial flow)	PLA 'flag' system Greater chance of high fluvial flows during winter months	Likely	Extreme harm	High risk 9	RCC and organising committee to review ebb flow rates over previous few days, and aim for early notification (>24 hours) to competitors about changes to the planned events. If 'red' flag then event may not proceed on the ebb and no oared boats should be allowed on the Tideway; rowing may be possible during the time between low and high water but the stream speed may still be high and on the ebb and the RCC & organising committee may sanction senior crews only to race in this period provided there is a direct assessment of conditions immediately prior to such racing. If 'yellow' flag then only senior crews may boat on the ebb and the RCC and organising committee may sanction senior crews to race in this period provided that there is a direct assessment of conditions immediately prior to such racing. It may be possible for the RCC and organising committee to sanction intermediate and novice crews to race during the period between low and high water but only if there has been a direct assessment of conditions immediately prior to such racing. No crews comprising members who have less than two term's rowing experience should boat during the ebb stream in 'yellow' flag conditions.
10	Low fluvial flow	PLA black flag (more likely to affect Novice Regatta)	Unlikely	Slightly harmful	Low 4	Possible impact in causing late change to ebb from flood related to high water and ebb to flood related to low water; potential risk of collision due to uncertain navigation during period of change; RCC to monitor conditions and information to be passed to competitors.

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11	Poor weather conditions	High wind speeds Heavy rain Limited visibility Fog Snow and ice Extreme cold temperatures	Likely	Extreme harm	High risk 9	<p>RCC and organising committee to review weather forecasts over previous few days and aim for early notification (>24 hours) to competitors about adverse weather conditions.</p> <p>If gusts are forecast >30mph in a direction parallel to the river and against the stream then there is a high likelihood of unrowable conditions especially near high water. Care should be taken when there is a strong cross to head wind on the flood as this may cause dangerous conditions.</p> <p>However the Mortlake reach is relatively sheltered from the prevailing southwest wind direction, especially in the area of the ebb marshalling area and turning point and it may not be possible to accurately predict the impact of high wind speed on the water conditions until the time of the event.</p> <p>If there is doubt then the organising committee will instruct a delay in boating from ULBH and TSSC until there has been a course inspection by the RCC.</p> <p>Heavy rain or other climatic conditions may temporarily reduce visibility and the RCC will monitor the situations during the event.</p> <p>If the visibility is reduced such that the railway bridge cannot be seen clearly across the width of the river from the balcony of ULBH then the event should be suspended.</p> <p>Cold conditions: Significant snowfall or air temperatures <0C (allowing for wind chill) probably mean that it is not safe to run the event due to risk of hypothermia as a number of crews inevitably have to stay stationary for some time in order to marshal them into race pairs. If there is significant snow fall this will reduce visibility and is likely to be associated with very cold temperatures.</p>
12	Navigation of powered vessels in regatta area	Navigation of other vessels must not be impeded Adequate look-out by coxes, marshals, umpires	Likely	Slight harm	Medium 7	<p>Limited volume of powered vessel traffic on Tideway in the autumn/winter</p> <p>Event listed on PLA calendar of events.</p> <p>Effective use of bank marshal 4 (spotter) downriver of race finish to advise of oncoming vessels; to liaise with start.</p> <p>Experience of race starter/marshals</p> <p>Monitoring of VHF channel 14 by event (RCC & safety VHF licenced).</p>

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13	Watermanship of competitors proceeding to marshalling area	<ul style="list-style-type: none"> • Failure of cox to keep adequate look-out. • Failure to adhere to PLA byelaws & TC 	Likely	Slight harm	Medium 7	<p>See 1 above;</p> <p>Supervision by 5 launches, as detailed below;</p> <p>Pre-race information to coxes, only experienced coxes (20 hours experience minimum) permitted to race;</p> <p>Care to be taken when proceeding to the marshalling zone to avoid crews proceeding in the opposite direction (i.e. racing crews);</p> <p>Start marshal (ebb races) and Finish marshal (flood races) will advise crews boating from ULBH if it is unsafe to cross due to a race in progress.</p> <p>Supervision of TC rules in inshore zone</p>
14	Supervision of marshalling areas	<ul style="list-style-type: none"> • Failure to adhere to rules set out in TC • Too many boats in marshalling area • At low tide greater risk of obstruction of in-shore zone • Risk of external crew boating from ULBH not adhering to the TC (especially not keeping an adequate look-out or giving way when crossing the fairway) 	Likely	Slight harm	Medium 7	<p>3 launches in marshalling area;</p> <p>Marshals in this area generally under direct supervision of RCC;</p> <p>Pre-race instruction to coxes, experienced coxes only;</p> <p>At low tide consider use of extra marshal on bank in marshalling area to hold crews on the shore line (in conjunction with coxes) to keep marshalling crews out of way of other oared boats.</p> <p>If the number of competitors increases in the marshalling area to more than TEN boats then a second launch should be made available to supervise the crews and further boats held back at ULBH until the problem is resolved</p> <p>Start manager/aligner and race umpire to take account of other river users not complying with TC especially at the ebb start with other clubs boating from ULBH.</p>
15	Turning of competitors and alignment on the stream	<p>Failure to recognise restricted zones;</p> <p>Novice boats may have a larger turning circle;</p> <p>Failure of cox to keep adequate look-out;</p> <p>Failure of marshalling launch to supervise turning;</p> <p>Crews moving too far onto the port aspect of the fairway during turning manoeuvre (especially around UL buoy)</p>	Likely	Slightly harm	Medium 7	<ul style="list-style-type: none"> • Adequate supervision by marshalling launch assisted by umpires launch; • Adequacy of experience of race officials – use of licenced umpires; • Area under direct supervision of start manager during racing periods; • Start manager/aligner and race umpire to take account of other river users not complying with TC especially at the ebb start with other clubs boating from ULBH. • Pre-race information to coxes, experienced coxes only; • Flood start: Spin promptly into the fairway and paddle carefully through Chiswick bridge and easy outside the restricted zone on the appropriate station. • Ebb start: Spin tightly around the UL buoy and easy immediately, avoid going too far over to Middlesex and entanglement with wooden piles;

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						<ul style="list-style-type: none"> The start manager will take great care to avoid starting races when there is other river traffic in the vicinity of the start area. Attention by officials to keep crews on stream in correct position.
16	Conduct of the race	<ul style="list-style-type: none"> Coxes' attention drawn away from proper watermanship Failure to keep proper look-out Failure to adhere to PLA byelaws Difficulty in communication between marshal & cox 	Unlikely	Moderate harm	Medium 5	<ul style="list-style-type: none"> Use of licenced umpires; Launches equipped with adequate megaphone and flags; All races two abreast only (excepting those taken entirely by experienced licenced umpires in accordance with TRRC code); Pre-race information to coxes Most of course under supervision by CU from start;
17	Race finish and turning	<ul style="list-style-type: none"> Flood finish close to jetty and Railway Bridge restricted zone Ebb finish – possibility of drifting down to Ship crossing 	Unlikely ⁴	Extreme harm	Medium 6	<ul style="list-style-type: none"> Umpires to ensure boats able to turn safely away from restricted zone before launch returns to start area; Dedicated finish marshal Novice crews coxed by experienced coxes; Procedure for turning in pre-race information to coxes Ebb finish - ensure crews do not stop in Chiswick Bridge restricted zone & they exit before turning Flood finish - Minimise use of flood racing pattern where-ever possible; <p>RCC and other key race officials need to monitor wind conditions and stream strength during flood racing; caution with strong cross/tail winds which might drive crews onto the wooden piles or the pier beyond the finish;</p> <p>In flood races aim to draw crews who will not be returning to ULBH following the race on the SURREY station so that they can access the Surrey in-shore zone with less potential for conflict (i.e. KCL drawn on Surrey);</p> <p>Clarify the flood navigation/marshalling plan to highlight the availability of the 'figure of eight' navigation around the UL buoy as a safe alternative to immediately turning into the Middlesex side at ULBH (but note the potential for conflict with other river users and the need for more turning which may not make this suitable for all crews)</p> <p>Ensure that the tasking of the finish marshal is reviewed carefully, and consider whether placing a licenced umpire at this position would be appropriate when drawing up the duty roster.</p>

⁴ Based on experience from 1997 onwards, note 2015 capsized at flood finish

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18	Watermanship of returning crews	<ul style="list-style-type: none"> • Adherence to PLA byelaws • Failure to proceed in in-shore zone in accordance with TC • Crews retuning to ULBH against ebb stream crossing across racing crews 	Unlikely	Moderate harm	Medium 5	<ul style="list-style-type: none"> • Marshalling launches to ensure crews turned and following correct course back to boathouse. • Emphasis on proper navigation in in-shore zone at coxes' and marshals' meeting. • Start manager/aligner to ensure races not started without course being clear.
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In conjunction with ULBC

Revised August 2024

