

School's Head of the River - Friday 15th March 2019 – 12:00 Start

Risk Assessment

The Committee and the Safety Adviser have assessed the risks involved in this event as set out below. Effort has been made to cover the event for all reasonably foreseeable risks/eventualities and appropriate instructions are issued to all involved on the day. The safety Video, produced by the combined Tideway Heads Committee, has been issued previously and is a compulsory requirement of all the competing clubs to be responsible to organise viewing by all their coxes. Inexperienced, weak and novice crews are advised in unambiguous terms not to compete and a warning about the possibly extreme and variable conditions of the Tideway is sent to all Clubs before the event so that Clubs may make their own risk assessment of the abilities of their own crews.

In the event of poor conditions (i.e. those that pose an increased or unacceptable risk), the Committee reserve the right to cancel part or all of the event before the race. This will be assessed in accordance with the risk assessment below.

A Radio net is in operation throughout the event, both geographically and while crews are on the water and co-ordinates the work of some 34 launches – 12 dedicated safety launches and Marshalling Launches each with British Rowing Safety kits on board. Local hospitals are made aware of the event and Roehampton (S) and Charing Cross (Hammersmith) (N) are within minutes by ambulance, each on the respective bank of the river.

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Summary of key risks and mitigation process (CU=Chief Umpire, ESA=Event Safety Advisor,CM=Chief Marshal)

Key risk	Measured variable	Risk level	Risk rating	Mitigation	Responsibility
Increased fluvial flow	PLA fluvial flow flag	Green flag	Green	Nil	N/A
		Yellow flag	Amber	Consider: exclusion of novice crews	CU/ESA/CM Aim for decision > 24 hours prior to race time
		Red flag	Red	Cancel or defer race	CU/ESA/CM Aim for decision > 24 hours prior to race time
High wind speeds	Forecasted wind direction and speed	Forecast Gusts < 20mph	Green	Course inspection by CU/ESA prior to race	CU/ESA/CM
		Forecast Gusts 20-30mph (especially SE)	Amber	Decision may need to be made on race day following high water based on course inspection by CU/ESA and review of actual wind speeds Consider: 1. Continue with race 2. Cancel or defer race 3. Shortening of course to finish at Hammersmith (if strong SE gusts)	CU/ESA/CM Decision may need to be made on race day following high water
		Forecast Gusts > 30mph	Red	Decision may need to be made on race day following high water based on course inspection by CU/ESA and review of actual wind speeds (note that forecast may > actual gust speeds) Consider: 1. Cancel or defer race 2. Continue with race 3. Shortening of course to finish at Hammersmith but only if actual gust speed appears < 30mph and stable direction	CU/ESA/CM Decision may need to be made on race day following high water

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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

Risk and Actions

Risk Level	Evaluation of acceptability
Very low risk	Acceptable – risk has been reduced to lowest level that is reasonably practicable.
Low risk	
Medium risk	Risks that should be reduced so that they are acceptable – if reasonably practicable to do so.
High risk	Considerable resources may have to be allocated to reduce high risks.
Very high risk	Unacceptable risk: Activity should not be started or continued until the risk has been reduced.

¹ Updated in accordance with suggested risk level estimator: Row Safe 2008 v1 section 1.2

Note that the risk assessment matrix is a subjective tool and the individual cells are numbered for reference purposes only. A footnote refers to a particular issue at a recent event.

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Description of Risk	People affected	Current Risk Level	Planned Action to Control Risk
Collision			
Collision on land with boats, trailers or trailer vehicles.	Competitors, officials, spectators members of the public	Low 4	All officials and competitors receive notification where first aid is available and would be able to direct casualties as necessary. Boating areas are strictly controlled, particularly at Hammersmith and Putney Embankment where this risk is highest. In the event that any person on land makes a 999 call to report an incident on land or water, the Coastguard will receive and relay instructions in liaison with the RNLI and the Safety Adviser.
Collision or accident on towpath	Cyclists, supporters members of the public	Low 2	Competitor and officials instructions state no supporters are allowed to follow the race on bicycles. Should it be necessary, nearby race officials/observers will request medical assistance.
Collision with boats or blades when boating or landing.	Competitors, race officials, supporters, members of the public	Low 2	Reliance on competence of crew and coxswains. Boating marshals ensure crews boat and disembark safely, especially at Hammersmith. Race officials can direct access to medical aid if required.
Collisions between racing boats.	Competitors	Medium 5	Approx 50 race officials on the course to direct racing boats. Crews started at minimum 6 second intervals to reduce bunching. New entries are started in event classification order to increase the chance they have boats of similar speed around them. There is a pause in the starting procedure between divisions.
Collision between racing and non-racing boats ²	Competitors	High 9	Line of buoys to segregate the boats near the Finish area. CM to ensure marshal/observer allocation at crossing points is appropriate Specific crossing points designated, controlled by marshals. Marshals positioned below crossing points to stop crews crossing early. Briefing to include discussion about roles at Chiswick crossing Crews seeking to cross other than under the control of a Marshal liable to disqualification. Divisions waiting to race closely controlled by Marshals. Crews returning after racing are forbidden to overtake crews waiting to race.

² HORR 2011 event

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Collision			
Collision between racing boats and marshals'/observers'/ safety boats	Competitors & Officials	Low 2	Reliance on competence of crews, coxswains and launch drivers. Officials' boats are instructed to keep clear of the line of racing boats. CM and ESA to ensure that the race start is clearly identified by radio to all officials. Procedure in place for CM and/or ESA to stop the race in the event of a serious accident. The risk of stopping racing crews is viewed as being high in view of the presence of other racing crews coming up behind, who might not heed the order. This could only be contemplated if the risk of letting the crews on the course proceed exceeded the risk of trying to stop them.
Collision between boats in the marshalling area	Competitors	Medium 7	Comprehensive marshalling instructions are provided and enforced. Disqualification or penalty imposed for infractions endangering safety. Large number of marshals are on station well before race begins. Only experienced Tideway marshals are allocated to positions in the marshalling area between Barnes and Kew Rail bridges. Officials are instructed to hold back late arriving crews and they will be started in a safe place at the end of a division or at the end of the race – to be determined by the marshal in charge of that division and/or CM.
Collision with bridge, pier or moored boat	Competitors	High 9	Water-based marshal located in relevant areas to warn crews. Possible risk of collision with Dove Pier if crew well over to Middlesex (mitigated by safety boat 6 in attendance). Moored boats at Putney marked by a large flashing beacon on buoy at western end of line of boats (mitigated by safety boat 11 in attendance). Marshal on a moored boat close to Putney Pier to warn crews approaching line of buoys. At the Finish, one marshals boat remains below Fulham Rail Bridge to warn about moored boats and turning safely through the bridge. Safety boats are positioned within easy reach of moored boats, piers and bridges etc.
Collision with driftwood or other obstruction in the water.	Competitors & Officials	Medium 5	The River is cleared by the PLA before the race. Course is checked end to end before the race starts and is constantly monitored by race officials.
Poor watermanship /incompetence by coxswains/steerspersons.	Competitors	High 11	Host clubs are requested to ensure that all coxswains and steers have had access to "Coxing a Tideway Head" prior to the race and competitors instructions draw attention to the need for coxswains and steers to be competent. Reliance on competency of crews: minimum points for rowing crews and coxswains under minimum age are allowed only after challenge on experience, back-up by coach and with Race Committee agreement. Officials are instructed to remove incompetent crews from the river on their own independent authority. The safety information contains reference to the TRRC/PLA Code of Practice and on

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			the HRR website provides a link to the relevant site for review.
Risk of grounding (especially when returning against stream when stream height reduced)	Competitors	Medium 5	Unlikely to affect racing crews. More likely towards end of race when shingle more exposed e.g. around bridges. Low-speed contact, little risk of injury. Mitigation – safety launch cover in place for up to 60 minutes following the end of the race.

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Description of Risk	People affected	Current Risk Level	Planned Action to Control Risk
Injury			
Injury as a result of collision with another boat or obstacle e.g. <ul style="list-style-type: none"> • Back injury (speared by bow of another boat) • Capsize/trapped in the boat 	Competitors	Medium 5	Race instructions enforce BR requirement for bow balls and heel restraints. Control Commission make random checks at boating areas along the course. Event uses experienced marshals and observers; line of sight observation of whole course by observers and marshals during entire event. Observers will take action to direct the navigation of competitors for safety reasons (including proximity to other competitors and obstructions). SA will direct resources as required. Event provides ambulances staffed and equipped to paramedic level and are able to deal with initial response to all foreseeable accidents.
Illness during or immediately after race (while crew on water)			
Illness e.g. <ul style="list-style-type: none"> • Collapse due to exhaustion • Hypothermia • Collapse due to pre-existing or unrecognised medical condition e.g. <ul style="list-style-type: none"> ○ Heart attack ○ Breathing difficulties 	Competitors Competitors, officials, spectators members of the public	Medium 8	Competitors have a duty to advise their club and race officials of any relevant health problems prior to entering the event. Competitors have a duty to be aware of general principles of BR 'Row-safe' document (section 1, risk management). Competitors have a duty to ensure emergency contact telephone numbers on the day of the event are active and appropriate; event to review any telephone numbers provided to ensure that these are mobile rather than landline numbers where-ever possible ³ (to permit prompt repatriation). Radio communication by ESA and CU to direct resources as required. Event safety cover prioritised to competitors and officials but if conditions permit (without detracting from primary duty of providing safety cover to competitors) event may provide cover to spectators and members of the public on a good Samaritan basis only, before arrival of London Ambulance Service (LAS). Competitors rescued from course by rescue boats and transferred to paramedic ambulances stationed along the course. Ambulances equipped to an appropriate paramedic level (including facilities for BLS/ILS). Transfer to LAS/Secondary care as appropriate. Safety cover to stay in place until stood down by ESA after event. Event medical officer available for response as required.
Immersion of competitor, official, or other person in the Tideway			

³ 2011 HOR4s

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<p>Immersion in cold water -risk of hypothermia and drowning</p>	<p>Competitors, officials, spectators members of the public</p>		<p>Competitors may become immersed in the Tideway before, during, or after the race. Direct line of sight of whole course by race officials. Alarm will be raised by other crew members if needed. Sufficient numbers of rescue launches to provide cover along whole course.</p> <p>Rescue launches familiar with principle of prompt extraction from Tideway, prompt transfer to a suitable location with warmth and hot shower.</p> <p>Accepted national practice that rowers do not wear lifejacket/buoyancy aids unless need specifically identified by individual club safety advisors. This practice is in line with BR 'Row Safe' published guidance. Individual crew members will have satisfied club membership requirement regarding swimming ability.</p> <p>Coxes required to wear life jacket/buoyancy aid; reviewed by control commission.</p> <p>Immersion of officials – all will be wearing lifejackets/buoyancy aids. Alarm will be raised by other member of crew (e.g. driver). Line of sight coverage by race officials along whole course.</p> <p>Member of public/spectator – possible risk in vicinity of bridges – line of sight coverage by race officials and rescue boats.</p>
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Description of Risk	People affected	Current Risk Level	Planned Action to Control Risk
Race Organisation			
Errors/slips/lapses by race officials	Competitors & Officials	Medium 6	Detailed instructions and safety instructions are issued. Key marshalling positions are allocated to Tideway experienced marshals by CM and CU. All race officials are required to attend a pre-race briefing at Chiswick Pier House (Ranelagh for Putney officials) before going afloat. The briefing is given by CM, CU, SA. The instructions and briefing will include the race abandonment plan. ESA to ensure that rescue boats are briefed about their stations and responsibilities ⁴ ESA to ensure appropriate rescue boats used in accordance with PLA guidance
Failure of officials'/marshals' boats	Competitors & Officials	Low 2	Spare launches are on standby at the start, Chiswick Pier and the finish. Pre-race call-over identifies any problems so that spare boats can be despatched and be on station prior to race start; once racing has begun, spare boats could be despatched if they could reach their station safely and without interfering with or disrupting the race.
Failure of rescue boats	Competitors & Officials	Medium 5	Sufficient safety boats are recruited to provide back up (11 in total) Reallocation of duties by ESA as required to cover out of service rescue boat.
Unauthorised motor craft on the course	Competitors and water borne officials	Very low 1	River closure for event arranged with PLA. Radio contact with officials and marshals to ensure that any unauthorised vessels are reported to the Race Control. Prompt communication with the PLA to ensure that any such craft promptly reported.
Radio failure, including inability to deal with a safety incident.	Competitors & Officials	Low 2	Radios are fully charged before use and checked when handed out. Radio network set up by a radio engineer to set up networks (present throughout event). Separate radio networks for safety and marshals. There is a reserve channel for both networks. Mobile phone network as back-up for key race officials. Officials are asked to bring own mobile phone as emergency back up. The briefing will cover what officials should do in the event of radio failure, especially due to coverage problems, in the context of a major incident.

⁴ 2010 HOR4s

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Weather & River Conditions			
Early race with possible glare from low-lying sun	Competitors & Officials	Low 2	Line of sight cover by race officials.
Fog – poor visibility	Competitors & Officials	Medium 6	If visibility is sufficiently poor, an early decision by ESA/CU/CM will be made to cancel the race in conjunction with the PLA.
Severe cold and wet (risk of hypothermia, especially while crews waiting in marshalling area)	Competitors & Officials	Medium 5	Crews and officials are warned to be prepared in the instructions All launches carry safety kits including a thermal blanket. Rescue launches available to take severely affected individuals to suitable land locations adjacent to ambulance stations.
Fast stream conditions (High fluvial flow rate) ⁵	Competitors & Officials	Medium 6	CM/ESA/CU study stream conditions and forecasts in days/weeks before the event. CM/ ESA/CU review PLA Ebb tide flag (fluvial flow) warning system. <ul style="list-style-type: none"> Red flag conditions; decision by race committee as early as possible to cancel race if 'red flag' conditions are likely to continue. Yellow flag conditions: CM, ESA, CU consider possible options to reduce entry or restrict categories of competitors allowed to compete; possible change in timing of race; possible deferment of race. Event to communicate to clubs in advance of race day if event cancelled/amended/deferred. If late change in conditions (to 'yellow' or 'red' flag conditions) event to communicate message to specified contact at each host club to stop crews going afloat. Reliance on competence of crews and coxswains. Comprehensive instructions are provided including advice on navigating on a tidal river.
High wind conditions causing unrowable and/or dangerous conditions ⁶	Competitors & Officials	High 9	CM/ESA/CU study forecasts in preceding week before the event, in consultation with the PLA. If high risk of severe wind conditions likely to lead to unrowable water conditions the event should consider cancellation at least 24 hours in advance of race day. High risk of unrowable water conditions when: <ul style="list-style-type: none"> Gusts forecast > 30mph Wind direction against stream (especially with wind direction in north – south east sectors). Sudden onset of unrowable conditions may only be apparent following high water on race day. Course inspection by ESA and CU following high water. If necessary radio communication with other race officials to contact at each host club to stop crews going afloat. The ESA will get regular reports via radio from the marshals and rescue boats along the course

⁵ 2014 winter stream conditions

⁶ 2009 HOR4s; 2014 HORB

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			<p>and will order a concentration of resources to the worst affected area. The start may be suspended until conditions improve. The race may be abandoned once crews have gone afloat. Decision will be taken by ESA, CU and CM in consultation with the PLA and the Coastguard representative as appropriate.</p> <p>Abandonment protocol may be required to be implemented. Protocol to be disseminated and discussed at briefing.</p>
Thunderstorm/Lightning	Competitors & Officials	Medium 6	<p>Natural hazard. Monitor forecasts before race and delay or abandon race as appropriate. Apply 30 second – 30 minute rule.</p>
Object(s) dropped or thrown from towpath or bridge	Competitors & Officials	Medium 5	<p>Nearest marshal or other official with radio to alert Race Controller. CM/ESA/CU to take appropriate action (i.e. direct resources, stop racing) depending on nature of incident.</p> <p>If a member of the public/spectator jumps/falls into the river, nearest official with radio will alert race control. CM/ESA/CU to take appropriate action; which may include use of rescue launch/stop racing. The Coastguard will be contacted and will address the situation in liaison with the RNLI and the ESA. It is possible that the emergency services will be contacted directly by bystanders.</p>