

Risk Assessment

Event	North of England Head of River 2020	Date:	15th March 2020
Author	Royal Chester RC Safety Adviser; Andy Morris	Rev:	



No.	Hazard	Reduce probability a Hazard causing a Hazardous Event		Hazardous Event	Reduce the Severity of Harm		Harm	Severity (1-5) [1]	Probability (A-E) [2]	Level of Risk (UMSB)	Action Owners				
		Barriers	Action to maintain barriers		Controls	Action to maintain controls					Event Committee	Event RSA	Safety Boat Drivers	Control Commission	Other
Water															
1	Boats afloat for practice	Crews are discouraged from practicing outside the designated areas. Coaches and crews must attend the Safety Briefing and adhere to the Circulation Plan before going afloat for practice or racing.	Prepare and provide Safety Briefing and inform coaches and crews that they must read the Competitors' Instructions and Safety Plan	Capsize or sinking during practice	Safety plan to discourage crews from practicing	Send Safety Plan to clubs and instruct them to inform their crews. Display Safety Plan	Cold water immersion leading to mild hypothermia	2	C	Low	X				
			Send Competitors' instructions to all entries		Safety Plan and instructions to competitors advise crews that they must not go afloat unless there is a rescue boat on the course.	Brief landing stage marshals					X				
					A fully equipped rescue launch manned by trained crew is available at all times as well as the RCRC safety launch. Both safety launches are in attendance at all times.	Ensure that there is sufficient safety cover. Check equipment prior to use					X	X	X		
					Crews' life jackets checked by Umpires prior to going afloat to race. Particular attention paid to "front loader" boats.	Ensure that Umpires and Marshals checking equipment have instructions and a checklist				RNA	X				
2	Boats afloat for racing	Coaches and crews must have attended the Safety Briefing and noted the Circulation Plan before going afloat for racing	Prepare and provide Safety Briefing and inform coaches and crews that they must read the Competitors' Instructions and Safety Plan	Capsize or sinking during a race	Race Umpires will be positioned in launches at appropriate places along the race course and marshalling areas.	Ensure there are sufficient Umpires' launches and drivers are appropriately briefed.	Cold water immersion leading to mild hypothermia	2	C	Low	X		X		
			Send Competitors' instructions to all entries								X				
					Random safety checks to be completed on boats	Ensure that Umpires and Marshals checking equipment have instructions and a checklist									
					Crews' life jackets checked by Umpires prior to going afloat to race. Particular attention paid to "front loader" boats.	Ensure that Umpires and Marshals checking equipment have instructions and a checklist					X				
3	High Tide	Avoid tidal times where possible, remove debris and regrade the course	Review tide on previous day. Monitor for low barometric pressure, gusts and prevailing wind conditions.	Travelling the weir, crashing into leading magazines/buoys/cables and capsizing.	Cancel the event or division or reduce the entry to larger boats if necessary. If side is likely to breach low path	Ensure the Chief Umpire is consulted and made aware of the situation	Cold water immersion leading to mild hypothermia	4	B	Moderate	X	X	X		
			Liase with CWAC		Cheshire West and Chester Council removes debris from the river	Contact the council or engage contractor if necessary to remove hazardous debris or material.	Damage to equipment and personal injury.				X				
4	Heron bridge (right bend)		Advise coaches and competitors during Safety Briefing	Congestion, and collision with the river bank	Locate a Marshal and Umpire on the bank. Feedback via VHF to Starter from Heron bridge Umpire	Discuss the draw with Start Umpire	Damage to equipment and personal injury.	2	C	Low	X	X	X		
5	Weir	Three Cardinal Buoy - Flashing Lights	Advise coaches and competitors during Safety Briefing	Boats grounding on, or travelling over weir	Locate a Finish Marshal directing boats away from the weir	Finish Marshals to control boat traffic	Damage to equipment and personal injury.	4	B	Moderate	X		X		
					Locating a Marshal on suspension bridge						X				
Weather															
1	Sudden bad weather	Any changes or other key race officials should be notified in advance and the relevant crew members should be notified of the weather forecast and rescue boat	Ensure that Umpires, Marshals, coaches and crews are adequately briefed	Boats capsize or swamped	A fully equipped rescue launch manned by trained crew is available at all times as well as the RCRC safety launch. Both safety launches are in attendance at all times.	Ensure there is sufficient safety cover. Check equipment prior to use, especially radio communication.	Cold water immersion leading to mild hypothermia	3	C	Moderate	X	X	X	X	
					Crews' life jackets checked by Umpires prior to going afloat to race. Particular attention paid to "front loader" boats.	Ensure that Umpires/Marshals checking equipment have instructions and a checklist							X		
2	High river levels & significant flow due to heavy rainfall over days preceding the event	Monitor weather forecast, tide tables, river level & stream	Review river level on preceding day. Monitor river level & stream with reference to knowledge Monitoring Station (473)	Boats difficult to control, crew fatigue prior to start	Cancel the event or division or reduce the entry to larger boats if necessary. Consider not allowing juniors, novice and older crews to race	All officials to monitor and keep under review.	Collisions; crew injury/fatigue.	3	C	Moderate	X	X	X	X	
			Liase with CWAC								X				
3	Possibility of electrical storm	Provisions laid down in the document "Overlapping An Action Plan for Boat Lightning" available from BR, to be followed.	Ensure that Umpires, Marshals, coaches and crews are adequately briefed	Power or official struck by lightning	Provisions for first aid, medical treatment and casualty evacuation to hospital	Ensure that first aiders are competent and properly equipped	Electrical burns, shock.	3	B	Low	X	X	X	X	
		Supervision and management of racing should be undertaken by the RCRC. The RCRC should stay open until the race is over and should be closed to the public after the last lighting.	Any violation from BR/BR rule to be signed unambiguously by Event Chairman, Safety Adviser, Starter, Race Committee Chairman and all members of Race Committee								X	X			
		All clubs must be aware of the safety instructions from Safety Adviser or Race Committee Chairperson in relation to rescue boats and to ensure coaches, transport is available to meet crews from the boat to area of safety.	Ensure that Marshals, Umpires, Coaches and crews are adequately briefed.							RNA	X				
Other water users															
1	Many boats on the water	Marshals and umpires will 2 way radio located at key points of the course to be alert for potential collisions and take action to minimise collisions as necessary	Ensure marshals are properly equipped and briefed	Collision	Bow balls, heel restraints and buoyancy compartment aids may be inspected by Umpires prior to going afloat to race	Include in briefing for Control Commission		2	C	Low	X		X		
			Provide a competitors' and crews briefing for both divisions.		Remind other clubs on the river of the event and provide information upon request						X				
2	Chester River boat cruises	Agreement to use the non-racing lane for the river cruises during racing	Deploy a marshal on board with the helpline.	Collision	Ensure the marshal has a megaphone and VHF radio	Check radio transmission with marshal	Potential for major injury and cold water immersion leading to mild hypothermia.	3	D	Substantial	X		X		
		Coaches and crews must read the Safety Plan and Circulation Plan before going afloat			Brief crews on the course	Any recent hazards should be included in the briefing.									
3	Moorings	Coaches and crews must read the Safety Plan and Circulation Plan before going afloat	Ensure Umpires and Marshals are briefed	Collision	Although not on racing line, Finish Umpires and Marshals to direct crews away from the hazards.	Ensure Marshals have forms of communication.	Potential for major injury and cold water immersion leading to mild hypothermia	3	C	Moderate					
					Marshals on suspension bridge and banded to direct crews away from moorings										
		No warnings or practice starts are allowed in the moorings areas both start and finish.	Ensure inclusion in briefings and competitors' instructions.		Competitors and coaches are responsible for ensuring that their boats are safe and prepared to required standards at all times including practice.	Include in information to clubs									
		No crews allowed on the race line unless for the race itself	Ensure inclusion in briefings and competitors' instructions.												
		Warning notices displayed for pleasure craft at each end of the course, requesting craft travel at low tide speed	Ensure that notice is displayed												
4	Racing	In accordance with BR's rules of racing	Include in information for competitors	Collision between crews during a race	If a clash becomes serious and is likely to damage equipment or harm athletes, the umpire should stop the race	Ensure Umpires are properly equipped and briefed	Potential for minor injury and cold water immersion leading to mild hypothermia	3	B	Low	X				
					Umpire contacts race control who summons lifeguards/safety boat to assist, alert medical staff by radio.	Ensure Umpires and Race Control are properly equipped and briefed					X				
Local Environment															
1	Overhanging trees downwind of route to the start	Warn crews and scullers to avoid trees and not to race upwind of trees.	Include in briefing to competitors and marshals	Crews/scullers blown into overhanging trees	Assist with safety launch	Ensure sufficient safety cover. Check equipment prior to use.	Rowers entangled in tree (minor inconvenience, no damage).	1	C	Low	X				
Going afloat and landing															
1	Congestion in the boating area	Small landing stages between docks and provide 2 docks near the bar/docks/Groves.	Marshals with launches on start and finish to manage traffic. All marshals to wear hi-vis vests.	Collision in boating area	If rescue is required, to be coordinated by Control in RCRC. Marshals to area between finish and the traffic management zone.	Ensure Marshals are properly equipped (VHF, life jackets) and briefed.	Potential for minor injury and cold water immersion leading to mild hypothermia	2	C	Low	X				
			Traffic management system to be included in the safety plan to coaches and competitors		Ensure all boats are moored on the start or return to landing stage against the stream	Avoid tidal water									
Handling boats on land															

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		Barriers	Action to maintain barriers		Controls	Action to maintain controls					Event Committee	Event RSA	Safety Boat Drivers	Control Boat Drivers	Control Boat Crew	Other
1	Boats being moved in the presence of pedestrians and cyclists	Cyclists are unlikely to be able to cycle at speed in the congested area	Include in briefing to competitors and marshals close to Souters Lane	Collision of boat or cyclist with pedestrian	Marshal contacts race control who summons medical assistance	Umptires and Marshals are briefed. Ensure that medical staff are competent and properly equipped. Check radios work properly and users competent. Use St John Ambulance staff.	Slight physical injury	2	C	Low	X					
Faulty, incorrectly set and poorly maintained equipment																
1	Failure of Umptire's launch	All engines serviced prior to event. Race and summer umptires for full span of the course from start to end and can be inspected to control level of the race. Boat subject to take control where required.	Ensure adequate fuel. Radio to contact Control.	Umptire launch breaks down during race	- Any available umptire launch in vicinity to take over	Umptire will radio to Race Control to advise of problem. Control to summon rescue launch to retrieve broken down launch and recover for repair.	Ensure launch drivers and umptires are appropriately briefed	2	B	Low	X		X	X		
2	Failure of safety launch	Check service history of launch	Ensure adequate fuel. Radio to contact Control.	Umptire launch breaks down during the event	- Any available umptire launch in vicinity to take over until such time as another safety launch can be relocated or reallocated.	Umptire will radio to Race Control to advise of problem. Control to summon rescue launch to retrieve broken down launch and recover for repair.	Ensure launch drivers and umptires are appropriately briefed	2	B	Low	X	X	X	X		
Pre-existing health conditions and low levels of fitness																
1	Pre-existing health conditions			Collapse of athlete on landing stage (eg asthma or fall)	Umptire contacts Race Control, who summons first aiders and safety launch to assist and alert medical staff by radio.	Umptires and Marshals briefed. Ensure first aiders are competent and properly equipped. Check radios working and staff competent to use them. Use St John Ambulance staff where possible.	Serious health implications for competitor	3	B	Low	X					
2	Pre-existing health conditions			Collapse of athlete during a race (eg asthma attack)	Umptire contacts Race Control, who summons first aiders and safety launch to assist and alert medical staff by radio.	Umptires and Marshals briefed. Ensure first aiders are competent and properly equipped. Check radios working and staff competent to use them. Use St John Ambulance staff where possible.	Serious health implications for competitor	3	C	Moderate	X					
Other																
1	Use of towpath by cyclists and pedestrians	Cycling not permitted in spectator area	Ensure Marshals, coaches and crews are adequately briefed	Collision involving cyclist and pedestrians on towpath	Provisions for 1st Aid, medical treatment and casualty evacuation to hospital	Ensure that first aiders are competent and properly equipped. Check radios working and users are competent. Use St John Ambulance staff.		2	B	Low	X					
2	Trailer park, manoeuvring and assembling boats near cars and pedestrians	Direct trailers to Souters Lane	Use with GMRAC to close Souters Lane to public	Collision in the trailer area	Provisions for 1st Aid, medical treatment and casualty evacuation to hospital	Ensure that first aiders are competent and properly equipped. Check radios working and users are competent. Use St John Ambulance staff.		4	C	Substantial	X					
			Inform local businesses of event so customers can be advised		Road Closed and safety signage	Traffic Marshal to monitor traffic. Marshal at top of Dee Lane to direct traffic.					X	X				
3	Major roadworks/sewer repair on The Groves	Direct trailers to Souters Lane	Use with Welsh Water re. works schedule and positioning of plant.	Trailer collision or damage caused by plant/construction equipment.	Road Closed and safety signage			2	C	Low						



		People	Assets	Probability				
				A	B	C	D	E
				Highly improbable <i>(has not been known to happen in rowing)</i>	Improbable <i>(has been known to happen in rowing)</i>	Possible <i>(could happen to about 1% of the club's active members per decade)</i>	Probable <i>(could happen to about 1% of the club's active members per year)</i>	Highly probable <i>(could happen to about 10% of the club's active members per year)</i>
Severity	1	Slight injury or health effect <i>(Requires little or no treatment; no need to take time off rowing or training)</i>	Minor damage to equipment <i>(<£100)</i>	Low	Low	Low	Low	Moderate
	2	Minor injury or health effect <i>(Requires First Aid or rest; potentially a few days off rowing or training)</i>	Damage repair costs low <i>(£500)</i>	Low	Low	Low	Moderate	Substantial
	3	Moderate injury or health effect <i>(Requires treatment beyond simple First Aid; potentially a week or so off rowing or training)</i>	High damage repair costs <i>(>£1000)</i>	Low	Low	Moderate	Substantial	Intolerable
	4	Major injury or health effect <i>(Requires hospital treatment for more than one day; potentially a few weeks off rowing or training)</i>	Very high damage repair costs <i>(loss of boat, 3rd party damage)</i>	Low	Moderate	Substantial	Intolerable	Intolerable
	5	Fatality or Life Threatening Injury or Health Effect <i>(could end a rowing career or cause hospitalisation for a few months)</i>	Major damage & major costs <i>(loss of several boats, high 3rd party damage)</i>	Moderate	Substantial	Intolerable	Intolerable	Intolerable

Low	An acceptable level of risk. No additional barriers/controls are required. Start or continue the activity but check that the current barriers/controls remain effective.
Moderate	An acceptable level of risk that should be reviewed. Implement additional barriers/controls to reduce the risk if the opportunity arises. Start or continue the activity with care.
Substantial	An unacceptable level of risk. Improve the barriers/controls and allocate resources to reduce the risk. Do not start or continue the activity until the risk has been reduced.
Intolerable	An unacceptable level of risk. Improve the barriers/controls and allocate resources to reduce the risk. Do not start or continue the activity until the risk has been reduced. Prohibit the activity if it is not possible to reduce the risk.

[1] 1 = Slight Injury or health effect that requires little or no treatment, and has no potential for time off rowing or training. OR Minor damage to equipment (<£100)

2 = Minor Injury or health effect that requires First Aid treatment or rest only and has a potential for a few days off rowing or training. OR Low damage repair costs (>£500)

3 = Moderate Injury or health effect that requires treatment beyond simple First Aid and potential for a week or so off rowing or training. OR High damage repair costs (>£1000)

4 = Major Injury or health effect that requires hospital treatment for more than one day and potential for a few weeks off rowing or training. OR Very high damage repair costs (loss of boat, 3rd party damage)

5 = Fatality or life threatening injury or health effect that could end a rowing career OR Major damage & major costs (loss of several boats, high 3rd party damage)

[2] A = Highly improbable (has not been known to happen in rowing)

B = Improbable (has been known to happen in rowing)

C = Possible (could happen to about 1% of the competitors each decade)

D = Probable (could happen to about 1% of the competitors each year)

E = Highly probable (could happen to about 10% of the competitors each year)