

RISK ASSESSMENT MATRIX.

	<i>Severity of Outcome</i>		
<i>Probability of Accident.</i>	<i>Slightly harmful. (Low)</i>	<i>Harmful. (Medium)</i>	<i>Extremely harmful. (High)</i>
<i>Highly unlikely. (Low)</i>	Trivial Risk	Tolerable Risk	Moderate Risk
<i>Unlikely (Medium)</i>	Tolerable Risk	Moderate Risk	Substantial Risk
<i>Likely (High)</i>	Moderate Risk	Substantial Risk	Intolerable Risk

RISKS AND ACTIONS.

RISK LEVEL	ACTION AND TIMESCALE
Trivial	No action required.
Tolerable	No additional controls are required. Consideration may be given to a more effective solution or improvement.
Moderate	Efforts should be made to reduce the risk. Risk reduction measures should be implemented within a defined period. Where the moderate risk is associated with harmful/serious consequences further assessment may be necessary to establish more precisely the likelihood of harm as a basis for determining the need for improved control measures.
Substantial	The activity should not be started until the risk has been reduced. Considerable resources may have to be allocated to reduce the risk. Where the risk involves activity already in progress, urgent action should be taken.
Intolerable	Activity should not be started or continued until the risk has been reduced. If it is not possible to reduce risk even with unlimited resources activity has to remain prohibited.

Acknowledgment: Risk assessment matrix and Risks and Actions matrix – from Henley Open Events Long Distance Races. Hazards, Possible outcomes, planned action to control, boat risk – 2003 South Coast Championships, Christchurch R. C. Upper Thames Small Boats. Oxford Academicals Rowing Club Risk assessment.

BEFORE EVERY OUTING – CHECK THE TIDE TIMES, WEATHER FORECAT and SEA/RIVER CONDITIONS . CARRY OUT EQUIPMENT CHECKS – BUNGS/HATCHES/BOUYANCY TANKS/HEEL RESTRAINTS. IF IN DOUBT – DON'T GO OUT!

RISK (Possible hazard)	Possible Outcome. (Risks involved)	Probability H/M/L	Severity H/M/L	Risk Level	Planned Action to Control. (Preventative Action.)	Person(s) Responsible
OUT TO SEA & ON RIVER. (applies to both).						
Rough sea conditions.	Sinking/Swamping/ Exhaustion/capsize*.	Medium	Medium	Moderate	Junior/Novice competence chart to be considered before outing. Juniors to be accompanied by Safety Launch with qualified coach/launch driver and boats to stay in a group close to launch. Dangers hi-lighted as part of the induction process and on the Water Safety Notice-board. Condition of boat to be checked before outing – in particular heel-restraints & bailers. Risk assessment before outing – if in doubt – don't go out. Weather forecast to be checked before outing – and outing aborted if weather conditions unsuitable.	Coach Coach/Launch driver. CWSA/Rowing Captain/Coach Crew Coach Coach/Crew
Other water users (including other crews/scullers)	Collision/sinking/ swamping/capsize*. Skeletal and soft tissue injury or knocked unconscious.	Medium	Medium	Moderate	Junior/Novice competence chart to be considered before outing. Juniors to be accompanied by Safety Launch with qualified coach/launch driver and boats to stay in a group close to launch. Dangers hi-lighted as part of the induction process and on the Water Safety Notice-board. Capsize drill & swim test to be undertaken before going afloat at Cowes. Coaching/Safety launch to carry	Coach Coach/Launch driver CWSA/Rowing Captain/Coach CWSA/Coach Coach/Launch

RISK (Possible hazard)	Possible Outcome. (Risks involved)	Probability H/M/L	Severity H/M/L	Risk Level	Planned Action to Control. (Preventative Action.)	Person(s) Responsible
Other water users (including other crews/scullers) cont...					Coaching/Safety launch to carry throw-line. Safety Bag with First-Aid kit, Exposure Blankets, Towing line, Sound signal device and knife to be carried in Safety/Coaching launch. Condition of boat to be checked before outing – in particular heel-restraints, bailers and bow balls on sculls. Risk assessment before outing – if in doubt – don't go out.	Driver Coach/Crew Coach/Crew
Capsize*	Immersion, feet caught, hypothermia, hit by blade, drowning.	Low	Medium	Tolerable	Junior/Novice competence chart to be considered before outing. Juniors to be accompanied by Safety Launch with qualified coach/launch driver and boats to stay in a group close to launch. Dangers hi-lighted as part of the induction process and on the Water Safety Notice-board. Capsize drill & swim test to be undertaken before going afloat at Cowes. Coaching/Safety launch to carry throw-line. Safety Bag with First-Aid kit, Exposure Blankets, Towing line, Sound signal device and knife to be carried in Safety/Coaching launch. Condition of boat to be checked before outing – in particular heel-restraints, bailers and bow balls on	Coach Coach/Launch Driver. CWSA/Rowing Captain/Coach CWSA Coach Crew

RISK (Possible hazard)	Possible Outcome. (Risks involved)	Probability H/M/L	Severity H/M/L	Risk Level	Planned Action to Control. (Preventative Action.)	Person(s) Responsible
On the sea/river cont... Over-exertion (illness/injury in boat).	Pulled muscles, Hyperventilating, Cramp, Hypothermia.	Low	Low	Trivial	sculls. Risk assessment before outing – if in doubt – don't go out. Rowers taught to stay with boat. Juniors to be accompanied by Safety Launch with qualified coach/launch driver and boats to stay in a group close to launch. Dangers hi-lighted as part of the induction process and on the Water Safety Notice-board. Rowers to warm-up, warm-down and stretch. Checked and stocked First Aid kit available.	Coach/CWSA Coach/Launch Driver. CWSA/Rowing Captain/Coach Coach/Crew CWSA
Running aground.	Damage to boat, injury to person.	Medium	Low	Tolerable	Checked and stocked First Aid kit available. Juniors to be accompanied by Safety Launch with qualified coach/launch driver and boats to stay in a group close to launch.	CWSA Coach/Launch driver.
Dusk/after dark.	Collision/Running aground.	High	Medium	Substantial Risk	If it is possible that darkness will begin to fall before the outing is completed suitable lights are to be attached to boats and the coaching/ safety launch. Rowing at night is prohibited.	Crew/Coach/ Launch Driver. All.
ON THE RIVER (specific/additional)						
Other Water Users/Other Club boats.	Collision/sinking/ swamping/capsize*.	Low	Low	Trivial	River navigation rules to be explained and observed. Safety/Coaching Launch to observe speed limits and cut wash when	CWSA/Coach Coxswains/ Steersperson Launch Driver/

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ON THE RIVER (specific/additional) cont..					passing other craft/moored boats & pontoons. If practical record details of other river users who exceed speed limit, fail to observe the Navigation rules of the river or swamp boats through excessive wash – and report to Newport/ Cowes Harbour Master. Inexperienced coxswains/steer persons/scullers to be accompanied by Safety/Coaching launch until acceptable level of experienced/skill established.	Coach Coach/Launch Driver/Crew. Coach/RSC.
LAUNCHING/ RECOVERY (Public slip by Ref Funnel)	<i>Applies to activity on the sea and on the River.</i>					
Slipway condition (weed/damage)	Slipping over, tripping. Collision, dropping the equipment.	Medium	Low	Tolerable	Everyone available to assist with carrying the boat. Care to be taken – do not rush. Look out to be maintained. If slipway slippery or damaged extra care to be taken. Local authority to be advised, Must be aware of tides times and plan timing of outing accordingly.	Crew & Coach Crew & Coach Coxswain/Coach/ Crew member. Crew & Coach. RSC/CWSA. Coach.
Slipway – other users.	Delay/collision/obstruction.	Low	Low	Trivial	If not possible to manoeuvre around obstacle then wait for it to be moved. Apply “first come/first serve” logic. Trestles to be available for boats.	Coach & Crew Coach & Crew.
Launch & recovery.	Capsize, swamping, dropping the boat.	Medium	Low	Tolerable	Care to be taken when placing the boat in the water/lifting the boat	

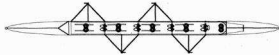
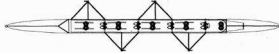
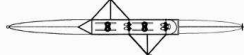
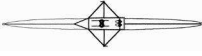
RISK (Possible hazard)	Possible Outcome. (Risks involved)	Probability H/M/L	Severity H/M/L	Risk Level	Planned Action to Control. (Preventative Action.)	Person(s) Responsible
Launch & recovery cont..					from the water with everyone available helping. While in the water along the slipway at least one person to be holding the boat at all times. Blades/Sculls to be put in first/taken out last to help stabilize boat. Care to be taken if Ferry manoeuvring/engines running.	
Passage through the entrance/exit.	Swamping/capsize/collision.	Medium	Medium	Moderate	In capsize situation Rowers taught to stay with boat unless still in contact with slipway. Don't pass through gap – to the river or to the slipway - when the Ferry is manoeuvring – wait until stopped and engines/bow thrusters turned off. Coaching/Safety Launch to be afloat first - launch through gap before boats/return after boats. Check River traffic before proceeding through the gap.	Coach/CWSA Crew/Coach Coach/Launch Driver. Coxswain/Steers-Man/Coach
Obstruction across “gap”	Difficult to manoeuvre/collision.	Medium	Medium	Moderate	Extra care to be taken when negotiating restricted access. If space not available to make safe passage – abort outing. Advise Harbour Commission if access to public slipway partially or totally obstructed.	Crew/Coach Coach/Crew RSC/CWSA
ONSHORE/LAND						
Car Ferry Car Park/Road.	Fall and/or injury when carrying boats and	Low	Low	Trivial	All crews to be instructed on proper lifting technique.	Coach

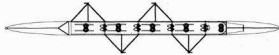
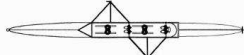

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Car Ferry Car Park/Road cont...	equipment/or whilst being loaded/unloaded from boat trailers. Road traffic.	Low	Low	Trivial	Sufficient members to assist with carrying/loading/unloading boats and equipment. Always seek permission of Car Ferry operator to park in Car Ferry Car Park and obey instructions/directions given.	Crew/coach. Coach/Stroke.
	Road traffic accident. Obstructions from parked cars/potential for traffic accident. Speeding Cars	Low	Medium	Tolerable	One crew member/coach to watch for and stop traffic if necessary. Dangers to be hi-lighted as part of induction process. High Visibility clothing to be worn at night. Juniors to be supervised.	Coach/Club Coach/Rowing Captain/CWSA. Crew.
	Collision with/obstruction from Vehicles & Trailers in Ferry Car Park.	Low	Low	Trivial	Always seek permission of Car Ferry operator to park in Car Ferry Car Park and obey instructions/directions given.	Coach/Stroke.
	Items obstructing path.	Low	Low	Trivial	Plan ahead to avoid obstruction.	Crew
BOAT HOUSE						
Equipment stored in boat house.	Trip hazard, collision with protruding riggers.	Low	Substantial	Medium	All boats to be properly racked. Only boats being rigged or repaired to be stored on trestles. First Aid equipment available.	Rowing Captain. CWSA Crew/Coaches, Rowing Captain.
Lifting Boats	Back injury, muscular, skeletal or abrasion injury	Low	Medium	Tolerable	All crews to be instructed on proper lifting technique. Novice/Junior boats to be stored on easy access racks	Coaches Rowing Captain.

REFER TO ATTACHED TIDAL FLOW CHARTS – TRAFFIC LIGHT ASSESSMENT OF RISK AT VARIOUS STATES OF TIDE CONDITIONS – LAUNCHING and UNDERWAY.

CWSA = Club Water Safety Advisor. RSC = Rowing Sub Committee.

BOAT RISK ASSESSMENT.

Boat description and number in crew.	Diagram	Collision Risk	Capsize Risk	Sinking/Swamping Risk	Risk Level.
River Coxed Four/ Quad. C4+/C4x+ 4 Rowing/Sculling + Cox = 5.		Low – has coxswain so is steered. Fast.	Low – four blades or four sets of sculls so stable – but River boat so less stable than Coastal Boat - main risk remains equipment failure.	Medium – limited buoyancy will sink to rigger height.	Tolerable.
River Coxless Four/ Quad. C4-/C4x- 4 Rowing/Sculling.= 4.		High – no coxswain steered by one of crew. Fast.	Low – four blades or four sets of sculls so stable – but River boat so less stable than Coastal Boat - main risk remains equipment failure.	Medium – limited buoyancy will sink to rigger height.	Moderate.
River Coxless Pair/Double. C2-/C2x- Two rowing/sculling.		High – no coxswain steered by one of crew. One can pull the other round when sweeping. Relatively slow.	Medium – one blade each side if sweep – two if a double – less risk– but River boat so less stable than Coastal Boat - main risk remains equipment failure..	Medium - limited buoyancy.	Moderate.
River Single Scull. C1x One Sculling.		Medium – no coxswain – steered by sculler. Relatively slow.	High – one scull each side and not very stable	Low – very buoyant.	Moderate

Coastal Coxed Four/ Quad. C4+/C4x+ 4 Rowing/Sculling + Cox = 5.		Low – has coxswain so is steered. Fast.	Low – four blades or four sets of sculls so stable – main risk is equipment failure.	Medium – limited buoyancy will sink to rigger height.	Tolerable.
Coastal Coxless Pair/Double. C2-/C2x- Two rowing/sculling.		High – no coxswain steered by one of crew. One can pull the other round when sweeping. Relatively slow.	Medium – one blade each side – high risk is equipment failure.	Medium - limited buoyancy.	Moderate.
Coastal Single Scull. C1x One Sculling.		Medium – no coxswain – steered by sculler. Relatively slow.	High – one scull each side and not very stable.	Low – very buoyant.	Tolerable.

NOTES:

- 1) Prepared assuming same level of skill present in each boat, plus where applicable reasonably trained coxswain.
- 2) Risk multiply for Novice/inexperienced crew and coxswains and in rougher conditions.

Dangers hi-lighted as part of the induction process and on the Water Safety Notice-board.

**Ryde Rowing Club. COWES/RIVER MEDINA.
RISK ASSESSMENT.**

Ryde Rowing Club. COWES HM - LAUNCHING.
Tidal Flow Chart. Cowes. River Medina entrance.
TRAFFIC LIGHT ASSESSMENT OF RISK AT VARIOUS STATES OF TIDE CONDITIONS

Coach/Senior Member present/sculler - should always make a risk assessment on prevailing conditions using Tidal flow chart below as a guide (only).

Basic Rule: IF IN DOUBT - DON'T GO OUT.

	LOW RISK	Subject to weather conditions should be OK to go afloat.
	MODERATE RISK	More care required. Conditions may make boating/recovery difficult.
	HIGH RISK	Extreme care required. Conditions will be difficult. If in doubt - don't go out.

	MEAN NEAP TIDE 3.5m	AVERAGE TIDE 3.85m	MEAN SPRING TIDE 4.2m	WIND OVER TIDE
-6 1/2 hrs				
-6 hrs				
-5.1/2hrs				
-5 hrs				
-4.1/2hrs				
-4 hrs				
-3.1/2hrs				
-3 hrs				
-2.1/2hrs				
-2 hrs				
-1.1/2hrs				
-1 hrs				
-1/2 hr				
+ 1/2hr.				
+ 1hr				
+ 1.1/2hrs.				
+ 2hrs				
+2.1/2 hrs.				
+ 3hrs				
+3.1/2 hrs.				
+ 4hrs				
+ 4.1/2 hrs				
+5hrs.				
+5 1/2 hrs.				

High Water

Ebb Tide Flow

Basic Rules.
J15 Juniors (age) & inexperienced Novices
J18 Juniors (age) & experienced Novices

Must be accompanied by safety/coaching launch and Coach/Senior member on all outings.
Must be accompanied by safety/coaching launch or Coach/Senior member on all outings

RRC. Draft 3 Nov. 2011.

Ryde Rowing Club. COWES HM - UNDERWAY.
Tidal Flow Chart. Cowes. River Medina entrance.
TRAFFIC LIGHT ASSESSMENT OF RISK AT VARIOUS STATES OF TIDE CONDITIONS.

Coach/Senior Member present/sculler - should always make a risk assessment on prevailing conditions using Tidal flow chart below as a guide (only).

Basic Rule: IF IN DOUBT - DON'T GO OUT.

	LOW RISK	Subject to weather conditions should be OK to go afloat.
	MODERATE RISK	More care required. Conditions may make boating/recovery difficult.
	HIGH RISK	Extreme care required. Conditions will be difficult. If in doubt - don't go out.

	MEAN NEAP TIDE 3.5m	AVERAGE TIDE 3.85m	MEAN SPRING TIDE 4.2m	WIND OVER TIDE
-6 1/2 hrs				
-6 hrs				
-5.1/2hrs				
-5 hrs				
-4.1/2hrs				
-4 hrs				
-3.1/2hrs				
-3 hrs				
-2.1/2hrs				
-2 hrs				
-1.1/2hrs				
-1 hrs				
-1/2 hr				
+ 1/2hr.				
+ 1hr				
+ 1.1/2hrs.				
+ 2hrs				
+2.1/2 hrs.				
+ 3hrs				
+3.1/2 hrs.				
+ 4hrs				
+ 4.1/2 hrs				
+5hrs.				
+5 1/2 hrs.				

High Water

Ebb Tide Flow

Basic Rules.
J15 Juniors (age) & inexperienced Novices
J18 Juniors (age) & experienced Novices

Must be accompanied by safety/coaching launch and Coach/Senior member on all outings.
Must be accompanied by safety/coaching launch or Coach/Senior member on all outings

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