

Adopted March 2019. **Supersedes all older Matrices and all other Safety Rules.**

**There is no moving from Zone to Zone in either daylight or in darkness (see APPENDIX #1).  
Based on conditions, select the more restrictive of flow and water temperature (further zone to right).**

		Rowing Zones				
		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Water Flow (See APPENDIX #2)		below 29.9k cfs	30-39.9k cfs	40-44.9k cfs	45-49.9k cfs	50-60k cfs <i>DAYLIGHT ONLY</i>
Water Temperature (See APPENDIX #3)		Above 50°			Below 50°	
Shell Type		All boats	All boats. For 1X, 2X, 2-, must have 1 year rowing experience at TRRA, Adaptive LTA racing 2x only	8+, 4+, 4X  <b>(2x allowed only if flow is under 40k cfs)</b>	8+, 4+, 4X	8+, 4X
Launch to Shell Ratio (See APPENDIX #4)		Not Required  (See High School Exception APPENDIX #5)	One launch for 3 shells	One launch for 2 shells	One launch per shell	One launch per shell and sufficient launches to: (a) carry all rowers and coxes participating in the session and (b) have at least 2 engines between all launches on the water (towing line required)
Racing		Racing Allowed			NO Racing Allowed	
Coach Certification		ALL ZONES, TRRA - Equivalent Certification				
PFD Requirement by Group	Rowers	Not Required	Recommended to be worn or in shell for 1x, 2x, 2-	Recommended to be worn in shell for all rowers	Zone 4 & 5 - required to be worn by all rowers (see APPENDIX #6)	
	Coxswains	ALL ZONES - <b>Required to be worn</b> from November 1 through April 30.				
	Coaches & Launch Drivers	ALL ZONES - <b>PFD to be worn at all times.</b>				
Skill Level of Crew		Any Level	Any level except as noted above for 1x, 2x, 2-, no middle schoolers	No rowers or coxswains in their first season, no adaptive rowers, no middle schoolers (See APPENDIX #7)	Zone 4 & 5 - No rowers or coxswains in their first calendar year as a rower or cox, no adaptive rowers, no middle schoolers (See APPENDIX #8)	
Communication Requirement		Protected cell phone recommended in each launch or in each shell not accompanied by a launch	Zone 2, 3 & 4 - Protected cell phone recommended in each launch <b>and</b> in each shell			Protected cell phone required in each launch and shell. Marine radio recommended for coaches. At least one additional person must be on shore with cell phone and car (See APPENDIX #10)

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# THREE RIVER ROWING ASSOCIATION SAFETY MATRIX APPENDICES

1. **Daylight:** the hours between sunrise and sunset per the times specified:
  - a. Link: [DAYLIGHT](#)
2. **Water Flow:** Use more recent OBSERVED DATA regardless of time and date:
  - a. Link: [WATER FLOW](#)
3. **Water Temperature:** Use Water Temperature Table:
  - a. Link: [WATER TEMPERATURE](#)
4. **Safety Items to be included in each launch under all conditions:**
  - a. One space blanket per rower
  - b. Bailer
  - c. Pump (In rough water, one pump recommend in each shell)
5. **High School Exception:** All high school or middle school shells must be accompanied by a launch at **ALL** times and in **ALL** conditions.
6. The Safety Committee cautions that certain PFD manufacturers do not recommend the use of CO2 inflatable PFD's in air or water temperature below 40 degrees Fahrenheit.
7. Rowing seasons may be Spring, Summer or Fall.
8. A calendar year is defined as one year from the date that you first rowed.
9. **Racing: Racing is allowed when the water temperature is below 50 degrees and the flow is below 40k cfs. All other safety conditions for Zones 3, 4, and 5 apply to races when water temperature is below 50 degrees.**
10. **Additional Requirements for rowing in Zone 5:**
  - a. A meeting and letter must be provided to TRRA before rowing in Zone 5.
    - i. Click here for a letter template: [Zone 5 Letter Template](#)
  - b. Crews must be strong enough to row upstream through the top of the channel with only  $\frac{3}{4}$  of rowers rowing.
  - c. Crews must have no less than 2 hours of on-water time during the immediately preceding 5-day period.
  - d. Rowing in Zone 5 may only occur during daylight as defined in APPENDIX #1.
  - e. Rowing in Zone 5 is prohibited in the face of visible whitecaps.
  - f. For high school organizations, a parent group safety representative must attend each TRRA Safety Meeting.