

4. ROWING RULES: VALUE AND CREDIBILITY

4.1 The Regulatory Framework

4.1.1 *Basis and application*

4.1.1.1 Control of the activities on the Thames (between the limits specified in the Port of London Act 1968 (as amended), is achieved by the Port of London Authority (PLA) via the Act, a series of Byelaws, Directions and Notices to Mariners. Throughout the study process it has become clear that the fragmented nature of the Regulations, their presentation and visibility weakens the awareness and understanding of the various stakeholders. These issues are addressed in section 8 of this report. This section deals with the basis of the Rowing Rules and the effectiveness of their requirements as a risk control tool.

4.1.1.2 The International Regulations for the Prevention of Collision at Sea, 1972 (as amended), (COLREGS), are incorporated into the PLA River Byelaws 1978 (as amended). Rule 1 (a) of the COLREGS states that they apply to all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels. Whilst the term seagoing vessel is not defined within the COLREGS the stretch of the Thames River under consideration can be navigated by craft that put to sea). Rule 3 (a) of the COLREGS then defines the term “vessel” as including “every description of water craft,....., used or capable of being used as a means of transportation on the water”. From the above it is our understanding that the COLREGS apply to the stretch of river Thames under consideration and that they apply to the commercial and pleasure craft encountered there, including rowing vessels and canoes.

4.1.1.3 Rule 1 (b) of the COLREGS states that “nothing in these Rules shall interfere with the operation of any special rules made by an appropriate authority” (i.e. the PLA), “for roadsteads, harbours, rivers, lakes or inland waterways connected with the high seas and navigable by seagoing vessels”. It ends with the requirement that “Such special rules shall conform as closely as possible to these Rules”. It is thus open to the PLA to introduce special regulations to cover the River Thames, though the requirements of the special rules should conform to the requirements of the COLREGS as closely as possible.

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- 4.1.1.4 For the stretch of the River Thames between Syon Reach and Putney such special rules have latterly been introduced by Notice to Mariners No. U6 of 2002 (see Attachment A). Colloquially known as the “Rowing Rules” the requirements have been developed from the historical practice of “working the slacks”. This has been taken as the practice of boats to proceed along the sections of the tidal river with the weakest adverse current; generally, this course is along the inside of the bends.
- 4.1.1.5 It is our understanding that the COLREGS, as incorporated by the Port of London Byelaws, are not replaced by the Rowing Rules. Rather, the special rules under Notice U6 of 2002 provide an exception for the specified craft from following the starboard side of the fairway, otherwise required under Rule 9 (a) of the COLREGS. The basis for this exception is that it was assumed that it is not safe and practicable for the specified craft to proceed on the starboard side of the fairway in certain sections of the tidal river. In all other respects the COLREGS, as incorporated into the Byelaws, apply.
- 4.1.1.6 The study has highlighted a lack of clarity within the documentation over the relationship between the two sets of Rules and a failure amongst the users to either fully understand the requirements of the combined Rowing Rules and wider COLREGS or a failure to apply all parts. This lack of understanding and/or application of all the requirements exacerbates the problems seen in particular with the interaction of motor and rowing vessels. Improved presentation, promulgation, education and application are required and discussed later.
- 4.1.1.7 Within the two sets of requirements there exists a fundamental conflict over positioning of vessels. This feature is illustrated by a specific case whereby in the prosecution by the PLA of a cruiser for excessive wash, the positioning of the affected rowing vessel on the river counter to the COLREGS was heavily criticised by the judge and judgement made against the PLA on this basis. The apparent total lack of knowledge by the rowers of the COLREGS and poor awareness of the Rowing Rules by both parties was also criticised.

4.1.2 Contradictory Requirements

- 4.1.2.1 Rule 9, Narrow Channels, requires a vessel proceeding along the course of a narrow channel or fairway to keep as near to the outer limit of the narrow channel or fairway which lies on her starboard side as is safe and practicable.

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- 4.1.2.2 As constituted by Notice U6 of 2002 (see Attachment 1) the present Rowing Rules apply different requirements dependant on whether the rowing vessel¹ is proceeding with the tidal stream or against the tidal stream². Pertinent vessels proceeding with the tidal stream are required to keep to the starboard side of the fairway. Those proceeding against the tidal stream are permitted to proceed along the Surrey shore between Putney crossing and Chiswick Steps and between Chiswick Bridge crossing and Syon crossing. Between Chiswick Steps and Chiswick Bridge vessels rowing against the tide are to keep to the Middlesex shore. Whilst this practice stems from “working the slacks” to make progress the basis now must be on the assumption that it is not safe or practicable for the defined vessels to proceed on or near the other side of the fairway at these locations.
- 4.1.2.3 On the ebb tide, which has a longer duration than the flood, rowing vessels rowing on the Surrey shore will apparently be on the opposite side of the fairway to that specified under the COLREGS and will be in the proceeding in the opposite direction to other vessels operating under the wider COLREGS. On the flood tide, the situation is repeated on the Middlesex shore. This introduces direct regulatory conflict between the two categories of vessel.
- 4.1.2.4 A conflict between rowers in opposing traffic streams is also introduced by the drafted Rowing Rules; rowing vessels proceeding with the tidal stream should be on the starboard side of the fairway, which will for a majority of the time be the same side as rowers proceeding against the stream.
- 4.1.2.5 The tidal basis of the Rowing Rules introduces a third conflict at the change of tide. The direction of the stream alters progressively from downstream. (The change of direction also occurs first at the sides of the channel). This progressive change upstream introduces a period of around 20 minutes at the top and bottom of the tide where vessels following the Rowing Rules can encounter other rowing vessels on the same side of the fairway but in the opposite directions. Both sets of vessels are apparently complying with the positioning required under the Rowing Rules, however, one vessel is proceeding up river on the new tide whilst the other is rowing down river on the last of the previous tide, so that the streams are initially in the opposite direction to one another or at least the direction is ambiguous. There are two incidents within the PLA records where this has been a primary cause of collision. The Rowing Rules thus introduce a period of increased risk at the turn of the tide amongst craft following them.

¹ Or escorting vessel actively escorting, or canoe.

² Notice to Mariners U6 uses the word “tide” rather than stream.

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4.1.2.6 Having said this we should also consider the detail of the COLREGS and the relationship with the Rowing Rules regarding other required actions and behaviour:

COLREGS & Vessels under oars

4.1.2.7 The COLREGS identify vessels under oars for particular mention only when detailing lights to be exhibited (Rule 25). There is no conflict between the COLREGS and Rowing Rules with regards lights.

4.1.2.8 Vessels under oars do not receive particular mention under Rule 18, detailing general responsibilities, nor under Rule 9 (Narrow Channels). Under the COLREGS where the term “vessel” is the sole descriptor, it is taken to include vessels under oars.

4.1.2.9 The keeping of a proper lookout is common to both sets of regulations; observance is the problem here and is discussed in the following section.

Impeding of Passage

4.1.2.10 Under Rule 9, narrow channels, vessels under oars would by nature of their length³ be required not to impede the passage of a vessel which could safely navigate only within the narrow channel or fairway. Notice to Mariners U6 is consistent with this.

Crossing

4.1.2.11 The Rowing Rules and COLREGS agree on crossing with rowing vessels (not specifically mentioned) required not to cross the narrow channel or fairway if such crossing impedes the passage of a vessel, which could safely navigate within the narrow channel or fairway

Overtaking

4.1.2.12 Overtaking is addressed, but only insofar as actions are required by both vessels to permit safe passing. Otherwise, should a risk of collision develop the actions required fall under the other Rules.

4.1.2.13 Elsewhere, overtaking is addressed in the Byelaws, which proscribe more than one vessel overtaking at a time i.e. no more than two abreast.

³ Rowing 8s are approaching the 20m limit of the Rules; ARA web site gives a length of 19.9m.

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Actions to avoid risk of collision developing

- 4.1.2.14 It should be noted that the Rowing Rules do not address actions to be taken where risk of collision exists. There appears a level of confusion as to the general requirement to keep to the side of the fairway or close to the shore and the prescription of actions required where a risk of collision develops. These latter actions still fall under the COLREGS as incorporated into the Byelaws.
- 4.1.2.15 Similarly, the COLREGS in Rule 9 (Narrow Channels) address only the actions of the vessels with regards avoiding impeding the passage of respective craft and overtaking where action is required by the vessel being overtaken, i.e. prior to a risk of collision developing.
- 4.1.2.16 Whilst the Rowing Rules and COLREGS conflict on the positioning of certain vessels relative to the fairway they do not conflict on action taken when a risk of collision exists, for the simple reason that the Rowing Rules do not specify the actions.
- 4.1.2.17 We believe that a fundamental misunderstanding is widespread throughout the stakeholder communities, particularly amongst rowers. This failure to comprehend this aspect of the requirements – that where risk of collision exists the action required is dictated under the COLREGS - has increased the level of risk and gives the perception of greater conflict and weakness in the regulatory framework than may be the case. Where risk of collision develops the steering rules within the COLREGS should be used to avoid the immediate danger.
- 4.1.2.18 For a head on situation, (where risk of collisions exists), the COLREGS directly specify action to be taken only in the case of two Power Driven Vessels meeting (Rule 14). In this situation both Power Driven Vessels should alter their course to starboard so as to avoid collision. We believe that rowing vessels fall under the remit of this Rule and are required to take action in accordance with Rule 14 and alter to starboard. Amongst the rowing community widespread confusion, ignorance and/or failure to apply this response in particular increases the appearance of conflict in the regulations and the level of risk.
- 4.1.2.19 The two aspects of the location of the rowing vessels in the fairway and the actions taken to avoid collision, whilst interlinked, can be addressed separately. Actions taken to avoid a collision are independent from the special rules, falling directly under the COLREGS and outside of the Rowing Rules, as specified in Notice to Mariners U6 of 2002.

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Byelaws

- 4.1.2.20 Other problems encountered on the river including overtaking situations, vessels proceeding abreast of one another, speed, boat identification and marking and responsibilities between vessels are addressed within the Byelaws. Where covered they agree with the COLREGS.
- 4.1.2.21 Speed is limited to 8 knots under PLA Byelaws though certain craft, including rowing vessels by inference, are permitted to exceed this. Whilst not directly contradictory to the COLREGS this must be linked with the keeping of a proper lookout. It also introduces an anomaly from a collision avoidance perspective that amongst the fastest craft on the river are those with probably the worst ability to maintain an effective proper lookout. This partly reflects the fact that the speed limit controls wash as well as collision avoidance, with rowing vessels producing little.
- 4.1.2.22 From our perspective the fragmented nature of the Rules appears to weaken the Regulatory basis as well as reducing the effectiveness in presentation and promulgation. (See section 9).

4.1.3 Summary – Regulatory Basis

1. The regulatory basis of the Rowing Rules appears weakened on the following counts:
 - The positioning of rowing vessels runs apparently counter to the requirements for other vessels under Rule 9 (a) of the COLREGS to keep to the side of the fairway on their starboard side. The location(s) of the conflict alternates with the state of the tide.
 - The Rowing Rules introduce conflict amongst the vessels covered by placing opposing traffic flows on the same side of the fairway.
 - The Rowing Rules introduce ambiguity or direct conflict amongst the rowing vessels at the turn of the tide.
2. In relation to the wider COLREGS, the prima facie reading is that the Rowing Rules run contrary to Rule 9 (a) of the COLREGS and do not, as required, “conform as closely as possible to these Regulations”. This partly reflects an ambiguity over the limits of the narrow channel. Vessels proceeding outside a defined narrow channel would be required to act in accordance with the wider COLREGS, including actions taken to avoid collision, but would not fall directly under Rule 9.

3. In other aspects both regulations are in agreement, including keeping a lookout, crossing and overtaking. Actions taken to avoid collision are not covered by the Rowing Rules; ambiguity and failure to appreciate this increases the apparent conflict with COLREGS.
4. The understanding and value of the various rules is decreased by their fragmented nature within the Rowing Rules, Byelaws and other guidance. Their value and effectiveness, would be increased by simplification and increased visibility.

4.2 Value as a Risk Control Measure

4.2.1 General

4.2.1.1 The study found some differences between the Rowing Rules as drafted and as applied which affect their value as a risk control. Additionally, factors outside the Rowing Rules affect their implementation and effectiveness and these are also discussed for completeness. The assessment is broken into the following sections:

- Methodology (see Attachment D).
- Validity and Effectiveness of the current Rowing Rules
- Other Factors which impact on their effectiveness
- Summary

4.2.1.2 Validity and Effectiveness of the current Rowing Rules

We have assessed as part of the risk control the following areas:

- Collision Risk
- Use of the Centreline
- Physical Hazards
- Tidal Stream
- Speed
- Lookout
- Change of Tide
- Overtaking
- Crossing
- Collision Avoidance
- Promulgation

- Data Capture
- Summary

4.2.2 Collision Risk

4.2.2.1 The process involving the Risk Assessment Identification Meeting found a major category of risk as that of collision, with the Rowing Rules increasing the risk on the river. This was held especially at the pinch points, but could occur anywhere where the positions of rowing vessels and powered craft coincide whilst going in opposite directions.

4.2.2.2 A Risk Factor of 8⁴ at certain locations made risk of collision a significant risk, outside the ALARP region, and additional risk control should be considered. The present Rowing Rules are thus counter productive for controlling risk of collision.

4.2.2.3 Collision risks to be considered were assessed as:

- a) Conflict between rowers and other users on reciprocal courses along stretches of the general fairway, location varying as described previously with direction of the tidal stream. This includes conflict between rowers when placed on the same side of the river by the Rules. Risk of collision is exacerbated by uncertainty or conflicting actions taken to avoid collision. The risk is exacerbated by failure to hold the positions required by the Rules, i.e. drifting away from shore, inappropriate overtaking and resting;
- b) Uncertainty of state of tide causing confusion as to which track to follow – collision risk rower on rower;
- c) Crossing points and crossing in general
- d) Pinch points including Bridges and narrowed channel where traffic is obliged to interact
- e) Blind spots near bridges and narrow arches and bends.

4.2.2.4 Problems are particularly obvious at pinch points such as Bridges and narrowed fairway and at the turn of the tide as described previously.

⁴ See Attachment - Methodology

4.2.2.5 It was found that the following areas remain pinch points irrespective of tidal state:

- Hammersmith Bridge
- Kew Bridge
- Syon Crossing (Isleworth Ferry Gate) to Richmond Lock, includes Isleworth Bend and narrow channel next to Isleworth Ait

4.2.2.6 In other areas the greatest risks occur near low tide when the channel is at its narrowest:

- Fulham Flats
- Channel next to Chiswick Eyot
- PLA Driftwood moorings & Chiswick Pier
- Flats opposite the Bandstand
- Barnes Bridge
- Reach between Barnes Bridge and Chiswick Bridge
- Chiswick Bridge
- Kew Railway Bridge
- Oliver's Ait and Reach to Kew Bridge
- Brentford Ait
- Channel above Isleworth Ferry Gate

4.2.2.7 A rower proceeding against the tidal stream on a left hand bend is required to be on the port side of the river as near to the shore as possible. Where the rower strays into the main navigable channel this then brings him into potential conflict with vessels coming in the other direction obeying the standard COLREGS positioning and thereby proceeding on the starboard side of the channel. It appears that much of this conflict can be associated with rowers not holding position relative to the shore as required. This is then exacerbated by confusion as to which way the two vessels turn to avoid a collision or by taking directly contradictory actions.

4.2.2.8 The situation can be further exacerbated if there are more than two vessels involved, due to a stream of traffic, overtaking, multiple vessels proceeding abreast in contradiction to the Byelaws or by vessels resting inappropriately and impeding traffic flow, particularly in vicinity of Bridges and pinch points. Bridges are often used as the end point by rowers resting following "set pieces".

4.2.3 Use of the Centre Line

4.2.3.1 The applied Rowing Rules differ in at least one point from the Rules as drafted. When proceeding with the stream the Rowing Rules require the pertinent boats to keep to the starboard side of the fairway. It has been seen that generally rowers apply this rule and have been observed on this side of the fairway. There are many, however, who do not.

4.2.3.2 We have noted rowing vessels simultaneously spread across the breadth of the navigable channel and also rowers simply proceeding on the wrong side. Accident records⁵ cite a number of rower on rower incidents as caused primarily by one of the rowing vessels being on the wrong side of the channel⁶. Whilst there may be some ambiguity in the delineation of the fairway, there appears a fairly common practice for rowers proceeding with the stream to actively follow the centre line (often termed the 'rowing line') of the fairway. This has been shown on a number of submitted documents, heard described in some interviews and in presentations given by leading figures within the rowing community. Whilst it is not universal the practice and understanding appears relatively widespread and differs from the drafted Rowing Rules.

4.2.3.3 By following the centreline the rowers mitigate the internal conflict inherent within the Rowing Rules which would otherwise force rowers in opposing directions to be on the same side of the fairway. The increased number of craft using the centre of the fairway tempers this risk reduction.

4.2.3.4 It is the conclusion that the Rowing Rules as drafted significantly contribute to the overall risk of collision. This risk is reduced by non-application of certain parts. Repealing the rowing rules in favour of uniform application of the COLREGS across the river would reduce all the above Collision risks. With this conclusion it is difficult to justify retaining the Rowing Rules in their present form without further risk mitigation.

4.2.4 Physical Hazards

4.2.4.1 The process centred on the Risk Assessment meeting also identified risks of grounding, swamping and contact. It was accepted from that process and wider consultation that the rowing community has strong feelings concerning the effects on their safety of additional physical hazards that would be faced with in the event of the rowing rules being revoked.

⁵ ARA accident records 1994 to 2004.

⁶ Wrong side in respect to the Rowing Rules

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- 4.2.4.2 Predominantly the hazards were either risks of grounding on exposed flats (tidally dependent) and increased risk of contact with piers and moored craft and objects; also increased risk of wash along the built up Middlesex bank (tidally dependent) and associated with a lack of egress points along that bank (this point is not strictly in the consideration of navigational safety). Tidal stream is discussed below, but was raised by rowers as a hazard in particular associated with interaction with physical hazards on the Middlesex side (the islands and piers), due to the direction of flow to the outside of the bend. The alternative, argued by the rowers, was that they would be forced to row further away from the shore, into the stronger stream and deeper water of the main channel and interacting with other power driven vessels more, increasing risks.
- 4.2.4.3 It was felt from the hazard identification meeting output that further study was required to assess the validity of the physical hazards and the level of associated risks. We have assessed that several physical obstructions predominantly on the Middlesex shore present hazards, with risks increased if rowing vessels are required to navigate in their vicinity; see Attachment E. which provides a précis of the comparison of the risks that are assessed to change under Rowing Rules and positioning on the starboard side of the river.
- 4.2.4.4 The risk is inversely proportional to distance from the hazard until, under the Rowing Rules, it is kept low by rowers keeping to the opposite side of the river. There were found to be widely differing assessments of the level of risk between the rowers and authorities. The rowers perceive that under COLREGS, if required to proceed on the right hand side of the river they will be forced either too close to the physical hazards presently missed or into unsuitable water⁷ and presence of powered craft.
- 4.2.4.5 There are widely differing assessments as to the risks posed by the physical hazards. These differing risk assessments appear partly to stem from different interpretation of how far to starboard the rowers would be required to be if placed on the starboard side of the channel by the regulations. It was accepted that particularly without additional alternative clarification and mitigation the present Rowing Rules do mitigate the hazards imposed and reduce the risk to rowers from levels that can be unacceptable under the right hand rule.

⁷ see section on Tidal Stream below.

4.2.5 Tidal Stream

4.2.5.1 The rowing rules allow vessels under oars to “work the slacks” when proceeding against the stream. The rules were historically intended for vessels that could not proceed fast enough to make way over the tide. With the speeds of many modern recreational and competition rowing craft this would not be the case. Particularly for the single scull and for the novice it was assessed that they could be prevented from making headway if placed against the stronger tidal stream as found on the side presently avoided under the Rowing Rules.

4.2.5.2 Speed of progress, whilst detrimental to the sporting aspect, would not be sufficient safety reason for the rules. Safety of some users would be reduced if placed in the stronger stream, particularly novices who at present are able to be coached in rowing a tideway from the Surrey banks in particular. The balance between navigational safety and personal risk assessment can be debated.

4.2.5.3 It is understood though that there are various hazards involved in being on the alternative side of the river in certain areas, and this is the reason given by the rowers for requiring the continuation of the rules. The tidal stream tends to set towards the islands on the northern shore, towards the bend at Syon making steering of rowing boats difficult to counter this. Downstream of Oliver’s Island the stream, coming from the northern side of the island sets at an angle to Kew Rail Bridge and the channel, with effect decreasing with proximity to the Surrey shore; rowing boats, it is argued, have difficulty to regain direction and counter a stream which catches the bow, increasing risk of collision. This is argued as likely with the stream on the starboard side in proximity to the island.

4.2.6 Speed

4.2.6.1 The risks from wash, of which speed is a causative factor, (and which is felt by many rowers to be on par or of greater concern than risk of collision), are discussed in section 12. Whilst it may be that wash is a main reason for the speed limit, speed itself has a direct influence on the levels of risk to and between river users. Whilst this study has not been tasked with directly addressing the speed limit it is briefly considered from the aspect of a risk control measure and as an example of the varying requirements spread throughout the present regulatory system.

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- 4.2.6.2 Speed is not directly addressed by the Rowing Rules. They do not therefore provide an effective means of controlling it. Speed is instead limited under the PLA Byelaw 48 to that of eight knots through or over the water, other than for named exceptions. The exceptions include power driven vessels approved by the Harbourmaster and engaged in escorting a rowing boat in training (e.g. coach boats) or a boat race or regatta. By inference the rowing boats are thus permitted to exceed the speed limit, and will at times travel in excess of 12 knots.
- 4.2.6.3 A small number of examples have been seen during the study period of escort boats apparently breaking the speed limit whilst not actively escorting. The situation is not always apparent, by practice of some escorting coaches to monitor progress from the other side of the fairway. It appears that on occasion, though, the requirement to be actively escorting is not always adhered to.
- 4.2.6.4 Many rowing vessels will exceed the 8-knot speed limit, reducing the time available to all parties for assessment of the situation and reaction and has featured in a number of incident reports⁸ as a contributory factor with rower on rower incidents – a well presented paper on the ARA website itself claims that in over 80% of head on collisions neither boat saw the other in time. Accident records also include speed as causative in rower and powered vessel incidents, with power driven vessel's cited as going too fast (though this often relates to wash levels and failure to reduce speed either at all or in time to prevent the trailing wash affecting the boat. Wash is discussed in section 12.).
- 4.2.6.5 Under the COLREGS all vessels are required to proceed at a safe speed, appropriate to the prevailing circumstances and conditions. It is notable that a number of ARA incident reports apparently combine excess speed in vicinity of bridges as causative or contributory factors. Rowing craft proceeding at racing speed are also noted to have hit moored and fixed objects. It is perhaps the combination of excess speed and the failure to keep a proper lookout that creates the greatest risk and perhaps anomalous given the limited forward lookout, nature of the river and interaction with other craft. These are not sufficiently controlled in practice and the rules prove to be not effective.

⁸ ARA Incident Records 1994 - 2004

4.2.7 *Lookout*

- 4.2.7.1 By the nature of the craft, persons engaged in rowing are hampered in maintaining an effective lookout. Anecdotal evidence is supported by a number of incident records⁹ where rowing craft have hit stationary objects, and where no other factor is cited as well as apparently contributing to other incidents. Amongst the rowers of coxless craft, recommended guidance varies from well defined criteria requiring quick views over alternating shoulders every three, five or ten strokes, interspersed with longer sweeps at set number of strokes, down to an occasional look around. The variance partly reflects differences between the experience and speeds of the rowers and in the stretches of river being negotiated. However, there is no fixed consensus amongst the community as to what constitutes a proper lookout. As speed increases so a rowing craft will travel further during each stroke and at full speed (say 11 knots) a coxless four might cover around 110 metres during the period of 10 strokes. This would give a closing distance of around 220 metres for two similar craft approaching head on during this 10 stroke period.
- 4.2.7.2 For coxed boats there is frequently a difficulty often with a relatively small cox crouched low in the boat having to look around rather wider and taller colleagues rowing in front of him or her. However, we have been assured that in clear water an effective lookout can be kept due to the bends in the river and by not rowing a completely straight course.
- 4.2.7.3 Keeping a lookout in the broader sense of overall situational awareness is also felt to be weak and in need of improvement. This may well be more in education and application than further regulation. It is probable that keeping of a better lookout would prevent several of the incidents and near misses recorded, incidents involving wash and serve to reduce the level of conflict between vessels of all types. The design of rowing boats combined with the nature of the sport and a tendency of some rowers to become solely focussed on technical execution, particularly during “set pieces” all combine at times to the keeping of an inadequate lookout. The river does not provide a sanitised waterway with clear water and controlled access. The level of lookout should reflect the dynamic environment, but often does not.

⁹ ARA Incident Records 1994 – 2004

4.2.7.4 The Rowing Rules repeat the requirement of the COLREGS to keep a proper lookout. Greater emphasis within the Rules may assist, but education and better application of existing guidance is necessary. Elsewhere, the importance of keeping an effective lookout receives limited visibility and emphasis. For instance, in the ARA Water Safety Code, despite being one of the prime causes of accidents in the ARA incident database, keeping an efficient lookout does not feature in the main Code but gets minor paragraphs within the Guidance Notes on Steersmen and Coaches. The ARA website does address the topic more fully but only within a paper on coaching. Given the prominent role poor lookout and/or lookout and speed play in incidents, not only on the Thames, it appears that the effectiveness of both the present regulations, education and enforcement should be improved.

4.2.8 *Change of Tide*

4.2.8.1 The requirements of the Rowing Rules are tidally based. Recorded incidents of rowing vessels encountering one another in counter directions along the centre line and ¹⁰ colliding have been attributed to the change of tide and related ambiguity of tidal stream direction and supporting the theoretical weakness of the Rowing Rules. Similar incidents have occurred involving rowing craft following the Rowing Rules against the tide near the Surrey bank around the bends at Hammersmith and Kew. In this sense the Rowing Rules contribute to the risk of collision as mentioned previously.

4.2.9 *Overtaking*

4.2.9.1 Overtaking features as an aspect in a number of incident records, often combined with inappropriate times/locations such as approaching or passing bridges. This aspect needs to be addressed further, either by enhancing the prominence in the rules or better education, application and enforcement.

4.2.9.2 The International Regulations for Preventing Collisions at Sea (1972) in Rule 13 (a) states “any vessel overtaking any other shall keep out of the way of the vessel being overtaken”. PLA Byelaw No 15 provides a modification to the COLREGS so that no vessel should overtake another vessel which is herself overtaking another vessel - to allow for narrow channels and prevent vessels being three abreast. This appears a suitable restriction. Again, though, it is an example of the fragmented presentation of all rules covering navigation on this section of the Thames as it is not mentioned in the Rowing Rules.

¹⁰ Centre line as practiced, not starboard side of the fairway as per the Rules.

- 4.2.9.3 The ARA document “Tideway Navigation & Steering” provides suitable guidance as to the correct procedure with the overtaking boat keeping clear at all times whilst the overtaken boat holds a normal course. Generally in the shallows the overtaking boat will overtake towards the middle of the river but allow the overtaken boat sufficient space to steer around any shallows or obstructions.
- 4.2.9.4 The ARA paper also notes that the overtaking vessel should not row two abreast for longer than necessary to overtake, and that the overtaken vessel should never assume that the vessel coming up from astern has seen them.
- 4.2.9.5 We note that for many races including some Tideway Head races a different convention, contrary to the COLREGS, will apply with the slower boat moving over to allow the faster boat to stay in the stream.
- 4.2.9.6 The paper also comments that the rights of way when overtaking are one of the least understood areas of Tideway navigation.
- 4.2.9.7 Observation – In view of the potential and actual number of accidents that occur around bridges, due the narrowing of the main fairway and physical obstruction of the piers, the narrow channel and lack of a clear view ahead the ARA paper should also recommend the restriction of overtaking immediately prior to bridges, blind bends and pinch points. In view of the above Byelaw, and for reasons of safety, overtaking should be restricted to only one vessel at a time.
- 4.2.10 Crossing**
- 4.2.10.1 Several recorded incidents have included at least one vessel crossing. The Rowing Rules specify crossing points whilst also permitting crossing elsewhere. In both instances the Rules remind those crossing of the requirement to expedite the manoeuvre and not to impede the passage of others following the narrow channel; as specified in the Byelaws and under the wider COLREGS. As with other sections, the drafting and presentation could be enhanced. Notwithstanding this we believe it is the practice, in particular keeping a good lookout, situational awareness and expediting the manoeuvre that is the greater weakness and where effectiveness can best be improved.

4.2.11 Collision Avoidance

4.2.11.1 Where rowers can operate outside the main fairway but then find themselves inside it, a common reaction will be to regain position outside the fairway by altering back towards the bank. When this is a reaction to encountering another vessel head on, whether power driven or another rower, the actions will probably be contradictory to the COLREGS and exacerbate the situation. Similarly, where a rower is forced to use the main fairway (at pinch points, particularly at Low Water) and encounters a head on situation the same reaction is often found – altering to the shallower water of the bank. . Both instances arise through non-application of the current Rules (COLREGS). The Rowing Rules do not address this action, but it is apparent that ambiguity has lead to some of the confusion. In this aspect their effectiveness as a risk control could be improved.

4.2.12 Promulgation

4.2.12.1 One problem with the effectiveness of the Rowing Rules is promoting understanding both amongst rowers and other users, especially visiting pleasure craft. The consensus is that the promulgation of the rules is not very effective and more should be done to extend awareness; see section 9.

4.2.13 Data Capture

4.2.13.1 Of note here are the differences between the ARA and PLA incident databases. Whilst the PLA has received very few reports, decreased over recent years, the ARA database has increased. It appears that the ARA drive in the capture of data is producing results but that relevant information is not being transmitted to the PLA. Better communication between the various parties is recommended. A further observation is that whilst the data has been captured by the ARA is use appears still to be at an early stage. A number of initiatives are currently under review by the ARA (see Attachment H), but prior to this there has been a limited visible response to some of the trends seen in the records.

4.2.14 Summary

4.2.14.1 The conclusion from this part of the process was that the present Rowing Rules significantly contribute to the overall risk of collision on this section of the Thames, rather than reducing this identified risk to ALARP. Their value as a risk control measure is thus downgraded and justification on this basis weakened. Simultaneously it has been assessed that the Rowing Rules do have value in reducing the risk to rowers from physical hazards.

- 4.2.14.2 The sole reason for not implementing the COLREGS would be to mitigate the risks from the physical hazards i.e. to separate rowers from physical hazards on the sides of the river not presently rowed.
- 4.2.14.3 There is much confusion about the interpretation of the rules both amongst rowers (where the common interpretation is that they proceed in the centre of the channel when going with the stream, and then go on the inside of the bends in the shallows when proceeding against the stream) and amongst other users, who are either unaware of the rules or find the lack of consistency difficult to apply.
- 4.2.14.4 The question is one of balance between the identified risks to all users.

4.3 Other Factors which Impact on Effectiveness

4.3.1 Enforcement

- 4.3.1.1 The PLA Harbour Services personnel do not religiously enforce the requirements for rowing vessels proceeding with the stream to keep to the starboard side of the channel as they believe that this would increase the risk of collision between rowing vessels travelling in opposite directions, particularly at low tide and pinch points. The regulatory value of the Rules as drafted is thus downgraded. The decision not to enforce this aspect is borne out by records where a number of rower on rower incidents cite one vessel (presumably going with the stream) as being too near the bank and thus the vessel proceeding the other way.
- 4.3.1.2 There also appears to be a reluctance on the part of the PLA to use their powers to enforce the Rowing Rules in conjunction with the COLREGS. Stemming apparently from the lack of belief in the regulatory strength of the Rowing Rules, (supported it would appear by case history), the reduced enforcement on the river and lack of disciplinary enforcement through their other powers are contributory to an apparent sense of relative impunity amongst some river users.
- 4.3.1.3 Within the various user groups the powers of control over the membership rely to an extent on the willingness of the members to be controlled. i.e. the river remains a free waterway and, whilst it may be more difficult, the river can be accessed and used irrespective of club membership. The ultimate sanctions are thus limited. Reduced enforcement on the river combined with limited powers or unwillingness to use the powers held appear to be detrimental to the overall levels of compliance on the river and thus the effectiveness of the Rules and regulations as risk reduction measures.

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- 4.3.1.4 There are other aspects of what is seen as a reduced level of enforcement by the PLA with regards rowers. Although Byelaw 48 specifically allows coaching boats and boats escorting races and regattas to exceed the eight knot speed limit there is a requirement for them to have been approved by the PLA. However, inspections and approvals, which used to be at the invitation of the Rowing Club, are apparently no longer taking place. Anecdotal evidence suggests this has been a factor in less appropriate craft being used by some rowing coaches, introducing hazards such as increased wash. Perhaps as importantly, it reduces the interaction of the rowers and PLA personnel, and the visible presence of the PLA amongst the rowing community.
- 4.3.1.5 In 1991 it was the published intention (of the PLA and Police) to apply the right hand rule and prosecute those found in non-compliance. We have not become aware of any such prosecutions. It is also difficult to ascertain whether the rowing community actually reverted to the right hand rule during the relatively short period of its apparent enforcement, although contemporaneous correspondence indicates that rowers continued as before whilst arguing their case. . In January 2001 with the taking over by the RNLI of search and rescue on the Thames, the routine police presence on the river was itself largely withdrawn (with the closing of the police station and routine patrols in the area). To users external enforcement appears to be lacking.
- 4.3.1.6 Lack of compliance and enforcement relates to other aspects of navigation including overtaking at inappropriate times or proceeding abreast where required not to under the Byelaws, examples of which have been seen in the study period and supported by anecdotal evidence. The baulking of larger powered vessels has also been acknowledged within the rowing community as a problem, with progress of other vessels impeded (counter to the Rowing rules, Byelaws and COLREGS), particularly at low tide by rowing vessels in the main fairway using the centre line and the centre arches of Bridges. The causes appear to be a mix of lack of situational awareness or awareness of other user requirements, combined with the nature of rowing (use of set pieces, ending and resting at Bridges etc), but also on occasion wilful non-compliance. The failure of some powered vessels, principally privately owned pleasure craft, to respond to the presence of rowers is also recorded and of concern
- 4.3.1.7 N to M form part of the PLA regulatory framework but without the force of a Byelaw, however, prosecutions could be made under the PLA Act using the N to M as evidence. A Code of Practice fits well for enforcement purposes as it could be given the force of law under the PLA General Directions

4.3.1.8 The effectiveness of whatever rules are in place will be affected by enforcement. There is a widespread reluctance amongst the rowing community to revert to the right hand of the fairway only. As seen below Tower Bridge, in areas not covered by the Rowing Rules, the “slacks” are apparently still worked by rowers. Gaining “buy-in” from the rowing community would be difficult to achieve but crucial to the success of the rules governing navigation, particularly if the special rules were repealed in entirety.

4.3.2 Abuse

4.3.2.1 Another unfortunate element is the level of verbal abuse encountered from elements of the rowing community. Whilst also not being a one-sided phenomenon complaints of abuse by rowers have been a common theme throughout the survey process and an acknowledged problem within the rowing community. This has affected the relationship between the various river users. This may be symptomatic of a change in attitudes and polarisation amongst communities, but is also at least a part cause of reluctance on the part of the PLA harbour service to rigidly enforce all the rules.

4.3.3 Style of Enforcement

4.3.3.1 The detrimental effect on enforcement caused by the regulatory status and drafting of the Rowing Rules has been discussed above and is a probable factor in transgressions from the rowing and wider rules. In addition to this, the actual enforcement style has a probable impact on compliance.

4.3.3.2 Day to day enforcement by the PLA is based around routine patrols by a Harbour Services launch crewed by uniformed personnel, onboard relatively large deep draft vessels. The professionalism of the harbour service personnel was apparent during the study. In relation to commercial craft within the area the profile of the service, type of vessels and noted working relationship appears not inappropriate. A mix of the official profile is combined with the ability to approach the operators about known transgressions; the presence of the service launch does not deter all transgressors, but the ability to approach them informally on the first instance appears to generate a good working relationship.

4.3.3.3 The practice of approving escorting coach boats has apparently lapsed within the PLA. It is understood the requirement was aimed principally at safety and control of wash through assessing the hull form and observing the wash with the boat in operation. The practice would be relatively easy to re- introduce and is recommended. It would serve, as well as its primary aim, as a means of re-engaging the rowing community and raising the PLA overall enforcement profile.

4.3.3.4 Between the rowers and the PLA Harbour Services patrols there is a less effective relationship. There are several factors:

- High profile patrol boats with uniformed personnel
- Nature of the rowing community – a core of strong-minded, independent persons. Hostile reactions when transgressions are raised.
- Lack of enforcement of the present Rules and regulations leads give impression of either a lack of interest or toothlessness.
- Despite the high profile style, the large number of boats and sweeps past any one area leads to a reduced overall visibility. Combined with the disproportionate relative numbers of rowers and few other craft on certain stretches (particularly when out of the summer season) this leads to an apparent feeling of ‘ownership’ by some rowers. This appears particularly so during winter periods when other craft are largely absent from many stretches. This apparent ‘ownership’ and the seasonal lack of other types of craft, may be part of the reason for subsequent conflict when larger numbers of these other craft are encountered in summer periods.

4.3.3.5 The hull form, maximum speed and associated wash generated by the patrol launches is also felt not the most appropriate for the stretch where areas potentially frequented by rowers are inaccessible to the PLA during low tidal states. The amount of wash generated when required to proceed at speed could also affect rower safety and was held to be relatively high.

4.3.4 *Fragmented Nature of the overall Regulatory Package*

4.3.4.1 The fragmented nature and presentation of the present regulatory package reduces its ease of understanding, coverage and its effectiveness. In this context, though, the present Rowing Rules work to the extent that they do amongst the Rowers partly because they are not actually fully followed or enforced. Full application of the Rowing rules would reduce their effectiveness, particularly rower on rower situations. With regards other problems of overtaking, proceeding abreast and impeding the passage of other users, understanding may be improved by better presentation and education and effectiveness improved through increased compliance. In other collision avoidance aspects, the conflict between the Rowing Rules and wider regulation is inherent.

4.3.5 Control Within the Rowing Community – Changes since 1992

- 4.3.5.1 Alongside external enforcement is internal control within the rowing community. Throughout the study period a momentum has been detected to address what are recognised shortfalls in the practices of rowers, relating both to the Rowing Rules and wider regulation and guidance. Whilst this is of merit it must also be noted that a similar momentum has been seen previously when the situation has been reviewed. Ultimately, the river remains free access to all and the sanctions available to the rowing community cannot prevent misuse / abuse of the systems and rules by unwilling parties. Within the rowing community, including personnel from the governing bodies, it is acknowledged that greater external enforcement would be beneficial and a mix of internal and external control is required, with at least initially sanctions of fines and prosecution for the most severe cases.
- 4.3.5.2 However, a similar recognition of failings and need to address them has been seen previously within the rowing community but the momentum has died and changes have not taken place.
- 4.3.5.3 We believe that the rowing authorities still have much to do to generate sufficient attention amongst rank and file rowers to safety, knowledge of navigation rules, discipline and appreciation of other river users. Despite safety having been on the agenda for many years various initiatives have been slow to be finalised, accepted and implemented by the rowing community. In response to similar concerns in 1992 over navigational safety and the Rowing Rules members of the rowing community outlined their concerns over the removal of the Rowing Rules, whilst identifying failings in application on the water and proposing remedies. Many issues considered to be urgently in need of implementation, which were the subject of submissions or were discussed with river users in interviews for this Risk Assessment had previously been recommended to all Rowing Clubs in January 1992.
- 4.3.5.4 A memorandum “Safety, Discipline and Rules of the River on the Tideway” (see attachment J (i)) written by Peter Coni was circulated by the ARA on 9 January 1992 to all interested Rowing Clubs and Regattas. In summary this dealt with the following matters:
- *Boat Identification - The requirement for boat identification including the suggestion that the TRRC or even the ARA should lay down a standard system for identification, including the use of a code sequence such as “LRC27”*

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- *Speed Limits - Coach boats must actually be coaching to enjoy the concession of exceeding 8 knots and must be approved and certificated by the PLA as acceptable for wash.*
- *Navigation Lights - Boats are still going out without lights, despite the requirement for a white light fore and a white light aft. He suggested that someone design and patent a dedicated light and an attachment that would be fitted to all future new boats.*
- *Reflective Clothing - Use of day-glo and reflective strips on the tops of single scullers, and at least the bowman and coxswain in larger boats.*
- *As a comment on the then campaign to obtain a variation in the bye-laws to allow rowing to follow the traditional routes on the inside of bends he states "It is critical that our house should be seen to be in order in every department – no idiot coxes running eights into one other to the danger of life and limb; no conceited crews from the national Squad swearing at other river users who happen to hold up their outings in some way or another; no incidents where rowers and scullers are seen out at night without lights, or out in unmarked boats; and all the rest."*

4.3.5.5 We have heard the same or similar comments from a number of people during the last few months so arguably it appears that not much has changed in the last thirteen years.

4.3.5.6 The main arguments used by Peter Coni as "The Consequences of the Starboard Hand Rule upon Tideway Rowing" (see attachment J (ii)) are summarised by us as follows:

Access to the bank from the river - If a rower falls into the water, one highly relevant safety factor is whether he is able to get out of the river. Whilst the Surrey Bank has a sloping bank to reach the towpath at almost every point, on Middlesex between Putney and the Bandstand there are vertical walls with only occasional gaps such as at Crabtree, the rafts at Hammersmith and the gardens at Chiswick Mall. Therefore under the traditional rowing route rowers going against the stream are always close to the Surrey shore whilst those going with the stream are more centrally in the main channel and therefore closer to the greater safety of the Surrey bank.

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Under the Starboard hand rule rowers working upriver against the stream would be obliged to stay close to the Middlesex shore, from which there is no escape all the way from Putney to above Chiswick Steps. Rowers would therefore be obliged to follow a much more dangerous route with very real risks of drowning that do not exist with the traditional route.

Coaching Safety from the tow path - The major base for rowing is Putney. When coaching beginners and particularly novice scullers, the safest means is to put the sculler or crew out on a falling tide close in to the Surrey bank with the coach in close visible and audible contact on the tow path. Rowing against the stream allows a slow speed in comparison with someone on the bank. In the event of capsize and positive danger, the coach is in a position to quickly assist.

Under the Starboard hand rule this safe facility for absolute beginners would be lost. For the beginner to be on the Surrey shore he would have to be going with the stream at far greater speed relative to the bank. From Putney the novice would proceed downstream below Putney Pier to be faced with vertical walls and no access for the coach on the bank. For a complete novice to work his way across the main channel of the river to learn upstream under the Middlesex shore is ludicrous. Similar problems would be experienced by rowers from ULBC although beginners from Emanuel and Hounslow boathouses would not be similarly affected.

Danger of going aground - When boats are required to follow routes across extensive and dangerous shallows a series of problems occur:

Boats are more likely to run aground and be damaged

Possibility of capsize and sinking particularly for scullers who may catch one blade on an underwater obstruction

Rowers working against the tide, instead of keeping as close to the shore as possible, will be forced into deeper water to avoid the risk of damaging their boats. Thus slower boats moving against the tide would be brought out into the main channel and into the path of power driven vessels with greater draft and speed.

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Under traditional rowing routes, rowing boats completely avoided the areas where the extensive and dangerous shallows exist. Between Putney and Richmond there was virtually no point where rowers were unable to remain close to the waters edge. Even with lower river levels of 1992, the only shallows met were upstream of Beverley Brook at Putney, under the Surrey arch at Hammersmith and immediately below the St Paul's slipway. Rowers had always been warned not to risk their craft over stretches of the river where danger of running aground existed when the tide had fallen below three-quarters full. These included Fulham Flats to Hammersmith, behind Chiswick Eyot, close to Middlesex immediately downstream of the Eyot, the Surrey shore from opposite Valor Wharf to Barnes Bridge, and the stretch between Barnes Bridge and Chiswick Bridges.

Under the Starboard hand rule rowers moving up-river would be required to hold the Middlesex shore on a falling tide, but because of the risk of grounding would feel obliged to be out in the main channel of the river along the Fulham Flats, through the narrow point in the river at Hammersmith Bridge, past various piers and moorings, the shallows at Chiswick Eyot, the moorings upriver from Chiswick Steps along to Valor Wharf where the traditional rowers route is rejoined.

Similarly rowers moving down river would be required to hold the Surrey bank, but would move into the main channel off the Brewery and more particularly once through Barnes Bridge off the flats opposite the Bandstand.

In summary, applying the Starboard hand rule would add very greatly to the risk of boats going aground, of crew members being in the water - but placing them in areas where egress would be much more difficult – and inevitably lead to crews moving against the tide being out in the navigation channel used by deeper draft vessels with greater risk of collision.

Generally with the traditional rowing route it was possible to spell out clear and concise instructions, particularly for visiting crew. Whilst the starboard hand rule is easy to explain, its practical application would be hideously difficult to spell out. How would one explain to a visiting crew paddling towards Hammersmith the distance out to avoid grounding on Fulham Flats on a falling tide, or the course to steer on a rising tide from Barnes Bridge back to Putney.

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It was the view of the ARA, TRRC and the Officials of the Tideway Clubs that implementation of the Starboard hand Rule must lead to a higher probability of fatalities, to an undoubted rise in the incidence of boats running aground and to a far greater level of risk of collision occurring between rowers and other vessels on the river.

4.4 SUMMARY: Value and Credibility of the Rowing Rules

4.4.1 In summary:

- Risk of collision was identified as amongst the main risks. There is an apparent inherent incompatibility between the requirement of the Rowing Rules and the COLREGS with regards positioning and direction followed by rowing vessels and other vessels within the fairway. As a result the Rowing rules increase the risk of collision on the River.
- This weakens their position as a Risk Control measure and would appear to weaken their basis as a regulatory tool.
- The Rowing Rules can only be justified on a safety case basis, which would have to show that it was not safe or practicable for the rowing vessels to proceed on the starboard side of the fairway.
- The risk of collision is exacerbated and at some points introduced at periods of Low Water, which forces rowing vessels and others to interact. The positioning permitted by the Rowing Rules increases risks of collision at these “pinch points”.
- Several physical hazards are common to all river users. The Hazard Identification process recorded a number of other physical hazards that, by position outside the main channel or combined with the nature of rowing boats, would present a hazard predominantly to rowing boats. The risks associated with these hazards are reduced by present positioning under the Rowing Rules which provides separation. The risk to rowers from some physical hazards is held to increase if the starboard side of the fairway is used throughout. (See attachment E).
- The risk benefit of the Rowing Rules and wider set of regulations is reduced through non-application by rowers. Examples include rowing abreast, baulking and otherwise impeding the passage of other users, some occasions of crossing and proceeding down the wrong side of the fairway.
- Poor lookout is a fundamental problem that recurs within accident statistics and reduces the benefit of any rules. With the present regime of counter streams of traffic this is compounded.

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- The risk benefit of the Rowing Rules amongst rowers is enhanced by non-application of the Rowing rules, by proceeding down the centre line rather than the starboard hand side of the fairway as stipulated.
- The rowing community has a strong, independent membership. Control, both internal and external has apparently decreased. Inter-user group relations need to be improved
- Lack of effective enforcement has contributed to the present low level of compliance.
- Enforcement style and visibility can be improved. It is felt to contribute to the present level of compliance. To support this the regulatory framework needs addressing. Gaining acceptance of whichever rules are settled upon will be crucial.
- The fragmented nature of the regulatory package and its presentation appears contributory to both the levels of understanding and compliance. The “pick and mix” approach seen, where some rules are followed and others are not, is partly symptomatic of this. The effect on risk is mixed, as described above.