

## Section 2. The regulators' responses

### (a) The October 2006 Tideway regulatory regime

2.1 The day before the incident, the Port of London Authority (“PLA” – the navigation authority for the tidal Thames) and the Thames Regional Rowing Council (TRRC) of the Amateur Rowing Association (ARA) had inaugurated **a new regulatory regime for rowing on the Tideway** - Table 1.

Table 1: OUTLINE OF THE TIDEWAY CO-REGULATORY REGIME		
Name	Description	Function
PLA	The navigating authority for the Tideway.	Regulates all boat movements on the Tideway but, in agreement with the TRRC, investigates only those rowing incidents involving injuries, financial loss or non-rowing craft.
TRRC	Co-regulator for Tideway rowing matters	Recognized by the PLA as its co-regulator for the sport on the Tideway to administer the application of the provisions of the Code to most rowing activities and incidents.
ColRegs	The International Regulations for Preventing Collisions at Sea	Formulate the ‘Law of the Sea’ (as the Tideway is an arm of the North Sea).
Byelaws	PLA River Byelaws 1976	Develop and apply the navigation requirements of ColRegs to the Tideway as a narrow waterway.
Tideway Rowing Code (“The Code”)	“Rowing on the Tideway: A code of practice for rowing on the tidal Thames above Putney; 2006.” PLA. TRRC. October 2006.	The Code sets out the Tideway navigation requirements for vessels propelled by oars and their accompanying coaching launches (“the rowing rules”) and modifies, explains and illustrates those in detail. It is <i>additional</i> to other provisions governing the conduct of rowers, notably the ARA Water Safety Code (WSC)
Rowing on the Tideway	A PLA chart to accompany the Code	Charts the Tideway from Richmond lock to Putney showing the channel, bridges, piers, moorings, shoals, navigation buoys, other provisions of the Code, and the “NORMAL ROWING ROUTE ... “.

2.2 The PLA had **to examine such a near-disaster** to establish its causes and to adjudicate individuals’ responsibilities for it. Indeed, the potential consequences of this incident were so serious that it could have merited the involvement of the Maritime Accidents Investigations Bureau or given rise to legal action against one or more of the rowing personnel involved for a breach of ColRegs or the Byelaws. TRRC, however, commissioned this complementary review to follow completion of the PLA’s formal proceedings and actions, if any, on individuals. The objective was to look, without re-opening the PLA’s conclusions, at broader and deeper issues for rowing clubs, the Tideway regulatory framework, and the sport as a whole.

(b) The PLA investigation

2.3 The TRC coach prepared an **incident report** for the ARA and the PLA. Although the cox was “master of her craft” for all legal purposes, she was a junior rower (under 16) and under the supervision of the coach, so she was not required either to submit a report or to make herself available for interview by the PLA. The coach’s report is copied at Annex A(1).

2.4 The PLA began its **formal investigation** by interviewing the coach. After considering his report and the interview, the PLA wrote to the TRC coach – extract at Annex A(2). Whilst critical of some aspects of his conduct, the PLA decided that no further specific action on its part would be required. In so deciding, the PLA was aware of, and had already welcomed, TRRC’s decision that it would subsequently review the incident to identify the wider lessons for the sport on the Tideway.

(c) TRRC review

2.5 **TRRC** resolved:

“To review the incident at Dove Pier:

1. To determine the factors leading up to, in and after the incident.
2. To determine what lessons can be drawn from the incident.
3. To make recommendations which may minimise the risk of a recurrence.”

2.6 The Chairman of TRRC established **a review team** to investigate the incident and report back to the Council – Table 2:

<b>Table 2: THE REVIEW TEAM</b>		
<b>Neil Jackson.</b>	<b>Bill Mitchell.</b>	<b>Stuart Ward.</b>
Thames Regional Water Safety Adviser (RWSA), November 2006-07. ARA Divisional representative for Barnes & Hammersmith.	Vice-President of TRRC. Chairman of TRRC’s Rowing Conduct Panel. Chairman of the Fuller’s Fours Head of the River. Umpire.	ARA National Water Safety Adviser (NWSA). Independent of Tideway interests, but having raced on it.

2.7 Before the team started work, TRRC joined with the PLA to **circulate to rowing clubs the general conclusions** from the PLA investigation. The Chairman of TRRC and the Chief Harbour Master of the PLA wrote on 24 November 2006 a joint letter passing on to clubs for

action in relation to their own rowing outings the key factors causing the Dove pier incident – extract at Table 3.

<b>Table 3: EXTRACT FROM THE TRRC/PLA LETTER TO ROWING CLUBS</b>
<p>“ The ... investigation has concluded that a number of factors combined to cause the accident. These included:</p> <ul style="list-style-type: none"> <li>• A very strong flood tidal stream.</li> <li>• The combination of a novice crew and an inexperienced cox.</li> <li>• Inadequate pre-outing assessment.</li> <li>• Inappropriate navigation (safety) plan.</li> <li>• Making unnecessary alterations of course for other craft, thereby diverting from the optimum track.</li> <li>• Failure by the coach to stay in close contact with the eight</li> </ul> <p>“ The ARA Water Safety Code states that, “Before beginning any coaching session, water- or land-based, the coach must go through a risk assessment process relevant to the activity proposed. The assessment must take into account the ages, abilities and limitations of the athletes involved, together with the water and weather conditions prevailing or facilities available, so that a Safety Plan can be prepared and the programme of activity adjusted to suit.” It is essential that all rowing clubs using the Tideway ensure that this guidance, and that contained in the PLA/TRRC’s new Rowing Code, is known by their members. In particular, clubs must ensure that coaches recognize their responsibility for safety and do not expose inexperienced crews and coxes to conditions beyond their ability</p> <p>” The Thames tideway is a challenging environment which demands respect. On this occasion a tragedy was fortuitously averted. Please make sure that all in your club are made aware of the incident, and that the circumstances surrounding it are never repeated.”</p> <p style="text-align: right;"><b>Martin Humphrys</b>, Chairman TRRC <b>Bruce Richardson</b>, Harbourmaster, PLA</p>

### **Section 3. The work of the review team**

3.1 The team set out **to explore the incident in depth** with the individuals involved directly in it and those responsible for the operational management of water safety and rowing at TRC. This meant our taking a much broader approach than the PLA, tracing causality – but NOT blame – back beyond the events of 7<sup>th</sup> October and the factors spelled out in the 24 November letter. Our goal was to help the sport on and off the Tideway to minimize the risk of any repetition of this kind of incident, including, if appropriate, recommending changes to the Tideway Rowing Code.

*BEFORE we started our work, Tideway clubs should have acted on the 24<sup>th</sup> November letter to ensure that their members, coaches and officials anticipated and prevented the immediate causes of the Dove pier incident identified by the PLA and endorsed by TRRC.*

3.2 The team **collected evidence** through round-table discussions with selected individuals, drafting a note of the contents of the discussion, and circulating it to those present to correct errors or omissions or to add further and better thoughts or background or explanatory material. We then used the agreed final version as their “evidence” for this report. (One potentially key player – a male single sculler (“M1x”) from Furnivall Sculling Club (FSC) mentioned by the TRC coach – did not come forward at the time of the incident to volunteer evidence about what happened or his part in it; our efforts to identify and contact him also failed.) We also tested our emerging ideas in a less structured way with many colleagues at PLA and TRRC or ‘on the towpath’ familiar with the regulatory and rowing context we were studying.

*We are very grateful to all those who contributed to our work.*

3.3 The material we compiled covered **three principal topics**:

- (1) The role, if any, in the development of the incident of the Code as it applies at Hammersmith;
- (2) Aligning the training, selection and management of coxswains, other steersmen or –women and scullers (“steerers”) with their legal responsibilities as “master of their vessel”.
- (3) Implementing the risk-based approach to water safety management required by the ARA in its WSC.

*We set out the lessons and our recommendations in that three-part structure in this report; but those should be read together with the explanations, justifications and operational details in the attached Annexes B, C or D which relates to each part.*

3.4 In identifying the lessons from the incident, preparing our recommendations, and presenting them here, there is **no intended criticism of any individual** at the heart of matters on or before 7<sup>th</sup> October.

*In what follows, it is only the lessons that count.*

## **Section 4 How the incident developed**

### (a) Before the TRC NW8+ boated

4.1 **The NW8+ outing** began at TRC boathouse on Putney hard, in relatively calm and sunny conditions. Traffic was active but normal for mid-morning on an Autumn Saturday. There was,

however, an *exceptionally* fast tide running that day. A flood tide runs faster along the Tideway than an out-going (“ebb”) tide unless it is resisted by a heavy counter-flow of land water from the upper river. On that morning, the flood tide was both:

- \* being driven hard by the most extreme vertical rise from Low Water (LW – the bottom of the tide) to High Water (HW – the top of the tide) for many years<sup>1</sup>; and
- \* facing minimal resistance from land water flow since the upper river was then in near-drought condition.

4.2 **The crew** belonged to TRC’s novice squad. TRC is a big club, with adult and some junior members or school-based associates. The club had had the usual Autumn intake of new members, of all standards from highly trained through part-experienced novices to beginners. Its novice squad was substantial, comprising mainly members new to the club, and was organized to operate somewhat autonomously within the club. The NW8+ rowers were seniors and a few juniors (one of whom, even so, had had single sculling experience on the Tideway). There was no formal on-the-day risk assessment (RA) as such. The crew for the outing had, however, had been selected to include some rowers, albeit novices, with experience of being afloat and under a cox’s control. The core was beginners needing to build on-the-water experience after their initial land coaching and a small number of previous outings. The cox was a junior, with Tideway single sculling experience, but herself a beginner as coxswain.

4.3 **The coach and driver** were those assigned to TRC’s novice squad. Their goal was to bring its members on to the point where they could move up to the Intermediate squad. The coach was experienced as both a coach and a Tideway rower and sculler, but had not yet got a recognised coaching qualification (which would then have been the ARA Instructor’s Award, now replaced by the “Level 2” qualification). The driver, also not formally qualified, had built personal experience of coaching coxes. Coach and driver had both been trained in the use of the tin-fish by the club. They had been coaching other crews earlier that day.

4.4 In the absence of an RA, **the outing plan** did not include express arrangements taking account of either the special conditions prevailing on the day or the level of experience of the crew and its master. It was to be a routine early-Autumn training session accompanied by the coach in the tin-fish. The vessels planned to go through Hammersmith bridge (about 2.5km from Putney) towards Chiswick, before turning to row back to Putney against the tide. The coaching team picked up the NW8+ for the outing at Putney and exercised detailed control of the vessel,

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<sup>1</sup> On 4<sup>th</sup> October, the PLA alerted Tideway rowing contacts by e-mail to the extreme HW and LW conditions forecast for that weekend.

via the cox or by way of direct orders to the crew, stopping and starting them and carrying out various exercises or continuous passages.

(b) Getting to Dove pier

4.5 The **planned route of the NW8+ and launch** – Table 4 - would have taken them up-river along more than half of the Tideway’s long-standing championship course (between Putney pier and Chiswick bridge). The course of the NW8+ through roughly 600m from (c) Riverside to (e) Dove pier is described and mapped in the TRC coach’s incident report reproduced in Annex A(1).

Table 4: THE PLANNED NW8+ OUTING ROUTE	
	(a) Across the Tideway from Putney hard and up-river with the flood tide, along the starboard (cox’s right) Middlesex edge of the channel
	(b) Up Crabtree reach of the Tideway on the Middlesex station
	(c) Onto the start of the long left-hand (“to port”) Hammersmith bend flanked by the Riverside site on the Middlesex bank and Harrods wharf on Surrey
	(c) Through the main arch of Hammersmith bridge on starboard station.;
	(d) Past, in succession along the Middlesex bank but set well back from the fairway edge, the rafts of the ARA, AKN, and FSC, followed immediately by some moored houseboats.
	(e) After a short gap, outside the MV ‘ <i>Amethyst Atoll</i> ’, moored to the outer, southern, river-side face of the pontoon of Dove pier
	(f) On round the continuing bend towards Chiswick Eyot

(c) The crash

4.6 By the time the NW8) was nearing the AKN raft at (d) in that list, the **tin-fish and NW8+ had become separated**. Even with a loud-hailer, communication between the coach and the cox or crew was inevitably difficult. The position of the NW8+ and the force of the tide were by then critical. There was at best a small and fast-decreasing margin for manoeuvring round the pier. Decisive, correct and well-executed manoeuvres were needed to stand any chance at all of avoiding the crash. The scope for any such manoeuvre was further reduced by the presence of the FSC M1x returning to Furnivall raft.

4.7 As described in section 1, the NW8+, heading across the tide was then **swept by the flood tide onto Dove pier**. It lodged at an angle across the bows of the *Amethyst Atoll* and swung across those of the garden boat. The NW8+ boat began to break into many pieces. The bow and stern of the broken eight were swept away. The accompanying tin-fish, attempting to

help, was swamped, swept onto the wreck of the boat, and eventually forced by the power of the tide onto its side and into the narrow space between the *Amethyst Atoll* and the pontoon.

4.8 For eight of the 11, the emergency went far beyond the **standard rowing response to a wrecking** – “stay with the boat”.

- \* Three crew members were *swept away* into the river on the bow and stern fragments.
- \* Another member went right *under the pontoon* and surfaced beyond it.
- \* Most of the crew, the coach and the launch driver *had to abandon their vessels* and clamber onto the barges’ mooring equipment or debris trapped between the barge, pontoon and lighter.

4.9 All 11 were **rescued by many people**, including other rowing coaches with their launches, and the residents of Dove pier and the *Amethyst Atoll*. The eight, its bow and stern fragments recovered (as shown in the photographs above) by RNLI, was written off. The tin-fish was returned eventually to TRC.

## Section 5 The lessons

### (a) General conclusion

5.1 *This “tragedy averted” was not simply a matter for TRRC and TRC to sort out under the PLA’s stewardship of the Tideway. The lessons from Dove pier in October 2006 are of much wider relevance to rowing. Some of the causative factors and the actual, potential or recommended remedial actions on them arise with every rowing outing, however ordinary it may seem on the day, by every rower however experienced, and so to every club or Region within the ambit of the ARA.*

### (b) The Tideway Code and the incident

5.2 The Tideway Rowing Code’s provisions for **navigation on a flood tide in the vicinity of Hammersmith bridge** are fundamentally sound. They did not contribute definitively to the Dove pier incident. They are not likely to be enhanced by any major revisions to the Code or additional markings on the river.

5.3 Dangers can, however, arise from **misapplication of the Rules**. The *process* of introducing the Code unintentionally created a climate leading to *over-compliance* with, or incomplete grasp of, some provisions. That can be avoided by adequate briefing and education before boating and by expert and balanced compliance on-the-water.

5.4 The way ahead is more, better and **continuing education about the Code**. The price of safe and well-behaved use of the Tideway is vigilance on the part of clubs as to the knowledge and conduct of their steerers and coaches especially at pinch points, crossing places and restricted zones (RZs). There is a need for clarification of the application of the Code in relation to boat movements to and from clubs based on the opposite side of the river to “the slacks”, (those parts of the channel outside the fairway, also known as the “in-shore zone” or “IZ”) authorized by the Code for use by rowers moving against the tide.

(b) ‘The master of the vessel’

5.5 A formal club-based **scheme of steerer-licensing** for coxes; scullers and steers-men and –women (“steerers”) is urgently needed. It is too important and too widely needed a skill in the modern sport to be left in its current inconsistent state. Much of the task is rightly learned ‘on the job’. But it is too risky for learner-steerers to be allowed out unsupervised without having formally demonstrated to their club their basic minimum capability to do so. The qualifying skill base must include the local hazards and navigation rules; but a formal scheme of a specific Tideway endorsement for unsupervised visiting steerers is not practicable under current circumstances.

5.6 Coaches must plan and run outings with full **respect for their steerers’ responsibilities** and capabilities. They lead the way for their charges. They rightly expect to plan outings and, on the water, to determine what the crew does next. But they *must* avoid placing steerers at risk of a breach of their duties let alone putting the crew at undue risk.

5.7 The **relationship on and off the water between coach and steerer** is safety-critical, especially while the latter is building general experience or local knowledge. Coaching a steerer is, however, a specialized skill in its own right. It is unfair on a developing steerer, the crew or the coach if the latter is assigned to an outing without having already demonstrated the necessary training, skill, aptitude and awareness of the steerer’s role.

(c) Risk management and rowing

5.8 **No one factor ‘caused’ the Dove pier incident.** Many small decisions accumulated from well before the day of the outing through to the point of contact with the vessels moored at the pier. Most of those decisions were quite ordinary in rowing terms. The aspects of good rowing safety culture and practice which then and now prevent other such incidents from happening, were well-established and widely applicable. There is no ‘magic formula’ here. Every club needs to establish and maintain the standards already visible in the best-run ones.

5.9 Rowing is **a self-actuating sport.** It is also predominantly competitive. We largely discipline and drive ourselves individually or as small groups within our clubs. When we are on the water – where we want to be! – we are beyond the immediate control of club officials. We *must* each police ourselves or no-one does it. In such circumstances, safety can be delivered only if the culture of a club makes it part of the fundamental conduct and priorities of its members.

5.10 There is no substitute for **an on-the-day Risk Assessment** carried out by every member for every outing, even when everything looks ordinary and unchallenging. Only then can the unusual be identified and the participants made aware of the ways in which their personal safety inter-dependes with their colleagues and, if there is one, their coach. Clubs have to organize their coaching, crew selection, and individual training and development structures in order to minimize the probability of an inexperienced crew being led by an inexperienced steerer taking to the water.

5.11 **Clubs’ duty of care to their members** means that they must take the initiative in:

- \* identifying foreseeable extraordinary risk factors *before* they crystallize;
- \* forcing those into the awareness of *all* members and their on-the-day RAs;
- \* instructing their captancy, safety and coaching teams to factor them into their plans and decisions; and
- \* assisting their individual crew members to understand and assess the implications.

All clubs should have procedures in place for forecasting hazardous conditions and putting in place, communicating, and logging preventive or risk-mitigating measures.

5.12 The **water safety function must be embedded in the highest level of command** of any club. Its officers and members must not only know what the committee or other leadership expect of them, but also that the committee will make sure that it knows that they are living up to expectations and will, ultimately, make the chronic, un-educable back-sliders leave.

## Section 6 Recommendations

### (a) Making the Code work better

6.1 TRRC should review its educational and advisory activities and materials for clubs so that the latter train their steerers, coaches and officers to deliver **informed compliance with the provisions of the Code**, avoiding over-compliance with some rules or taking any one rule in isolation.

6.2 TRRC should remind Thames Region clubs (and other Regional Rowing Councils for the benefit of their clubs' crews visiting the Tideway) of the **complexity of decision-making at Hammersmith** and other critical points on or near the Championship course. Clubs must ensure that steerers or their on-the-water supervisors are trained for, and aware of, those challenges *before* they are authorised by their club to tackle them.

6.3 TRRC should invite AKN and FSC to codify with their tenant clubs and with the ARA their existing **local crossing arrangements** to and from their rafts on the Hammersmith foreshore. Other groups of clubs whose boathouses similarly do not have direct access to "the slacks" on the opposite, Surrey shore should be invited to follow that example. Those need not form part of the Code. But TRRC could then publish them for general information.

### (b) Bringing in a licence for steerers

6.4 TRRC must give priority to implementing an effective, club-based, externally verified **formal system of steerer licensing** so that *all Tideway clubs catch up with what the best ones already do*. The scheme should be separate from the forthcoming ARA club-based Level 1 and 2 cox-assessment proposals. The proposed pilot study for the latter on the Tideway agreed between the ARA and TRRC should ensure that the 'Tideway licence' is consistent with the ARA scheme. It should be easy for any individual who wants to do so to continue further along the same pathway to achieve Level 1 or 2 qualification. TRRC must use its influence at ARA national level to get the pro-active support of other Regions for equivalent training for visiting steerers.

6.5 TRRC should remind clubs of their existing **duty to educate all of their members about navigation and safety** on their home *and* other waters before allowing them to boat. Within a club, steerer training and the standing arrangements for crew selection and outing preparation should include:

- \* awareness of the steerer's role as "master of the craft" and ultimate right to make decisions on whether and where to take the boat; and
- \* support for steerers to resist inappropriate instructions from within or outside the boat.

6.6 ARA must ensure that its **coach training methods and materials** test awareness of the skills and burdens of steerers and incorporate steerer-management and -development skills. The materials for those purposes should be brought to the attention of clubs for them to use with their coaches who have yet to gain formal coaching qualifications.

(c) Reducing the risks (to rowers and caused by them)

6.7 All Clubs must include the importance and methodology of **personal Risk Assessments** in induction briefings for new members and coaches, and continue to reinforce that for all active members at regular or fortuitous opportunities such as training camps, start-of-season meetings or land-training sessions.

6.8 Club committees should review from the top down **the place safety occupies in what they expect their members to achieve**, set out their expectations clearly (especially at the start of each rowing year in September), and keep under constant review how their officers, coaches and members are going about achieving it. They should be encouraged to use the TRRC on-line incident reporting system. And the reports from the TRRC conduct regime should be taken seriously.

6.9 Clubs should review their **squad and coaching structures** in order to spot where they are tending to boat higher-than-acceptable risky crew-steerer combinations, and to build in active preventive measures to reduce the risk for the learner-steerers.

6.10 Committees must take steps to **translate their safety policies into tough decisions**:  
(A) Resourcing the safety function – in terms of: people authorized and empowered to promote it; financial support for training each coach, steerer, Club Water Safety Adviser, and launch driver; and requiring coaches and athletes to build into their agendas time to be spent on safety and navigation training – even when crews, coaching, boats and outings seem to be taking up all the available volunteers, time and money.

(B) Tackling misbehaving members who have failed to respond to all attempts at explanation and education no matter how important they are to the club's racing success; when all else has failed, rejecting members or coaches who put themselves, their colleagues, or other rivers users at risk or whose conduct brings the club or sport into disrepute.

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