



**The Royal Society for the Prevention
of Accidents**

Water Safety Review for:
Durham City Safety Group

**Updated March 2016
Originally April 2015**

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Issue	Date	Originator	Reviewer	Authority	Details
0					
1	01/04/15	DW	ET	RoSPA	Draft for Durham City Safety Group
1.1	13/04/15	DW	-	-	Amended date error in table one.
1.2	14/04/15	DW	-	-	Typo's.
1.3	15/03/16	ND	DW	RoSPA	Update added
1.4	16/03/16	ND	-	RoSPA	Formatting

Report Update

March 2016

The City Safety Group (the Group) commissioned RoSPA to conduct an update to our initial report (of April 2015) to review the effectiveness of the work conducted since its publication. A copy of the initial report is attached in the Appendix.

A significant amount of effort has provided a much improved environment across the city and this is to be commended. The Group has overseen significant developments of safety related infrastructure and community programs since the 1st report. It is heartening to note that there have been no fatal incidents reported in the City since the publication of the last report. The leadership of the Group is recognised as instrumental in focusing and coordinating the efforts of the stakeholders in improving safety standards and education issues across the City.

Physical works

The physical work has rightly focussed on the areas where accidents have occurred previously and where the risk rating was the highest. The work conducted has shown a significant reduction in the risk rating scores (areas with known incidents are shown in yellow).

Risk Rating Table	
0-40	Low
41-70	Medium
71-100	High

		2015		2016	
Durham City Centre, River Wear: River Left Bank		Score	Risk Rating	Score	Revised Risk Rating
1	Raddision Footbridge (Framwellgate Waterside) to Framwellgate Br.	45	Med	45	Med
2	Framwellgate to Mill House Weir	76	High	62	Med
3	Mill House Weir – Boathouse – Prebends Bridge	69	Med	48	Med
4	Prebends Bridge to Kingsgate Bridge	55	Med	55	Med
5	Kingsgate Bridge – Elvet Bridge – New Elvet Bridge	66	Med	66	Med
6	Elvet Bridge – Marriot – Homes (No Score)	-		-	
7	Baths Bridge to Rowing Club (along Elvet Waterside)	56	Med	56	Med
8	Rowing Club to 'Rugby Pitch' Bridge (Durham Uni Boathouse)	59	Med	59	Med
River Right Bank					
9	'Rugby Pitch' Bridge to Allotments, crossing Old Durham Beck	58	Med	58	Med
10	Allotments to Boathouse, along Pelaw Wood (No access/score)	-		-	
11	Boathouse to Baths Bridge	61	Med	61	Med
12	Baths Bridge to New Elvet Bridge	66	Med	51	Med
13	New Elvet Bridge to Fearon Gap/Steps	67	Med	55	Med
14	Fearon Walk to Boathouse near Kingsgate Bridge	69	Med	69	Med
15	Kingsgate Bridge to Prebends Bridge	67	Med	67	Med
16	Prebends Bridge to Framwellgate (Windy Gap)	66	Med	57	Med
17	Fowlers Yard to Walkergate (Limited access)	34	Low	34	Low

As with all waterways, a residual risk will always remain, however the risks of accidental entry into the river have been significantly reduced and the ability for people to be rescued quickly has been improved.

The addition of a significant amount of new and improved fencing has significantly improved public safety without detrimentally affecting the public's ability to use and enjoy the river corridor. Fencing has been improved in many areas along the River corridor (Framwellgate, Boathouse, Elvet bridge area, Prebends bridge, Fearons walk and Kingsgate bridge). The fencing and pathway surface improvements will significantly reduce the risk of slips, trips and falls resulting in people entering the water. The new life rings and signage will ensure that people who do get into the river can be recovered quickly by others. The GPS log and photos shared with the emergency services and the PRE location information will also improve the response time for the emergency services.

The considerate introduction of additional lighting to the cathedral from Framwellgate bridge has enabled a complete circuit of clearly signed illuminated walking routes, away from the River. This has been further promoted within the City and University by poster campaigns and made available on mobile phone app's for easy reference. New directional 'finger post' signs at key locations also reinforce the lit and unlit routing options. These actions, while ostensibly passive in terms of intervention, are effective and important in order to provide safe walking routes. People are now easily able to make simple but safe choices on routes around the City and avoid the river corridor.

This lit route is important as lighting is not provided along the entire river corridor. Lighting along the river corridor is not essential and there are positive and negative implications to providing a lit river corridor. Any future revisions of the lighting policy should consider improvements in safety, issues of personal security and the possible increased amenity value, balanced upon any positive or detrimental effects on the river corridor ecology.

Numerous infrastructure and footpath upgrades have been completed:-

- Footpath refurbishments
- New and improved fencing
- Additional Lighting
- New Public Rescue Equipment (PRE) with location signage
- New directional signs
- Riverbank Erosion Prevention
- Information on safe walking routes

Illustrative photos of a selection of these improvements are provided below.

The condition of the pathways are now noted to be good. This physical work has reduced the likelihood of simple slips or trips on the pathway resulting in a drowning and, of course other less severe injuries. The condition of the pathways is expected to be maintained to the current high standards as there is a robust regular inspection regime by Public Rights of Way Officers. Where it is clear people intentionally leave the pathways provided to get close to the river edge (notably between Framwellgate bridge and Prebends bridge), a suitable pathway and life rings are provided well away from the river edge.

The access to the numerous fishing pegs and launching stages must be maintained for the users, by necessity these remain an area where pedestrians or cyclists could enter the river accidentally. The group have made arrangements with the Wear River Trust to inspect and maintain these features for the future. A short barrier has also been fitted at the junction of the pathway close to the tennis court near to Framwellgate bridge, in order to reduce the likelihood of a collision between cyclists and pedestrians entering the river.

The Environment Agency has effectively cleared river debris, particularly following floods. This improves the aesthetics of the river corridor as well as significantly improving the safety of any people who may enter or use the river (especially rowers). This coordinated approach to identifying issues and quick clearance from Weirs and bridges should continue.

Risk Communication programmes

To reinforce the physical controls the programmes of education and publicity for residents and visitors should continue to highlight the risks along the riverbanks and encourage people to make safe behavioural choices. The efforts relating to the behaviours of known higher risk groups (young males, alcohol related, night time activity) needs particular and continual focus to maintain safety standards. The 'Get Home Safe' scheme and the 'Social Norms' campaigns appear to be two effective methods. The focus on education and publicity approach should continue to be encouraged and supported.

Work on the Best Bar None scheme and education of individuals and licensed premises is ongoing and showing beneficial results. These actions are being tracked by the Group. The Group should continue to encourage all premises managers and student groups to be involved.

The importance of these programmes should not be overlooked. The challenge to encourage the higher risk groups to act safely around the water is critically important to ensure that fatalities are avoided in future and that local knowledge is passed to visitors and new students. We also encourage the continued consideration of historically higher risk times i.e. Public holiday periods, end of University terms and events which attract large groups to use the riverside.

The Chair of the City Safety Group has written to the licence holders of the City centre licensed premises, These Stakeholders have now been involved in conducting risk assessments of their operations and improvements such as PRE being fitted within their premises and hazard signage have been reported to the Group.

The recommendations below identify those which were outstanding at the time of the visit; the group have received confirmation that arrangements are in place for these to be completed in the very near future.

Conclusions

Durham City is a world heritage site with many attractive locations based upon the River. The River is at the heart of the City and one of its greatest assets. It is impossible to eliminate the risks associated with the water and it is not desirable to prevent access along the River corridor. Therefore, there are still areas where it is possible to accidentally fall into the river, however the Group have identified and introduced control measures for foreseeable risk locations. We are confident that the appointment of the new Chair, (the interim Director of Neighbourhood services), will continue to maintain the appropriate leadership of the Group, as the post will be held by an individual representative with sufficient authority and influence within the City, enabling the Group recommendations to continue to be adopted across the City.

The Groups work and continued plans are a very good model for other regions and cities to adopt and RoSPA are promoting others to learn from the good work conducted by the Group in Durham.

The County Council demonstrated their commitment to promoting the benefits to others by hosting the National Water Safety Conference in November 2015. We encourage the County Council and stakeholder groups to continue to share the learning and results of their efforts with other regions in future.

Overall we consider that the Group has taken large steps to reduce and manage the risks presented by the location and the demographic. The current activities of the Group should be commended and maintained to ensure that future challenges are identified and managed.

We believe that the following recommendations will be beneficial in avoiding serious incidents in the future:

Physical Issues

1	Continue to work with licensed premises on River left in the vicinity of old and new Elvet bridges to ensure risk assessments are undertaken with a view to restricting access to the river from nearby adjacent beer gardens and terraces.		
2	Consider the effectiveness of the pedestrian/ cyclist shared responsibly signage that is provided at some junctions. While these signs are commendable the size and location of these signs renders them of low effectiveness. A more prominent and effective scheme could be established.		
3	Repeat the advice (which has already been provided to Northumberland Water, the responsible party) to prevent trespass and horseplay around and along the pipe adjacent to the Bella Italia restaurant near Framwellgate bridge.		
4	Ensure that any new schemes for developments, ecology surveys and general planning issues along the river corridor consider the safety benefits of a lighting scheme. Ensure that lighting schemes are considered carefully for events along and around the river corridor.		

Leadership of Water Safety

5	Continue the good work of the City Safety group, including agreement on changing roles to ensure continued involvement of all stakeholders.		
6	Communicate the work and benefits of the City Safety Group to other local Councils and groups via safety meetings and local coordination groups.		
7	Ensure that event organisers and groups that use the River corridor are clear on the councils and the Groups expectations of safety standards, to ensure that these expectations are reflected in Event plans, Licensing reviews and related promotional campaigns.		
8	The Group are encouraged to continue to promote the uptake of education and safety promotion activities with the high risk groups (commonly 18-25 year old males, people who have been drinking alcohol and people who are alone or who have become separated from their friends).		
9	Continue to work with the Public Health specialists, to review the health needs and risks of Durham's student population and to encourage these specialists to consider them as a distinct group within the City. e.g. as part of the Joint Strategic Needs Assessment process. Ensure that any plans developed and linked to services agreed; or existing services clarified.		

Programmes

10	Continue to encourage and support the good work already conducted with Licensed premises relating to Guardianship		
11	Continue to encourage and support current and future initiatives focussed on the Student Population, for example the Get Home Safe Scheme and the Social Norms Campaign.		
12	Continue to encourage and support the local and regional Emergency Services in promoting education		
13	We would also encourage continued consideration of statistically higher risk times (Public holiday periods, End of University terms and events which encourage large groups to use the riverside).		

Illustrative photographs

Examples of fencing and footpath improvements



Example of new route lighting





Examples of directional signs



Examples of upgraded public rescue equipment



Example of information and awareness- Lit routes poster, social norms and national campaigns

Durham City Safety Group

NIGHT LIGHTS

Lit Night Time Routes

If you're walking home, please follow the lit routes which are highlighted below in yellow

QR Code

KEEPING YOU SAFE

NEVER HAVE I EVER WALKED HOME ALONE

81% of Durham University students stay safe by choosing not to walk home alone after a night out

Based on a survey of 1,093 Durham University students in December 2014

[SaferDurhamUni](#)
[#NeverHaveIEver](#)
[SaferDurhamUni](#)
[durhamsu.com](#)

NEVER HAVE I EVER GONE OUT WITHOUT LINING MY STOMACH

86% of Durham University students choose to eat before drinking alcohol

Based on a survey of 1,093 Durham University students in December 2014

[SaferDurhamUni](#)
[#NeverHaveIEver](#)
[SaferDurhamUni](#)
[durhamsu.com](#)



Appendix one
2015 report



**The Royal Society for the
Prevention of Accidents**

**Water Safety Review for:
Durham City Safety Group**

02 April 2015

Introduction and Terms of Reference

RoSPA were instructed by Durham City Safety Group ('The Group') to assess the current water safety arrangement within their remit. This work follows drowning events during early 2015 and previous incidents in the city.

Consideration has been given in our recommendations to existing policies, the implications of case law and duties arising from UK regulation and law.

Limitations

In carrying out this safety review RoSPA would point out that audits and reviews are, by nature a sampling exercise, therefore the reviewer cannot guarantee to identify all safety hazards around the site. Opinion is formed by a site visit on a particular day; absence of comment on any issue should not be taken to imply that the site will be completely safe. Consideration has been given in our recommendations to the implications of case law, changes to health and safety regulations and the findings of accident investigations where these have a bearing on water safety.

RoSPA has endeavoured to identify all the significant risks; however it is essential that the controls identified by the Group and other riparian owners in the risk assessments are continually developed and reviewed in response to changing legislation, best practice documents, active monitoring and the investigation and outcomes of accidents and near misses.

Methodology and Sources of Data

In order to complete the review, two RoSPA consultants visited the sites separately over several days, during February and March 2015. Following the visit a consultant collated the relevant drowning and accident data. Meetings with a range of stakeholders were held to understand any local factors, background and to gain an insight into the perceptions and expectations of these individuals and groups.

The site visits were at various times of day and night, enabling a range of risks and visitor to be sampled. The weather during the visits was unseasonably good. The river corridors were segmented into different areas to assist profiling and targeting of resources.

A total of 17 different sections were assessed within the City. All were scored using the RoSPA risk rating tool designed for reviewing waterways. This gives a scaled output based on a range of factors and questions. The tool utilises a risk rating scoring system to identify and score the likely risks for injury and drowning. This system gives a comparative score of the risk profile for each individual location. The river corridors were segregated into different sections. The scores shown relate to the table below.

Risk Rating Table	
0-40	Low
41-70	Medium
71-100	High

This score assists in identifying key risk areas, and therefore, priorities and resources for recommendations. Following the site visits we evaluated the individual findings and the overall risk profile for the portfolio. We compared the overall interpretation against similar locations around the UK.

Incident data was sourced from the WAter Incident Database (WAID)¹, and aligned with additional historical RoSPA data, and sources within the City. A further retrospective study was conducted to source incidents from relevant agencies.

A desktop search and request for existing policies and guidance for the County was also undertaken, this along with interviews with key staff and stakeholders helped to shape a view of the policy framework.

Using our knowledge of drowning and water safety guidance, we drew our conclusions and make recommendations.

¹ <http://www.nationalwatersafety.org.uk/waid/>

Results

Durham demography, rivers and existing practice

The River Wear

Starting at Wearhead from the confluence of Killhope and Burnhope Burns the Wear runs from the hills of the North Pennines to the City and Port of Sunderland. The last 10 miles from Chester le Street being a tidal navigation. The river changes in nature considerably from Wearhead to Durham, with sections offering great opportunities for fishing, kayaking and walks. Upstream, the river presents section of rapids and white water of mostly intermediate difficulty.² Further downstream the river widens and flattens through the a series of conurbations such as Bishop Auckland and Durham.

The large catchment and topography mean that Durham City has flooded regularly throughout its history, with events recorded back to the 14th century. The most recent study (2010)³ reported on average a flood event every two years within the City.

Durham City is a medieval city, with a UNESCO action area. The river meanders through an incised valley, leaving a peninsula that has been central to the city's development. As such the fabric of the river banks and bridges vary considerably in terms of design and age. This helps create a picturesque setting. Within the City, the riverside fabric changes from modern canalised structures such as Framwellgate Waterside, to semi urban and green space, heritage locations for example at Elvet Bridge, all within a short distance.

The river and access to it, is a central part of Durham's heritage and a significant tourist attraction.

Visitors and context

The River Wear is a central part of Durham, a focus for tourism and a key pedestrian and cycling route. A significant amount of footfall and also large public events take place on and alongside the river. It is used or accessed constantly during the day and early evening, with some locations along the river being important travel routes both day and night.

During the summer small punts can be hired in the vicinity of Elvet Bridge, whilst a Class V passenger boat (The Prince Bishop) runs rivers cruises, again launching near to Elvet Bridge. There are number of rowing clubs that regularly use the river all year round. The river has fishing pegs along several stretches and a promoted canoe trail.

There are several riverside events throughout the year; principle among these is the Durham Miners Gala at which trade unions march through the City, with over a thousand people ending by the riverside and racecourse each July.⁴

The marketplace is the focal point for shopping and leisure activities, with a mixture of theatre, restaurant shops and pubs and nightclubs. Riverside locations such as Mill Weir are

² English White Water; pp174-6 Pesda Press, 2003

³ <http://www.durham.gov.uk/media/871/Durham-County-Strategic-Flood-Risk-Assessment-Level-1-Report/pdf/StrategicFloodRiskAssessmentLevel1Report.pdf>

⁴ <http://www.durhamminers.org/Gala.html>

attractions in their own right. Mill Weir also provides a popular and attractive vista for the Cathedral.

Resident and transient populations

Durham City resident population is 49,880 (Mid 2013,ONS). The county’s population is forecast to further increase by 4.6% by 2030⁵. The City’s student population, as enrolled at the Durham campus, is 10,488 (2014/15)⁶.

Tourism trips to the City in 2013 totalled 3.8million visitors.⁷

Existing physical water safety controls in place

There are a number of key measures in place already; clear, flat and level paths, lighting, warning signage at hazardous locations, rescue equipment and some use of fencing.

At the time of the review the Council had procedures in place to check the main controls, such as footpaths, rescue equipment and signage.

Community level risks

Emergency hospital admissions due to drowning/submersion injures

Durham County at 0.8 admissions per 100,000 population is at the England average (0.9) and much lower than the country’s highest of 3.4/100,000 (Figure One). Although reported for completeness, further analysis of this published data does not provide further useful insight due to data suppression rules and the small number of reported drownings/submersions.

Indicator	Area	Number	Rate or %	England Ave...	England Lowest	Current Performance	England Highest
Hospital admissions due to exposure to smoke, fire and flames ...	County Durham UA	107	7.1	4.1	1.3		12.3
Hospital admissions due to drowning or submersion injuries, 20...	County Durham UA	21	0.8	0.9	0.3		3.4
Hospital admissions due to poisoning	County Durham UA	1790	370.1	241.5	67.8		539
Hospital admissions due to unintentional drowning or submersion injuries, 2006/07-2010/11 (combined)	County Durham UA	230	46.8	48.8	8.2		206
Intentional Injuries							
Deaths from suicide or injury undetermined, 2008-2010 (comb...	County Durham UA	174	11.1	7.9	2.7		15.2
Years of life lost (under 75s) due to suicide or injury undetermi...	County Durham UA	5,527	40.8	25.5	6.5		55.5
Hospital admissions due to intentional self-harm, 2010/11	County Durham UA	1703	354.6	212.0	49.6		509.8
Hospital admissions due to violence, 2008/09-2010/11 (com...	County Durham UA	1552	111	68.6	0		227.8
Related Factors							
Hospital admissions for alcohol-attributable injuries, 2010/11	County Durham UA	2355	445.9	294.4	95.9		617.9
Increasing and higher risk drinking (16s and over), 2008	County Durham UA		28.4	23.6	11.5		39.4

Figure 1: Hospital admission: drowning submersion for County Durham

Fatal and critical near miss drowning events

Durham City drowning incidents

The WAter Incident Database (WAID) system is a jointly held project by RoSPA, MCA, RNLI and other members of the National Water Safety Forum. A search of the WAID⁸, reports for

⁵ http://www.durham.gov.uk/media/6153/Joint-Strategic-Needs-Assessment-2014---summary-document/pdf/JSNA_2014_Summary_Document_190215.pdf

⁶ <https://www.dur.ac.uk/resources/student.registry/statistics/college/4.3school/4.3total/144-3b.pdf>

⁷ <http://www.visitcountydurham.org/intelligence>

the years 2009 to May 2014 was completed. These data enabled a unique and detailed risk profile to be built. No other national datasets could have provided these data.

In addition, we used material from a bespoke search of publicly available reports and insights from the RoSPA drowning database⁹. We have cross referenced our findings with other local and national datasets where feasible. These results were aligned with City reports from The Group and can be seen in Table One, below.

Uncertainties and limitations: We have minimised aspects of some reports due to uncertainties, or to avoid publishing sensitive personal information. Where possible we have attempted to reflect trends below.

Due to the statistically small number of fatalities captured during the period, care must be taken to not over interpret or extrapolate causation trends.

⁸ www.nationalwatersafety.org.uk/waid

⁹ <http://www.rospa.com/leisuresafety/statistics/>

Data captured within the City

56 events of any severity were reported over the 63 month period 1st January, 2010 to 1st March, 2015. Within these 51 were 'Non-Fatal Incidents' (NFI). The remaining five were fatalities.

An overview of the fatalities can be seen below in Table One:

#	When	Who	Where (Cross ref site)	Narrative	Outcome
45	27 July 2010	Hayley Brown, 25	Rescued nr. Framwellgate Bridge Entered upstream (TBC)	Court reports: Hayley Entered water after drinking alcohol and got into trouble. Rescued from river by three members of the public, but did not recover in hospital.	Accidental death
28	11 May 2014	Luke Pearce, 19, Student	Nr. Bandstand to Baths Bridge	Missing after night out drinking alcohol with friends.	Accidental death by drowning.
27	29 October 2013	Sope Peters, 20 Student	Fearon Walk /Drury Lane steps	Reported to the Court that Sope had been asked to leave Klute nightclub after drinking alcohol with friends. It is thought he then attempted to go to Fearon Walk steps and as a result fell over the nearby wall into the river. Court and Public reports. ¹⁰	Accidental death by drowning.
5	January 2015	Euan Coulthard, 19, Student	Nr. Framwellgate Bridge	Went missing after night out, was last seen walking across Framwellgate Bridge. It is thought that Euan fell in a short distance upstream of the bridge from the river left (south) bank Note: At the time of drafting, our opinion is that his entry into the river would have been no greater than 150m upstream of the bridge.	Inquest ongoing
105	28/02/15 0825hrs	William Grant, 67 Coach, Durham rowing club	Nr. Kingsgate Bridge	"Provisional post mortem into the death of experienced oarsman William Grant, 67, showed he died from being immersed in water, with a contributory factor being hypertensive heart disease. It is believed the retired jeweller, known as Bill, had been coaching a rowing team when he suffered a medical episode and fell into the water".	Inquest ongoing

Table 1: Fatal events within Durham City centre

Observations on all identified cases

Timing of events: In both injury categories there was no clear daily trend (Fig. 2). Monthly Non-Fatal Incidents (NFI) peak during June-July, with a secondary peak during October. Three of the five fatal events happened during the winter months (Fig. 3).

¹⁰ <http://www.chroniclive.co.uk/news/north-east-news/death-durham-university-student-sope-6943390>

Age and Gender: In both injury categories males were predominantly involved at a ratio of 4:1.

Those aged 20-24, 15-19 and 30-34 respectively were the most common age groups involved in the NFI events. Among the fatal events, 19-25 years old were the main age group reported (Figure 4).

Home residence: The majority of the fatalities involved temporary or recent City residents. No data was available for the NFI events.

Alcohol was a suspected or confirmed contributory factor in four of the fatal events (80%) and 27 of the NFI events (52%).

Activity and outcome: The 51 NFI events had reported activities including swim/wade/jump, broadly these can be considered *intentional entry* events. Four of the fatalities were reported as walk/fall, thus *non-intentional entry* events.

Incident location: Elvet Bridge and Framwellgate Waterside are the principle reported locations for NFI events. No clear trend can be derived from the fatal events alone.

Event vicinity	Baths Bridge	Rowing Club Waterside	Elvet Bridge	Framwellgate Bridge and Waterside	Kingsgate Bridge	Millburngate	Prebends Bridge	Walkergate	Total
Fatal		1	1	2	1				5
NFI	9	2	22	8	2	4	2	2	51

Table 2: Reported incident locations

Data quality and capture: The reader should note that we are confident in the methodology used to identify fatal events, with a 95% capture rate within the UK for fatal accidental drowning events. However, full data about recent incidents is not always available. We therefore expect that further incidents and information will become known in future.

These combined factors mean that the dataset should be subject to a degree of caution, and used in conjunction with other reports and findings to identify the broad trend, rather than an absolute position. We would expect published incident numbers to rise slightly over time, as a result of better data sharing/capture.

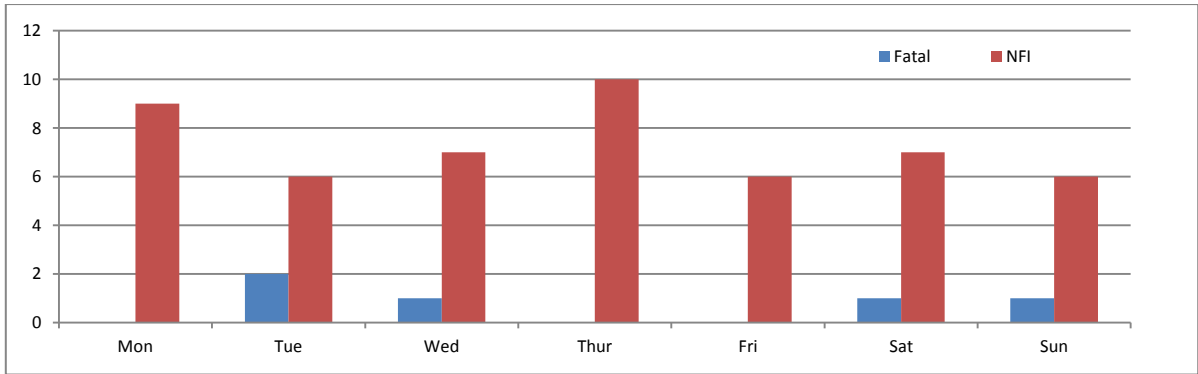


Figure 2: Day of week. Fatal and NFI. 2010-15. (N=56)

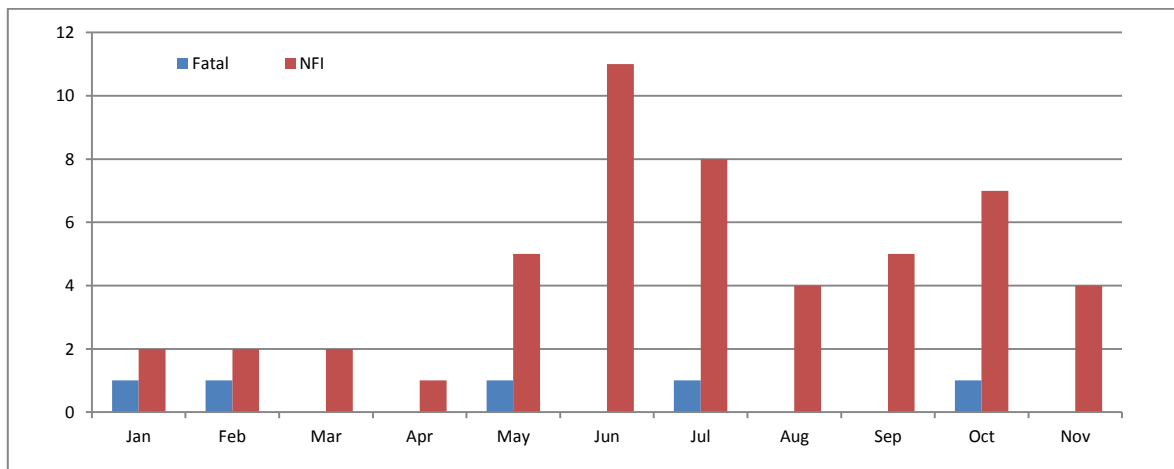


Figure 3: Fatal and NFI events by month. 2010-15 (N=56).

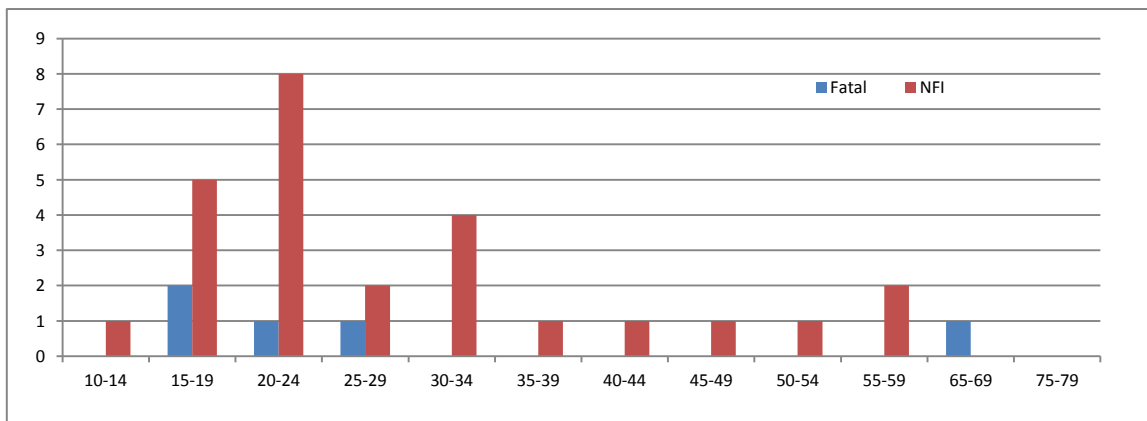


Figure 4: Fatal and NFI events by age group (N=56)

Findings from other selected reports

Health and Wellbeing in County Durham: The 2014 Joint Strategic Needs Assessment (JSNA)¹¹

Populations:

- Although the report mentions the student population as a driver for growth in Durham City, it does not subsequently outline if their health needs have been taken into account (Page 4).

Alcohol:

- Alcohol consumption is a major public health issue in County Durham, with high levels of hazardous, harmful and binge drinking.
- Significantly higher under 18 alcohol specific hospital admission rates in County Durham than in England.
- Under 18 alcohol specific hospital admission rates have been falling over time in County Durham, the North East and England. Proportionally, this decrease has been greater in County Durham (37%) than the North East (35%) and England (34%).
- Alcohol-specific hospital admission rates across all age groups have been increasing over time for men and women both locally and nationally.
- The increase in alcohol-specific hospital admission rates across all age groups has been slower in County Durham compared to England. Between 2008/09 and 2012/13 male rates in County Durham increased by 3.6% compared to 15.1% for England. Female rates locally increased by 14.1% over the same period compared to 16.3% nationally. (Page 33)

Unintended injuries:

- Hospital admission rates for unintentional injuries are significantly higher in County Durham than England but not significantly different to the North East. This is true for those aged 0-14 and 15-24 years. (Page 29)

RoSPA national risk assessment of inland waters¹²

- There are about 260 accidental inland fatal drowning each year in the UK.
- The chance of drowning is far higher for some types of people, areas and activities, with a 'High' rate of death amongst men especially in areas with a lot of rivers, canals and other open water.
- The risk of accidental inland drowning varies greatly between areas depending on the amount of waterway in an area, the number of people and extent of local watersports.
- The rate of death is about four times higher in areas with the greatest amount of rivers and canals.
- Nationally outdoor swimming is on the cusp of a 'moderate' to 'high risk' activity, as can be seen in Figure 5:

¹¹ http://www.durham.gov.uk/media/6153/Joint-Strategic-Needs-Assessment-2014---summary-document/pdf/JSNA_2014_Summary_Document_190215.pdf

¹² <http://www.rospace.com/leisuresafety/Info/Watersafety/inland-waters-risk-assessment.pdf>

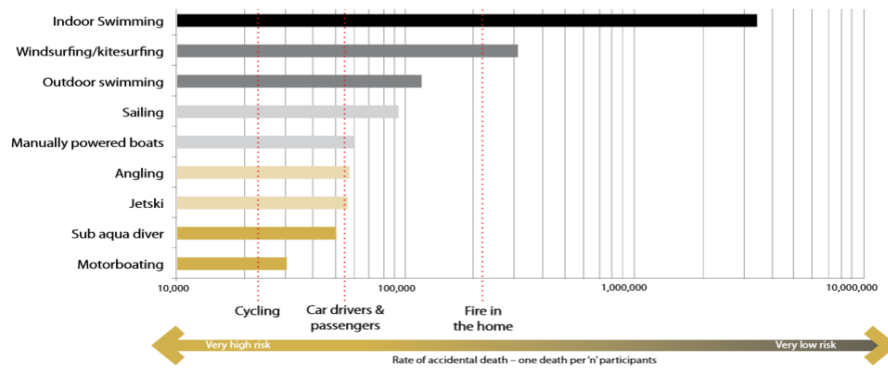


Figure 5: Risk of drowning death by activity (Rate per mil pop/yr)

Overall inland drowning prevention initiatives should be targeted by area, type of watersport, age and gender, with new initiatives focusing on open water safety which is where most drowning occurs.

Portsmouth University, RoSPA 'Float First' review¹³

- The responses evoked during the first few minute of Cold Water Immersion (CWI) are responsible for a large proportion of immersion deaths.
- That attempting to swim on during CWI increases the risk of drowning.
- Techniques such as 'float first' should be encouraged as a survival skill.

¹³ <http://www.rospa.com/occupationsafety/info/bnfl/float-first.pdf>

Site review findings

The consultant reviewed the river corridor and segregated them into 17 different areas. The RoSPA risk rating scoring system was used to identify and score the likely risks for injury and drowning. Other hazards on site were observed and noted but the score given below relates predominately to the risks presented by open water. This approach provides a score of the risk profile for each individual location.

In total, 17 areas were evaluated. The risk rating score can be seen in Table Three below:

	Durham City Centre, River Wear: River Left Bank	Score
1	Raddision Footbridge (Framwellgate Waterside) to Framwellgate Br.	45
2	Framwellgate to Mill House Weir	76
3	Mill House Weir – Boathouse – Prebends Bridge	69
4	Prebends Bridge to Kingsgate Bridge	55
5	Kingsgate Bridge – Elvet Bridge – New Elvet Bridge	66
6	Elvet Bridge – Marriot – Homes (No Score)	-
7	Baths Bridge to Rowing Club (along Elvet Waterside)	56
8	Rowing Club to 'Rugby Pitch' Bridge (Durham Uni Boathouse)	59
	River Right Bank	
9	'Rugby Pitch' Bridge to Allotments, crossing Old Durham Beck	58
10	Allotments to Boathouse, along Pelaw Wood (No access/score)	-
11	Boathouse to Baths Bridge	61
12	Baths Bridge to New Elvet Bridge	66
13	New Elvet Bridge to Fearon Gap/Steps	67
14	Fearon Walk to Boathouse near Kingsgate Bridge	69
15	Kingsgate Bridge to Prebends Bridge	67
16	Prebends Bridge to Framwellgate (Windy Gap)	66
17	Fowlers Yard to Walkergate (Limited access)	34

Table 3: Site review scores

The majority of the sections were distributed across the medium scores range (41-70), with a number of sites sitting at the mid to high 60's. One section returned in the high range (Framwellgate to Mill House Weir).

Themes across the sections

In Table Four we outline a number of public realm themes identified across the City. Although they can be addressed on a section by section basis, a better outcome will be to consider these across all the city centre location in order to enable a level of consistency when applying design intervention or other control measures.

Within these there are a hierarchy of considerations. Decision around lighting and path routing/information will then determine how best to apply the other physical control such as fencing and PRE.

Theme	Comment	Options
Lighting	<ul style="list-style-type: none"> - Not provided on all main/made routes - Quick transition in some locations - Not always maintained when placed (inspection issue) 	<ul style="list-style-type: none"> - Collective position on approach. Decision will enable alternative measure to be taken i.e. better routing information
Fencing/Edge Protection	<ul style="list-style-type: none"> - Examples of good practices i.e. Framwellgate Waterside (Weirs) - Flood risk can be increased by more fencing - Could spoil heritage/aesthetic aspect if not carefully approached - Easy to circumvent in this environment, would need lots to be effective (above point) 	<ul style="list-style-type: none"> - Limited use at significant falls or consequence locations i.e. 90deg junctions into water
Pathway surfacing	<ul style="list-style-type: none"> - Main hazard presented were multiple low level trip/fall issues into the river 	<ul style="list-style-type: none"> - Improved maintenance of footpaths and edges - Include in policy for design standard
Public Rescue Equipment	<ul style="list-style-type: none"> - Generally well located and in situ - Housing and information given could be improved (ie. coil bags/you are here points) - Rationalise (centralise?) ownership and inspection regime 	<ul style="list-style-type: none"> - Easy upgrade of PRE along section - Ensure consistent inspection and maintenance - Grab chains at key locations
Information and routing	<ul style="list-style-type: none"> - Some good examples of 'hidden hazard' explanation - Most hazards are obvious at daytime 	<ul style="list-style-type: none"> - Routing and 'you are here' and 'what to do' information. Rather than 'no/don't' preferable. - Common design approach preferable

Table 4: Public realm themes identified

Conclusions

The river corridor is a tremendous asset to the City and it was clearly of interest to the public during our visit. Numerous opportunities exist for the public to enjoy and use the river corridor space, and optimising the safety and public health benefit of the river corridor is something that RoSPA are keen to encourage.

As expected, with the city centre location, there are numerous pubs, bars, restaurants and clubs in the general area of the river. The river corridor is used as a transit/commute route for pedestrians, cyclists and for leisure by the public in general.

For the purposes of this exercise, the river corridor was divided into seventeen different sections. Overall the ratings range between the lower risk level (Fowlers Yard to Watergate) and the higher risk level (Framwellgate to Boathouse). The majority of the sites are rated at the medium risk level. These scores predominantly relate to the nature of the bank edges and water in the immediate location.

The majority of the river corridor in the city centre has a rural and/or heritage feel and over time numerous areas have developed into locations where accidental entry into the river is now foreseeable. The condition of pathways and the grass verges is expected to continually change, with the effect of the river and flooding. Numerous areas were noted where the edge of the path is close to water and ill defined. Therefore defects are difficult to spot, particularly at night or in bad weather. However, any concerns need to be tempered with the fact that - in the daytime the majority of hazards presented by the riverside are obvious - with the exception of currents associated with the weirs and falls at limited locations.

Lighting is not provided on all the 'made' routes and this adds to the likelihood of accidental water entry. Access points generally have fencing and good surfaces. However, in many areas this fencing quickly stops close to the feature, leaving uneven paths close to water with ill-defined edges which are hard to spot in low light levels. This means that people unfamiliar with the location may not be able to make an informed decision on whether it is appropriate to walk the route, or decide on the level of supervision for children – e.g. should I allow my child to ride a bike along here?

Should someone fall into the river, the water speed, edge profile, flood defence walls, weirs and general water depth provide a situation where self-rescue would be very difficult for most people in many areas in the city centre. The likelihood of self-rescue is diminished at night and, especially during flood and higher flow events. A small number of life rings are provided at strategic locations. Dealing with loss and vandalism is a challenge. The stakeholders must ensure that the required life rings are provided in an efficient working state.

There are reports of intentional swimming and jumping from bridges, especially when intoxicated and during city wide events and it is important to segregate the causes of intentional and accidental water entry when considering if any controls are required.

The ownership and responsibility is shared between numerous different parties along the river corridor. The stakeholders along the river corridor are represented at The Group. This is to be commended. Our work in other areas show that this type of group can be very effective in ensuring safety is guided and maintained. The Group and its members need to influence the other stakeholders to ensure that generic and appropriate controls are developed in future.

Street Angels were noted to be actively involved with the public who were socialising in the City centre. This is to be commended. The Street Angels (and other volunteer group schemes should be supported to ensure that they are not perceived, by the public or other bodies, as a part of the emergency rescue service. The pilot 'safe haven' scheme should be commended, however, we suggest that a timely review of its sustainability, aims and impact should be undertaken.

It would be beneficial for Licensing - within the review of The Best Bar None award scheme – to seek out additional methods of reviewing award holders.

Information given to students when they first arrive in the City, by way of fresher induction, is an essential part of ensuring that they adapt to a new City and culture. Within this, clear polices and expectations will help to establish a positive culture. We note and commend the existing work among the partners through the Student Safety Working Group, and expect this continuing approach to be a very effective method to improve student safety and welfare.

Within the above, targeted efforts, such as the proposed 'social norms' campaign should be commended and used periodically to reinforce these expectations at key points during the year. The wider question of health risks and support, can be best addressed through the Joint Strategic Needs Assessment; this will be important in the medium term to establish the full health needs of the student population, and then to enable aligned services from both the University and Durham Public Health (Clinical Commissioning Group).

Five people have died in the past five years, with two in 2015. Over this period there have been 51 non-fatal incidents reported. Inquests for the two most recent deaths are ongoing. There is no clear picture of incidents on particular days of the week; however summer months and October have the highest peaks for rescues. The causes for these peaks are not proven with the available data. Alcohol has been a factor in the majority of the fatalities.

The isolation of the water via fencing or by enclosing the river corridor by fencing and/or high gates should be considered, although it would be very expensive and easy to defeat as fitting to prevent access would be extremely difficult. The secondary risk is that people do not enjoy the area to its full potential and that the now enclosed space becomes a significant hot spot for antisocial behaviour or people who actively want to be isolated.

Recommendations

Leadership & Management

1	The leadership, multi-agency and collaborative approach within the City Safety Group should be commended.		
2	The Group should retain this issue as part of its priority brief on an ongoing basis.		
3	Further, this issue should also continue to be a priority issue within the public health team. In particular: (a) Ideally, as soon as is practicable or by the next Joint Strategic Needs Assessment review, the health needs and risks of Durham's student population should be considered as a distinct group within the City. (b) Subsequent plans and linked services agreed; or existing services clarified, for example, how GP access or specialist counselling services are enabled.		
4	As a priority, the City Safety Group should make a decision on the approach to lighting levels along the river corridor and adjacent paths. This will need to reflect the designated heritage locations, and level of encouragement to riverside routes after dark.		
5	Subsequent and aligned to #4. The City Safety Group should develop a policy which (a) oversees the visitor safety management of the public spaces along the riverside. To include (b) general design and mitigation principles, appropriate use of safety signage and public rescue equipment, fencing. Note that (c) we commend the proposed approach that clearly reflects the context and benefits of retaining heritage values in Durham City, and recognise the need for individual responsibility near to water.		
6	On-licence holders adjacent or near to the riverside should be required to demonstrate that: (a) Their public realm space (i.e. outside tables/gardens and areas leading to the waters edge) have been adequately risk assessed. (b) Appropriate physical or other measures (such as fencing) are in place to manage their clients and impact on nearby visitors. (c) Regular inspection regimes are in place to ensure any significant faults are rectified in a timely manner.		
7	(a) The alcohol policies and subsequent regimes within the University should be reviewed ahead of the new academic year. (b) We note the existing work between the partners to support student safety and wellbeing through the Student Safety Working Group.. This approach is to be commended and continued in the future.		

Physical Controls and Programme

8	The rationale and sitting of Public Rescue Equipment (PRE) at the majority of locations is logical. We recommend a small number of locations which would benefit from rationalising or reposition of units, for example at Fearon Walk Boathouse.		
9	We recommend that all PRE units are: (a) Upgraded to include housing cases (b) Each unit is asset marked i.e. numbered to a central reference system (c) Housing units have 'you are here' and (d) 'What to do in an emergency/use' and (e) 'Ownership' information (f) If 'damaged/missing' instructions. Note: There is agreed design etcetera guidance that can be tailored to the City's needs.		
10	The inspection regime for PRE should be clarified to ensure that all landowners are either checking/recording inspections on their assets, or an agreement in place for another body to complete this.		
11	A costed programme of works to improve physical infrastructure should be drawn up. This will need to reflect the priority locations identified in this report, and the impact of the agreed lighting/design principles (see #4).		
12	The good partnership and voluntary work, and other similar schemes should be commended and supported where feasible.		
13	The 'Safe Haven' pilot scheme should be reviewed.		
14	A review of routing options should follow the decision on lighting.		
15	Further consideration of the impact of bus and taxi arrangement is required for the evening and night-time visitor.		

Licensing

16	As part of the Durham City 'Best Bar None' programme review, consideration should be given as to how the annual scheme could be supplemented with targeted, more frequent and pro-active approaches.		
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Communication and Education

17	Further consideration should be given as to how best improve the reach and impact of students. Options to consider should include (a) Timing of sessions (b) Methods of delivery (c) Reminder methods (d) Standardising key messages such as routes home.		
18	We commend the proposed social norm approach that includes key safety messages. Further, we are of the opinion that simply taking a 'no/don't/danger' message could be counterproductive.		