



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

Water Safety Review for:
City of York Council

04 September 2014

RoSPA would like to thank the numerous volunteers, council officers and elected members, emergency services, companies and staff whom work alongside the rivers, for their time, insight and assistance.

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Issue	Date	Originator	Reviewer	Authority	Details
1	14/06/14	ND	DW	RoSPA	Draft for comment
2	18/07/14	DW	ND	RoSPA	-
3	04/09/14	DW	ND	RoSPA	Structure and reflect w/g feedback

Executive Summary

RoSPA were engaged by City of York Council to conduct an inland water safety review. The overall aim of the review was to identify any areas where physical controls need to be changed to meet current safety expectations and to identify any overall management arrangements that need to be implemented to maintain an acceptable level of public safety across the Councils' portfolio.

In order to complete the review, a RoSPA consultant visited the Rivers Ouse and Foss in addition to a number of ponds across the city centre. Following the visit, water related injury data was compiled from various sources and a consultation programme was conducted with stakeholders.

Overall we found numerous low level slip/trip/fall features that increase the likelihood of a fall into water. The activities of people around the water increase the risk of accidental slipping tripping and intentional entry into the rivers. Further, to this, at many locations, self rescue is expected to be difficult.

The fatality rate along the city centre stretch reflects the conditions; our information shows that over the past five years there has, on average, been a serious incident every three months. Due to a mixture of rescues and good fortune, not all of these incidents have resulted in deaths. However, the drowning/submersion deaths rates for York are *over three times the regional and national average*.

We believe that there are multiple opportunities to reduce the likelihood of future fatalities. Our recommendations cover a number of common themes:

Leadership and coordination

- The Council need to establish a clear water safety policy which takes into account the needs of all stakeholders. The policy should include waterfront developments, edge protection, rescue arrangements, education of high risk groups (see below) and monitoring of physical assets.
- That every effort should be made to ensure both prevention efforts and emergency response is coordinated.

Education and campaigns

- Refresh and renew the community safety work that has been delivered in the past, including supporting and encouraging the community groups that have voiced interested and involvement in developing water safety in the region.

Physical improvements and design

- Renew and repair the physical aspects identified, including post and chain fencing
- Renew and repair signage and life rings along both rivers.
- Ensure that the emergency services can access all river areas quickly on the water,

It should be noted that the swift response and good actions of the rescue emergency services and staff/public that work, live and enjoy the waterfront have saved several lives in the city. These are all highly commendable - their local knowledge and efforts should be built upon to limit future preventable harm.

There will be some cost and effort involved in these works, but we believe they are beneficial for both York residents and visitors.

Introduction and Terms of Reference

RoSPA were instructed by City of York Council (Council) to assess the current water safety arrangement within their remit. This work follows the drowning that occurred during early 2014 and previous incidents in the city.

Consideration has been given in our recommendations to Council 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 to in our recommendations 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 council 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, once in April and once in May. 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 conducted during half term, so there was a high level of tourists and children playing during the visits. The weather during the visits was unseasonably good. The river corridors were segmented into different areas to assist profiling and targeting of resources.

We identified 19 different sections which 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	
0-30	Very low level of risk
31- 40	Lower risk level
41 -50	Medium risk level
51-70	Increased risk
71- 80	High risk level
81-100	Very high risk

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

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

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

Results

York demography, rivers and existing practice

The rivers

The City of York sits at the confluence of the Rivers Ouse and its tributary the Foss. The Ouse runs for approximately 21 km (13 miles) through York stretching from the Parish of Nether Poppleton in the north to Naburn in the south. Canal and River Trust are the navigation authority for the Ouse, while City of York Council is the authority for the Foss. Many sections of the river banks are in private ownership.

The Ouse is a central part of York, a focus for tourism and key pedestrian and cycling route. There is a significant amount of footfall, and public events regularly on and alongside the river.

Hire and pleasure boats operate on the Ouse, these are subject to MCGA regulations for Passenger Ships on Inland Waters or the AINA/EA Small Boat Code.^{2 3}

In addition the York Fire Rescue Service boat is moored along Kings Staith, whilst the (new) main station is less than 10 minutes from the slipway. This boat crewed by a specialist team and provides part of the wider UK flood resilience resource in addition to its local search capacity.

Resident and transient population

The population in York follows the same profile as the whole of England with the notable exception of those aged 20-29 in which York has an approximately 5% increased resident population. Total population stands at 200,018 (Mid 2012 estimates), some 67% were of working age.⁴

Tourism stays and overnight visits in 2012 totalled some 7 million visitors.⁵

Existing controls in place

Although noted in detail in the annexe, there are a number of key measures in place already; clear-level path and routes, lighting, warning signage at hazardous locations, rescue equipment and some use of barriers.

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

² <https://www.gov.uk/inland-waterways-types-of-vessels>

³ <https://www.gov.uk/government/publications/inland-waters-small-passenger-boat-code>

⁴ <http://www.healthyyork.org/the-population-of-york/population-demography.aspx>

⁵ <http://mediafiles.thedms.co.uk/Publication/YK/cms/pdf/07-research-Keyfacts2012.pdf>

Community level risks

Non- fatal drowning and water related injury – emergency admission to hospital

Water related harm data was compiled from the Hospital Episode Statistics (HES) database and aligned with Office National Statistics (ONS) mid 2010 year population estimates. HES data for accidental submission and drowning injury in addition to non-specified water related harm was compiled. An injury rate per 100,000 resident population is calculated, along with the region average from this dataset.

Figure one shows the Rate of Water Related Harm for the region during the period FY 2007-2012.

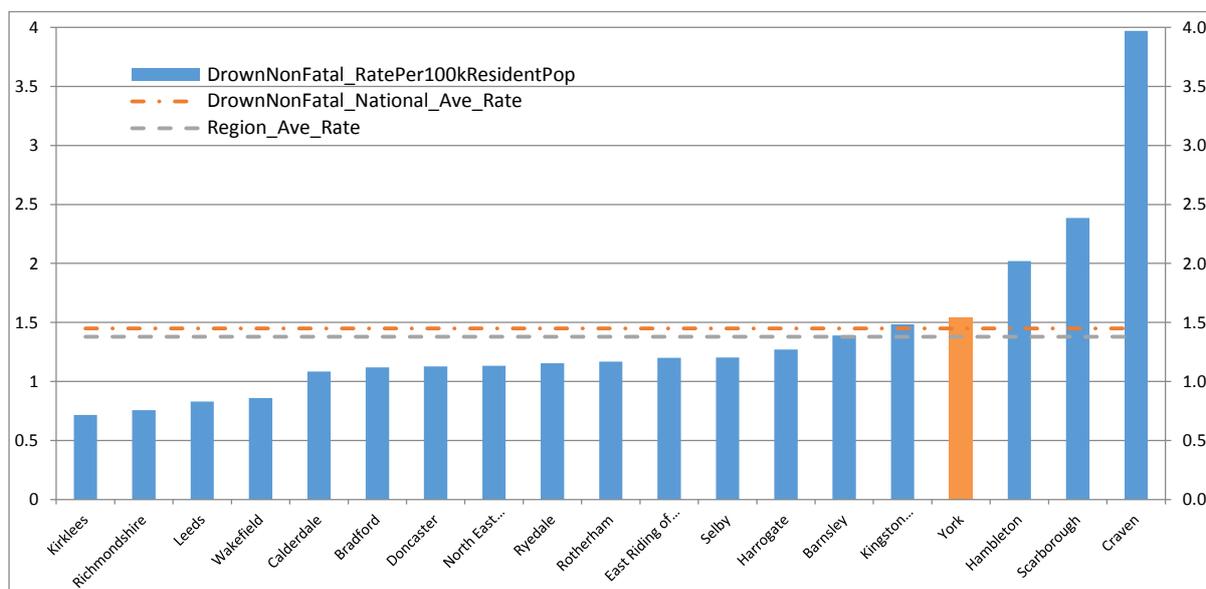


Figure 1: Emergency (non-fatal) hospital admission rate for water related harm, rate per 100,000 resident population

The average for the region is 1.38 admissions per 100,000 resident population, the national average is 1.45. Four areas sit at or above these levels, including York.

The most frequently used code for cases in York is 'Unspecified drowning and submersion'. It is not possible to identify the exact locality of the events from this dataset, or in any more detail.

Overall the reported rate of harm can be considered as being low when compared to for example traffic injuries or falls of all types. However the above dataset does not include fatalities. We believe that these data under-represents the harm by the nature of classification in hospital and therefore the rate is likely to be higher.

Although the rates are low, it is worth noting the severity of the outcome. A study conducted using the HES data for the UK found that emergency water related harm admissions

resulted in an average stay of five nights in hospital, and that for every one fatality observed there were three HES admissions.⁶

In short any drowning and water related injury event resulting in emergency admission should be considered as a very serious event.

Fatal and critical near miss drowning events

Emergency hospital admissions resulting in drowning/submersion death

York is 'worse' than the England and region average when we consider only fatal outcomes resulting death, as can be seen in Figure two below:

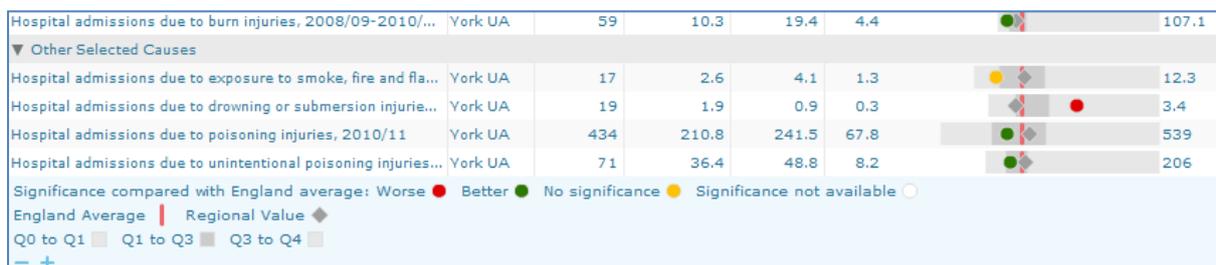


Figure 2: Fatal hospital admissions: York 2008-10

It should be noted that in terms of unintentional injury York on the majority of indicators perform at, or better than, average.

The drowning/submersion death rate is some three-times higher in York at 3.4, than the England average (0.9).⁷

York drowning incidents - WAID

A search of the Water Incident Database (WAID)⁸, reports for the years 2009 to May 2014 was completed. The WAID system is a jointly held project by RoSPA, MCA, RNLI and other members of the National Water Safety Forum. These data enable a detailed risk profile to be built, which is not available via other national datasets.

In addition other reports including the RoSPA drowning database⁹ was sourced, along with a bespoke search for publically available reports. We have cross referenced our finding with other local and national dataset where feasible.

These results can be seen in Table 2, below:

⁶ <http://www.biomedcentral.com/1471-2458/6/210>

⁷ Association of Public Health Observatories. The full report is available in Appendix.

⁸ www.nationalwatersafety.org.uk/waid

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

Ref	When	Who	Where (Cross ref site)	Narrative	Outcome
A	Feb-2009 #42409	Two 18yo, Males	Terry Ave, River Right (R. Ouse). City centre.	Car entered water in icy conditions, from Terry Avenue. The two passengers climbed out. Public report ¹⁰ .	Serious near miss. No injury.
B	April-2009	Female, 38yo Lisette Dugmore	Ouse (Bootham)	Sitting by river drinking with a friend, slipped and fell in, unable to be rescued. Found Jan-13. Most probable cause of death was drowning - view of Court. Press/Court reports. ¹¹	Accidental verdict. Drowning
C	April-2009	Female, 68yo	Ouse	Suicide.	Fatality
D	July-2009	12yo, Male	Ouse, Skeldergate Bridge Mooring/Bondi ng warehouse	Young male jumped from quayside attempting to land on pontoon (?). Rescued from water by passers-by. Hospitalised. Public report. ¹²	Serious near miss. Significant injury.
E	Sept-2009 #408/09	Male, 65	Clifton Bridge (R.Ouse). City centre.	Male suspected of burglary entered water whilst trying to flee. Rescued by member of public, subsequently arrested. Public reports.	Near miss. No injury.
F	Nov-2009	Male, 21yo	Ouse	Suicide.	Fatality.
G	Feb/Mar- 2010 #3510	18yo, Male Huntington (York) resident Jonathan Havron	Blue Bridge Lane,Ouse/Fo ss Basin City centre.	Male separated from friends on night out. Left pub on Cumberland Street, CCTV recorded male walking across Castle Car Park by R.Foss at 1.47am on Feb 27. Alcohol in bloodstream and court was told the male was "staggering". Found at Foss Basin (0.5mile away from pub) on 10 th March by fisherman. Public/Court reports. ¹³	Fatality. Accidental verdict.
H	Mar-2011	26yo, Male	Ouse Bridge	The Coroner highlighted a number of concerns using a regulation 28	Fatal drowning.

¹⁰ http://news.bbc.co.uk/1/hi/england/north_yorkshire/7878200.stm

¹¹ http://www.yorkpress.co.uk/news/11023961.Inquest_hears_of_desperate_bid_to_save_Lisette_Dugmore/

¹² <http://www.yorkpress.co.uk/video/86556/>

¹³ http://www.yorkpress.co.uk/news/5051901.River_body_confirmed_as_that_of_missing_York_teenager/

Ref	When	Who	Where (Cross ref site)	Narrative	Outcome
	#5011	York resident for 3 years Paul Alan Rogerson	City centre.	report: "On 26.03.2011 Mr Rogerson was out in York for a night out and had consumed several pints of beer. He jumped up on to a wall on Ouse Bridge at Kings Staith and attempted to walk along the wall but lost his footing and fell into the River Ouse. Police Officers and Passers-by at the scene threw buoys on ropes into the water but he struggled to stay above the water and after several minutes he became submerged and did not resurface. His body was recovered by a police underwater search unit close to the point of entry several hours later". ¹⁴ Public/Court reports. ^{15 16}	Legal verdict?
J	Mar-2011	Male, 35yo Lee Calam	Ouse	Thought to have fell or slipped into water near Bonding warehouse. Had equivalent of 7 pints of beer (227mg/100ml). Press/Court report.	Accidental death. Alcohol contributor y factor.
K	April-2011	Adult, Female	Skeldergate Bridge, R.Ouse City centre.	Suicide. Public/Court report.	Fatality.
L	July-2011 #15711	21yo, Male Richard Horrocks Resident of York since 2008	R. Ouse between Ouse/Lendal Bridge Balcony at Revolution bar City centre	After finishing last shift at bar, had reportedly drunk equivalent of 10 pints. At 0635hrs he jumped from balcony with intention of swimming across River Ouse towards slipway near the Park Inn hotel. River is approx 70m at this point.	Fatal drowning. Verdict: Accidental death.

¹⁴ <http://www.judiciary.gov.uk/wp-content/uploads/2014/06/Rogerson-2014-0029.pdf>

¹⁵ http://www.yorkpress.co.uk/news/9244475.Plaque_warns_of_river_dangers_after_drowning_of_York_man_26/

¹⁶ http://www.yorkpress.co.uk/indepth/thinkdonthswim/news/9334798.Coroner_calls_for_longer_rope_on_York_s_rescue_lifelines/

Ref	When	Who	Where (Cross ref site)	Narrative	Outcome
				<p>Several friends and colleges witnessed event, one entered the water to search/recue, along with a rower. His body was recovered at 1640hrs</p> <p><i>Speculation: scenario is similar to other 'swim failure/cold water shock' scenarios observed elsewhere i.e. quick entry into water, swim performance inhibited very quickly and catastrophic failure within a few minutes.</i>¹⁷</p>	
M	Feb/Mar-2012 #23512	19yo, Male Jordan Sullivan	R. Ouse, Naburn. Downstream approx 3miles south of city centre.	Last seen running towards river.	
N	Aug-2012	30'syo, Male	Lendal Bridge, Ouse	York boat staff rescued swimmer. Police took man away. Public report. ¹⁸	Near miss no injury.
O	Dec-2012 #3713	29yo, Male Christopher Baker	R. Ouse, City centre. Skeldergate Bridge.	Last seen climbing Skeldergate Bridge into/towards Tower Gardens after leaving car. Found downstream near York Yacht Motor Club. Press/Court reports. ¹⁹	Fatal immersion. Open verdict.
P	Sept-2013 #28913	50yo, Male Paul Johnson Resident of Selby < 30mins by	R. Ouse, Fulford Ings Downstream approx 4miles.	Male found near Fulford Ings. Public reports ²⁰	Fatality.

¹⁷ http://www.yorkpress.co.uk/indepth/thinkdontswim/news/9295548.Ouse_victim___s_family_lend_their_support_to_river_safety_campaign/

¹⁸ http://m.yorkpress.co.uk/news/9886464.Boat_skipper_tells_of__bridge_jump_rescue/

¹⁹ <http://www.llanellistar.co.uk/Questions-Burry-Port-man-Christopher-Baker-s/story-19809153-detail/story.html>

²⁰ http://www.yorkpress.co.uk/news/10707039.Body_found_in_River_Ouse_in_York/?ref=rss

Ref	When	Who	Where (Cross ref site)	Narrative	Outcome
		car.			
Q	Jan-2014 #4614	20yo, Female Megan Roberts Resident at York St. John University student, from Wetherby	R. Ouse, near Lendal Bridge City Centre	Last seen with group of friends after night out at 0220hrs (23 Jan), walking on/near Wellington Row. Group had reportedly been drinking for "several hours". Found near to Ship Inn at Acaster Malbis, approx 4.5miles downstream on 2 March. Police reported that: "most likely separated from friends and fell into water". Public reports.	Fatality. Inquest opened.
R	Mar-2014	Adult, Male	Ouse, Lendal Bridge	Male held as a precautionary measure by Police after jumping into water whilst report intoxicated. Police used throw line to recover man from water. ²¹	Near miss no injury.
S	Mar-2014 #9514	22yo, Male Ben Clarkson Resident in Heworth Green, York for five years. Former St. John University student, originally from Leeds.	R. Foss at Foss Bank Outskirts of city centre.	Last seen at Fibbers nightclub in city centre at 0340hrs. Found approximately 3miles away at Foss Bank, a canalised section of river. Public/Court reports. ²² OUR NOTE: Foss Bank (Found) is on route to Heworth Green (Home) is on from city centre (Last seen).	Fatal drowning. Inquest opened.
T	April-2014	18yo, Male Tyler	R. Ouse, Kings Staith - Skeldergate	Last seen entering the water from Kings Staith, near Lowther Pub. Reports presume he was	Fatal Inquest?

²¹ http://www.yorkpress.co.uk/news/11112692.Man_pulled_from_River_Ouse_after_jumping_from_bridge/

²² <http://www.bbc.co.uk/news/uk-england-york-north-yorkshire-26723467>

Ref	When	Who	Where (Cross ref site)	Narrative	Outcome
	#11314	Pearson Resident at Imphal Barracks, York. Signaller in 2 nd Signal Regiment. Family are Nottingham based.	Bridge, Kings Staith. City centre	swimming to Queens Staith at 0230hrs on 03 April. Found on 17 April at Skeldergate Bridge, circa 500m downstream.	
U	May-2014	41yo, Male	R. Ouse, Clifton	Found on 18 May. Public report. ²³	Inquest opened.
V	May-2014	Adult, Female	R. Ouse, Clifton	Police and member of public rescue at Clifton Bridge. Public report. ²⁴	Near miss.

Table 1: Fatal and near miss events identified²⁵

Note: We have suppressed aspects of some reports due to uncertainties, or to avoid publishing sensitive information. Where possible we have attempted to reflect key the trends below.

Observations on identified cases

Over the period 2009 to May 2014 (65 months) we identified 22 incidents. Of these 65% (n=15) were fatalities, a further 3 had the potential to quickly escalate in fatalities and are treated as significant near miss events (Table 2).

Frequency of events: There is an average of three accidental fatalities per year over the period, four incidents resulting in any outcome. There is no clear pattern year on year, with only a slightly rising trend (Figure 3).

²³ <http://www.bbc.co.uk/news/uk-england-york-north-yorkshire-27465831>

²⁴ <http://m.yorkpress.co.uk/news/11226482.display/>

²⁵ The hash tag (#) and numbers in column two refers to the RoSPA/WAID case reference. We have excluded from the above excluded one murder victim who was recovered from the river the double record is associated with the suicide event.

In any one month the events have not exceeded two. During each full six month block, there has been, on average, two incidents; with the exception of the last period, in which there were five.

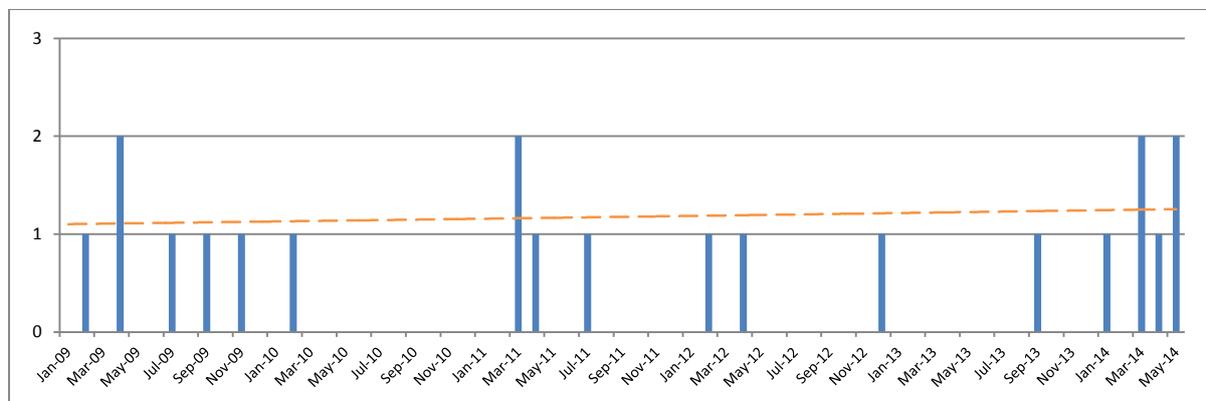


Figure 3: Frequency of all identified water related events, Jan09-May14

Day and time of events: Of the confirmed cases 35% (n=7) happened between 2200-0600hrs, the remaining 20% happened at 1500 and 2000 hours. We were unable to confirm time in 45% (n=9) of the cases.

Of the confirmed dates/days, the weekend days of Friday (n=2), Saturday (n=3) and Sunday (n=4) amount to 45% of the total cases. Tuesdays (n=3) are the other reported days. We were unable to confirm 40% of the cases; this uncertainty may affect the result considerably.

Racing events: We conducted a separate analysis, based upon assertions from stakeholder that incidents correlate with horse race weekends.

*Bearing in mind that small incident dataset and large uncertainty within it, we could only find two possible correlating dates (2/20) within the incident dataset, from a possible 491 race dates (2/491*100 = 0.4%) within an hours driving radius from the City of York.*

The 23/24 July 2011 and 21/22 Aug 2012 matched, both of these were York race days.²⁶

Last known activity: The principle activity identified, using an amended WAID taxonomy, was 'waterside activity' 32% (n=7), i.e. people near to water without strict intention to enter water- fall/slips are common scenarios, as can be seen in Figure 3, below:

²⁶ Dates were compiled from those published by the British Horseracing Authority for York, Beverly, Ripon and Thirsk for 2009-14, <http://www.britishhorseracing.com/goracing/racing/fixtures/fixturelist.asp> (Accessed June 14).

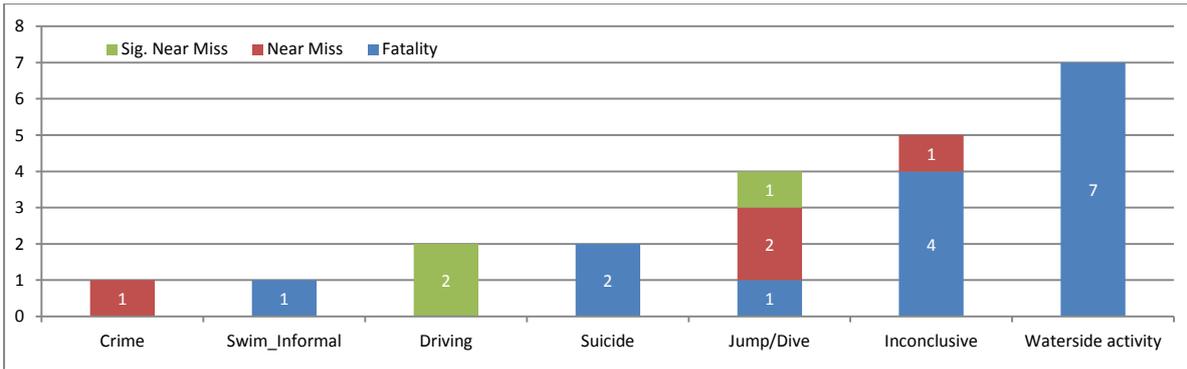


Figure 4: Last known activity by outcome

Events recorded as 'Inconclusive' mean that we cannot currently determine intention or activity with confidence

Subsequent commentary excludes the two confirmed suicide events.

Alcohol: The presence of alcohol was confirmed in 45% (n=9) of all cases, eight of these cases resulted in a fatality. The presence of alcohol was inconclusive in 35% (n=7) of all outcome cases, whilst it was ruled out in 20% (n=4) of cases; all of these latter cases resulted in non fatal outcomes.

Age and Gender: Males of all ages are the predominate group affected with 80% of the reported cases (n=16). Younger adults aged 18-26 are the most frequently reported group.

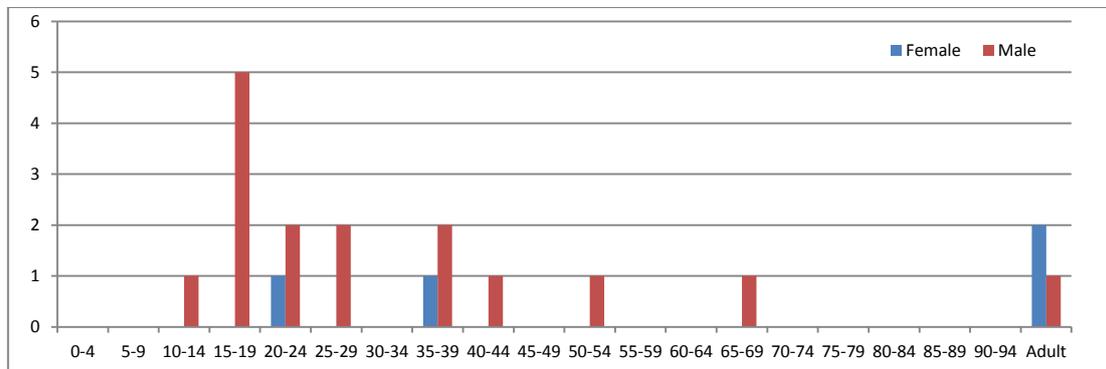


Figure 5: Reported Age/Gender

There are three adults without specific age reports.

Home residence: The most frequently reported residence for victims is either permanent residence in York (32%) or resident for up to five years in York (32%).

Therefore almost two-thirds (64%) of people involved grew up or currently live within York, as can be seen in Figure 6 below:

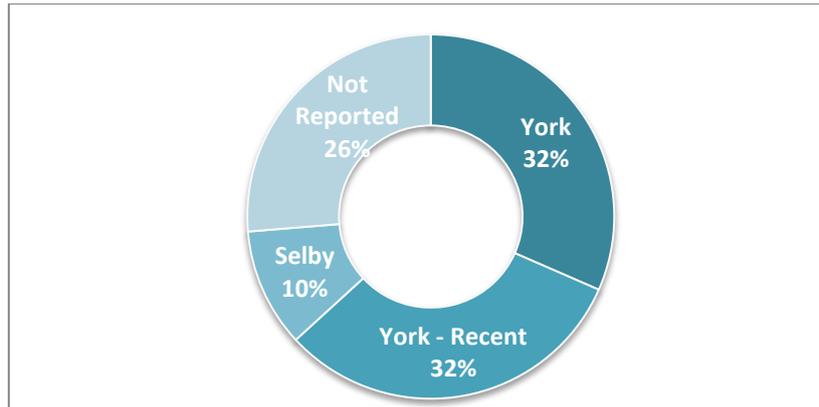


Figure 6: Home residence

We were unable to identify place of residence for one-quarter of the cases, this uncertainty may alter the results considerably.

Incident location: 95% of the incidents (n=19) occurred along the River Ouse.²⁷ The majority of these, 65% (n=13), within the city centre. Lendal Bridge, the vicinity around Kings and Queens Staith being the most frequently reported incident locations.

Location													
City Centre							Clifton		Outskirts of City				
Bonding Warehouse	Foss Basin	Kings Staith	Lendal Bridge	Ouse Bridge	Queens Static	Skeldergate Bridge	Clifton Bridge	(blank)	Bootham	Foss Bank	Fulford Ings	Naburn	
2	1	1	4	1	2	2	2	1	1	1	1	1	
Sub-Totals							13	3					

Table 2: Reported incident locations

Please refer to appendix for incident maps.

Data quality and capture: The reader should note that we are confident in the methodology used to identify fatal events, with a confirmed 95% capture rate within the UK for fatal accidental drowning events. We believe the above data does not reflect the true scale of 'near-miss' events happening along the riverside.

In some fields we have up to 45% of the field (i.e. Time of day) is marked as either 'inconclusive' or 'not reported'. Capturing this data requires efforts to be coordinated shortly after the time of incident, and is reliant upon robust data sharing practice to be in place.

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

²⁷ We have classified the Foss Basin incident as being in the Ouse.

Findings from other reports

Reports have been made to the Coroner's office and Council community safety partnerships. Not all are published. We highlight a number of relevant findings:

Safer York Partnership, York River Incidents²⁸

- 35 incidents of all severity were identified from May 2013 to April 2014.
- Approximately one-third of these incident involved people under 18yo.
- Falls (n=4) and swim (n=20) in the river were the main incidents descriptions
- Lendal and Ouse Bridges are the most frequent locations within Police and York CCTV reports (May13-Apr14)
- Incidents peak during July/August, but happen year round
- The majority of incidents are graded immediate by the FCR.

Health and Wellbeing in York, the Joint Strategic Needs Assessment 2012²⁹

The Joint Strategic Needs Assessment (JSNA) describes the current and future health and wellbeing needs of people who live in the borough.

The 2012 York JSNA does *not explicitly mention drowning/submersion* harm. It does mention a number of themes which are relevant:

- Understanding the health needs of the student population (pg36)
- Better data collection and sharing (Rec. 24)
- Better profiling of alcohol and drug misuse (Rec 14)

Regulation 28 report following the death of Mr Rogerson³⁰:

The coroner is empowered under The Coroners and Justice Act 2009 and aligned regulations to raise concerns to relevant bodies with the aim of preventing future harm.

Coroner Coverdale noted to members of Safer York Partnership:

- Position and protection of life buoys
- Lack of warning signs
- Further training for police officers
- Police and fire liaison and information sharing
- Police first aid training
- Check on life buoys

²⁸ Safer York Partnership report (unpublished, June 2014).

²⁹ http://www.york.gov.uk/downloads/file/1116/health_and_wellbeing_in_york_the_joint_strategic_needs_assessment_2012

³⁰ <http://www.judiciary.gov.uk/wp-content/uploads/2014/06/Rogerson-2014-0029.pdf>

York Aquatics Strategy, 2013

York Aquatics Strategy 2013 is designed to help guide the future growth of aquatic sports and activities in York. It includes a wide range of different water based activities (from swimming to underwater hockey) for everyone, whatever their age or ability.

Although 'water safety' is acknowledged as a target within the plan, swimming and water safety is not an explicit, headline outcome.³¹

A reported 83% of key stage two aged school children passed the swimming and water safety standard in York schools. This is among the better performing authorities.

However we note caution on the lack of an explicit 'water-safety' elements and in this circumstance 'open water' element.

RoSPA national risk assessment of inland waters³²

- 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 6:

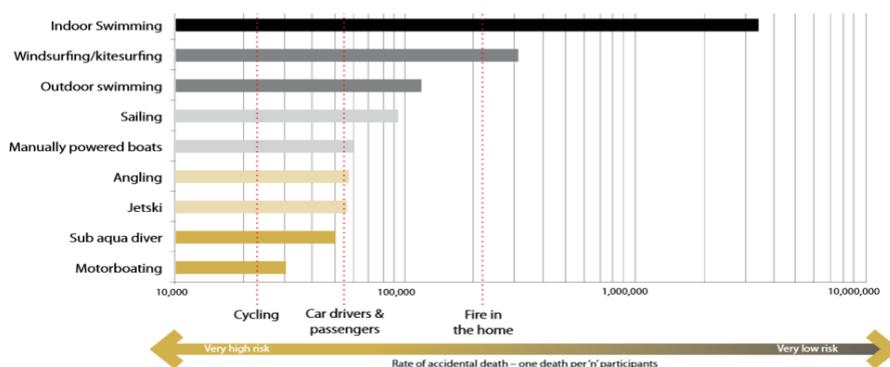


Figure 7: Risk of drowning death by activity (Rate per mil pop/yr)

- 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.

³¹ http://www.york.gov.uk/info/200288/swimming/730/aquatics_strategy

³² <http://www.rospa.com/leisuresafety/Info/Watersafety/inland-waters-risk-assessment.pdf>

Portsmouth University, RoSPA 'Float First' review³³

- 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
- Encouraging techniques such as 'float first' should be encouraged as a survival/ technique.

³³ <http://www.rospa.com/occupationsafety/info/bnfl/float-first.pdf>

Stakeholder discussions

The consultant held a number of semi-structured interviews with key groups and individuals responsible for managing or using the waterways. The consultant did not share any data finding or insights ahead of the discussions as to preserve views, however, the broad topics and questions were briefed ahead of time.

Key issues

The respondent voiced clear views on this topic, with a large degree of overlap in the broad topics they covered. All respondents touched upon the following themes:

- Flooding
- Ability to swim and be safe in/near to water
- Alcohol and the night-time economy
- 'Risky' activities such as jumping in and swimming

Most touched upon themes:

- Safety of rescuers such as door staff and police and the first public on scene
- Criminal activities, vandalism and drugs
- How to balance natural/heritage aspects of river front with keeping people safe
- Personal responsibility and how best to make visitors to the river aware of the particular hazards.

Key risk locations and activities

Ouse key locations:

- Frontage between Scarborough Bridge down to Skeldergate Bridge, with a focus around Lendal and Ouse Bridge is the primary area for incidents, and activities.
- Ouse near to Millennium Bridge was noted as a jumping/swimming spot along with some criminal activity such as theft/vandalism and drug taking.
- Along the river right at/above Lendal Bridge,
- Sections both side of the river below Ouse bridge,
- Difficulty of egress if someone is in the water between Lendal-Ouse Bridges.
- Queens Staith was cited by a number of respondents as a particular location to focus upon. Owing to the high volume of users, pubs with open frontages and ease of access to the water's edge here.

Foss key locations:

- Foss Bank

Nobody felt the locations and riverfronts were inherently and particularly unsafe. There was recognition of the nature of the currents, cold water and ease of access to the water from bank side and some of the bridges.

Alcohol: There was a general consensus around the role of alcohol in many of the incidents, aligned with the volume and proximity of tourism focused around the river front

and the need to balance personal responsibly with what the Council and groups could achieve.

Activities: *Informal swimming, jumping-in and horseplay were the main activities of concern.* One or two stakeholder noted self-harm and people in distress, at other locations, and towards Millennium Bridge vandalism and varying levels of criminal behaviour were noted of being a concern.

Groups at risk:

- Most respondent noted that the groups at risk were younger aged adults, not from York.
- The student population cited by many, along with tourists associated with the races and stag/hen parties.
- Further some responded noted that people who had grown up in York were made aware 'frightened' of the risks as children, aware of the nature of the river and the risks, and acted accordingly.

The consultant asked all respondent what they would like, or not like to see, both in terms of policy options and physical measures.

Not like to see responses included:

- Mass fencing of sections/all river
- Lots/excessive 'health and safety' type signage
- Physical measure which changed the nature of the river front too drastically

There was a general acceptance that some elements would need changing, but strong views that the character and nature of the river should be preserved. Some noted that measures such as fencing could create or increase the risks towards other users or at critical times, for example increasing flood risk through entrapments hazards.

Like to see responses included:

Physical environment

- Improvement in rescue equipment and housing
- Aids to egress along key sections, such as grab chains and some ladders
- Improvements in safety information at key points, noting the concerns re mass signage
- Improved access in an emergency to the slipway for the fire boat
- Lighting, either permanent or optional to improved very dark section to aid search and rescue
- Reduction in access i.e. fencing at key selected locations.

Community

- Support for community schemes such as 'street angels', safer routes home, and charity rescue boat
- Education projects for key group including student and newly arrived residents

Coordination

- Strong better links between Fire/Police control, so that when water rescue emergency are raise both services are tasked from control – thus reducing response time
- Improve asset tagging and tracking, particularly the rescue equipment
- Better, regular data sharing within the safer community partnership model
- Establish a clear group with responsibly for this aspect of water safety coordination as strictly the river safety group is responsible for the creation/upkeep of boat safety/rescue plan, which essentially address a mass transport causality scenario such as large boat sinking
- Establish better links with the universities, and consider how best to target this population

Site review findings

The consultant reviewed the two river corridors and segregated them into 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, however 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 19 difference areas were evaluated. The risk rating score can be seen in table two below:

River Ouse		Score
1.	West bank from Millennium Bridge, to Rowntree Park	45
2.	West bank(riverside pathway) from Rowntree park along Terry Avenue to Skeldergate Bridge along Skeldergate with access checked towards Ouse Bridge	68
3.	West bank, Between Ouse Bridge, and Lendal Bridge along Riverside pathway	55
4.	West bank, from Lendal Bridge to Clifton Bridge, Water End Road	59
5.	East bank from Millennium Bridge, past Blue Bridge to Skeldergate Bridge	57
6.	East bank from Skeldergate Bridge to Ouse Bridge along South esplanade	71
7.	Between Ouse Bridge to Lendal Bridge, with access to frontage where possible.	43
8.	East bank from Lendal Bridge, along Dame Judy Dench Walk up to Water End Road Bridge (45 rising to 56 towards Water End Bridge)	56
River Foss		
9.	Blue Bridge and confluence with Ouse	58
10.	Lock basin (both sides)	49
11.	Castle Mills Bridge along Piccadilly bridge (both sides)	36
12.	Piccadilly Bridge to high level pedestrian bridge towards Foss Island (no access via Navigation Road)	62
13.	Access from Garden Place high level pedestrian bridge along pathway to Foss island	59
14.	Foss Island alongside Foss Bank to Monkgate traffic island	49
15.	Monk Bridge Gardens to Huntington Road (including comments on Huntington Road to Bowling Green Court)	61
Parks		
16.	Rowntree Park	24
17.	Chapmans Pond	43
18.	Mayfields Pond	38
19.	Rawcliffe Lake	47

Table 3: Site review scores

Please refer to annexe for mapping.

The majority of the sampled sites fell within the 'Increased risk' score range³⁴. There were many features across the city which could cause a fall or trip into the water, this is broadly speaking, to be expected in such a historical location. However, the most important theme across the city, we believe, is the lack of ability to self-rescue in many areas.

This issue is compounded with the evidence of previous incidents that people use the river corridor as a location for drinking and of course a route home afterwards. Thus an individual's likelihood of falling in increases, just as their ability to self-rescue decreases.

³⁴ Refer to page 6 for methodology and score bandings.

Therefore it would be ideal to remove trip hazards and provide a more robust scheme of edge protection, particularly in high footfall areas.

The complete site by site findings and local recommendations can be found in the appendix, we discuss general mitigations options later in the report.

Discussion

Accidental fatalities clearly cluster around the Ouse bridge area in the city centre and many water incidents are related to the night time economy.

The fatal drowning and submersion emergency hospital admission rate in York is *over three times the national and regional average; as such it should be addressed as a priority public health issue within the city.*

We identified 15 fatal accidental incidents, and a further five with a serious near miss outcome; the majority of these incidents happen in a small area, within approximately 1.8 miles along the Ouse. With the exception of certain parts of the Rivers Thames in London and some popular beaches, the consultant has not observed fatal incidents with a similar level of frequency elsewhere in the UK.

The non-fatal rate of water-related hospital episodes within York is in line with both the regional and national average, however we think this belies the actual level of harm and admission rates due to factors such as lack of reporting and many emergency admissions classified as primarily alcohol-related.

The age of the city and the historical developments has led to a situation where in many locations a simple mistake, such as a trip or slip, could result in a fall into the river. There is, however, a growing body of advice and opinion, both legal and industry that offers support to duty-holder of historic features. In short, having sound checking regimes, dealing with non-obvious and significant hazards, and informing visitors of key risks is the preferred approach to managing historic visitor attractions, of this type. A zero risk and harm approach is not advocated, rather a balance between allowing public access, maintaining the historic fabric whilst mitigating against the worst injury harms.

Once in the river, the opportunities for self rescue are very low and opportunities for assisted rescue are considered to be moderate. As result of this situation, we recommend that a decision on developing a scheme of edge protection at critical locations should be taken. We are mindful that this work would involve some significant costs for the Council and will take some time to implement fully, if, indeed there is a desire to change the physical environment.

Irrespective of this decision, it is critical that people have the ability to self-rescue and that arrangements are in place to arrange for an assisted rescue (i.e. the emergency services operating a robust response capability) needs to be assured to deal with those who intentionally enter the river.

A key aspect is the provision of life rings. Many of these were in a poor condition, particularly the recovery ropes. We recommend that housings are provided and especially floating rope is attached. These must be regularly checked so they are maintained in full working order. Training on the use and limitations of these could be offered by the Council to local businesses and to community groups.

Normally we would recommend throw lines due to the width of the river in many locations, but due to the risk of alcohol, temperature induced swim failure, and non-obvious currents resulting in longer immersion times for victims; life rings and lines are suggested to be more appropriate. This is despite the reduction in deployable distance of life rings compared to throw lines, i.e. they might not be capable of being deployed as far across the river, but they will be more useful than ropes in the likely scenarios encountered along the river corridor.³⁵

Consideration should be given to a system of grab chains, particularly on the canalised sections of the rivers. Consideration should also be given to providing escape ladders where this would assist a person in the water and not impede boats. Consideration needs to be given to placement of these as it can encourage swimming.

Signage is provided around the city but not in a uniform matter, therefore users may not identify any signage or instructions when approaching water. For the most part the hazards of the two main rivers are obvious, but more direct and instructive information may help to dissuade people from taking a high risk route or high risk activity.

Staff who are expected to assess, and maintain water side locations should be equipped and trained in basic personal water safety awareness and rescue skills, but not to be lifeguards.

A concerted and sustained effort of education and public reinforcement of the risks involved with the rivers in York needs to be taken, ultimately it seems that lessons painfully learned years ago, are not remembered by the present young adults and this will lead to a perpetual cycle if not checked.

There is a general census as to the populations at risk and some if not all of the key casual factors, namely; (i) adults - particularly males between 17-30yo,(ii) recent local and permanent residents, (iii) alcohol, (iv) awareness of cold water immersion risks and (v) safe routes home, (vi) rescue efforts and limitations should be key themes within any campaign/programme.

Local businesses, schools and the universities need to be involved in reinforcing the key messages, involvement of taxi drivers, public transport and security staff will assist in maintaining public reinforcement of the key messages.

Within the Safer York Partnership and the stakeholders we met, there is the capacity to address this issue. There does need to be a greater/clearer focus on the visitor safety risk generated by the river front, in addition to those already being addressed by the 'boating safety group'.

These will be better focused by regularly sharing data, actions and activity information. Holding or combining or agreed set of data and incidents that will underpin risk management and education programmes.

³⁵ It is worth noting that rescue equipment throwing accuracy drops markedly beyond 15metres, and that 25metres is the most one can reasonably expect without very specialist equipment and training. For background information see: <http://www.rospa.com/leisuresafety/Info/PublicationsJournals/staying-alive-rescue.pdf>

Given the multi-faceted nature of the problem, i.e. physical space, night time economy, emergency response, risk education etcetera, a priority issue focus and support from the local public health board would help to galvanise the disparate strands and linkages within the Council.

Conclusions

The majority of the sites assessed were found to be at a higher risk level, but the site fabric is generally in good condition.

The rivers are a hazard obvious to many in the daytime, one that can be understood, to some extent, by the majority of visitors. However, in many locations, a simple mistake could result in a fall into the water, with serious consequences.

The location that presented higher risks, also had higher footfall and are known routes for the night-time economy; so invariably had many people out who had been drinking, and may not be fully aware of the hazards.

Placement and quality of rescue equipment should be improved, along with key safety information. Providing victims in water with the best mean of help via physical measure such as lighting, steps and grab chain are essential. Limiting access at critical points is a sensitive issue, but will be the best/most effective approach for these locations. These measures are not inexpensive, but the most likely to make substantive changes in level of harm.

Water related incidents are common and could be reduced. There are clear groups, times and locations that can be addressed, and with a concerned/sustained effort reduce the level of harm observed.

The relatively high rate of fatalities should lead to this being a priority issue for the public health board to consider.

It is clear that officers are aware of the risk and are taking step to address the issues. However, wider and better efforts to engage the community to address water safety need to be encouraged both within and outside of the Council.

Recommendations

A number of recommendations have been made within the site specific sections. The following should be considered across the Council. These have been split into a number of themes.

Key Recommendations			
#	Description	Target	Lead

Provision of rescue equipment

	PRE is positioned at regular intervals along the majority of the Ouse. Additional units are required in the park between the station and Clifton Bridge. The Ring close to Millennium Bridge needs to be repositioned.		
	A small number of additional life rings are required along the Foss; along Foss Bank and Monks Bridge Gardens.		
	The programme of documented inspections needs to be revised. Inspections should be adapted to include rope condition, usability, and deployment.		
	Consideration should be given to providing housings for all life rings. Life ring locations should give information on present location, raising the alarm; and use of the equipment.		

Public realm design, including edge protection, physical barriers

	A standard design for edge protection should be agreed for all new developments along the river corridors around the city centre.		
	A decision on retrofitting post and chain fencing with the new standard edge protection should be taken.		
	Consideration given to providing edge protection in high footfall areas where boats are not impeded e.g. River Foss.		
	Consideration should be given to a system of grab chains, particularly on the canalised sections of the rivers and high footfall areas.		
	Fencing should be considered for sections along the Foss.		
	The minor renovation works for the handrails, painting and surfaces should be conducted where there is no edge protection provided.		
	Consider use of limited or permanent fixed emergency only lighting for sections near to Ouse bridge and below.		
	A programme of work to prioritise and address issues identified in the individual sections should be developed.		

Search and Rescue

	Support for a river safety boat should be considered. This should be considered supplemental to the search and rescue/flood capacity provided by York Fire and Rescue Service.		
	Consideration should be given as to if there is currently adequate provision to declare and deploy fire rescue service assets to a regional/national flood event and maintain a search and rescue presence for the city.		
	Ensure that the emergency service access is maintained to slipways, is clearly signposted as such and if need be parking violations ect are properly enforced.		

Education and campaigns

	A water safety campaign should be considered for those using the bars and restaurants. This should include the universities, colleges, with local taxi services and bars/security staff included in education and training on water safety. This should be repeated regularly.		
	Consideration should be given to training security staff, local businesses and other community groups on the use of life rings and raising the alarm. Note: This is not a suggestion to create a 'squad' of lifeguards or oblige business to patrol the river.		
	Support for local project such as the 'street angels' , safer routes home, and York Press campaign should be commended, and formalised and repeated where possible.		
	School river safety awareness programmes should be created to dissuade children to play in dangerous locations alongside the river. Arrangements to continue this programme in the future should be made.		
	Aligned to the above, consideration should be given to including and extending an 'open water' element for both school children and transient populations (i.e. students/first 'jobbers').		

Leadership and coordination

	That a - board level agreed - water safety policy and strategy should be developed and reviewed and held jointly by the SYP members.		
	The council and emergency services should consider utilising the WAID service so that incidents can be recorded, tracked and shared. This will allow for future comparisons of effectiveness of control measures, areas of concern and comparisons with other locations around the UK, in addition to assisting other Councils evaluate their own drowning prevention strategies.		
	A specific task/finish group should be established to ensure the visitor safety aspects of the river are considered. (Already underway?). This should be considered distinct from the		

	'boat/river safety group'		
	Aligned to the above, issue priority/support under the public health board should be considered.		
	An agreed tasking plan should be drawn up for water rescue events so that FCR task both Fire and Police to water events at the same time. This should be tested periodically and reported the task/finish group above.		
	Water safety should be included as a explicit outcome in any revision of the York aquatic strategy, both for school and under 25's.		

Table 4: **Key Recommendations**

ANNEXE

- 1. Site assessment findings**
- 2. Incident map**
- 3. Incident map and assessment score**
- 4. Unintentional injury profile for York**

River Ouse

# 1	West bank from Millennium Bridge to Rowntree Park	45
<p><u>Description:</u></p> <ul style="list-style-type: none"> Well made pathway/ roadway well away from the river. Viewing platforms provided. Viewing platforms steps have no handrails. Life rings are provided at regular spacing's along the bank as with other locations recovery lines were in a tangled condition. One unit was not easy to reach as its location has become very overgrown; this was the only unit with safety signage provided. The post and wire fence has become damaged over time but the hedging has failed to become fully established. <p><u>Incident history:</u></p> <p><u>Mitigation options:</u></p> <ul style="list-style-type: none"> Wire horizontal bars need to be repaired to maintain integrity/ strength as these have become unacceptably slack. The post and wire fence should be re-established in areas where the hedge does not provide a full barrier Handrails should be provided if people are invited down to the water's edge at this location. The unit should be moved and signage provided on all housings <p><u>Other comments:</u></p>		  
<p>Principle hazards observed</p> <p><u>Water</u></p> <ul style="list-style-type: none"> Viewing structure - fall/height Deeper cold water. 	<p><u>Other</u></p> <ul style="list-style-type: none"> See comments relating to the Bridge 	

Access: Along Terry Avenue.
Site reviewed: 10/04/14.



2 West Bank(riverside pathway) from Rowntree park along Terry Avenue to Skeldergate Bridge along Skeldergate with access checked towards Ouse Bridge

68

Description:

- People are clearly using the lower tier, despite it being very muddy and silted. But, as with the rest of the river, escape unaided would be difficult for the majority of the population.
- No grab chains or similar provided on buildings
- Access to boats moored on balconies would need a rather precarious entry and exit, it is unclear who owned these boats and if they were being used. The main concern is, in particular, how someone who fell in would escape the water at this location – therefore we recommend that these boats should be moored elsewhere.
- Old walkway down to pontoons/ river walk unclear on edge and surface, intention to allow pedestrian access to be clarified and signed up
- Wharf features with no edge protection, vehicle metal pole kerb is provided, and it is unclear whether this would be effective or not.
- A handrail is missing on the side of the wharf, leading to potential fall down onto steps. Steps have no handrail provided
- There is a sign at the entrance and the river is clearly visible, but there is no solid vehicle protection on turning circle on wharf, save shallow kerb, unsuitable for Large vehicles – accidental drive in/ suicides.

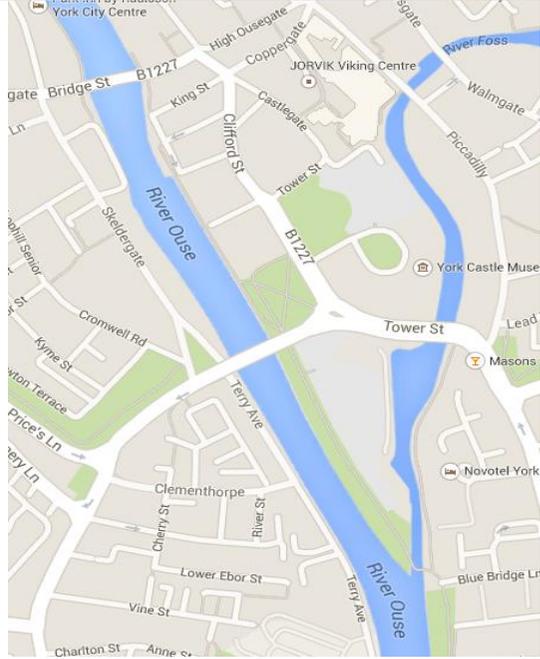
Incident history:

Mitigation options:

- Improved access, and repair of handrails etc in numerous locations
- Controlled vehicle access
- Check and removal of boats
- Grab chains or similar as part of overall scheme

Other comments:



<p>Principle hazards observed</p> <p><u>Water</u></p> <ul style="list-style-type: none"> • Vehicle access/ Turning Circle on Queens Staith • Access to moorings • Access to boats moored by riparian owners • Moorings. 	<p><u>Other</u></p> <ul style="list-style-type: none"> • Riparian ownership restricts access 	
<p><u>Access:</u> Skeldergate.</p> <p><u>Site reviewed:</u> 10/04/14</p>	 <p>The map shows a section of the River Ouse in York, England. The river flows from the top left towards the bottom right. Key streets shown include Skeldergate, Tower St, and B1221. Landmarks such as the JORVIK Viking Centre and York Castle Museum are marked. Other streets visible include Bridge St, King St, Clifford St, and Waingate. The map also shows the River Foss and various residential streets like Cromwell Rd and Lower Ebor St.</p>	

Description:

- Post and chain fence offers little pedestrian protection and would not necessarily provide adequate protection from a slip or trip on the footpath, e.g. from the slope from the bridge.
- Trees and the setting provide an obstacle and obscure the footpath, but do encourage people to walk landside.
- Steps down to the lower level are very steep and no handrails are provided. The opening is not gated or chained which is an inconsistent approach
- Life ring provided on wall, no other signage noted in this location.
- Improved fencing and walls here, but handrail in poor condition and missing in some points on steps to bridge – to be repaired.



Incident history:

Mitigation options:

- Repair and improve edge protection

Other comments

Someone in water would realistically need to exit on footings of bridge if River levels allowed.

Principle hazards observed

Water

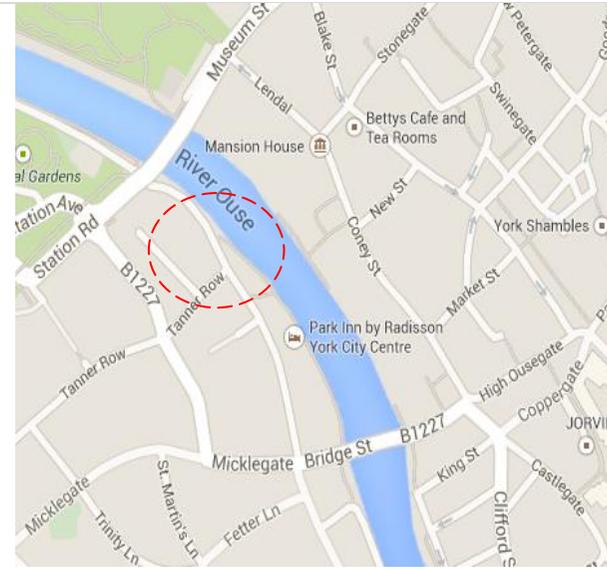
- Structure - fall/height
- Popular location

Other

- Steps
- Signs of alcohol use

Access: Numerous city centre routes

Site reviewed: 10/04/14



4 West bank, from Lendal Bridge to Clifton Bridge, Water End Road

59

Description:

- No clear pathway through the park, lots of small areas where dogs have gained access and possibly fishermen, areas where someone could slip in the dark.
- Drains have edge protection provided.
- Life rings provided on pathway and some buildings but insufficient are provided in the Park.
- Exit for someone who fell in along this stretch would be difficult due to vegetation, swimming to opposite bank unlikely and there is little chance to exit on this side due to high freeboard and no grab chain.
- Steps down to lower tier are steep and have no handrails. A fall from the top level here when the water is high would be extremely difficult to get out of the water due to steepness of the bank.
- A fall into the water at usual levels would be very difficult due to lack of grab chains and escape ladders.
- PRE not provided at appropriate spacing along the river in park. No lighting on the park area route.
- Signage is provided on entrance to cycle path area “no swimming”, “Danger, deep water”
- . The main pathway is wide, flat, and even with good visibility along the length. The bank is shallower here at approximately 45°
- Lighting is provided at even spaces along the pathway
- Life rings are provided on the fence, some ropes are in poor condition and do not appear to be floating type.
- Steps for the rowing club are well used for seating.
- Steps between the bridge and the buttress are steep.

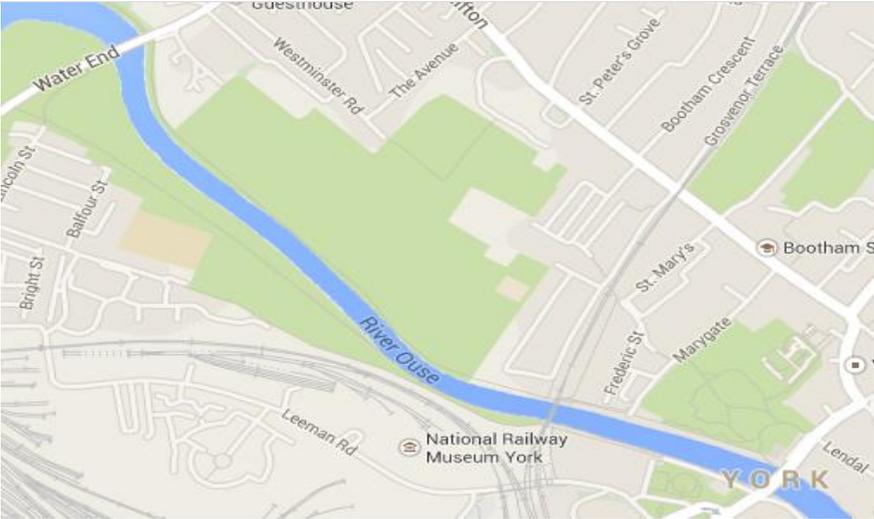
Incident history:

Mitigation options:

- Provide a suitable pathway
- Life rings at even spaces

Other comments:



<p>Principle hazards observed</p> <p><u>Water</u></p> <ul style="list-style-type: none"> • Lack of pathway • Popular walking route • Steep slope to water 	<p><u>Other</u></p> <ul style="list-style-type: none"> • Hire boats causing disruption for rowers due to not following speed limit, wearing PRE or following the river code of conduct 	
<p><u>Access:</u> Jubilee Terrace or opposite bank</p> <p><u>Site reviewed:</u> 10/04/14</p>	 <p>The map shows a section of the River Ouse in York, England. The river flows from the top left towards the bottom right. Key landmarks include the National Railway Museum York, located south of the river. Streets shown include Water End, Westminister Rd, The Avenue, St. Peter's Grove, Bootham Crescent, Grosvenor Terrace, Bootham St, St. Mary's, Marygate, Frederic St, Leeman Rd, and Lendal. The word 'YORK' is visible in the bottom right corner of the map area.</p>	

Description:

- River access steps have signage to warn vehicles of steps and handrails provided.
- Roadways have cycle traps to slow cyclist.
- The life rings along this stretch were in a generally ‘tired’ condition. The unit closest to the ice-cream boat was in a very poor condition and needs to be replaced. Some posts have no swimming and danger deep water signage, but these are becoming tired and are in need of repair. The length of recovery rope also does not appear to be standardised (or some lengths have been stolen/ vandalised since the last check)
- The intended pathway is well away from water under normal conditions; Lighting is provided on the footpath at even spaces.
- Segregated cycle and pedestrian route, however, a well used desire path closer to water’s edge with seating provided. This is likely to be muddy and wet for much of the year. There is an embankment which will be difficult to identify in low light due to shadow from trees and location of light columns.
- Car park has bollards, knee rails and hedging provided to delineate the car park area from the riverside walkway. No signage is provided at entry points to the riverside walkway, but no swimming and danger deep water signage provided on other side of bridge – this signage would be better placed at the entry point and lower to be more visible



Incident history:

Mitigation options:

- Improve signage
- Improve life rings

Other comments:

Principle hazards observed

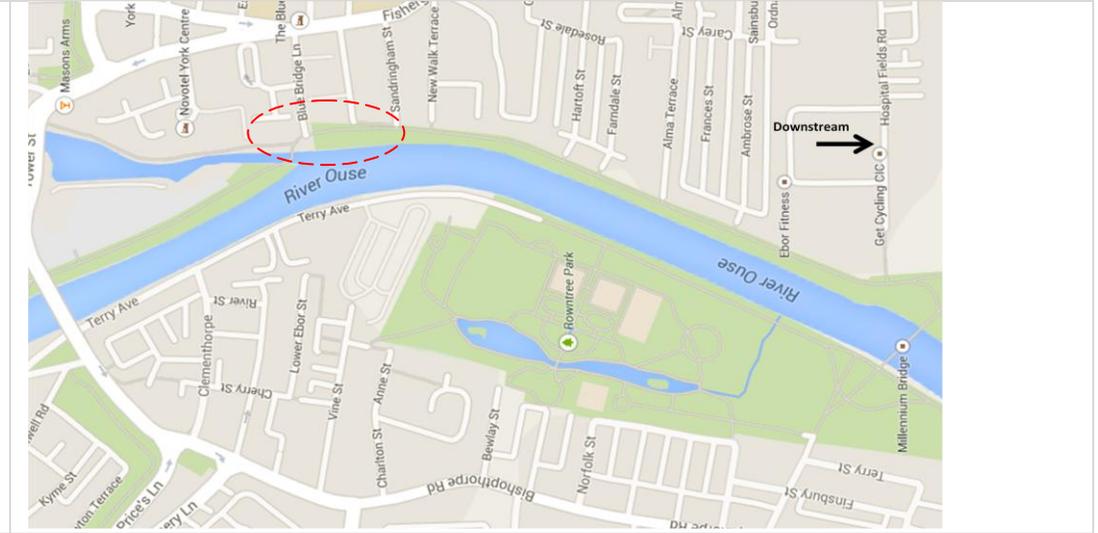
Water

Other

- Flooding

Access:

Site reviewed: 10/04/14.



Description:

- This is a very popular area with high footfall and bars close by.
- The coping stones/edge and drains are indistinct and could lead to a trip into the water.
- People will be tempted to walk along the coping stone/edge; someone slipping into the water would need to swim against the current to the nearest pontoon to get out via the ladder. There is no grab-chain provided and no life ring in this immediate area except on pontoon.
- The double yellow line is wearing away, this provides a useful visual indication of the edge in low light and should be repainted, or other visual indication provided.
- The cobbled surface offers an increased risk of slipping and particularly tripping, especially for people wearing high heels and similar (e.g. those enjoying the nightlife).
- A post and chain fence is provided closer to the seating area near to the Pubs. The chain offers little in terms of pedestrian protection and no vehicle protection to prevent accidental and intentional 'drive offs'.
- There is also limited access and a turning circle is approximately 5ft from the edge meaning that pedestrians will be forced close to the edge during deliveries and manoeuvres.
- The fence and escape ladders are painted black. These safety features are virtually indistinguishable in low light and a new system should be agreed and installed.
- The post and chain system is damaged and many people were noted to be sitting waterside on the wall drinking.
- Flowers and signage provided for Paul Rogerson next to life ring who died in 2011. This fence is far superior to the chain fence provided.
- There is a pronounced ledge parapet on the Ouse Bridge which people could use to jump into the river.



Incident history: Multiple

Mitigation options:

Edge demarcation and fencing improvements, improved rescue equipment.

Other comments:



Principle hazards observed

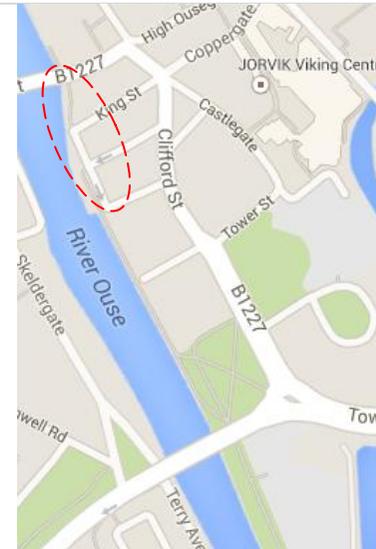
- Edge and high footfall
- Alcohol
- Trip hazards

Other

- Main route, popular for pubs etc.

Access: Various

Site reviewed: 10/04/14



Description:

- Access to the water is protected by suitable railings.
- Terrace to rear of bars shows memorial to Anthony Horrocks who died in 2011. In need of renovation. No swimming or diving signage provided under the memorial, and along the fencing at other locations.
- Handrail is capable of sitting on and access is easy, a different handrail would reduce the opportunity for this, as people have been known to fall off fencing (e.g. in Newcastle Upon Tyne). Handrail on lower wall has low benefit.
- Exit the river at this point would be extremely difficult if someone entered the water. Although much of this stretch is practically difficult to access for the public.
- Unclear exactly where the nearest life ring is at this point.
- Access to pontoons uneven, life rings are provided on one pontoon and this has a suitable gangplank. The other longer pontoon is older and the gangplank is unsuitable and there is no PRE provided. This is being used for mooring hire boats and should be improved, particularly for public use.

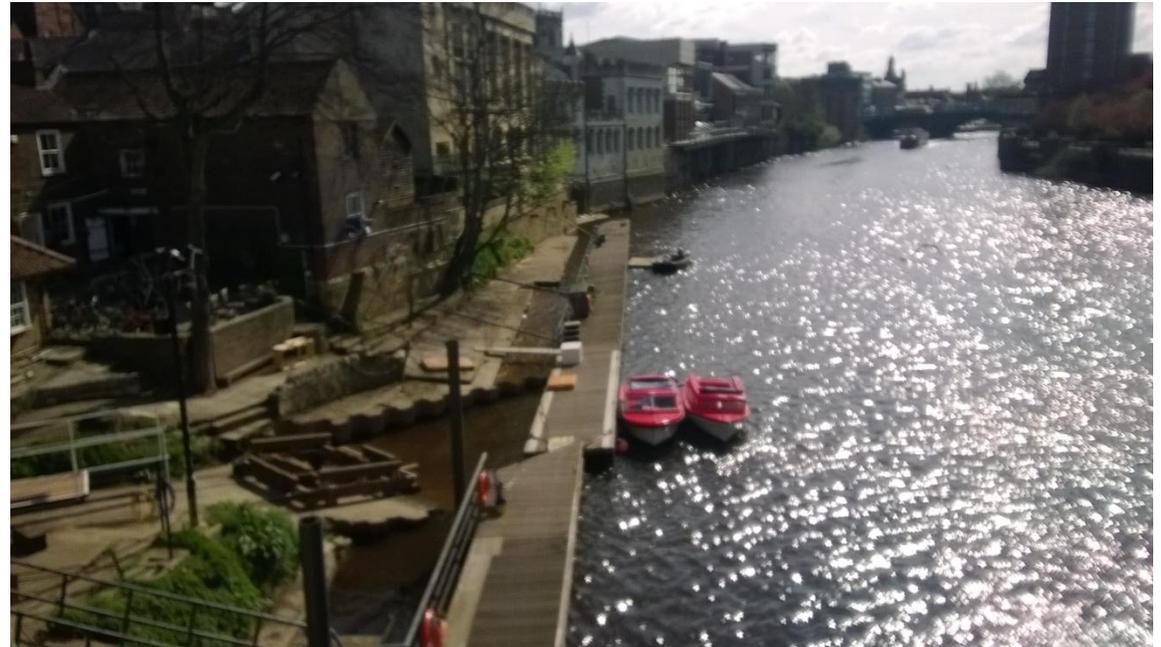
Incident history:

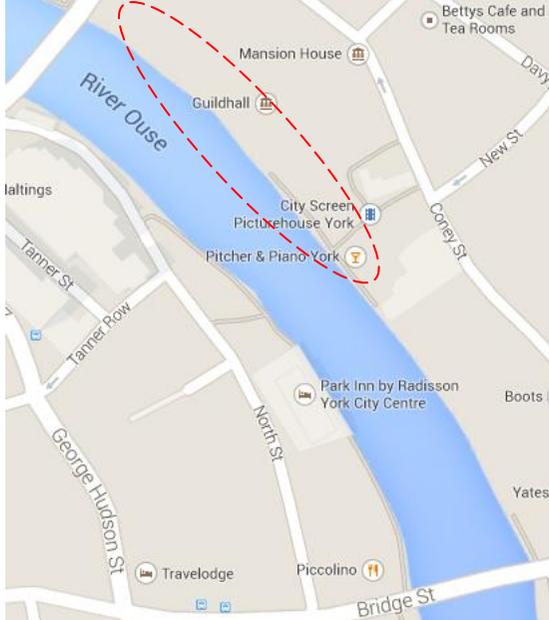
Numerous

Mitigation options:

- Improve pontoons
- Education
- Consider amending handrails

Other comments:

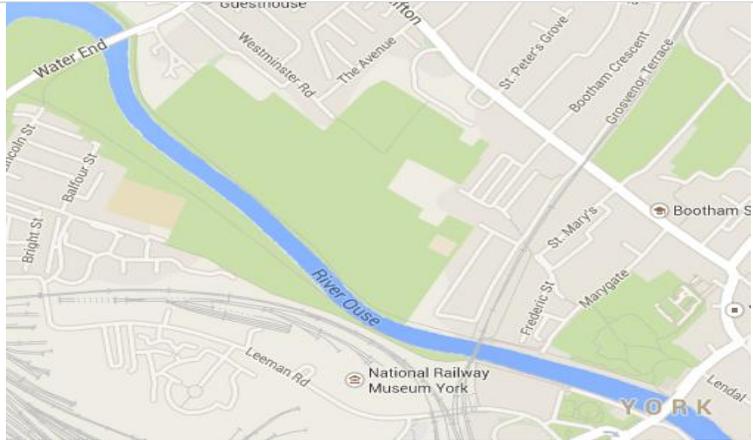


<p>Principle hazards observed</p> <p><u>Water</u></p> <ul style="list-style-type: none"> • Fall • Alcohol related incidents 	<p><u>Other</u></p> <ul style="list-style-type: none"> • Lack of familiarity with floating pontoons by public 	
<p><u>Access:</u> Via Ouse or Lendal Bridges</p> <p><u>Site reviewed:</u> 10/04/14</p>		

Description:

- Narrow walkway has edge protection provided, the opening out to riverside walk with no edge protection. The embankment is visually distinguishable by cobbles, there are steps down to the lower tier, and a small number of these steps have handrails down to the water's edge.
- The lower tier is used for walks and feeding the river birds. A small number of boats were noted to be moored here.
- There are no grab chains provided on the water's edge.
- Some coping stones have been damaged and are no longer in place.
- Life rings are provided on fence at reasonable distances.
- A desire line passes closer to the river past Dame Judy Dench Walk.
- The steps are well maintained for launching boats.
- Many of the life rings along this stretch needed their recovery ropes repaired as they were not in a condition where they could be easily and quickly used. It was also not clear if the rope was a floating line. (Using a non floating line can actually increase the chance of drowning, as it can snag on underwater objects, thus pulling the user underwater).
- The river is trenched at this point with a slightly higher freeboard.
- The opportunities to self rescue and escape the river along the stretch close to the playing field is greatly diminished, so a person would either need to swim across, or float downstream to a landing stage and pull themselves out.
- The pathway is mostly clear, level and approximately 4m from the river. There is no clear indication for segregation of cyclists and pedestrians. This would be useful.
- The pathway finishes and turns to an unmade footpath, which is generally closer to the river. This can be expected to be muddy for much of the year. Again, exit at this point would be very difficult. The life ring is in a poor condition.
- Evidence of dog and pedestrian access near to bridge, steps on southern side have no handrail but appear to be well maintained and vegetation has been cleared to maintain visibility of edge.



<ul style="list-style-type: none"> No safety signage on post at junction of esplanade, No swimming signage should be provided. <p><u>Incident history:</u></p> <p><u>Mitigation options:</u></p> <ul style="list-style-type: none"> Repair edges and coping stones Indicate separate pedestrian/ cycle routes Improve life rings along stretch Improve signage at entry points <p><u>Other comments:</u></p>	
<p>Principle hazards observed</p> <p><u>Water:</u></p> <ul style="list-style-type: none"> Edge profile Collisions Use of lower mooring areas by very young children and vulnerable adults 	<p><u>Other</u></p>
<p><u>Access:</u> Foot via Dame Judy Dench Walk</p> <p><u>Site reviewed:</u> 10/04/14.</p>	 <p>The map shows the River Ouse flowing through York. Key landmarks include the National Railway Museum York, Leeman Rd, and several streets such as Water End, Westminister Rd, The Avenue, St. Peter's Grove, Bootham Crescent, Glovershof Terrace, St. Mary's, Mar-yatte, Frederic St, and Lendal. The word 'YORK' is visible in the bottom right corner of the map area.</p>

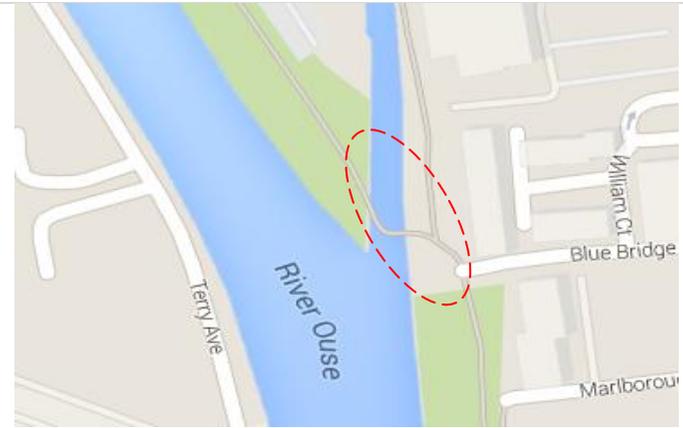
River Foss

# 9	Blue Bridge and confluence with Ouse	58
<p><u>Description:</u></p> <ul style="list-style-type: none"> • Very popular route • The edge protection for the bridge (Blue railings) does not return around the corner, where the ground falls away quickly, therefore there is a lip on the edge of the bridge. As this bridge is used by a high number of cyclists, pedestrians, and (on the day of the visit) nursing mothers. There is a risk of a collision or slip, resulting in a fall down the bank and into the water. Consideration should be given to extending the fencing around the corner to prevent this. • There was evidence of the slipway here being used for street drinkers to congregate. • There is a slightly increased risk of drowning in this spot. The operation of the lock will produce underwater currents which may not be obvious from the surface. • The nearest life ring was in poor condition and should be repaired and replaced. • There was also no signage provided on the life ring post <p><u>Incident history:</u></p> <p><u>Mitigation options:</u></p> <ul style="list-style-type: none"> • Fencing • Signage and life ring improvements <p><u>Other comments:</u></p>		
<p>Principle hazards observed</p> <p><u>Water</u></p> <ul style="list-style-type: none"> • Lock • Slipway • Collisions 	<p><u>Other</u></p>	

Access: Castle Car park or Blue Bridge lane.

Site reviewed: 10/04/14

Blue Bridge (460590/451000)



10 Lock Basin (both sides)

Description:

- The Life ring on the lock side is in poor condition and the recovery line was both tangled and in a poor condition and should be replaced.
- No swimming and danger deep water signage is provided on the railings.
- Portable escape ladders have been placed in the locks to provide an exit, this is commendable as a short term solution, but a suitable fixed ladder which is more visible in low light and is less of a trip hazard should be provided.
- The life ring on the rear of the lockhouse should be repaired.
- The life ring on the post (unable to gain access but appeared tangled and perhaps tied, should be replaced and signage provided.
- No grab chains were noted

Incident history:

Drowning at this location

Mitigation options:

- Improve life rings
- Improve ladders from locks
- Consider grab chains

Other comments:



Principle hazards observed

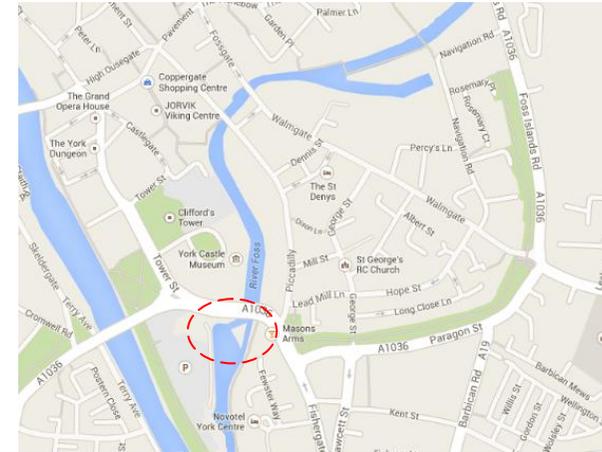
Water

- Locks
- Moored boats
- Surfaces- trips etc.

Other

Access: Car park, Bridge or Blue Bridge Street

Site reviewed: 10/04/14



11 Castle Mills Bridge along Piccadilly bridge (both sides)

Description:

- Public access to the water is difficult at this location and footpaths have edge protection provided. If someone was to accidentally fall in, rescue services would be required as sides are vertical and overhanging vegetation would reduce the ability to gain access.
- Path to rear of Fenwicks has edge protection provided.

Incident history:

Mitigation options:

- Rescue arrangements planned
-

Other comments:



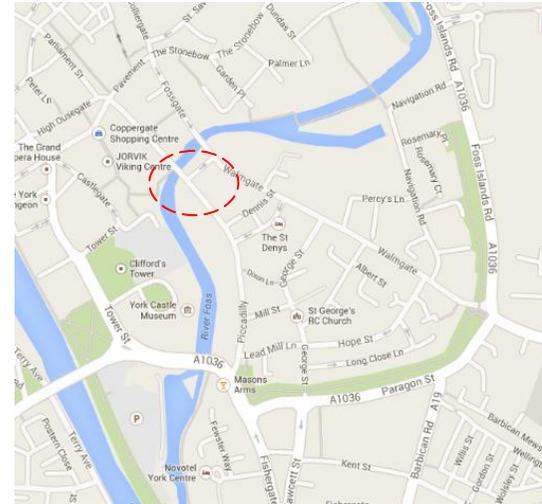
Principle hazards observed

Water
Falls from sitting on railings

Other

Access: Either Bridge

Site reviewed: 10/04/14



12 Piccadilly Bridge to high level pedestrian bridge towards Foss Island (no access via Navigation Road)

62

Description:

- Edge protection provided along majority of path, but no grab chain on either bank.
- The only life ring provided (on the jetty area, where there is no edge protection) is in poor condition. Another unit would be well placed at top of stairs or around the bridge area.
- A Person in water would be unlikely to escape unaided.
- Lots of residential development in ongoing in this area therefore footfall is expected in increase along these routes.
- Pedestrian bridge has handrails and edge protection to steps

Incident history:

Mitigation options:

- Life ring repair and additional provided
- Grab chains
- Riparian owner standards

Other comments:



Principle hazards observed

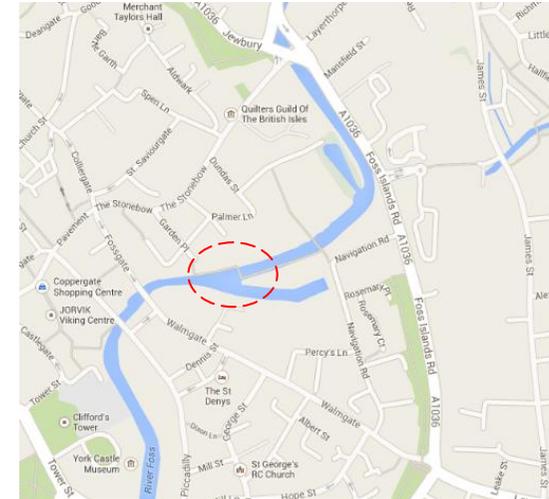
Water

- Freeboard
- Width of basin

Other

Access: Garden place or along River.

Site reviewed: 10/04/14



Description:

- No edge protection and high freeboard into water.
- No grab chain along lower part of pathway – exit would require swimming along/ across the river to the opposite bank.
- Both life rings are in a poor condition
- Many changes in surface materials indicating a high risk of trip hazards over time as materials move.
- Old wharf features which are attractive as play features to children (children overheard suggesting they had played a game of leaping between them)
- Old pedestrian bridge has been closed
- Fencing older style metal 4 rail fence, old but serviceable condition, flat wide pavement
- Life rings provided on private properties on far bank – appear to be inaccessible
- It was unclear why the balcony feature had exclusion fencing provided.
- Handrail and textured surface applied to old boardwalk to reduce slipping – good feature

Incident history:

Mitigation options:

- Fencing
- Grab chains
- Improved signage and Life rings

Other comments:



Principle hazards observed

Water

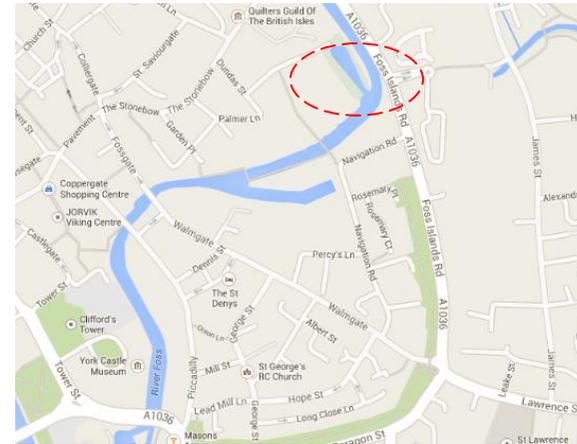
- Sluice structure - fall/height
- Culverts/tunnels
- Deeper cold water.

Access: Garden Place or Foss Island Road

Site reviewed: 30/04/14, 1pm.

Other

- Steps slip/trip/fall on river left
- Height and remains of sluice structure.
- Signs of alcohol use adjacent to sluice.



14

Foss Island alongside Foss Bank to Monkgate traffic island

49

Description:

- Low edge protection provided easily climbable. Exit would be very difficult but water unattractive and slow flowing, hence lower score than expected. Life ring on private land in poor condition,
- No grab chain or life rings on roadway side, therefore someone in water would find exit impossible close to bridges.
- Scrubland near to pipe bridge recently cleared. Memorial on far bank close to Life ring on far
- No clear keep off signage was noted on the pipe bridge during the visit, but fencing was positioned to prevent access

Incident history:

Fatalities

Mitigation options:

- Signage
- Life rings
- Grab chains

Other comments:



Principle hazards observed

- Inability to self rescue (risk)

Other

Access: Foss bank

Site reviewed: 10/04/14



Description:

- Life rings provided in park in visible locations. No signage provided, many opportunities for children to feed the water birds. Many birds indicating a popular feeding spot. Tactile paving to parts of the edge.
- Freeboard into water would prevent most people exiting at this location on either bank, no grab chain provided
- Unable to gain access along footpath (to side of school on this bank)
- Further up the river, the towpath disappears and people are forced very close to the water. At this location exit would be very difficult. This should be rectified and either made good or closed. The life rings at the entrance to the towpath and along these were also noted to be in a poor condition.
- The pipe bridge fan is not effective at preventing crossing and could be considered a hazard in itself, leading to a fall into fairly deep water with obstructions and debris in the water.
- Change or remove the 'style' type feature under the bridge which appears to be provided to prevent cyclists, but is, in effect, a trip hazard for pedestrians
- This area close to the park is being used for play and the consultant had to advise children not to play in the trees over the river during the visit.
- A football which has floated down to Foss Way demonstrates that people are playing close to the water; any attempted retrieval would be ill-advised.

Incident history:Mitigation options:

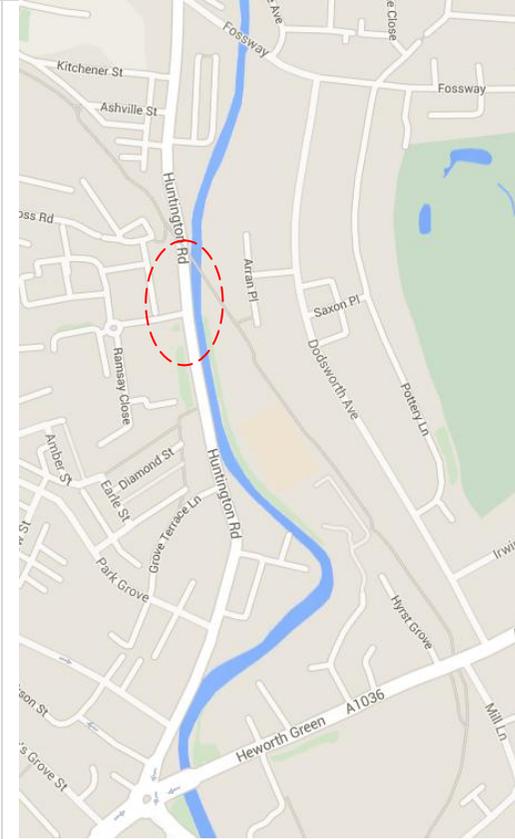
- Improve signage
- Improve towpath
- Remove hazards
- Improve means of escape
- Continue tree management programme

Other comments:

<p>Principle hazards observed</p> <p><u>Water</u></p> <ul style="list-style-type: none"> • Freeboard • Trips and unclear walking routes. 	<p><u>Other</u></p> <ul style="list-style-type: none"> • Playing near to water • Underwater debris and planting 	
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Access:

Site reviewed: 10/04/14

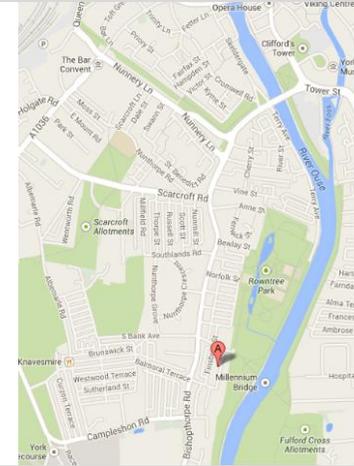


Parks

# 16	Rowntree Park	24
<p><u>Description:</u></p> <ul style="list-style-type: none"> • Two joined ornamental ponds provided. Both ponds are shallow. The main risk is for slipping and for unattended small children. • No fishing signs are provided, the pathways are in generally very good condition with some areas beginning to break up, particularly around the bridge area. <p><u>Incident history:</u></p> <p><u>Mitigation options:</u></p> <ul style="list-style-type: none"> • A regular inspection should be conducted to ensure that repairs are made before the surface crumbles and becomes a trip hazard close to the water • A regular programme of cleaning the pathways of bird mess and clearing the water of litter and detritus should be continued to ensure that high levels do not build up and cause physical and biological issues <p><u>Other comments:</u> No significant or unusual hazards noted</p>		
<p>Principle hazards observed</p> <ul style="list-style-type: none"> • Shallow water for unsupervised young children 	<p><u>Other</u></p>	

Access:

Site reviewed: 10/04/14



17 **Chapmans Pond**

Description:

- Small fishing pond set in coppice(?) or nature reserve.
- Foot access only around two-third of lake (South/Eastern edge).
- Overlooked by housing.
- Multi signboard at entrance, hazard warning sign around site.
- Low footfall and natural lake edge.

Incident history:

Mitigation options:

- Monitoring and minor remedial work to bank edges for slip/trip/fall hazards.

Other comments: Limited parking, not to be confused by Hoggs pond (private fishing lake).



Principle hazards observed

Water

- Open water

Other
Limited parking



18 **Mayfields Pond**

Description:

- Small fishing pond adjacent to housing area. Natural edge with path set-back for majority of area.
- Two public rescue equipment housing noted on site, both with rings in.

Incident history: N/A

Mitigation options:

- Monitoring of public rescue equipment.
- Site snag particularly the smaller slip/trip/fall hazards.

Other comments: Very pleasant location, well used on the day of visit.



Principle hazards observed

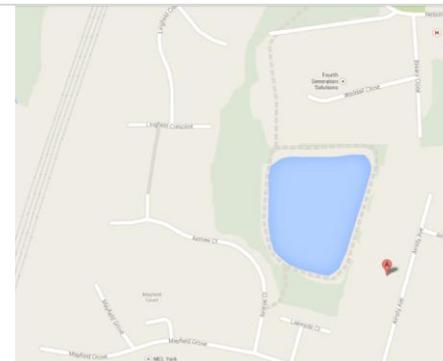
Water

- Open water
- Slip/trip/fall –various minor

Other

Access: Vehicle access via playground(?) road, or park

Site reviewed: 10/04/14,



Description:

- Medium sized attenuation reservoir linked to Dale Dyke, adjacent to Rawcliffe Infant and Junior school.
- Two sluice structures at either end of lake, along with overflow channel form Dyke.
- The majority of lake hinterland is open grass with a shallow aspect.
- Path set back between 3-5metres.
- A number of small floating (bird) islands sit some 70metres out.
- Signage notes 'no boating' and 'alcohol' and 'deep water'.
- Perry Buoy PRE used at several points around lake, with buoys in housing.

Incident history: N/A

Mitigation options: Monitoring and snagging.

Other comments: Signs of teenagers fishing and numerous dog walkers (at c.7pm). Verbal reports of swimming at location. School routes are nearby.



Principle hazards observed

Water

- Deep cold water
- Significant fall hazards with flood structures (managed).
- User behaviours i.e. swim

Other

- Variable water quality?
- Flooding?

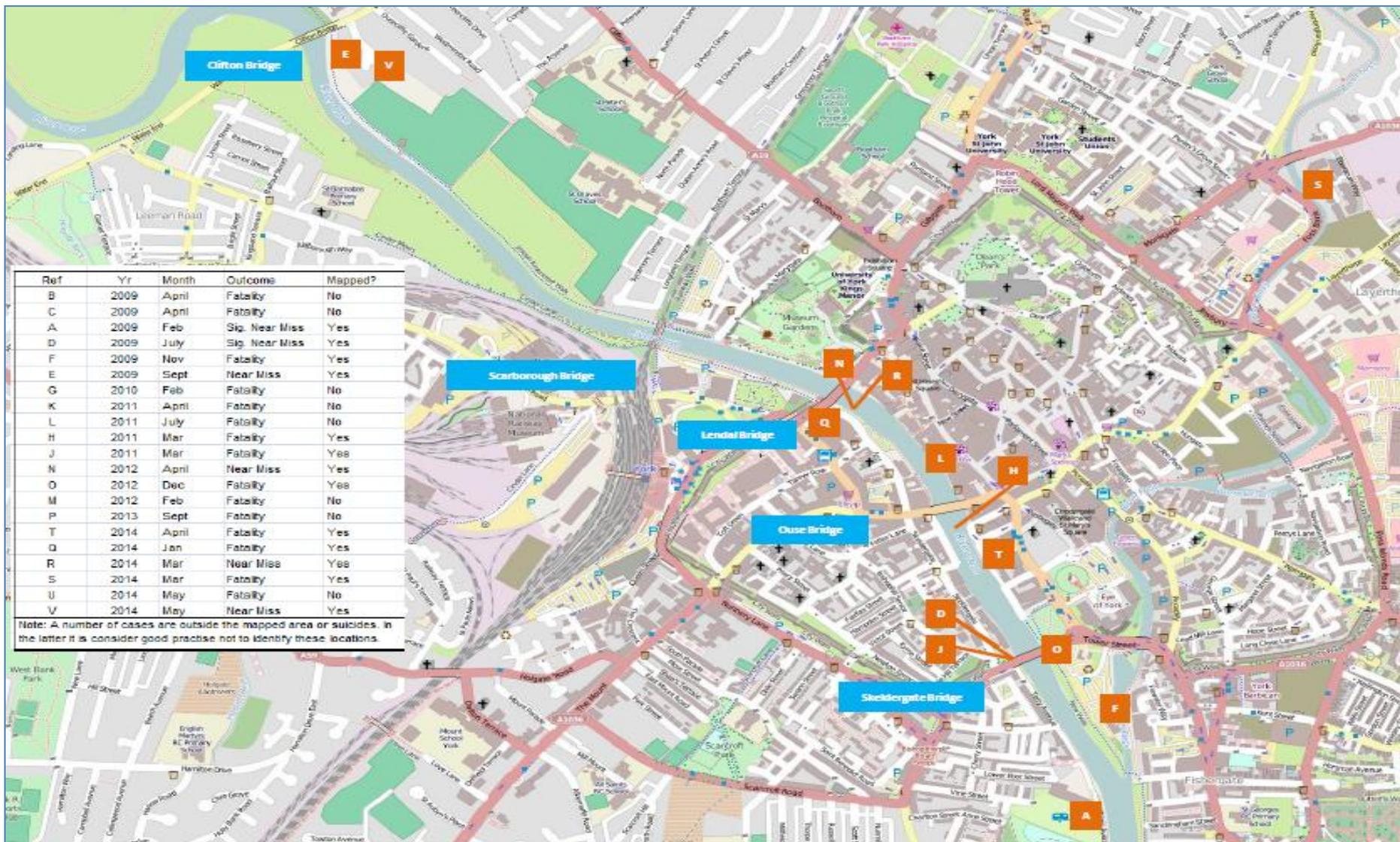


Figure 8: City of York centre incident map 2009 to mid 2014
 Base map: © OpenStreetMap [contributors](#)

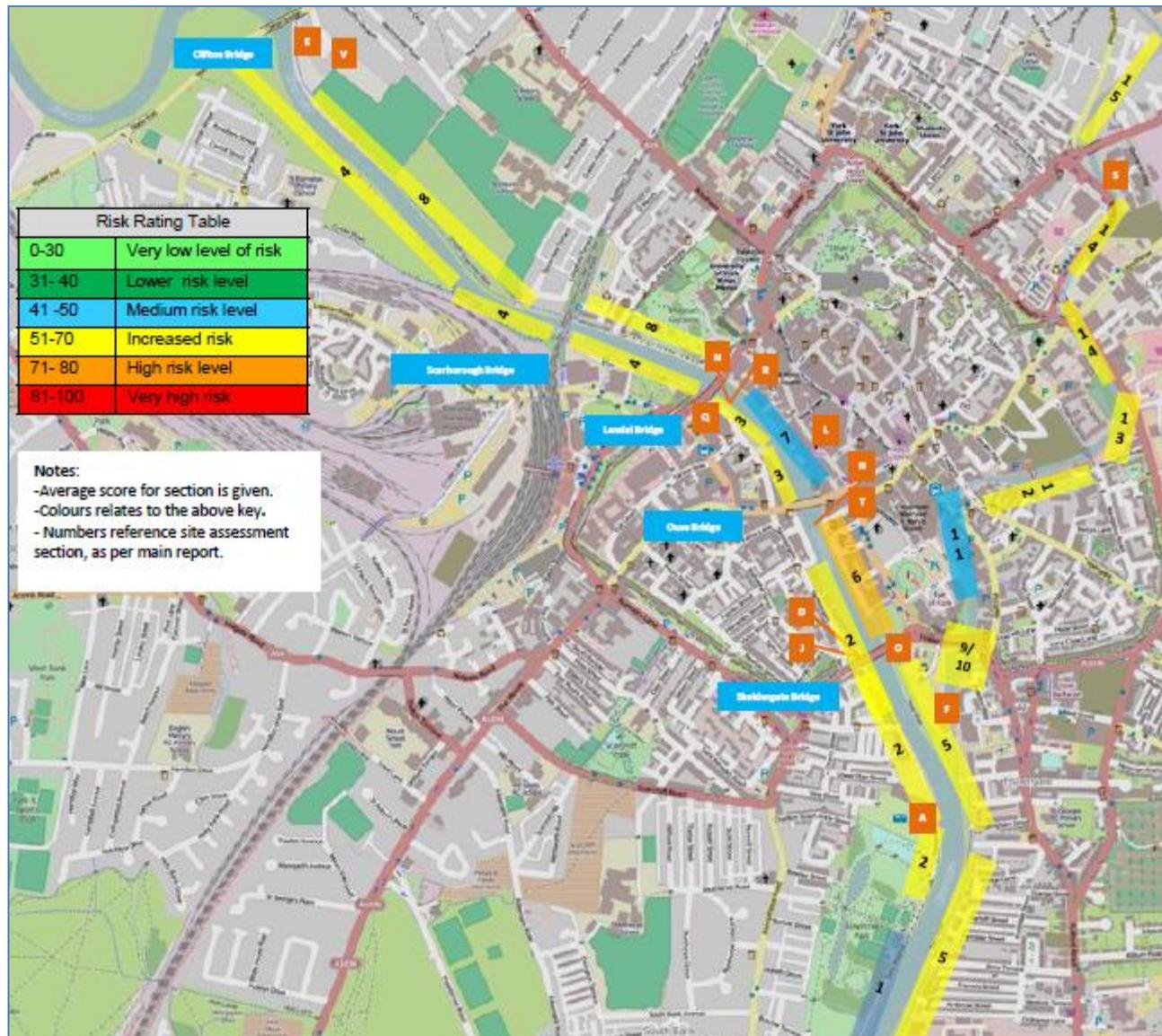


Figure 9: City of York centre, RoSPA assessment ratings, June 14
 Base map: © OpenStreetMap [contributors](#)

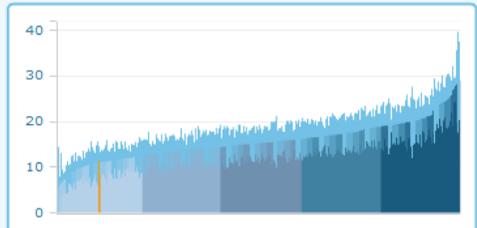
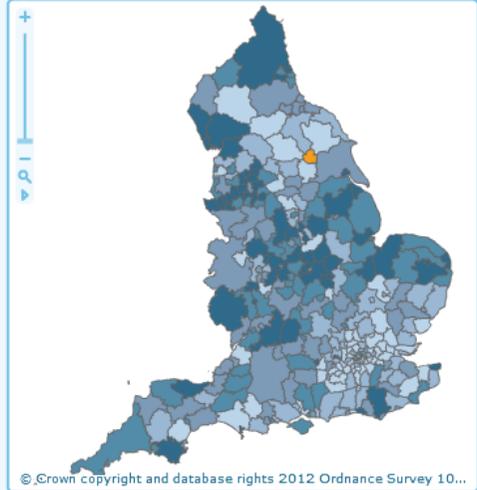


Indicator Filter Clear Print Data Tables Help

Area	Rate or %
Wolverhampton	15.3
Worcester	23.6
Worthing CD	15.1
Wychavon	16.4
Wycombe	14.7
Wyre CD	13.5
Wyre Forest	20
York UA	11

Local Authorities 2009

- 4.9 - 12.2
- 12.3 - 14.2
- 14.3 - 16.0
- 16.1 - 18.7
- 18.8 - 29.0



Indicator	Area	Number	Rate or %	England ...	Current Performance	
					England Lowest	England Highest
Hospital admissions due to unintentional injury cause, 2010/11	York UA	2440	917.8	1007.7	494.2	1,740.0
Hospital admissions due to unintentional injury (injury reco...	York UA	1926	772.3	888.6	418.4	1,620.0
Hospital stays over 3 days due to unintentional injury, 200...	York UA	809	277.8	326.3	222.8	513.2
'Serious' unintentional injuries likely to require hospital ad...	York UA	438	134.2	148.3	105.7	232.5
Children (under 18) hospital admissions due to injury caus...	York UA	354	101.2	124.3	69.7	235.1
Infants (under 5) hospital admissions due to injury cause, ...	York UA	153	150.1	143.2	57.6	353.3
Older people (75s and over) hospital admissions due to inj...	York UA	849	509.9	480.8	213.6	844.7
Land Transport						
Deaths from land transport injury, 2008-2010 (combined)	York UA	19	2.7	3.7	0	15.1
Years of life lost (under 75s) due to land transport injuries...	York UA	611	9.9	14.3	0	68.8
Road deaths and seriously injured, 2008-2010 (combined)	York UA	217	36.4	44.3	14.1	128.8
All road casualties, 2010	York UA	559	276.1	354.9	177.9	698.2
Pedestrian casualties, 2010	York UA	68	33.6	43.5	10.9	177.8
Children (under 16) injured on the road, 2010	York UA	45	145.9	175.8	49.5	423.4
Hospital admissions due to motor vehicle traffic injury, 20...	York UA	64	30.9	51.9	21.1	113.7
Hospital admissions due to land transport injury, 2010/11	York UA	161	80.6	96.3	48.8	189.8
Falls						
Deaths from unintentional fall, 2008-2010 (combined)	York UA	29	3	3.8	0	13.1
Hospital admissions due to fall injuries, 2010/11	York UA	1301	462.8	498.3	265.3	928.6
65s and over hospital admissions due to falls, 2010/11	York UA	1273	2,769.7	2475.3	1,250.0	4,840.0
65s and over hospital admissions due to fall injuries (injur...	York UA	800	1,737.9	1641.6	899.7	3,120.0
Infant (under 5) hospital admissions due to fall injuries, 20...	York UA	200	66.2	54.8	23.1	144.9
Fall injuries on/from different height hospital admissions, 2...	York UA	168	72.7	89.3	42.9	165.9
Infant (under 5) fall injuries on/from height hospital admiss...	York UA	36	11.9	12.4	3.3	30.8
Selected Injuries						
65s and over hospital admissions due to hip fracture, 201...	York UA	224	467.3	451.9	324	654.6
Hospital admissions due to serious head injury, 2008/09-...	York UA	346	51.9	62.2	29.7	127.1
Hospital admissions due to burn injuries, 2008/09-2010/...	York UA	59	10.3	19.4	4.4	107.1
Other Selected Causes						
Hospital admissions due to exposure to smoke, fire and fla...	York UA	17	2.6	4.1	1.3	12.3
Hospital admissions due to drowning or submersion injurie...	York UA	19	1.9	0.9	0.3	3.4
Hospital admissions due to poisoning injuries, 2010/11	York UA	434	210.8	241.5	67.8	539
Hospital admissions due to unintentional poisoning injuries...	York UA	71	36.4	48.8	8.2	206

Significance compared with England average: Worse (red dot) Better (green dot) No significance (yellow dot) Significance not available (grey diamond)

England Average | Regional Value

Q0 to Q1 | Q1 to Q3 | Q3 to Q4

Figure 10: Deaths for Unintended Injuries: York 2008-10

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