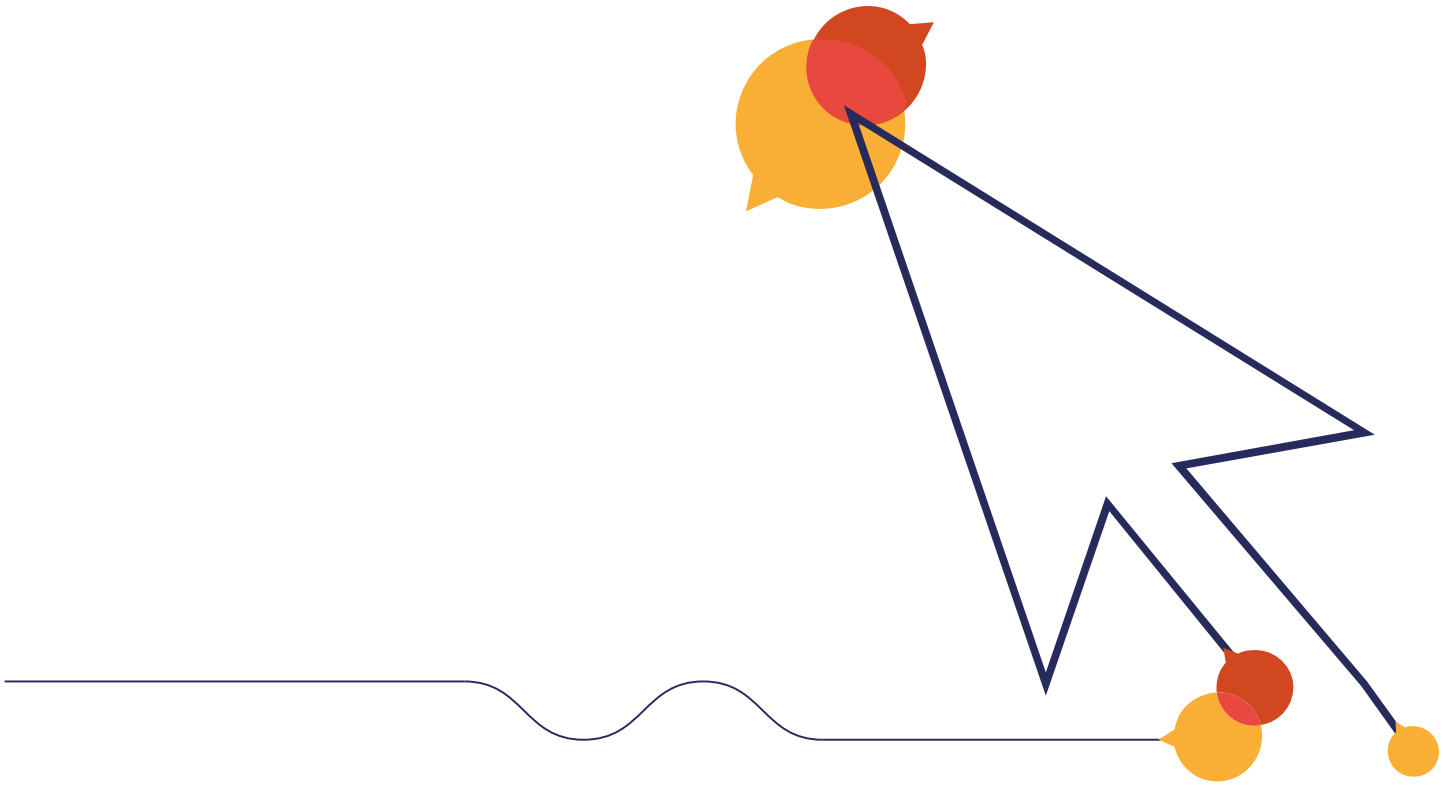
Water Safety Review for Wigan Water Safety Partnership



Water Safety Review for Wigan Water Safety Partnership

Contents

Water Safety Review for Wigan Water Safety Partnership

Executive summary

The Royal Society for the Prevention of Accidents ('RoSPA') were commissioned by the Wigan Water Safety Partnership ('Wigan WSP') to conduct a water safety review. The review considered incidents within the Wigan Metropolitan Borough Council (MBC) community and focused upon sections of The Leeds and Liverpool Canal.

This review was undertaken in the context of three fatalities on the canal within the requested area after September 2020 up until July 2021, members of Wigan WSP requested an independent review to consider the full range of interventions that may prevent future deaths, and to assist in developing the jointly held safety plan.

It is noted that whilst the canal remains the central focus of this review, there are other incidents on other bodies of water in the Wigan area, notably along the River Douglas. The incidents recorded appear to correlate to the high volume of footfall in these areas and the close proximity of residences. The non-fatal events that have been recorded involve voluntary, deliberate entry and nocturnal use. Drugs and alcohol are a contributory factor in the profile of fatal water incidents within scope and across Wigan MBC more widely. The records show that 1 fatality in this period on the canal was accidental with the remaining 9 showing alcohol, drugs, self-harm or a mixture of these to be involved.

The canal is more benign than other comparable canal areas that we have reviewed nationally where fewer incidents occur. RoSPA found minor defects within the review section that were non-contributory to the incident profile, and these would be addressed within the normal maintenance regime.

Wigan Water Safety Partnership is a valid and important structure for further water safety. We note though that to be as effective as other water safety partnerships, governance and constitutional arrangements should be formalised. A centralised resource to hold and promote campaigns and events, as well as a document storage facility has been effective in other locations e.g. Manchester Water Safety Partnership. This would also be helpful in aligning with the National Water Safety Forum.

The incident profile, and the comparatively low risk rating along the canal itself, would suggest that the biggest contribution to water safety improvements within the study area would result from support and intervention for residents with complex needs including possible substance misuse support along the canal network.

The Wigan Water Safety Partnership should develop an action plan, with the lead and/or contributing agencies involved to best address the issues along the canal and other water spaces.

Water Safety Review for Wigan Water Safety Partnership

Introduction and Terms of Reference

RoSPA has been asked to undertake a safety review of a section of the Wigan Canal from the Top Lock (65) to Wigan Pier for the Wigan Water Safety Partnership ('WSP').

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. Opinion is formed by what is visible on the day of the visit; absence of comment on any issue should not be taken to imply that the site would 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 safety.

RoSPA has endeavoured to identify all the significant risks; however, it is essential that the controls identified in for the recommendations and from any following 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.

A copy of the terms of reference are included in the appendix.

Scope & Methods

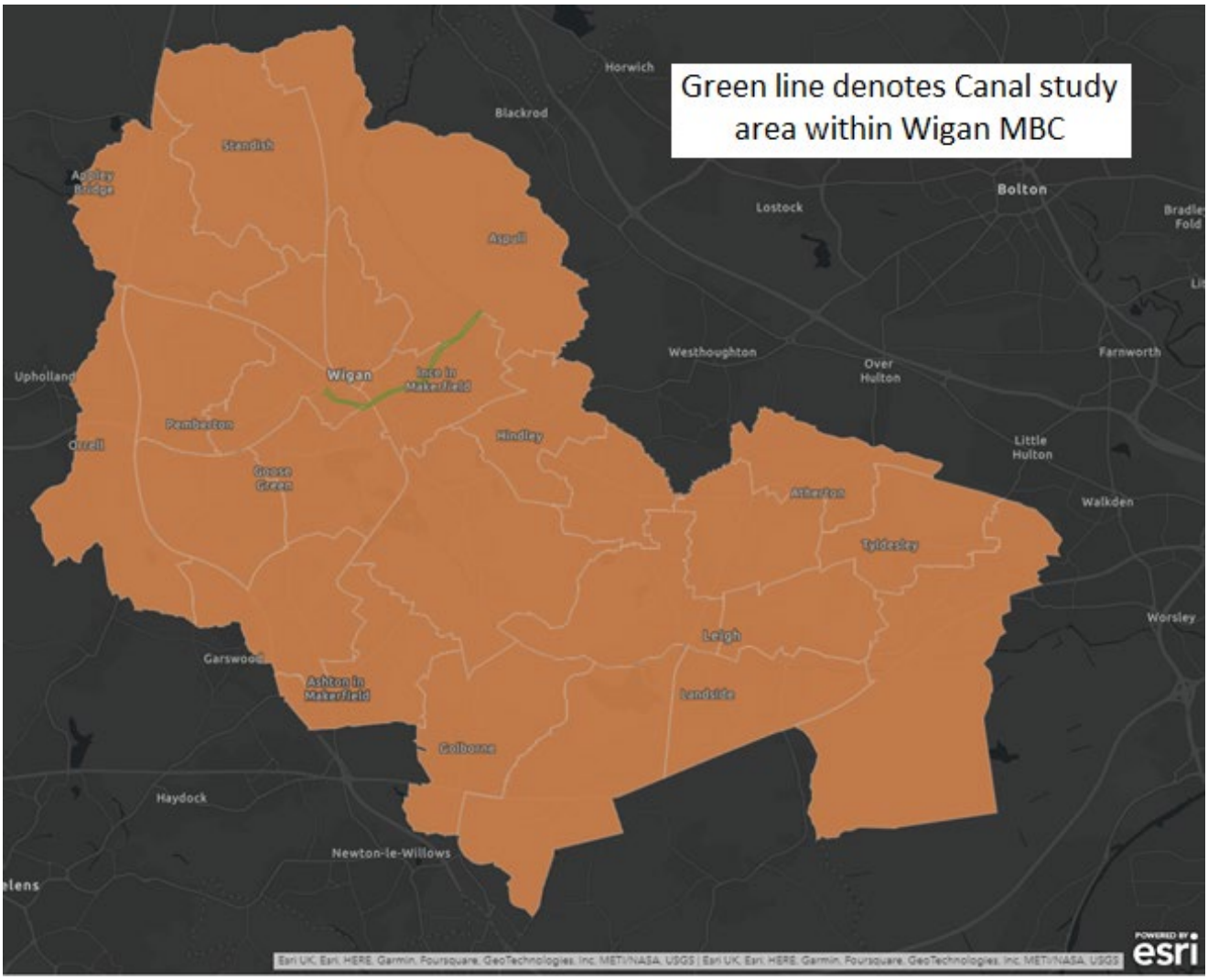
We applied several methods to produce this report. Although we note the elements once below, several steps were repeated, particularly reflecting new or improved incident information or sought clarification on particular issues.

Scope and definitions

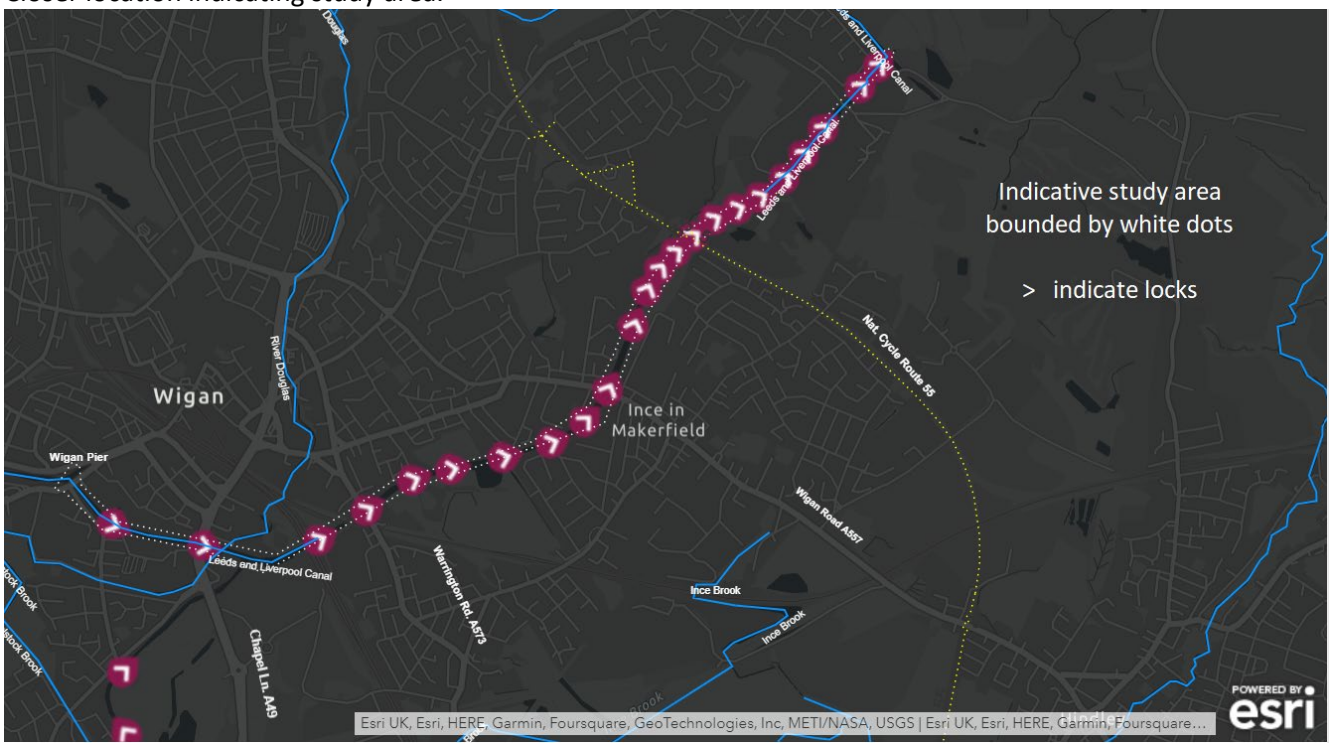
- This report considers only those hazards at locations within the 'Review Section' defined as the publicly accessible space alongside the canal from Wigan Pier to Top Lock 65. Immediately adjacent locations such as bars, homes, schools and known routes, along with activity drivers are factored into the scoring considerations.
- 01 January 2016 to September 2021 was the incident data capture period.
- We have considered both the 'Review Section' and Wigan MBC boundaries ('Authority') for incident data and community context.

Water Safety Review for Wigan Water Safety Partnership

Wigan MBC boundary and canal Review Section within scope are indicated in this plan:



Closer location indicating study area.



Identify and align incident data

- We used the Water Incident Database ('WAID'), a system that captures water related deaths from members of the UK national Water Safety Forum. The fatality reports were crosschecked with water safety partnership member reports, understanding of events, Coroners reports where accessible, press, and court reporting.
- Open-source data for population and daylight hours was aligned to the incident dataset.
- Non-fatal data was also obtained from the Fire and Rescue Service, this was provided in good faith.

Assess, using RoSPA method locations within the town

- Within the agreed boundary, each of the open waterway was reviewed using a structured review method. The waterways were segmented into distinct areas that enables the review to be repeated and reviewed.
- The assessors repeatedly visited the locations over the summer months at different times of day/week, and during expected peak times. In total four visits were conducted along the length of the study area.
- Every section was visited on multiple occasions, with night visits for all sections.
- The assessment programme included a peer review element; assessors overlapped on sections and were instructed not to share thoughts or findings until after the first full pass of the entire section.

Policy review and stakeholder interviews

- A desktop search of existing local council polices was undertaken to identify those which affect the waterways, public health and emergency response, historical context, and likely future impacts.
- We interviewed and held semi-structured discussion with members of the partnership; seeking their views on exiting challenges/opportunities. We conducted these under Chatham House rules to better enable frank discussions and overcome any political concerns or issues that may have been present and relevant.

Context to managing UK water safety risks

It is important to note the legal and policy framework in which the management of water safety operates. This frames the choices available to managers and duty holders and impacts upon delivery of plans. There are three points to note:

(i) Legal liability arising from water safety risks rests primarily with the duty holder who owns or is in effective charge of the water space or facility in question, and/or those who offer an associated service which creates a risk.

The Occupiers Liability Act 1957 and 1984 create a general 'duty of care' upon landowners towards visitors and trespassers. Breach of this duty can result in a civil action claim for negligence brought by those affected, and ultimately, if proven require a remedy for the damages sustained, typically a compensation payment.

The Health and Safety at Work etc. Act 1974 creates similar set duties towards staff and others affected i.e. visitors, from the business. These duties create criminal liability for the duty holder if found in breach, leading to prosecution for the most serious offences, with significant fines or imprisonment for the duty holder.

These acts essentially require that the duty holder consider the risks and take reasonable measures to manage those risks deemed significant.

Under both the civil and criminal laws, it does not automatically follow that if a visitor is harmed on a premise that they are owed any duty at all, or that the duty holder would be at fault.

Where an adult visitor has willingly taken a risk with knowledge, or it can be reasonably assumed to have that knowledge, the civil and criminal courts have largely rejected claims to impose a duty. Inversely, where the duty holder was found to be clearly negligent or acting without reference to - or out of step with - accepted good practice the courts have applied significant penalties.

As such, pursuing a liability management led approach to reducing drowning will be limited in its influence.

(ii) There is no explicit criminal duty upon a local authority to organise and take preventive steps to address drowning risks.

Unlike fire, or road safety there is no direct regulation or code, which states that action must be taken to prevent drowning at the local authority or community level. Local authorities do act, often from a moral or reputational standpoint, and via the fact that many are land or asset owners, which gives rise to the occupier liability and workplace law outlined in the earlier point.

(iii) Waterways are complex environments to manage

Along any waterway there will be multiple private and/or government landowners, often more than one political boundary as rivers are typically the physical boundary for authorities i.e. River Irwell Salford/Manchester.

Further the Navigation Authority, as the organisation with a legal duty to ensuing the waterway is safe and clear for boats and their passengers, may only have limited influence on the 'landside' i.e. a narrow section of a footpath, or structures directly associated with operation of the navigable water.

It can often be difficult to identify just whom a single stretch of land belongs to. When this is considered across a larger geography the challenge of identification and coordination becomes considerable.

Results

Site review findings

The consultants reviewed the waterways and segregated them into defined areas, with sections between the locks and the locks themselves as specific areas. This was then scored using RoSPA's risk rating scores. 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. The risk rating score given below is a comparative rating relating to the risks presented by open water.

Risk Rating - Score Table	Description
0-30	Very low level of risk
31- 40	Lower risk level
41 -50	Medium risk level
51-70	Increased risk
71- 80	Higher risk level
81-100	Very high risk

The area was split into 47 segments. Each lock and each section between each lock was reviewed and scored, this is to allow for the typically higher score a lock will return. The sections were visited on multiple occasions, at both day and night, whilst accompanied by Trust staff, RoSPA alone, and separately for quality control purposes. Fatal and non-fatal incident data was taken from WAID, FRS systems and considered in the scoring of the sections.

It is important to recognise that the assessment model is a comparative score relating to the risks of accidental drowning at a location. So, due to the characteristics of water and the ease of drowning in a very small volume, even where risk is low, or very low, incidents can still happen.

Summary results are as follows, with a list of the detailed section scores in the appendix.

	Lock structures	Sections between locks
Average Score	**50**	**40**
Minimum score	**46**	**38**
Maximum Score	**54**	**45**

The highest scoring locations are exclusively locks, with scores ranging from 46-54, placing these locations with the Medium to Increased bands. The towpath section scores between 38 - 45, equating to Low to Medium rank. There is a slight increase in scores in the middle of the Review Section, approximately between Locks 70 and Lock 80, we did not consider this to be substantively different from other sections.

When these scores are compared with other North West England locations and similar locations nationally, the locations in the Wigan review sections are typically returning lower values and bandings.

Consistency of design measures and risk mitigation interventions

We consider the comparatively low scoring to be driven by a number of environmental and design factors, namely: the relatively wide and clear towpath for the majority of the section; the by-end-large consistent approach and treatment of the locks; and ability to egress from water at most points within a few meters.

Pathway surface and hinterland

The canal has a wide towpath on the southern side that is well made, wide and clearly delineated. The majority of the section was flat, level hard-packed surfacing with users able to travel without being close to the water's edge. There are around 200 metres of sections that narrow to a width of around 1.5metres. There are some changes in material and in very limited placed some signs of wear.

We considered the towpath to be of a good quality and largely free of slip or trip hazards. There are a number of informal paths to the north side that are utilised by boating traffic.

There is in the main tactile changes along the canal, visitors around the locks would have to walk 2-3metres from the path, and in many cases 4+ meters before they came to a hard edge or drop.

We mention lighting conditions specifically later, however in the daytime the paths and junctions are clear and obvious, with little to no blind corners or have sharp changes in direction/height.

In the majority of sections the towpath remained visible and easily followed in dark condition, albeit summer evenings.

Edge protection and fencing

Towpath edges were clear and visible with delineation between path to grass to hard edge visible from several meters away. At locations with sharp edge or drops such as around the locks there was consistent use of fencing, or painted edges, and material used to change texture and sight lines.

Along the open aspects of the lock, there were ladders and paint in line with the Canal & River Trust's (Trust) national standard. We noted that there were some minor inconsistencies in edge protection; however, this was within design standards for the Trust.

Lighting

Most of the sections had excellent ambient lighting during daylight and early evenings, where there is natural lighting the shadow effect did not observe views or the edge. The impact of planning choices and use of nearby industrial lighting is affecting later evening visibility along the towpath.

During darkness hours, flood lighting from nearby industrial units and a small number of private housing did create a light differential that obscured the path view. This was most acute during a number of path to bridge transitions (we noted the presence of barriers) and approaches in the top third lock sections, whilst these are in

isolated areas, it is something that requires monitoring. There is a section approaching Wigan Pier where lighting columns are placed but not working.

We mention user profiles and behaviours separately, it is worth stressing here that the later evening visitors i.e. 10pm+ users were equipped with lighting: Runners, dog walkers, cyclist and a mobility scooters user were all visible and equipped.

Rescue and recovery

Measure to aid egress are within The Trust's national design standard for locks and these were found to be in place. There is no public rescue equipment installed along the section.

We have made an exploratory recommendation for limited and specific placement of rescue equipment along the section. We do not consider this to be a principal intervention, rather it offers a range of wider benefits such as location finding and emergency services call-out support and insight.

Information and routing

The section is essentially straight from the pier to top lock, as such, wayfinding is not complex, and there are a number of bridges and access point to the northern path side, which are used by boaters. Locks are marked. There are a number of wayfinding points along the route to/from Wigan Pier to top lock, it was clear or quickly apparent to locate. A cycle route crosses the canal at one point and is waymarked. We make no direct recommendations.

Site usage findings

The section was seen to be well used for recreation and active transport at all hours, there was people along the section for leisure purpose. During daytime and commuting hours the footpath is used by cyclist and workers.

A number of the locks are used to picnic, relax and read books ducting the daytime. At night there was one or two locations being used to meet and drink quietly i.e. near Forge Street.

There are schools, housing immediately next to, and overlooking the water, with younger children visiting, playing and commuting along the section, utilising a number of the access point and bridges.

There was regular and constant use of the footpath into the night. The section is clearly used to commute and effectively creates a linear park from the town centre into the suburban sections.

Although we did not directly observe unwanted behaviours or activity on site, the incidents narrative and profiles suggest that a few locations are used for drinking. There are some under-bridge locations, with working exclusion measures in place that limit overnight sleeping spots.

Incident findings

We obtained data from national systems (WAID) and local emergency service reports (Fire & Rescue Service data) for the period 2016 to September 2021, the latter date being the latest available dataset at time of request.

We filtered for water-related deaths and non-fatal incidents with the Wigan MBC boundary ('Authority') to understand the community context; we applied a further boundary filter to isolate for the canal section under review ('Review Section').

We found 14 water-related deaths and 60 non-fatal events in the Authority. Of which 3 fatalities and 11 non-fatal events were within the Review Section.

Note that: (i) We have aggregated or themed some insights as to protect privacy; (ii) Some Fire and Rescue Service data records the responding crew access/egress point which may not be immediately adjacent to the water.

Fatal events

Of the 14 water-related deaths in the Authority:

- One was at a domestic property; two at lake or marshland; the remaining 11 were at canal locations.
- Within the review section we found three fatal events.
- The events are categorized as five accidental (drowning) confirmed or suspected; two crime suspected; three open verdicts. Four events had insufficient information to categorize the outcome.
- Ten were males, three females. One gender not reported.
- Two records had unknown age information. Of the known cases all were adults: Four were less than or equal to (≤) 30 years-old; 5 ≤ 50 years-old; 2 ≤ 80- years-old.

Non-fatal events

- Falls from a boat, jump or deliberate entry from the side are the main themes. Unintentional falls are very rare.
- Rivers and canal are the most frequently reported locations
- Six events happened in daylight hours.
- Approximately equal gender split.

Other contributory factors

- Within the wider Wigan MBC dataset and the Review Section, the reports indicated a high proportion of fatal incidents in which alcohol and both prescription and non-prescription drugs were present. In several cases the blood alcohol levels were at multiples of the drink drive limit.
- The two corridors of the Leeds & Liverpool Canal (2/3) and River Douglas (1/3) accounted for almost all of the incidents.

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All severity water-related incidents between January 2016 to September 2021

1. Fatal and non-fatal water related incidents within Wigan MBC, 01/2016-09/2021. Sources: WAID & GM FRS.

Observations – providing point data here is not representative due to the location data quality. What is highlighted that whilst the canal is an aspirational space, so too is the River Douglas, also with incidents occurring.

Consultation findings

We held several discussions with representatives, including from the Wigan Water Safety Partnership and staff from Wigan MBC. Prior to drafting, we made contact with a number of bereaved family members.

Themes:

- **Coordination and planning:** Prior to the creation of the Wigan Water Safety Partnership, it was not clear who coordinated water safety. The nascent group are creating an agenda and exploring clear reporting structures. There is a chair in place who is seeking and applying lessons from nearby group and sector partners.
- **Behavioral interventions:** There was consensus that there should be greater weight to understand and address some of the behavioral aspects driving the incidents, particularly the role of drugs and alcohol.
- **Design interventions:** These focused on the use of novel approaches such as low-level lighting, specific use of rescue equipment.
- **Education and water safety awareness**: The presence of housing, school/commuter routes and the use of the canal as a linear park was recognized among the stakeholders. Linking into existing local and national education and awareness campaigns was considered a positive intervention, as was a collective and consistent approach. The question of resourcing follows with less clarity.

Discussion & Conclusions

The canal section is consistent and in many instances more benign than other canal areas. The towpath is much wider than most urban areas: is flat, level and well maintained. Similarly, the locks along the section score within the average and lower than the majority of other similar assets we have considered nationally.

The incident profile we consider to be driven by the proximity of open water to homes and everyday life, this is borne out by the considered and high volume of use. The non-fatal events involve voluntary, deliberate entry and at-night use. The fatal profile across Wigan MB, and those along the Review Section have a high proportion of alcohol and drugs as a contributory factor, in some instances at a significant toxicity level or mental health self-harm at their core.

The nascent Wigan water safety partnership (WWSP) seems well placed to develop upon the work here and tap into local support and commissioning services. WWSP does not currently have a formalised constitutional governance or terms of reference. Good practice in other areas demonstrate that WWSP would benefit from formalising this and how they report and promote the partnership - example Manchester WSP website https://manchesterwatersafety.com/

Where the, not working, fixed street lighting is in place this should be maintained or removed. Reduction of overspill glare from adjacent lighting would be a significant improvement but we note that this may need a broader planning and enforcement discussion, again the partnership seem to be well placed to explore this.

Whilst there is nothing of immediate concern, areas that induce visitors closer to the water by way of a fall (pipe crossing and bridge 54) could be better protected.

It is clear that the review section is well used at all times, effectively a linear park for recreation and commuting. The canal acts as a quiet space for residents and both the blue-green and heritage values are clearly appreciated.

As such the role of education and awareness of the everyday risks open water presents should be within the community water safety plan, especially for school children within walking or living distance of the waterways.

A broader and more thoughtful approach to support for those who may need support for alcohol and substance use is best though current service and via the Director of Public Health.

Recommendations

Ref. (From results)	Recommendations	Priority	Completion Date	Signed
1	Wigan WSP should formalise its reporting/coordination role and liaison with public health, including support for its emerging programme. Good practice in other successful water safety partnerships have a formal constitution, governance arrangements and promotion of the partnership	H		
2	Wigan WSP should align to the National Water Safety Forum, and in particular use/access of WAID data.	M		
3	RoSPA would support the creation of a dedicated platform for the WWSP which gives access to campaigns/events, information about the partnership and acts as document storage facility, this would support recommendation 1.	M		
4	The Trust to include minor defects items within its maintenance regime.	M		
5	Ownership and maintenance of the fixed lighting columns to be clarified.	H		
6	Lighting columns to be made good, or decision about retention/removal.	M		
7	Overspill lighting from industrial units and homes to be reviewed by Wigan MBC, with reference to historic planning consent and lighting impact.	H		
8	Explore feasibility/benefit/cost of limited PRE placement.	L		
9	Wigan WSP and the local education authority to understand the extent of water safety awareness provision to (i) schools generally, and (ii) those schools deemed to be close/commutable distance of the waterways.	M		
10	Wigan WSP to promote a package of education awareness activity. Dependent on findings to Recommendation 9.	M		

11	Wigan WSP should explore support and intervention routes for residents needing substance misuse support & how this could be better targeted/outreached toward those along the canal network. No incidents were caused by infrastructure around the water, with all incidents having despondency or substance misuse reported.	H		
12	Wigan WSP should develop an action plan, with the lead and/or contributing agencies involved.	H		

Appendices

1. Terms of reference

Terms of reference provided for this report - Wigan Water Safety Review Brief - Draft.docx (sharepoint.com)

2 Detailed section scores

Risk Rating - Score Table	Description
0-30	Very low level of risk
31- 40	Lower risk level
41 -50	Medium risk level
51-70	Increased risk
71- 80	Higher risk level
81-100	Very high risk

Segment	Name	Score
1	Lock 66 Junction	41
2	Lock 65 ('Top Lock')	51
3	Lock 65 to Lock 66	41
4	Lock 66	50
5	Lock 66 to Lock67	42
6	Lock67	49
7	Lock 67 to Lock68	38
8	Lock 68	46
9	Lock 68 to Lock 69	39
10	Lock 69	50
11	Lock 69to Lock 70	39
12	Lock 70	53
13	Lock 70 to Lock 71	39
14	Lock 71	50
15	Lock 71 to Lock72	42
16	Lock 72	53
17	Lock 72 to Lock73	43
18	Lock 73	52

19	Lock 73 to Lock74	43
20	Lock to 74	52
21	Lock 74 to Lock 75	45
22	Lock 75	50
23	Lock 75 to Lock 76	42
24	Lock 76	54
25	Lock 76 to Lock 77	42
26	Lock 77	52
27	Lock 77 to Lock 78	41
28	Lock 78	50
29	Lock 78 to Lock 79	41
30	Lock 79	54
31	Lock 79 to Lock 80	41
32	Lock 80	52
33	Lock 80 to Lock 81	38
34	Lock 81	48
35	Lock 81 to Lock 82	40
36	Lock 82	51
37	Lock 82 to Lock 83	38
38	Lock 83	47
39	Lock 83 to Lock84	38
40	Lock 84	48
41	Lock 84 to Lock 85	41
42	Lock 85	48
43	Lock 85 to Lock 86	42
44	Lock 86	46
45	Lock 86 to Lock 87	39
46	Lock 87	48
47	Lock 87 to Wigan Pier	43

These were not contributory to any of the incidents to the best of knowledge, and are illustrative only:

Lock 76 vs Lock 72

Headwall protections vs none.

Lock 70 vs Lock 71

Edge guarding, vs none

We noted that at night there was ambient light in most sections of the canal. Some diffuse lighting in neighbouring properties reduced the visibility along the towpath.

There are a few examples where furniture alongside the canal were hard to identify (painted black) where in other areas the top rail is painted white, and therefore easier to identify in hours of low light. This is particularly obvious at Lock 83 where National Cycle Network 55 crosses

Painted top rail vs not painted

At lock 69 there is a large pipe run parallel to the bridge, there are signs of access to the pipe and this could be better protected.

A similar enticement feature, between lock 78 and bridge 54 exists with boards showing footprints without edge protection

Minor defects were noted in a couple of locations, not that a serious injury would expect to result, and would be reasonable to expect that routine inspection and maintenance would resolve in a reasonable time frame. Example plinth step missing at Lock 79

4. Example PRE housing and approach

There is emerging good practice on the way in which emergency locations should be communicated. What-3-Words is not recommended as the sole emergency location reference, see notice below. An OSGB Grid and/or a natural language reference is preferable i.e.

You are at:

The *canal towpath, by The Malt House Pub, Brindley Place, Birmingham*.

The OS Grid reference is: *SP 05974 86839.*

The W3W reference is: funded.backed.odds.

Reference material

A future without drowning: The UK Drowning Prevention Strategy, 2016-2026. Strategy | National Water Safety Forum
Managing safety at inland waters. Managing safety at inland waters - RoSPA

UK Water Incident Database WAID | National Water Safety Forum

FRS Water Incident Dashboard (nationalfirechiefs.org.uk)

#RespectTheWater | National Water Safety Forum

Example lockable rescue cabinet Lifebuoy and Rescue Throw Line Stations | Safety Specialist | Aspli

Rescue equipment monitoring platform SMART Buoy - RoSPA

Public health (wigan.gov.uk)

Version control

Version	Date	Originator	Reviewer	Authority	Details
0.1	14/02/22	AC	DW	RoSPA	Discussion draft
1.2.	**22.7.22**	**AC**	**DW**	**RoSPA**	**Responding to comments from CRT**
1.2.1	**14.9.22**		**DW**	**RoSPA**	**For WSP comment and review**
1.2.2	**30.9.22**	**AC**		**RoSPA**	**Updated per CRT comments**
1.3	**13.10.22**	**AC**	**DW/ND**	**RoSPA**	**Final Draft with Exec Summary**

Final	**14.10.22**	**AC**	**DW**	**RoSPA**	**Final for publishing**

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