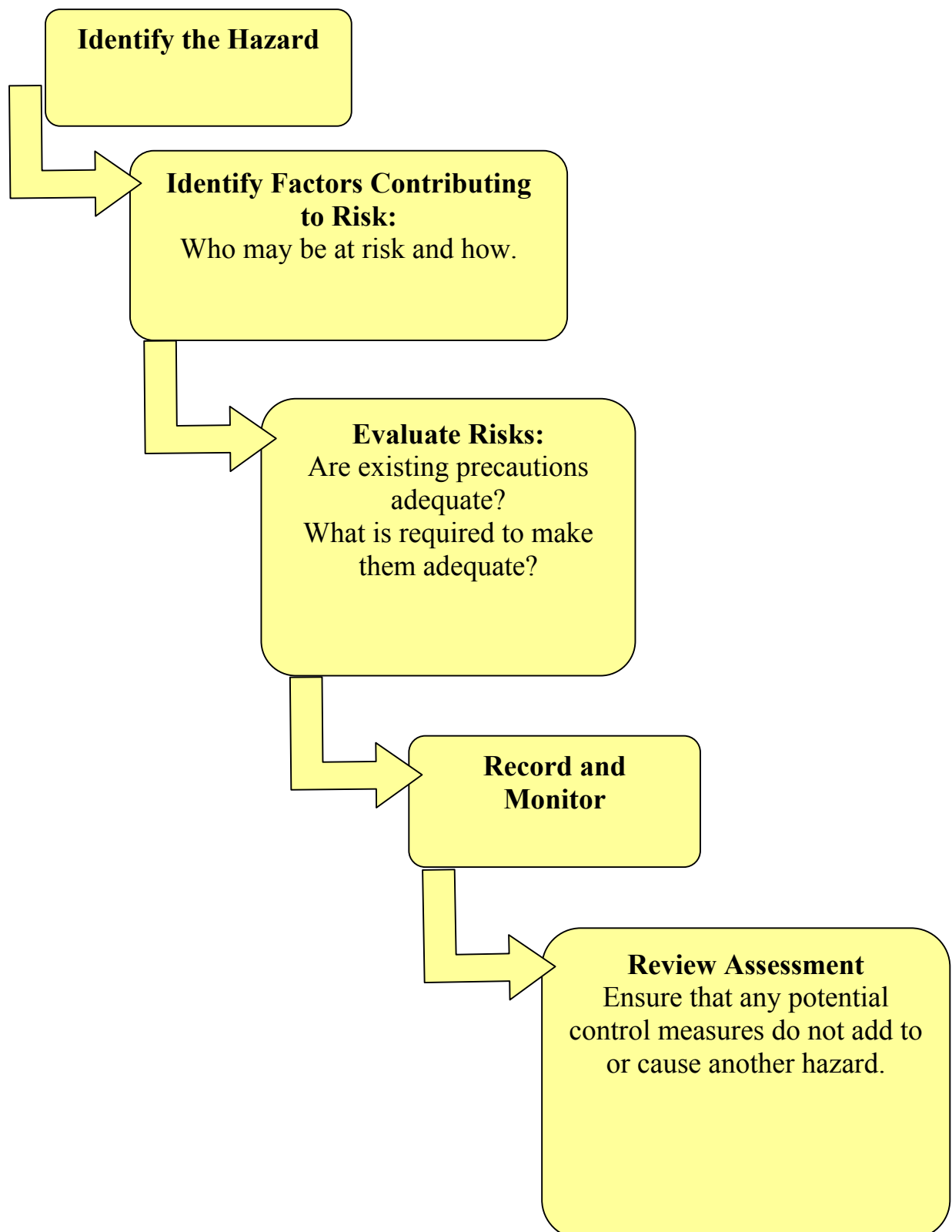


## Appendix C12: Risk Assessment and Management

It is recommended that the Environment Agency guidance on risk assessment is followed (AMS – Guidance – 317 – 04 – PSRA – Recreation Visitor Safety Risk Assessment). It is available from your regional recreation officer. The Environment Agency

### The Recreation Visitor Safety Risk Assessment – 5 Steps



## Doing a Risk Assessment

### Identification of the hazards

### Identify Factors Contributing to Risk (who will be harmed and how)

In relation to individual assets consider:

- **Location** of the asset. Proximity to habitation, i.e. housing estates, schools or other areas where people could congregate at various times of the day.
- **Population Groups** at risk. Two groups who may be at risk are:
  - a) Visitors using the land for recreation.
  - b) Visitors using the water for recreation
- **Nearby rights of way and usage.**
- **Recreation Use**
- **Leases or Licences**
- **History of trespass or vandalism**
- **Environment, historic or conservation conflicts of use**

### Evaluate the Risk: Identify the level of risk

At this stage the Assessor must evaluate the level of risk arising from the hazard or activity, and question whether existing precautions are adequate, or should more be done?

Existing and required precautions should be recorded and built into the maintenance programme. The matrix below shall be used to evaluate the level of risk.

The matrix below shall be used to evaluate the level of risk.

		<b>LIKLIHOOD →</b>				
		1	2	3	4	5
<b>SEVERITY ↓</b>	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

<u>Definitions</u>		
No.	Likelihood	Severity
1	Very unlikely	Minor injury
2	Unlikely	1 <sup>st</sup> aid required
3	Likely	Serious(3 day)
4	Very Likely	Major, req' hospital
5	Almost Certain	Fatal

### OVERALL RISK:

**12-25 High , 6-11 Medium, 1-5 Low**

## **Control Measures**

Where the Risk Assessment has identified that improvements are required, suitable control measures must be put in place. The challenge is to find the most appropriate mix of; information, warning, deterrence and physical protection, temporary or permanent, taking into account other considerations such as transient situations, vandalism, aesthetics, increased flood risk, riparian ownership, safety to grazing animals etc.

The approach adopted by the Environment Agency for Public Safety Risk Assessment Control Measures is; '*Eliminate – Reduce – Inform - Control*'. This requires an escalating range of measures proportional to the hazard, environment and overall effectiveness:

- **ELIMINATE** - Remove the Risk
- **REDUCE** - Reduce risk if possible (e.g. reduce gradient of bank)
- **INFORM** - Provide information (signs and education)
- **CONTROL** - Provide means of controlling where people go (fencing)

In some cases the risk assessment may have identified 'do nothing'. Reasons for 'doing nothing' may be because the additional risk associated with the asset is low, or where no suitable control measure could be adopted.

## Example of the Risk Assessment undertaken for the Mersey Canoe Trail

Site	Description	Risk Rating L=Likelihood; S=Severity; 1-5: Low 6-10: Medium 12-25: High	Risk Management
Ford Street, Stockport	<p>First potential access point at the end of Ford Street. There is an open space on the south bank leading onto naturally slopping banks under Hollywood Way bridge. The bank is naturally mild making access relatively easy.</p> <p><b>Risk: sliding down bank into water</b></p> <p><b>Risk: bank giving way or being washed away</b></p> <p>Car parking is only available off-street away from the launching point; canoeists need to walk through a busy industrial estate, with the access to the Ford Street launch point frequently blocked by a car repair garage.</p> <p><b>Risk: poor parking and road obstruction; road accidents</b></p>	<p>L=2; S=2 →Low</p> <p>L=2; S=4 →Med</p> <p>L=3; S=3 →Med</p>	<p>Steps and/or portage to facilitate launching of canoes.</p> <p>Take action to reinforce bank and access area</p> <p>Identify access routes to the launch site and ensure that the garage does restrict or obstruct these.</p>
Brinksway Weir, Stockport	<p>Potentially dangerous weir for inexperienced canoeists and under certain weather and water level conditions.</p> <p><b>Risk: being pulled into the face of the weir, capsizing &amp; drowning (note potential presence of Weils Disease)</b></p>	<p>L=2; S=4 →Med</p>	<p>Option 1. construction of steps upstream and downstream of the weir on the north bank; negotiations are required with private owner (Map Ref 121, Appendix C). Banks are steep making this a difficult and expensive option.</p> <p>Option 2. canoe pass; negotiations are required with EA re the impact on river flow.</p> <p>Option 3. Put a hole through part of the weir to allow canoe access; negotiations required with EA re the impact on river flow.</p>
Section 1 (Stockport MBC)	<p>Water quality is poor along the industrial part of Stockport area. There is potential to catch Weil's Disease due to contact with the river. Canoeists need to be made aware of this risk as the symptoms are likely to appear only several days after the contact with water.</p>		

	<b>Risk: contact with water and getting the disease</b>	L=1; S=3-4 →Low	Information provision and awareness of Health & Safety regulations.
Bleach Works Weir, Heaton Mersey	Dangerous weir, although known to be shootable by experienced canoeists under certain weather and water level conditions <b>Risk: being pulled into the face of the weir, capsizing &amp; drowning (note potential presence of Weils Disease)</b>	L=4; S=4 →High	Option 1. Steps upstream and downstream of the weir on the north bank. The difficulty of construction is due to sheer banks. Negotiations are required with private owner (Map Ref 137, Appendix C) for construction of steps downstream, ownership of land upstream is unclaimed.  Option 2. steps upstream and steps at Heaton Mersey access point (500m walk on footpath). Heaton Mersey project underway, with step maintenance to be assumed by Stockport MBC.
Golf courses	Canoeists enter the areas where a series of golf courses are located on both sides of the river <b>Risk: being hit by a golf ball and injured; possibility of drowning</b>	L=1; S=4-5 →Low	Signage and information provision
Northenden Weir	Dangerous weir, should not be attempted under any conditions. Portage is in place, although ownership of the steps is in dispute and the steps are not being maintained <b>Risk: attempting to shoot the weir, being pulled into the face of the weir, capsizing &amp; drowning</b>  <b>Risk: the steps are damaged or washed away as a result of poor maintenance</b>	L=2; S=5 →High  L=3; S=5 →High	Signs for the portage steps need to made clearer to canoeists, further upstream. The danger should also be reinforced on the map.  The ownership of the land needs to be clarified and an inspection and maintenance regime agreed as a priority
Golf courses	Canoeists enter the areas where a series of golf courses are located on both sides of the river <b>Risk: being hit by a golf ball and injured; possibility of drowning</b>	L=1; S=4-5 →Low	Signage and information provision
Rubble weirs between Chorlton and Sale Water Parks	Known as playing weirs, providing sites of white water; can be dangerous for inexperienced paddlers. <b>Risk: capsizing and injury/drowning</b>  Past the last weir (Sale Ees, near Barfoot	L=2; S=2-4 →Low - Med	Warning signs are required, together with appropriate portage points. These do not need to be elaborate, and do not need to extend far up the bank, since the white water will not be evident at higher

	<p>bridge) there are steps and portage which are approx. 1m above the water level.  <b>Risk: sliding and falling into water</b></p>	L=2; S=1 →Low	<p>water levels.  Steps upstream and downstream for the benefit of inexperienced paddlers; both north and south banks are suitable for construction.</p>
Little Ees Lane finish point	<p>Mild banks with slipway; footpath on the south bank leads to Little Ees Lane where loading of canoes is possible.  <b>Risk: sliding and falling into water</b></p>	L=1; S=1 →Low	No improvements necessary
Throughout sections 1-4	<p>There are several bridges (including footbridges) along the river, which can be used by young people (children) to throw bricks or other objects. The bridges are visible from distance and canoeists need to be alert when approaching the bridge.  <b>Risk: injury or canoe damage</b></p>	L=1; S=4 →Low	<p>Self-awareness; need to be alert when approaching a bridge. Regular inspection/policing or another form of indication of management authority and police</p>
Throughout sections 1-4	<p>There are isolated islands of debris, logs or rocks appearing from shallow water. Although visible from a distance, care should be taken to notice these in advance and take the necessary steps to avoid  <b>Risk: canoe damage or injury</b></p>	L=3; S=1 →Low	<p>Self-awareness; canoeists advised to stay closer to the bank with higher water flow. Water level information can be made available through local clubs or BCU</p>

## River Waveney risk assessment

Site	Description	Risk rating (for various features); L = likelihood S = severity	Risk Management	Photos
Shotford Bridge	<p>Car parking is available on a small road adjacent to the river on the Norfolk side. This is a quiet road, leading onto a main road which leads into Harleston. There is space for several vehicles, which can pull over on the left hand side, facing toward the bridge to unload.</p> <p><b>Risk: road traffic accident as canoes are unloaded</b></p> <p><b>Risk: poor parking or too many cars leading to obstruction of road</b></p> <p>Access from the Norfolk side is down a steep bank to the river. The access platform is currently on the Suffolk side, but this is a good fishing reach and is not suited to canoe use as well.</p> <p><b>Risk: sliding down bank into water</b></p> <p>The access point on the Suffolk side (to be used until the Norfolk bank is improved) is approximately 30m from this unloading point. Canoeists will need to take their canoes and/ or kayaks over the bridge, not crossing the road, to the Suffolk side.</p>	<p>L = 1; S = 4 = LOW</p> <p>L = 3; S = 2 = MED</p> <p>L = 2; S = 3 = MED</p>	<p>Negotiation in progress for off-road parking 50m from the river (fee payable)</p> <p>Steps and platform required on the Norfolk side</p>	<p>88 – slope looking toward river on Norfolk side</p> <p>89 – same as 88</p> <p>90 – canoe platform on Suffolk side</p> <p>91 – looking toward steep steps at Bridge</p> <p>92 –post or branch in river</p> <p>93 – road from car pull in looking toward main road at Shotford bridge</p> <p>94 – looking downstream on Shotford bridge</p> <p>95 – stile on bridge to gain access to slippery steps</p> <p>96- slippery steps</p>

	<p><b>Risk: road traffic accident</b></p> <p>There is a small stile to be crossed, approximately 40cm high, which crosses over a white metal fence. There may be a possibility of accident here if the stile is slippery after rain or snow.</p> <p><b>Risk: tripping or slipping when wet</b></p> <p>The canoeist then needs to walk toward the River Waveney and to do so would need to walk down some slippery and steep steps. These are very hazardous as they are covered in a moss/grass with no supporting rail to aid access to the river. This is approximately a 4-5m elevation from the road bridge to the river bank.</p> <p><b>Risk: tripping or slipping when wet</b></p> <p>The river, at this point, is also densely wooded, making visibility a further cause for concern.</p> <p>Canoeists currently access the river via a wooden canoe platform on the Suffolk side, approximately 20m from the road bridge. There are strong currents on this side of the river, although the platform is designed with a board underneath it to stop canoes and kayaks drifting underneath it. There was also evidence that during high flows/spates that the canoe platform was submerged by the river. The elevation is a 1/2 metre vertical drop into the river, although this</p>	<p>L = 1; S = 4 = LOW</p> <p>L = 2; S = 3 = MED</p> <p>L = 3; S = 3 = MED</p>	<p>Close once Norfolk side improved</p> <p>Close once Norfolk side improved</p>
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Mendham sluice	<p>will change with seasonal variations.  <b>Risk: tripping and falling from platform</b></p>	L = 3; S = 2 = MED	Close once Norfolk side improved	
	<p>This sluice is approximately 150m downstream of the road that leads into Mendham.</p> <p>The canoeist will need to portage the sluice on the Norfolk side of the river. Egress is possible via an uneven piece of bank which slopes out of the river about 10m upstream of the sluice. The bank at this point is approximately 50-60cm above the river.</p> <p><b>Risk: tripping and falling</b></p>	L = 2; S = 2 = LOW		82 – ingress point (Norfolk side) 83 – Mendham sluice 84 – close-up of ingress point 85 – Mendham sluice and ingress point 86 – stone debris in river at pool created by sluice 87 – egress point
	<p>Portage then is approximately 20m around the sluice to the ingress point which is on the Norfolk side of the river in the pool of the sluice. The canoeist will need to cross agricultural land which has previously been ploughed and which is uneven and muddy.</p> <p><b>Risk: twisted ankles</b></p>	L = 1; S = 3 = LOW		
	<p>The ingress point slopes toward the river, is muddy and covered with a few small stones. The bank at this point is approximately 50-60cm above the river. The river has some strong currents toward the Suffolk side. Some erosion has been caused to the banks on the Norfolk side by the sluice.</p> <p><b>Risk: slipping; twisted ankles</b></p>	L = 1; S = 3 = LOW		

<p>There is a small deposit of stones in the river toward the Suffolk side, natural debris. This is approximately 4m long and in a crescent shape but poses little risk to the canoeist as it is opposite to the ingress point.</p> <p>The weir has been used as a site for 'play' canoeing activity, although permission has not been given and the design of the weir makes this activity potentially dangerous.</p> <p><b>Risk: being pulled into the face of the weir, capsizing &amp; drowning</b></p>	<p>L = 3; S = 5 = HIGH</p>	<p>Prohibit play use of weir; place warning signs, notify local clubs &amp; add to terms and conditions of agreement</p>	
<p>Wortwell sluice</p>	<p>L = 3; S = 2 = MED</p>	<p>Owner does not want any physical development, so seek an alternative portage</p>	<p>81 – Wortwell sluice, Down Farm in the background and potential egress point in the foreground.</p> <p>80 – looking at the small sluice on the Norfolk side where they currently portage and re-enter the river.</p> <p>79 – egress on the Norfolk side</p> <p>78 – looking from the public footpath along the EA channel and</p>

<p>slipping bank into the river on the Suffolk side so the canoeist would have to lift themselves onto the bank to portage approximately 20m, pass the sluice and re-enter onto the channel and into the river. Access via road at this point is available via a small lane, with enough space for one vehicle/ambulance to safely manoeuvre. <b>Risk: difficulty and potential injury getting out of the river and into the channel</b></p>	<p>L = 2; S = 3 = MED</p>	<p>Permission to portage and to construct suitable steps needs to be discussed with the landowner.</p>	<p>Wortwell sluice 77 – gate at Down Farm (public footpath access)</p>
<p>Homersfield sluice</p>	<p>This sluice is situated in an agricultural area, surrounded by water meadows approximately 200m from the nearest road, a small lane to the north. There is no public footpath in close proximity. Egress is possible 10m upstream of the sluice on the Suffolk side. This has some risk as it is uneven ground, gradually sloping into the river with some reeds. The bank is approximately 50-75cm above the water. Portage is then required for approximately 150m to the ingress point, by a small clump of trees. The land in between is water meadows and is slightly damp under foot, uneven and grassy. <b>Risk: slipping and tripping</b></p> <p>The ingress point is a small sand bank on the Suffolk side on a turn in the river. The bank slopes at a 30-40 degree incline into the river. In order to access this point the canoeists need to traverse a fallen tree which is approximately 5m</p>	<p>L = 1; S = 2 = LOW</p>	<p>76- tree to clamber over by ingress point at Homersfield 75 – ingress point at Homersfield 74 – looking toward ingress point (by trees) from egress point. Approximately 100m away. 73 – Homersfield sluice 72 – egress at Homersfield. 71 – egress at Homersfield</p>

	<p>from the ingress point. There is some danger of falling from the tree if it is not crossed over with care. The trunk of the tree lies about ¾ metre above the ground, sloping away from the river, and there is enough room to pass smaller canoes underneath it.</p> <p><b>Risk: falling or slipping from the tree</b></p> <p>The ingress point is difficult to use since there is no bank to hold on to. In addition, the river is fairly narrow at this point, about 4m across, making access difficult for longer craft</p> <p><b>Risk: capsizing or losing control of craft; damage to canoes potential</b></p>	<p>L = 4; S = 2 = MED</p> <p>L = 3; S = 3 = MED</p>	<p>Remove tree</p> <p>Provide rail or other structure to help canoes launch</p>	
<p>Black Swan</p>	<p>Access is currently possible via the land owned by the Black Swan pub on the Suffolk side (with permission from the publican). A five-bar gate can be opened (currently chained) to enter into the grounds and to walk toward the river. This is a 30m walk along relatively even but grassy ground. The ingress/egress point here slopes gradually into the river and is mainly covered in silt. Dry grass and a small amount of vegetation surround this patch. The platform is approximately 1m higher than river, although this would vary with seasonal flows. There are difficult currents on the Suffolk side and the platform does not have side boards (canoes could go under the platform at certain water levels).</p> <p><b>Risk: access refused by the publican</b></p>	<p>L = 2; S = 3 = MED</p>	<p>Publican has never refused access, but increased use could be an issue. He is not willing to consider granting</p>	<p>63 – canoe platform and river at Black Swan  64 – same as 65  65 – ingress point on north bank (Norfolk side)  66 – picnic site on north bank  67 – ingress point on north bank  68 – cans on north bank  69 – gate at the Black Swan  70 – short step under bridge (a</p>

	<p><b>Risk: losing control of canoe, capsizing when leaving the platform or going under the platform</b></p> <p>The currents nearer to the Norfolk bank are calmer and would provide a safer ingress point for canoeists seeking to enter the water at this site. The land opposite the pub is owned by Norfolk County Council and is undeveloped, with no canoe platform. The banks are steep and gravelly with a few sharp stones. This bank has also been the site of a gypsy encampment and some litter is present, mainly old beer cans and bottles. There is no signage instructing the canoeist of which side to enter. Car parking would be available on the small plot of land on the Norfolk side, which could hold several vehicles.</p> <p><b>Risk: slipping or falling into the river</b></p>	<p>L = 2; S = 3 = MED</p>	<p>any additional rights. It is therefore advisable to find an alternative access point.</p> <p>Fitting side boards to the platform would reduce S to 2 and the risk to LOW</p>	<p>natural river feature)</p>
		<p>L = 4; S = 3 = HIGH</p>	<p>Site cannot be used for canoe access in its current condition. Negotiations are underway with the owners to include steps and a platform in current plans they have for redeveloping the site. However, access to the highway is poor, so cars would have to be parked on</p>	

Earsham sluice	<p>This sluice is approximately ¼ mile from the nearest road, a small lane at the back of the Country Superstore at Earsham Mill. A public footpath passes over a small bridge about 400m downstream. Egress is made on the Suffolk bank approximately 10-15m from the sluice. The current egress point is not an easy get-out. Canoeists would have to lift their boats about 1m onto the bank and this section has a steel retainer.</p> <p><b>Risk: injury to canoeists and/or damage to canoes on leaving the water</b></p> <p>Another possibly egress site, used by some canoeists, is to get out by clambering onto some reed beds, which are 20m upstream of the sluice and 5m up from the current egress point. At these egress points the river has a consistent flow, it is deepish (waist-height) on account of natural scouring made by the bend in the river. The site has been used by canoeists for picnicking. Touring canoeists use this as their main stop between Shotford Bridge and Bungay.</p> <p><b>Risk: slipping and possible injury; also possible damage to bank</b></p> <p><b>Risk: owners do not wish the site to used for picnicking and could withdraw from the agreement</b></p>	<p>L = 3; S = 3 = MED</p> <p>L = 2; S = 3 = MED</p> <p>L = 3; S = 5 = HIGH</p>	<p>the Suffolk side, with canoes carried across the footbridge.</p> <p>Steps and possibly a platform are required to reduce risk to LOW</p> <p>Discourage use by improving official portage and adding clear signage.</p> <p>Discourage use for picnicking by placing signs and by advising local and known touring clubs. Develop picnic</p>	<p>62 – looking at the river from ingress point  61 – ingress point at Earsham sluice  60 – ingress point (close up) at Earsham sluice  59 – ingress point (side angle)  58 – looking at ingress point from egress point  57 – egress point  56 – egress point (through reedbed)</p>
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	<p>Canoeists must walk around the sluice, approximately 25m across uneven grassy ground, to re-enter the river. There is a piece of ground, approximately 3m across, which slopes gently into the river about 5m downstream of the sluice. The ground is gravelly and covered in some small stones. The river is relatively calm at this point.</p> <p><b>Risk: slipping and tripping</b></p>	<p>L = 1; S = 2 = LOW</p>	sites elsewhere and advise.	
Earsham Mill	<p>Curved concrete retainer wall along a 60m section of river. This has a small step which would pose some difficulty to inexperienced paddlers.</p> <p><b>Risk: injury from slipping on steps</b></p>	<p>L = 3; S = 3 = MED</p>	Discourage use of this channel through signage and on the map	52 – looking toward Bungay at Earsham Bridge 2
Outney Road Picnic Site	<p>Access near or under bypass bridge. Land is sandy and has a gentle slope into the water. The current can be strong here, with water also flowing into the river from the Wolds. This can make egress and ingress difficult for inexperienced canoeists.</p> <p><b>Risk: capsizing or losing control of canoes</b></p> <p>The area under the bridge is used by young people and can be subject to litter and broken glass. Some canoeists have also been verbally abused and threatened by young people</p>	<p>L = 2; S = 2 = LOW</p>		

	<p><b>Risk: injury or damage from litter or glass; abuse from young people</b></p>	<p>L = 3; S = 3 = MED</p>	<p>Area needs to be cleared and inspected on a regular basis. This site should not be opened for access until this has been undertaken.</p>	
<p>Bungay Staithes sluice</p>	<p>Canoeists can egress at Bungay via a recently constructed canoe platform which sits on the Suffolk bank, approximately 15m upstream of the sluice. This is situated in a reedbed. There are two metal posts upon which to tie up the canoes to stop them drifting toward the sluice.</p> <p>The platform, however, is in a relatively poor state of repair with two holes. One is to the left of the platform about 20 square centimetres large, the other is to the right and is about 35 square centimetres large. There is a danger to ankles if they get caught and some canoeists may trip on these holes and fall into the river. It floats about ½ metre above the river.</p> <p>(The Broads Authority informed me that they are to manage and maintain this whole site and will be responsible for safety and repairs)</p> <p>The platform is situated a short hop (30cm) away from a recently constructed gravel pathway. This pathway leads to a car park adjacent to the Scout centre and the newly constructed Riverside centre. The ground is even.</p> <p>Ingress to the river can be gained by using the</p>			<p>41 – scout centre from car park  26 – concrete slope on Scout property  25 – disabled fishing platform  24 – scout canoe/boat platform from fishing platform  23 – Bungay sluice (notice rope swing)  22 – wherry dike (not completed) from riverside centre  21 – wherry dike  20 – wherry dike  19 – locked portage gate at centre  18 – egress point (Suffolk side) at Bungay sluice from platform  17 – gap between canoe platform and sluice</p>



	<p>Scout centre. There is a concrete ingress/egress area about 25m downstream of the sluice, on the Suffolk side. It is about 15m downstream of a wooden disabled angling platform. There was evidence at this point of different recreational uses of the river, with swimmers using the river by the angling platform. A rope swing is featured on one of the photographs. There are two ingress points at the Scout centre. First, via a concrete slipway which slopes gently into the water. Secondly, via a 12m long concrete mooring (with metal posts for three canoes). There is a 1-1.5m drop into the river here, depending on flows.</p> <p>Tim Bacon informed me that this area was dangerous, with two steel posts submerged under the water. These are situated in the middle of the concrete mooring about 2m from the bank. So, there is some risk associated with using this point, especially for 'seal' launches.</p> <p>When the Riverside centre is complete canoeists will be able to portage the sluice and enter at this site, at the back of the centre. There is a current problem, however. A large metal gate is locked over weekends and so bars entry to the potential ingress area. If this situation continues it could cause further risks as canoeists may trespass by clambering over the gate. This situation needs to be reviewed.</p> <p>Eventually, a platform will be constructed to</p>		<p>16 – hole on canoe platform 15 – Bungay sluice from canoe platform</p>
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	<p>allow canoeists to enter into a still-moving old wherry dyke and to enter the river downstream of the Scout Centre. Currently there is a 2.5 metre drop. A risk assessment will need to be made when this work is completed.</p>		
<p>Wainford sluice</p>	<p>Wainford sluice is situated on the outskirts of Bungay. It is about 30m from a small, but busy, road. There is plenty of space for a number of vehicles to pull over to gain access to the river at this point.</p> <p>Egress is made on the Norfolk side of the river about 15m downstream of the sluice, which is hidden at a 90 degree angle in a small channel. Previously, canoeists have hauled their boats over the bank (about 1m high). However, a set of metal railings have been constructed around the sluice to stop people falling into the water. These railing stand between waist and chest height. Their placement could be seen to represent an over-reaction on behalf of the Environment Agency as it prohibits safe egress from the water.</p> <p>They now have to egress the water at a small sloping piece of bank. This is a small gravelly elevation which rises about 1 ½ metres. The water depth at this point is between knee and waist-deep, depending on seasonal flows.</p> <p>To portage the sluice the canoeist must cross</p>		<p>14 – potential BA centre at Wainford  13 – ground to portage  12 – ingress point (Suffolk side)  11 – railings and current slope to river egress point  10 – Wainford sluice  9 – new railings at Wainford  8 – egress point</p>

<p>bumpy and uneven ground, which is covered in a few mole hills. They must cover about 15m of ground and walk down a moderately sloping and stony bank to re-enter the river 6m downstream of the sluice. This bank has a concrete wall, which could be covered with wood for added protection. The river is situated about 20-30cm lower than the bank and there is evidence that the bank is submerged when the water runs high.</p>			
<p><b>Ellingham weir</b></p>	<p><b>Launch on steel/concrete jut</b> (Likelihood 4, Severity 5 – overall risk rating HIGH 20)</p>	<p>The weir represents the tidal limit, and hence the start of the Broads Navigation. Canoeists need to portage the weir in order to paddle to Geldestone Lock.</p> <p>Egress is currently made on an island situated on the Norfolk side of the river which has a small building containing the sluice mechanism on it. This is a popular picnic spot for walkers, cyclists and motorcyclists. This island is railed and the banks are protected by steel retainers. A section approximately 10m long, situated 15m upstream of the weir can be used for egress. Canoes will need to be lifted ½ metre from the river and onto the bank.</p> <p>Canoeists then need to portage around the sluice mechanism building and cross the road to re-enter the river on the Suffolk side.</p> <p>An alternative egress can be made on the Suffolk side, about 20m upstream of the weir. There is a natural sloping section of bank, about 2m long,</p>	<p>40 – portage around sluice mechanism building toward road 39 – egress on island, on right of picture 38 – egress on island 37 – steep bank at Ellingham weir road bridge 36 – lethal steel and concrete ingress at weir 35 – potential ingress point at Ellingham 34 – looking toward egress point (Suffolk side) with small portage along grass</p>

	<p>which is covered in stones and some low-level vegetation (mainly dead grass).  The ground in between, however, is uneven and grassy and covered in mole hills.  The current ingress point is situated next to the wall of the bridge and is lethal! To access this point the canoeist needs to walk down a steeply sloping bank (elevation 2.5m) by the bridge which is muddy and covered in loose stones.  There is no supporting hand rail. Canoeists then launch into the river on a small jutting concrete section (see photo 36) which is surrounded by an uneven steel retainer. This is to the right of the weir and in the swirl of the water.</p> <p>An alternate ingress can be made 20 metres downstream of the weir but the bank is grassy, uneven and covered in low-level vegetation (mainly dead grass). The river is calmer at this point and is about ½ metre from the bank.</p>		<p>33 – looking at Elingham sluice mechanism  32 – egress point (Suffolk side)</p>
<p>Geldestone lock</p>	<p>(Part of Broads Navigation) But could be put on the canoe trail.</p>		<p>31 – muddy path from Geldestone lock chain bridge  30 – looking upstream at chain bridge  29 – chain bridge  28 – RiverWaveney from car park at Lock Inn with ingress point in distance</p>

### **General comments:**

- Environment Agency are interested in placing in canoe platforms at some of the sites we were looking at. The Broads Authority are also interested in upgrades to the river for recreation, especially in conjunction with preserving the architectural heritage of locks on the river.
- I have not placed it in the hazard box but where uneven ground is mentioned I have calculated a general risk rating of 6 (3 Likely and 2 Severity). I interpret this as someone needing first aid if they twist an ankle.
- The river does not have any signage for canoeists. Tim Bacon would welcome signs that alerted canoeists to approaching sluices and told them on which bank to portage.
- I did not see any height measures on the bridges. Kim Thurlby said that they can be placed in relatively easily, but was a bit elusive about the process.
- I wasn't sure how to rate the ingress/egress points. For instance, I can see risks of slipping and falling into the water. Perhaps we can take a look at the photos to discern these ratings?

### Miscellaneous photos

43 – river Waveney from Bungay bridge (toward Bungay, one up from RA)

42 – river Waveney, other side of bridge