

Risk Assessment – Lee Valley Legacy Project

Event: Lee Valley Legacy Project – *White Water Experience + Wild Water Race*

Organiser: Grant Underwood

Affiliation: The Sharks

Date: Saturday, 4th October 2026

Location: Lee Valley White Water Centre, Station Road, Waltham Cross, EN9 1AB

Assessment Completed by: Grant Underwood

Assessment Date: Wednesday, 4th February 2026

Assessment Updated: Monday, 17th August 2026

Safety Officer: Giles Brunning

First Aid Lead: Neal Underwood

Contact Email: canoeing@thesharks.org.uk

Contact Number: 07951 770241

1. Event Overview

This event is a combined **white water development and Wild Water Racing (WWR) day**, aimed at **grassroots paddlers and clubs**. The focus is on **confidence-building, skills development on moving water**, and providing an **accessible introduction to Wild Water Racing and slalom racing** within a controlled, artificial environment.

The event will consist of:

- A compulsory safety briefing for all participants
- A coached white water development and confidence-building session
- A scheduled break period
- Timed racing runs

The event is open to **mixed abilities and boat types**, including GP kayaks, slalom boats, Wavehoppers, and Wild Water Racing boats. Safety cover, marshals, and experienced coaches will be present throughout to support all water users.

Longer craft (Wavehoppers and WWR kayaks exceeding 3.6m / 12ft) will be restricted to paddlers with proven white water competency and signed off by the lead coaches.

Maximum 3–4 Wild Water Racing paddlers will be on the course at any one time.

The event will be run on the **Lee Valley Legacy Course**, an artificial white water course offering **consistent conditions** and **established safety infrastructure**, making it well suited to development activity and first experiences of white water racing.

Available facilities include:

- Artificial white water course (Legacy Course)
- Heated building providing warm shelter

- Changing rooms and hot showers
- Toilets
- Café and vending machines (hot and cold drinks)
- On-site parking

These facilities provide essential **welfare support, warmth, and shelter**, particularly important in the event of cold exposure or adverse weather conditions.

2. River Grade and Environment

The **Lee Valley Legacy Course** is an **artificial white water course operating at approximately Grade 2–3**. As an artificial course, water levels and features are consistent and predictable, providing a controlled environment compared with natural rivers.

Course characteristics

- Artificial block systems designed to create rapids, stoppers, waves, and eddy lines
- Narrow sections increasing potential pinning risk
- Limited slack water for eddying in and out
- Narrow channel in places, increasing the likelihood of paddlers catching one another
- High, domed concrete banks preventing climbing out except at designated exit points

Hydro pump system

Water is circulated via **hydro pumps**, which draw water from the holding pond and pump it to the top of the course to generate flow.

These systems are:

- Fully shielded behind mesh fencing
- Clearly signed
- Inaccessible during normal operation

Seasonal environmental considerations

- **March conditions** are typically cold and may be wet
- The venue is elevated and exposed, meaning **wind chill** may be present
- Increased risk of cold exposure and hypothermia for water users and safety personnel

3. Key Hazards & Controls

Hazard	Risk Level	Who is at Risk?	Controls / Mitigations
Artificial white water (Grade 2–3)	Medium	Paddlers, water users	Mandatory safety briefing; appropriate boat choice encouraged; coached support available; safety cover positioned along course
Craft exceeding 12ft (3.6m) becoming pinned across narrow sections	Medium	Paddlers, Course infrastructure	Explicit risk highlighted in briefing; Maximum 3–4 Wild Water Racing paddlers on course; Downstream-only paddling during racing; No stopping or surfing in constricted areas; Competency-based restriction on Wavehoppers and Wild Water Racing kayaks; Mandatory front (30L) and rear (50L) airbags; Secure grab loops front and rear; Boat inspection and visible approval marking prior to launch; Designated safety team pre-positioned at identified narrow sections.
Increased Load on Blocks or Groynes from a Pinned Craft	Low–Medium	Infrastructure	Strict paddler spacing; Downstream-only movement during race phase; Rapid response protocol; Manual extraction via grab loops; Rope-based rescue techniques deployed only if required and without placing additional load on course infrastructure; Immediate notification to the Centre of any suspected infrastructure contact. Wild Water Racing kayaks are lightweight composite craft and structurally weaker than the concrete and block systems of the course. In most impact scenarios, damage would be more likely to occur to the boat than to infrastructure.
Fatigue Leading to Reduced Decision-Making	Medium	Paddlers	Structured rest period; Encouragement to observe between runs; Active monitoring by coaching staff; Authority to restrict further runs if required.

Collision with artificial obstacles (blocks, features)	Medium	Paddlers, water users	Water levels assessed before event; Safety Officer to monitor conditions; helmets and buoyancy aids compulsory; safety cover on water and bank; controlled start intervals; briefing on reading water and line choice
Collision between paddlers	Medium	Paddlers	Staggered starts managed by marshals; course marshals monitoring flow; briefing covers overtaking and stopping procedures
Capsize and swim	Medium	Water users	Self-rescue techniques explained; safety cover present on course; compulsory buoyancy aids, helmets, spraydecks, and airbags
Entrapment in boat or equipment failure	Low/Medium	Paddlers, water users	Airbags compulsory; boat checks conducted; safety team trained in white water rescue; paddlers briefed on emergency exits
Stoppers (risk of recirculation)	Medium	Inexperienced / fatigued paddlers, water users	Coaches available to advise; safety positioned near key features; briefing on how to negotiate stoppers
Towpath slips, trips, falls	Low/Medium	All participants	Suitable footwear compulsory (sole thicker than top); equipment kept clear of paths; signage and marshal supervision
Grass areas (wet weather slips)	Low/Medium	All participants	Participants discouraged from using grass areas for access; used only for boat storage where necessary
Congestion at start / finish areas	Low/Medium	Paddlers	Controlled start system; designated finish holding area; marshals manage escalator access
Escalator malfunction or loss of traction	Low	Paddlers	Marshal-controlled spacing; clear instructions; risk explained in briefing
High course walls preventing exit	Medium	Water users	Designated exit points only; safety marshals assist exits; briefing covers exit procedures

Cold water exposure / hypothermia	Medium	Paddlers, water users	Advice on suitable clothing; warm shelter, showers, and blankets available; event paused if conditions deteriorate
Inexperienced paddlers	Medium	Water users	Mandatory briefing; coached support; organiser reserves right to restrict participation if unsafe
Equipment failure (boats, paddles, airbags)	Low/Medium	Paddlers	Competitor responsibility for checks; random checks by officials; limited spares available
Sunken or submerged boats	Low	Paddlers, water users	Airbags compulsory; boats inspected before being allowed on course
Hydro pumps and mechanical systems	Low	All participants	Pumps shielded and signed; participants instructed to stay clear; marshals monitor area
Road traffic within site	Low	All participants	Adherence to site speed limits; safe carrying of equipment; awareness raised during briefing
Parking congestion	Low/Medium	All participants, public	Designated parking areas; clear signage; unloading encouraged with care
Weather changes	Medium	All participants	Weather monitored; clothing guidance provided; event delayed or cancelled if unsafe
Weil's Disease (Leptospirosis)	Low	All water users	Advice given in briefing; hygiene guidance provided; symptoms explained and medical advice encouraged

Temporary gazebo / event shelter becoming unstable or causing obstruction	Low–Medium	Event staff, volunteers, paddlers, spectators, members of the public	Gazebo erected only by competent event staff or volunteers; Structure secured using appropriate leg weights/ballast on all corners; Gazebo additionally tethered using guide ropes/guy lines where possible; Structure positioned away from primary pedestrian routes to minimise interaction; Guy lines positioned to reduce trip hazards and monitored throughout event; Where ropes cross potential walking routes they will be clearly visible and communicated during briefing; Weather conditions monitored throughout the event; In the event of strong winds or deteriorating weather conditions the gazebo will be lowered or dismantled; Manual handling managed with minimum two-person setup and dismantling; Participants and spectators advised not to lean on or interfere with structure or tethering lines.
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4. Safety Measures

- Mandatory **safety briefing** for all participants prior to water sessions
- Separate operational briefing for safety personnel
- Safety walk-through of course prior to session
- Compulsory equipment inspection and visible boat approval system:
 - Helmet: EN approved.
 - Buoyancy aid: EN approved.
 - Spraydeck
 - Airbags: appropriate-sized, securely fitted in all boats
- Event team reserves the right to restrict or stop participation if unsafe
- Safety cover positioned at key points along the course
- Controlled starts and finishes managed by marshals
- Participating clubs have been advised to bring a coach where possible. All coaches will attend a mandatory safety briefing to confirm:
 - Roles and positioning
 - Communication channels
 - Pin/extraction protocol
 - Identification of narrow or higher-risk sections

This layered staffing model ensures a high ratio of experienced personnel relative to paddlers.

- Maximum 3–4 Wild Water Racing paddlers on course
- Downstream-only paddling during race phase
- Warm shelter, hot showers, and blankets available throughout the day
- Event management and marshals will have access to **mobile phone communication and WhatsApp groups**
- Multiple mobile devices using different network providers available
- Lee Valley White Water Centre has access to an **emergency landline phone**

Infrastructure Transparency:

To ensure clarity for both parties, a brief pre-event visual condition check of blocks and groynes is recommended (similar to a standard hire condition check) to establish shared understanding of course condition prior to activity.

5. Emergency & Incident Plan

Pinning Incident

- Immediate suspension of further launches
- Upstream course held clear
- Pre-assigned safety team deploy
- Manual extraction using grab loops
- Rope-based rescue techniques deployed if required, without placing additional load on infrastructure
- Removal to bank
- Full reassessment before restart

Infrastructure Contact

- Immediate notification to Centre staff
- Activity paused if required
- Incident formally recorded

Medical Emergency

- Safety team respond immediately
- Centre staff alerted
- Emergency services contacted via 999 if required
- Clear access maintained at all times

Evacuation:

Participants directed to heated shelter or designated safe area.

Incident Reporting:

All incidents recorded and reported in accordance with governing body and Centre requirements.

Overview:

- **Incident Control:** Event organiser assumes overall control in an emergency
- **Immediate Response:** Safety team initiates rescue using white water rescue techniques
- **Medical Emergency:** Lee Valley White Water Centre staff alerted immediately; emergency services contacted via 999 if required
- **Access for Emergency Services:** Clear access routes maintained at all times
- **Evacuation:** Participants directed to warm shelter or designated safe areas
- **Incident Reporting:** All incidents recorded and reported to relevant governing bodies

6. Roles and Responsibilities

- **Event Organiser:** Overall responsibility for event safety and decision-making
- **Safety Lead:** Oversees safety operations and emergency response
- **On-Water Safety:** Responds to capsizes, swimmers, and rescues
- **First Aider:** Provides first aid and coordinates medical response
- **Start & Finish Officer (Timing):** Manages starts, finishes, and timing operations
- **Marshals:** Control flow at key points (start, finish, escalator, towpath)
- **Coaches:** Support paddlers during development sessions and racing
- **Photographer:** Operates only from designated safe areas

7. Insurance & Compliance

- Event covered under club and governing body insurance
- Equipment compliance checks conducted
- Organising team reserves the right to restrict or stop participation if unsafe