



OUTPUT 07 — ENVIRONMENTAL CONTROLS

● FOR APPROVAL

BAI-ENV-MRH-BRG-001 · REV 01

Environmental Controls

Six categories of environmental control covering water, air, noise, waste, ecology and site protection — calibrated to the receptors at this specific location. **A breach of any control is grounds to stop works.**

CLIENT	SITE	WORK TYPE	PROGRAMME
Marshlands Highway Authority · local authority client	B1071 River Marsh Bridge replacement · IP21 5RH	Civils / structural Bridge demolition + new bridge build	22 weeks Aug 2026 – Jan 2027 · ecology windows

AI-ASSISTED This control plan was generated against Built AI's environmental controls knowledge base, the pre-commencement ecological survey, and the local-authority planning conditions. Each control is mapped to a specific receptor at this location. **A pollution incident, ecological breach or noise exceedance triggers immediate work stop and ecologist notification.**

6 CONTROL CATEGORIES	33 INDIVIDUAL CONTROLS	3 HIGH- PRIORITY CATEGORIES	3 CONTINUOUS MONITORS	5 SPILL KITS ON SITE
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SENSITIVE RECEPTORS AT THIS LOCATION

The site is calibrated to the receptors and statutory obligations particular to this location. The control plan below is engineered to manage them, not a generic environmental schedule:

- **River Marsh watercourse** — 12m from worksite · SSSI buffer zone · water vole and otter populations recorded · trout fishery downstream.
- **Schedule 1 breeding birds** — barn owls and kingfishers recorded within 200m · vegetation clearance restricted to Sept-Feb only.
- **Residential receptors** — nearest properties at 80m · noise monitoring required · BS 5228 working hours mandatory.
- **Listed bridge furniture** — original cast-iron parapets adjacent to worksite · Grade II listed by association · physical protection required.
- **Public footpath FP-23** — popular walking route · diversion required throughout works · disability access maintained.
- **Archaeological potential** — county archaeologist requires watching brief on excavation deeper than 1m.

**ENV-01**

Water & pollution prevention · Watercourse adjacent ·
River Marsh runs 12m from worksite

HIGH PRIORITY

Silt fence — full perimeter	Geotextile silt fence installed downslope of all earthworks · pinned to ground · checked daily <i>Maintained continuously over the works · weekly formal check by Site Supervisor</i>	● LIVE
Oil/fuel storage bund	All fuel and oil stored in 110% capacity bund · keys held by supervisor · plant refuelled at fixed bund only <i>Permanent for duration of works</i>	● LIVE
Mobile spill response	Spill kits at each plant location, fuel store and bridge deck · contents inventoried weekly <i>Permanent · audited weekly</i>	● WEEKLY
Concrete washout — designated lined pit	Concrete wagons and pumps washed out only in lined pit at site compound · pH monitored <i>Whenever concrete washout occurs · pH log retained</i>	● DAILY
Discharge to watercourse — PROHIBITED	Zero discharge of any process water, sediment or contaminant to River Marsh · breach = stop works <i>Permanent · enforced by all operatives</i>	● LIVE
Daily watercourse visual inspection	Pre-shift visual check of River Marsh upstream and downstream of work area · turbidity, sheen, fish kill <i>Each shift · supervisor logged</i>	● DAILY

**ENV-02**

Air quality & dust · Local sensitive receptors · 80m residential boundary

MED PRIORITY

Dust suppression — water bowser	On-call water bowser for haul roads, stockpiles and demolition · used preventatively in dry conditions <i>Live during working hours · supervisor judgement</i>	● DAILY
Stockpile management	Stockpiles sheeted in dry weather · max height 2m · low-disturbance machinery only <i>Live during dry conditions</i>	● LIVE
Vehicle wheel wash	All vehicles leaving site through manned wheel wash · prevents track-out onto B1071 <i>Live during all earthworks</i>	● LIVE
PM10/PM2.5 monitoring	Two boundary monitors installed at nearest residential boundaries · daily download <i>Permanent for duration of works · daily review</i>	● DAILY
Diesel emissions — modern plant only	All site plant Stage V or later · no Stage III plant on site · pre-mobilisation check <i>Mobilisation gate</i>	● LIVE

**ENV-03**

Noise & vibration · BS 5228 working hours apply · piling restricted hours

HIGH PRIORITY

Restricted working hours	Mon-Fri 08:00-18:00 · Sat 08:00-13:00 · NO Sunday / Bank Holiday work <i>Mandatory for duration of works</i>	● LIVE
Piling — restricted to 09:00-17:00 weekdays only	No piling activity outside core hours · no weekend piling under any circumstances <i>During piling activities only · approx 6 weeks of programme</i>	● LIVE
Noise monitoring at sensitive boundaries	Continuous noise monitoring at three boundary positions · 65 dB(A) action threshold <i>Permanent · daily review of trends</i>	● DAILY
Vibration monitoring during piling	Triaxial seismographs at the two nearest properties during piling · BS 7385 thresholds <i>During piling activity</i>	● DAILY
Equipment selection — quietest reasonably practicable	Hydraulic breakers in preference to pneumatic · acoustic enclosures on generators <i>Live for procurement and substitution decisions</i>	● LIVE
Community liaison — pre-notice	48-hour notice to nearest 30 properties of any high-noise activity <i>Two days before each piling phase</i>	● WEEKLY

ENV-04

Waste & materials management • Site Waste Management Plan (SWMP) in place • target 90% diversion from landfill

MED PRIORITY

Segregated skips on site	Inert • metals • timber • plasterboard • hazardous • general waste • all colour-coded <i>Permanent • weekly stocktake</i>	• WEEKLY
Waste transfer notes (WTN)	Hauler-issued for every uplift • cross-checked vs Duty of Care register • retained for 2 years <i>Per uplift • monthly summary to client</i>	• WEEKLY
Hazardous waste — consignment notes	Asbestos • solvents • oils • paint waste • all to licensed hauler with consignment trail <i>Per uplift • client receives copies</i>	• LIVE
Materials reuse — concrete, steel, soils	Concrete crushed for site re-use as Type 1 • soils retained for landscaping • steel to scrap dealer <i>Continuous • monthly tonnage report</i>	• WEEKLY
No fly-tipping / unauthorised disposal	Zero tolerance • CCTV at site entrance • contractor liability for unauthorised disposal <i>Permanent</i>	• LIVE



ENV-05

Ecology & biodiversity · SSSI buffer zone · water vole habitat · Schedule 1 birds breeding

HIGH PRIORITY

Pre-commencement ecological survey	Update survey by ecologist within 6 months of works · water vole, otter, bat, breeding birds <i>Pre-mobilisation gate · already complete · in-date</i>	● LIVE
Vegetation clearance window	All vegetation clearance Sept-Feb only · NO clearance March-August (breeding birds) <i>Programmed accordingly · gated by supervisor</i>	● LIVE
Water vole exclusion fencing	1m exclusion fence between worksite and watercourse banks · checked daily for breaches <i>Permanent for duration of works · breaches reportable to ecologist</i>	● DAILY
Otter passage — culvert maintenance	Existing otter passage under temporary bridge to be maintained throughout · no obstructions <i>Permanent · weekly inspection</i>	● WEEKLY
Pollution risk to invertebrate population	All controls in ENV-01 reinforced · no in-river works without ecologist watching brief <i>Permanent · ecologist on call</i>	● LIVE
Lighting — directional, downward only	All site lighting downward-directional · no spillage to watercourse · 80% of works in daylight only <i>Permanent for duration of works</i>	● LIVE



ENV-06

Site protection & heritage · Listed bridge furniture nearby · public footpath maintained

MED PRIORITY

Listed bridge furniture protection	Original cast-iron parapet sections (Grade II listed by association) protected with Heras + ply hoarding <i>Permanent for duration of works</i>	● LIVE
Public footpath diversion	Footpath FP-23 diverted around worksite via signed route · disability access maintained <i>Permanent · weekly check of signage</i>	● WEEKLY
Archaeological watching brief	County archaeologist to be notified before any deeper-than-1m excavation · 48-hour notice <i>On excavation · pre-mobilisation discussion held</i>	● LIVE
Visual screening	Hoarding to public-facing aspect · 2.4m solid hoarding with graphic wraps <i>Permanent for duration of works</i>	● LIVE
Site security & lighting	Out-of-hours secure lockdown · perimeter lighting · CCTV · key control · log of access <i>Permanent · weekly audit of access log</i>	● WEEKLY

STOP-WORK TRIGGERS

The following events trigger an immediate stop on works pending review. Each is non-negotiable: **turbidity or sheen visible on River Marsh · pollution incident of any volume · noise exceedance >65 dB(A) at boundary monitor · sighting of water vole within exclusion zone · accidental clearance during breeding bird window · archaeological discovery during excavation.** Each event triggers the corresponding statutory notification (Environment Agency, ecologist, county archaeologist) within their notification windows.

BUILT AI · AUTHOR

APPROVER — ENVIRONMENTAL
MANAGER

Author confirmation

I confirm this environmental control plan reflects the receptors, planning conditions and ecological survey for this site. Controls are calibrated to actual conditions. Stop-work triggers are understood by all operatives at induction.

AUTHOR + ROLE

SIGNATURE + DATE

Approval for issue

As Environmental Manager I confirm that the controls listed above are appropriate for this scope and location. Monitoring arrangements, ecologist briefings and statutory notification routes are agreed and in place.

ENVIRONMENTAL MANAGER

SIGNATURE + DATE

ABOUT THIS DOCUMENT

RAMS Factory™ Output 07 — Environmental Controls. Prepared by Built AI for the B1071 River Marsh Bridge replacement. Demonstration document — all client and site details fictionalised.

OUTPUT 07 OF 11

01-06 Earlier outputs

→ 07
Environmental Controls

08-11 Compliance & QA

DOCUMENT CONTROL

Ref · BAI-ENV-MRH-BRG-001

Revision · 01

Date · 02·05·2026

Author · Built AI

Status · For approval