Environmental Report August 2025

Glashaboy Flood Relief Scheme

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The following is the clients Ecological Clerk of Works (ECoW) monthly review of the Glashaboy River (Glanmire/Sallybrook) Drainage Scheme. It details observations made on site regarding environmental and ecological factors involved in the scheme. This formulates a monthly review to be submitted to the Environmental Monitoring Group (EMG).

Environmental Aspects – August 2025 included:

Area 1 – Permanent Sheet Piling

- Primary environmental concerns:
    - Biosecurity measures for Japanese Knotweed (JKW).
- Ongoing storage of JKW and other invasive plant material in the Sallybrook Temporary Holding Cell.

Area 2 – Hazelwood (Bridge Construction Works, Flood Defences Walls)

- Dewatering of abutment excavations requires silt management.
- In-stream works at this location require ongoing monitoring and management of water quality.
- Riverbank clearance and excavations require:
    - Silt run-off management.

Area 3 – New Line (Rock armour installation and step pool construction)

- Works require supervision, monitoring, and management to control water quality and minimise impacts to the aquatic environment.

- Electro-fishing prior to drying out any section of the river to facilitate works
- Silt control measures during both over pumping and digging within the riverbed.
- Tree removal – requires checks for possible bat roosts.

Area 4 – Ongoing Works (Flood Defence Walls, Pump Station, Roads & Footpaths)

- Prevalent ecological concern: widespread Japanese Knotweed.
- Extensive excavation works require supervision and management to ensure containment and correct handling of invasive plant material if encountered.
- Pumping activities required periodic inspection
- Stone masonry works may require mitigation when working above water.

Main table of the months ecological and environmental related activities

Item number	Date	Comment	Image	ECoW Action/Recommendation	Sorensens's Action response
8.1	01/08/2025	Erosion control works at Copper Valley Vue involved the installation of Secumat erosion control matting, topsoil, and riprap along the southern bank of the Glanmore River. To complete the installation, an anchor trench was excavated at the toe of the matting. As this trenching took place in wet conditions, effective silt management was identified as the primary environmental concern. A downstream water quality monitoring unit was installed to transmit and record data.		Discussed works and ecological mitigations with site ecologist prior to works. Periodic supervision and monitoring of water quality data through out.	Silt curtains were deployed in advance of the works in a linear arrangement, separating the working area from the river channel. As the works progressed and flow conditions fluctuated, the configuration of the silt curtains was adjusted accordingly. The role of the site ecologist was central in both minimising sediment release and interpreting real-time data to determine whether work should be paused. Throughout, the operations were conducted in a controlled and measured

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					manner, guided by informed ecological oversight.
8.2	01/08/2025	A breach of biosecurity protocols occurred in Area 4 at the temporary JKW stockpile due to the improper storage of an excavator bucket and forks. The situation highlights the importance of strict adherence to biosecurity measures and proper waste segregation on-site.		Recorded event and notified site ecologist.	Bucket and forks were removed without issue. Stockpiles were relocated to Sallybrook temporary holding cell.
8.3	01/08/2025	The Swallow nest located under the Hazelwood Road bridge was rechecked. One chick remained in the nest and had not yet fledged. A subsequent check confirmed that the nest was empty with all chicks now having fledging successfully.		Discussed with site ecologist and carry out periodic checks.	All works in the area were undertaken without any adverse impact on the Swallow chicks.

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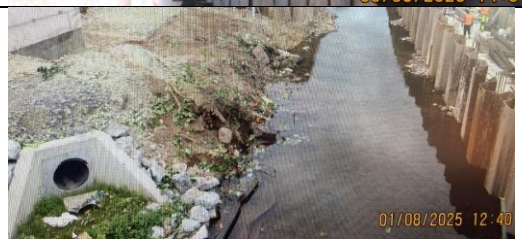
8.4	01/08/2025	Hazelwood: Recent clearance along riverbank exposed bare ground.		Liaised with site ecologist regarding extending the coir mesh at this location.	Additional mesh was added to prevent possible run off from heavy rains that could occur.
8.5	05/08/2025	Cement lorry washing out in circus Field wash bay - Ongoing cement pours occurring at Hazelwood at the east and west bridge abutments.		Recorded.	Good practise using wash bay to control concrete waste.

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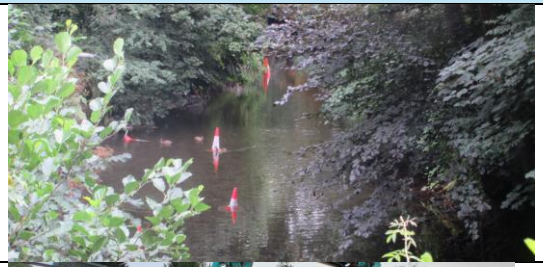
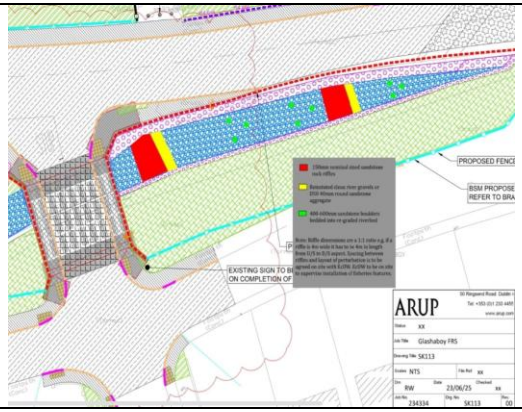
8.6	05/08/2025	Cones thrown into river upstream of Area A4. Up to five cones that were positioned along this closed road.		Notified SCE.	SCE later retrieved these from the river.
8.7	06/08/2025	Works continuing at Copper Valley Vue. Silt screens and deflector in place. This created a clean channel and an enclosed sedimented section that received controlled releases with the aim of spreading out the sediment loads into the Glanmore.		Partial supervision and liaising with site ecologist.	Works were supervised by the site ecologist. Silt measures were adjusted as need on an ongoing basis. Water quality parameters were monitored continually.
8.8	06/08/2025	Hydro morphological features will be installed today at CVV overseen by fisheries specialist JN.		Supervised by employer's ecologist - JN.	Fisheries enhancement features were installed along this section of the Glanmore River, including the addition of riffles and boulders, to increase in-stream habitat diversity and support fish populations.

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8.9	06/08/2025	At Hazelwood, the permanent sheet piles were driven from within the river into the dry riverbank. Silt controls were in place, and only minor silt release was observed. Monitoring sondes were deployed throughout to record and track water quality parameters.		Periodic supervision. All controls were place.	Tracking was kept to a minimum as possible within the river by the track machine.
8.10	06/08/2025	A build-up of hydrocarbon pollution was observed at the silt curtain located at hazelwood.		Looked for source and discussed with site ecologist.	Regular application of BioVersal continues within the silt curtain area at Hazelwood Shopping Centre Bridge. A suspected hydrocarbon leak was investigated, focusing on potential sources within the works area and nearby plant. No definitive source was identified. The tracked excavator in the area had recently undergone maintenance, which may be the source from recently lubricated parts being in contact with water.

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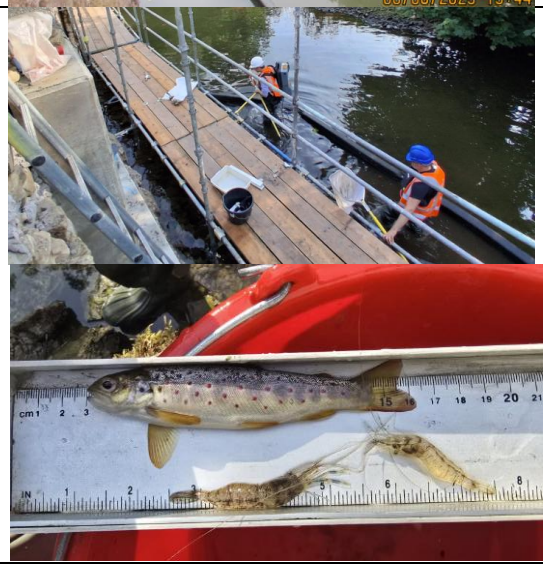
8.11	06/08/2025	Scaffolding being installed in Area 4 inside silt curtains to allow stoen mason carry out cladding works.		Recorded.	Scaffolding has been placed in the river for the instream works. In line with seasonal restrictions, it must be fully removed prior to the close of the instream works window
8.12	07/08/2025	Electrofishing in Area 4 - No fish found in void. But fish removed from inside silt curtains.		Recorded.	Electrofishing carried out as a precaution prior to works to fill void.

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8.13	07/08/2025	Further clearance has been completed under Permit No. 028.		Recorded.	Vegetation and trees surveyed prior to clearance.
8.14	07/08/2025	Revetment wall at Bean and Leaf was demolished. – all works were contained to the dry embankment.		Recorded.	No further action required.

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8.15	08/08/2025	Controlled release of silt took at CVV.	 	Recorded.	Silt generated from works released gradually rather than all at the same time spreading out sediment load.
8.16	08/08/2025	Hydrocarbon pollution was observed leaching from material within the overflow channel of the culvert at Brooklodge. The contamination was confined to an isolated pool immediately downstream where rock armour was being installed. Rapid and repeated		Investigated incident with site ecologist.	Pollution was short lived and source most likely attributed Brooklodge culvert installation in previous year.

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		applications of Bioversal HC were carried out to treat the affected area.			
8.17	08/08/2025	The access ramp into the Glashaboy as Hazelwood requires maintenance to control erosion and runoff, as the stone layer on the lower half has been worn away during recent sheet piling works.		Raised issue with site ecologist.	The access ramp into the Glashaboy River at Hazelwood is in daily use. Regular maintenance works involve placing a new layer of stone fill material on the ramp, as required.
8.18	08/08/2025	Japanese knotweed (JKW) was identified on the Credit Union grounds, where material from the opposite riverbank has been temporarily stockpiled.		Biosecurity measures will be required during any anticipated excavation works at this location.	Excavation works were carried out under supervision with biosecurity measures followed. Biosecurity measures were deployed during the removal works including the deployment of footwear facilities, cleaning down of buckets and tracks of the excavators, tyres and bodies of site vehicles.

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8.19	08/08/2025	The outlet path for the Area 4 pump station into the main channel will traverse areas affected by Japanese Knotweed (JKW) as well as zones of mature vegetation and trees.		Implement biosecurity and measures to minimise impacts on the natural environment.	Biosecurity measures were followed.
8.20	08/08/2025	Area 4 wall demolition and Demolition and subsequent works to take place adjacent to mature oak tree and invasive plant species Snow berry.		Implement biosecurity measures. Demolition and subsequent works must be carried out with care to protect the oak tree, particularly its root system.	Works were carried out without harm to the oak tree either its roots or branches. Biosecurity measures were followed.

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8.21	11/08/2025	Key for rock armouring being dug at Hazelwood Shopping Centre Bridge.		Monitor NTU levels. Inspections and partial supervision.	Silt curtains were used downstream to stagger silt release into watercourse. NTU level were monitored through the works to manage siltation levels.
8.22	11/08/2025	The channel was dug across the downstream end of Brooklodge culvert to facilitate installation of rock armouring.		Liaised with site ecologist. Inspections and partial supervision.	These works required the adjustment of the silt curtains. High spikes of NTU were recorded downstream however their duration was brief. Water was allowed to 'rest' through sporadic work and breaks.
8.23	11/08/2025	Hydromorphology works were completed. Parr/ small adult trout in pool and some salmonid fry in the riffles were immediately observed.		Supervised and guided works.	These works were part of a Change Order to provide some diversity to the river section for the benefit of fisheries species.

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			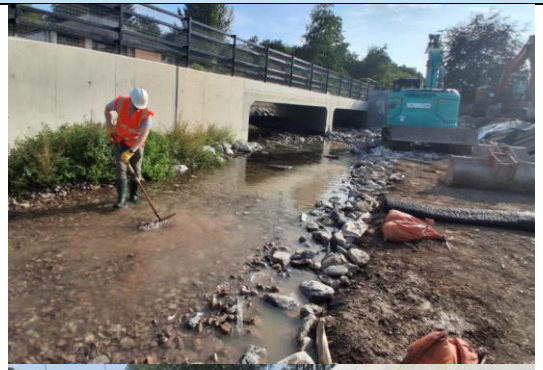 		
8.24	12/08/2025	High NTU levels were recorded today due to several unforeseen factors: 1. An unexpected bank collapse.		Recorded and liaised with the site ecologist and site engineers accordingly.	Works carried out with ecological input. Silt curtains were unable to be deployed immediately around the works area due to the lack of space available. They were however deployed downstream. The release of silt from underneath the river

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		2. Encountering a water main, which required additional excavation. 3. Upstream of the works, pockets of silt beneath river gravels were unexpectedly released during nearby rock breaker operations which caused vibrations in the immediate area. The cause of this is uncertain but could be due to previous construction works in the area or natural marl deposits within the river bed, or a combination of the two.			gravels was sporadic and short in duration. The cause of this silt was possibly due to naturally occurring marl deposits under the riverbed. Note: Marl is a soft, crumbly soil or rock made of a mix of clay and lime, often found near rivers or lakes.

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8.25	12/08/2025	A section of the existing stone revetment wall along the Glashaboy River in Area 4 has been damaged and washed out creating a sizable void which is undermining the wall. This predates the scheme. Remediation works required.	 	Liaised with site ecologist and site engineers regards the methodology and ecological mitigation measures required.	Works were carried out in line with ecological mitigations agreed on site which included E Fishing the void prior to works using, a water-based concrete and carrying out works at low tide.
8.26	12/08/2025	New Line – Removal of river material from within the structure. No upstream sondes were in place; however, there is a downstream sonde within the 100 m limit. Works began in dry conditions. The material was stockpiled at the upstream entrance, where it was repositioned		These measures were implemented to counteract the accumulation of river material over the winter months before the installation of the step pools.	Works were carried out in a measured and gradual manner spaced out over a number of days which helped spread out silt generated from the works.

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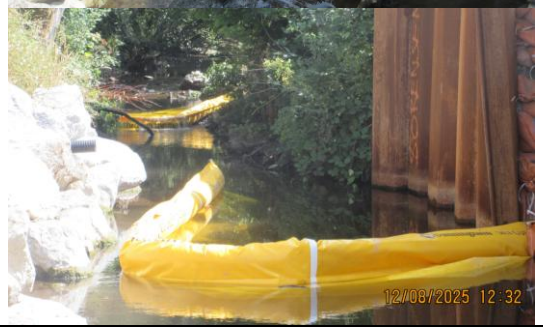
		upstream around the two weir steps.			
8.27	12/08/2025	Brooklodge culvert: Silt curtains were installed as part of silt control measures during the preparatory works to dam and overpump the Glenmore so works can be completed in the dry.	 	Oversaw works which involved the installation of Kelly blocks, bund and sump.	Works proceeded as planned and were carried out without complications. Some silt was generated when a sump was excavated directly into the riverbed, producing a flux of sediment that was mitigated by the two silt curtains positioned just downstream.

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8.28	13/08/2025	Pumping commences at Brooklodge culvert. Fish nets were positioned upstream to prevent access into pump area and downstream with yellow silt curtain. Discharge is positioned in cage to prevent scouring of riffle gravels at same location.	 	Fish nets were complimented by wire fence upstream to catch leaves and debris. Combination works well.	Appropriate measures are in place to prevent fish from entering the pump area. The condition of the protective fencing will require daily inspection, which the main contractor's site ecologist and environmental team are aware of and have agreed to.
8.29	13/08/2025	Aquatic species were translocated today at Brooklodge to facilitate over-pumping for the installation of step pools, weir, and the flood defence wall. The translocation took place under ideal conditions, with a cool, overcast morning, and was carried out in full compliance with the relevant licence. All fish were		Supervised electrofishing and assisted in the translocated from the elongated pool.	Significant efforts were made to capture all remaining fish species within the pool to ensure safe relocation. a significant number of fish, lamprey and eel were recovered from the pool. This included adult eels, juvenile lamprey, and a large number of trout.

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		measured prior to being released upstream of the works area for Inland Fisheries Ireland records. A large, elongated pool area became isolated from the river as a result of over pumping. Dewatering of this pool via a small two-inch pump was done under the supervision of the site ecologist. the pool was allowed to dry out gradually.	 		The Site Ecologist demonstrated consistent diligence and effective on-site management throughout the process.
8.30	13/08/2025	Bioversal was applied following the activation of the pump, which had caused a hydrocarbon sheen on the water surface. The silt curtains were temporarily opened and then reclosed to allow the treated river water to flush through the area.		Supervised works.	Bioversal was applied repeatedly until the sheen no longer appeared.

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8.31	13/08/2025	Brooklodge - Trees within the foot print the scheme were felled to complete the works per the design. The trees were inspected before felling of bird and bats. The trees, which had been undercut by the river, were felled by pushing them with the arm of the excavator into the adjacent wooded area. The trunks, roots, and attached soil were then cut to stump level and hauled by chain to the roadside for removal.	  	Discussed with site ecologist prior to felling. Supervised felling and removal of trees.	The works were carried out under the supervision of the site ecologist who performed all necessary checks. A permit to clear vegetation was in place.

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8.32	13/08/2025	Downstream of Copper Valley Vue Rock armour placement and bank regrading/reshaping works were undertaken downstream of the Copper Valley Vue structure. Silt control measures, including silt curtains and turbidity sondes, were in place for the duration of the works. Turbidity spikes were recorded intermittently; however, levels remained generally low and were effectively managed under a agreed stop–start operational approach to minimise sustained exceedances.	 	Planned and supervised works in conjunction with site ecologist.	Works were carried out to best practise receiving supervision and monitoring of sondes by site ecologist.

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8.33	14/08/2025	The Bur-reed is in good condition. While the original larger foliage has died back, numerous new shoots are emerging. If a silty area can be reinstated at Hazelwood, these plants could be returned at that time. Alternatively, waiting until late spring might be advisable to avoid potential winter wash-out. A split planting schedule between autumn and spring could also be considered. The translocated Ranunculus also appear to be in reasonable health. However, the silty moss present is probably algae associated with eutrophication.		The status of aquatic plants at the translocation area, which had been relocated from Hazelwood prior to the commencement of in-stream works, was checked.	No action required.

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8.34	15/08/2025	Excavation of trench for rock armouring at Hazelwood Shopping Centre Bridge.	 	Supervised works periodically and liaised with site ecologist and construction crew.	Coir mesh was placed to minimise the release of silt. The low river level allowed much of the works to be carried out from the semi-dry, which facilitated more effective silt management.
8.35	15/08/2025	Biosecurity signage in place at Hazelwood Shopping Centre Bridge.		Raised biosecurity issue with site ecologist.	Signage is an effective measure; however, as best practice, signage and barriers should be installed before works commence in an area.

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8.36	18/08/2025	Rock armouring works continued at Hazelwood.		Monitored water parameters and supervised works periodically. Liaised with site ecologist and construction crew.	Due to lower river levels a bund was established between the excavation trench and the main flow. This allowed for less and more gradual realise of silt into the watercourse.
8.37	18/08/2025	Outfall below Hazelwood Bridge temporarily contaminated by cloudy grey with froth. Not too dissimilar to the colour of water where FOSROC is being applied to wall, but I don't see any evidence of a spillage so could be from somewhere else		Notified site ecologist of observation and conducted a trace for source.	The site ecologist confirmed the discolouration at discharge was due to a GO washing out a bucket of the FOSROC being applied to walls. GOs reminded by SCE ecologist that this is not allowed - The duration and quantity were minor with no significant impacts.

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8.38	18/08/2025	Ground exposed from vegetation clearance and ground works along riverbank at Hazelwood in preparation for sheet piling.	 	Recorded and discussed with site ecologist about silt mitigation methods.	Coir mesh and silt curtains to be placed one side while material on the opposite bank was removed. Dry conditions also helped to reduce potential run off.

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8.39	19/08/2025	Several traffic management cones were again observed in the river at Area 4.		Recorded and alert site ecologist.	The cones were removed from the water.
8.40	21/08/2025	Rock armouring at Sallybrook in the dry.		Surveyed the area prior to works and supervised aspects of the construction.	The works were preceded by a walkover survey for Himalayan balsam. All plants encountered were uprooted and left to desiccate. The entire rock armour works was completed in the dry removing the need to silt mitigation.

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8.41	21/08/2025	Fish nets in place at Brooklodge culvert accumulating large quantity of leaves and light debris.		Alerted site ecologist.	The fish curtains were cleaned and adjusted promptly.
8.42	21/08/2025	Tracking instream at Hazelwood to complete steelworks for capping on the sheetpiles.		Monitored works and parameters.	Sit generated was caused by silt deposited on riverbed during previous days rocks armour works being remobilised. Overall, silt was minor.
8.43	21/08/2025	Bank regrading and rock armour works at CVV generated large amounts of silt.		Supervised some aspects of the works while monitoring the parameters.	The high spikes in silt levels were intermittent, caused by sporadic working. Breaks were also utilised to spread out silt loading. However, some siltation could not be fully avoided as the works had to be carried out in wet conditions within a restricted, narrow channel.

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8.44	22/08/2025	Rock armour works directly upstream of the Hazel Road bridge requiring digging in the river margins. Since this is potential habitat for lamprey and eels, mitigation measures were required to reduce potential harm to aquatic life.	 	Reviewed methodologies in consultation with the site ecologist.	The excavation along the river margins was carried out under the supervision of the site ecologist. Each bucket load of material was deposited and spread on the bank for visual inspection. Nets and buckets were used to capture and temporarily hold any species observed within the spoil. In total, 13 lamprey and 1 three-spined stickleback were rescued and subsequently translocated upstream of the works.

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8.45	25/08/2005	Step pools installed at New Line were identified as possibly needing improvement to better facilitate fish passage.		Liaised with all relevant parties to work towards a compromise solution that aligned the scheme's objectives and fish passage requirements.	Subsequent design changes rectified this issue by lowering a flagstone on each weir alternately. In addition, a third weir was added to further reduce the height differences between the weirs and the upstream and downstream levels.
8.46	25/08/2005	Works continued at Brooklodge culvert to install flood walls. Pumping of ground water is required to keep excavations and works area dry.	 	Spoke with ground crew and foreman. Tanker was recommended.	A spike of >700 NTU was recorded. While this was very high, it was short in duration. The cause was intense digging in the dried-out riverbed upstream of the culvert. Over pumped water became extremely silty, and the system in place to manage silt was only partially effective. A tanker was deployed to empty the siltation tanks, which immediately improved the situation.

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8.47	25/08/2005	Copper Valley Vue (downstream) Excavation of headwall being carried out in the dry. Muddy water-filled excavations are being backfilled with stone during inspection.		Discussed with site ecologist and ground crew.	Excavation was backfilled avoiding the need to dewater on this occasion.
8.48	25/08/2005	Area 2 – upstream of Hazelwood Bridge. Rock armour works continued with silt controls in place.		Reinstate disturbed areas to reduce bare ground exposure.	Site personnel were briefed on environmental sensitivities. Bank excavations were conducted with active eel and lamprey retrieval by the site ecologist.

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8.49	25/08/2005	Hazelwood just downstream of Hazelwood Road bridge: Rock armour works taking place in semi-dry conditions. Low river levels allow bunding against the bank nearest the river to exclude flows. Only minimal excavation works were required for this section.	 	Continue to monitor water quality sondes to confirm mitigation effectiveness.	Parameters were monitored throughout the works, with all levels remaining within acceptable ranges.

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8.50	25/08/2005	Hazelwood – Rock Armour Enhancement Sand and gravels have been added to the placed rock armour as a biodiversity enhancement measure. This approach is intended to accelerate natural colonisation and promote the establishment of native vegetation, helping the rock armour to green up more quickly and integrate with the surrounding riparian habitat.		Liaised with site ecologist and site foreman to ensure these works were planned and implemented.	Works carried out in line with the Work Requirements. Biodiversity action will help natural regeneration and natural ascetics of the site.
8.51	25/08/2005	Hazelwood just upstream of temporary footbridge: Silt curtain holding a build-up of fines, as well as rubbish and water impurities not associated with the works.		Periodic release of silt curtains recommended both terms of silt management and ascetics of site.	Silt curtains were deployed in various numbers and positions through the Hazelwood instream works area. The curtains set up cross channel help to slow the release of silt downstream of the works allowing for greater dilution under controlled releases.

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8.52	25/08/2005	Sheet Piling as part of a Change Order replacing flood embankment with sheet pile wall at Sallybrook. Piling conducted in the dry removing need for instream mitigations. Biosecurity was an issue as this is a JKW area.		Carry out works in line with biosecurity plan.	The works were undertaken following a JKW survey of the area. Excavations were kept to a minimum and carried out under the supervision and guidance of the site ecologist. No additional material was added into the holding cell.
8.53		Leanmix to be poured in the dry instream works area at Brooklodge Culvert		Cure concrete fully before allowing re-wetting and check for possible seepage into dewatering area.	No immediate risks to waterway, however dewatering ongoing from the sump area. Sump in place was set at a deeper depth that the excavations receiving lean mix. Conditions were dry during the works.

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8.54	28/08/2025	Cement pouring at east abutment.		Supervised pouring periodically and liaises with ground crew.	No immediate risks to waterway, however dewatering ongoing from the abutment. However, no contact between cement and pumped water.
8.55	28/08/2025	Clear Signs of eutrophication at Copper Valley Vue from the rapid algae build up on clean rock armour and gravel installed only two weeks previous. Also, pooling of what looks like slurry run off at the fish nets just upstream.	 	Documented.	This river pollution originates outside the works and is not the responsibly of the contractor.

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8.56	29/8/2025	Electro Fishing was conducting downstream of the Brooklodge culvert to facilitate works as the works area was extended downstream.		Any fish found within the works area should be safely relocated under ecological supervision.	Good measures undertaken to prevent harm to fisheries species from the works.