



Environmental Report April 2024

Glashaboy Flood Relief Scheme

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Introduction

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).

The main work areas for April 2024 included:

- Pat O Donnell's (POD) – Sallybrook chamber. Works near completion.
- Funeral home – RC wall construction and associated works.
- Hazelwood – Drainage works and installation of LIHAF Walls.
- Meadowbrook – Drainage line and pump station works.
- Circus field – Wall building and temporary stockpiling.
- Sallybrook JKW Zone – Earth embankment works commence late in the month.
- Copper Valley Vue: Enabling works continue.
- New Line – Service diversion works and bridge enabling works continue.
- Cois na Gleann – Enabling works commenced mid-April for in stream works.

General comments

The site's general condition is positive, with acceptable housekeeping standards upheld across work sites during the month of April.

Two environmental tours took place this month (ET010 and ET011), with Sorcha Dale and Lisa Dolan in attendance. The tours remain valuable, fostering collaboration between the contractors and the client's ecologists.

Contamination at Eurofins: Excavated material which was being temporarily stored at Sallybrook has been removed and disposed of by Enva.

The otter derogation license - DER – OTTER – 2024 – 47 was issued by the NPWS for works in the vicinity of otter holts for the duration 2024. This covers three holts and one otter couch. Mitigation measures for the derogation license referred directly to the measures as recommended in Ross Macklin's February report. Measures included the use of hoarding, signage, and camera monitoring all of which have been acted upon by the contractor.

The first week of April has low activity on site as many workers were on leave (Builders Holidays). Minimal works were carried out during this time.



The Kingfisher monitoring for this month was completed. Monitoring was conducted throughout the week by the site ecologist, who reported zero kingfisher sightings. No nesting activity was observed in the stretch of riverbank along the Meadowbrook estate that was under evaluation. Given the satisfactory evidence strongly indicating the absence of kingfisher nesting in the area in question, it was concluded that no king fisher birds were nesting in the area. Approval for works to proceed in the vicinity of Meadowbrook was granted by the NPWS.




Weather warning issue by met Eireann for this Saturday 6th of April for heavy winds in Cork. There were no reports of damage on site resulting from Storm Kathleen.




In relation to instream works, the contractor issued a turbidity and total suspended solids equation that was included in their method statements for scheduled works at Cois Na Gleann culvert. In addition, Arup issued a clarification for the implementation of the Total Suspended Solids (TSS) and a Revised Contract Specification incorporating the planed works for the Cois Na Gleann and Springmount culvert works.




An electrofishing course was completed by site ecologist this month in advance of potential fish rescue required to carry out culvert and bridge works in 2024.




Table 1. Main Table




No.	Date	Comment	Image	ECOW Action/Recommendation	Sorensens' action response
4.1	9/4/24	At Bleach Hill, the site ecologist and ECOW agreed on installing bat boxes on two designated trees (one per tree), as it was not feasible to install them on the new culvert due to head height restrictions and the need to position the boxes high enough to avoid potential high flood events.		Install bat boxes on agreed trees. Bat conservation Ireland to be informed.	Bat boxes were installed onto agreed trees in April.
4.2	9/4/24	Copper Valley Vue estate: Pumping out of excavation works area utilising a combination of two surface gullies and vegetation on the embankment. Mitigation measures to control for sediment include the use of pump-sump, a settlement tank and the manifold system that uses up to 8 silt bags at a time.		Pumping was monitored through the month by the ECOW. No sediment was observed or reported though the month.	Maintained pumping set up successfully for duration of the month.




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4.3	9/4/24	Pumping out of ground water ingress and rainwater from the Meadowbrook pump station into storm drainage manhole positioned nearby at John O' Callaghan bridge. Water was clean at the time of inspection.		Monitor closely for sedimentation.	This pumping set was in operation up for the duration of the Month of April.
4.4	9/4/24	The hoarding was not completed by the end of April. However, no construction work took place in the area during that time, which was the primary purpose of the hoarding. The hoarding is scheduled for completion next month before construction works resume in the immediate area.		Complete hoarding prior to commencing sheet piling works in this area.	Hoarding was not completed in April.
4.5	9/4/24	Pumping was conducted at the New Line works, directing water into a nearby gully. Additionally, check dams installed in the gully to enhance filtration.		Effective utilisation of space and check dams can help manage the potential sediment resulting from excavation works in the area.	The system was operational throughout the two days it took to complete excavation works in this section of the roadway.




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4.6	9/4/24	It was observed on April 9th that a tanker was discharging into the combined line at Springmount.		Enquiries were made regarding this observation to the site ecologist who was unaware of this activity.	Clean water was being flushed through the foul to reduce the risk of sediment build up within the system.
4.7	10/4/24	Waste concrete has been deposited near the Glenmore River within the Copper Valley Vue estate. Although no evidence of wash-off or contamination to the river has been observed, this action does not align with the Work Requirements aimed at preventing harm from waste disposal (1/37 section 14.11).		Ensure that waste concrete is deposited in accordance with the Work Requirements.	This was discussed with the site ecologist. The concrete was cleaned up afterward. The subcontractor who is responsible for concrete delivery was again instructed to use designated concrete wash outs when working on site.
4.8	10/4/24	Drainage works at Hazelwood Centre, in front of funeral home. Pumping from excavations into foul system during evening time works. Pumping took place over two evenings following the completion of drainage works in this immediate area.		Written permission from the utility owner is necessary for discharging into the public sewers.	There was no license in place. Contractor ensures this will not be repeated.




No.	Date	Comment	Image	ECow Action/Recommendation	Sorensens' action response
4.9	10/4/24	Ground water from funeral home works area observed to be clean. Silt socks in place.		Continue to monitor turbidity daily and monitor pH when concrete works are in progress.	Monitoring carried out throughout the month. Records were submitted at the end of the month in Contractors monthly audit.
4.10	10/4/24	The camera monitoring of otters, as per Licence No: DER – OTTER – 2024 – 47, was discussed. It was confirmed that the site ecologists will be responsible for monitoring opting to use the Reolink SIM-enabled cameras.		Update the ER as necessary regarding otter monitoring results.	Agreement was made to submit otter reports every two weeks which has been implemented by the site ecologist and also included in monthly audits.
4.11	12/4/24	Contamination from Grandons, which is a legacy issue independent of the Flood Relief Works, continues to leak petrochemicals directly into the Glashaboy river. Oil booms are in place to direct the surface residues away from the main channel but observed repeatedly to be ineffective.		Continue to monitor this situation.	Main Contractor to manage contamination as sheet piling works and rock armour are planned to be installed at this location during the 2024 instream works July – September.




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4.12	13/4/24	During Saturday works at Meadowbrook pump station, during additional digging, a siltation incident was observed by the ER.		An email was sent requesting an Environmental Incident Report be raised.	Environmental Incident Report EIR006 was issued by the contractor.
4.13	15/4/24	Excavation works at New Line involve pumping out groundwater ingress from excavations, which occasionally results in sediment entering the foul line during the month of April.		Written permission from the utility owner is necessary for discharging into the public sewers.	The pumping setup remained in place for the majority of April as diversion works continued in this area. No written permission was in place during pumping.
4.14	15/4/24	Build-up of silt added to already blocked eye of John O' Callaghan bridge in association with siltation incident (Item 4.12).		Recorded and discussed with site ecologist.	Blocked eye of bridge to receive dredging later in the year as per the design to increase conveyance. This does not affect the Flow Management Plan as the eye has long been blocked and cut off from Glashboy river.



No.	Date	Comment	Image	ECow Action/Recommendation	Sorensens' action response
4.15	16/4/24	Scrub and regenerating vegetation cleared for enabling works at New Line. Site ecologist surveyed for nesting birds prior to clearance. No bird nesting was found.	 A yellow excavator is clearing scrub vegetation in a wooded area. The ground is covered with dry leaves and branches. A timestamp '16/04/2024 12:21' is visible in the bottom right corner.	Recorded and surveyed; no nesting birds were observed.	Survey in line with Work Requirements and legal requirements to protect birds during the bird nesting season.
4.16	16/4/24	Pumping out of excavation along the eastern section on New Line Road directly into Glenmore River.	 A blue pipe is discharging water into a gully. The water is flowing over a concrete structure. A timestamp '16/04/2024 12:25' is visible in the bottom right corner.	Discussed with site ecologist.	The site ecologist reported that pumping was conducted for a short duration, with a silt sock attached to the outlet. The pump was relocated across the road to a preexisting roadside vegetated gully, which enhanced attenuation with satisfactory results.
4.17	17/4/24	Contaminated material originating from the Pat O'Donnell works area is removed to a licensed waste facility by Enva.	 A pile of contaminated material is being removed. The material is dark and appears to be soil or debris. A timestamp '17/04/2024 10:05' is visible in the bottom right corner.	Documented.	No further action required.




No.	Date	Comment	Image	ECow Action/Recommendation	Sorensens' action response
4.18	17/4/24	JKW observed to be growing at entrance to temporary stockpile.		It may be worthwhile treating visible JKW canes with herbicide prior to its burial and elsewhere on site.	The invasive species specialist plans to spray visibly growing Japanese knotweed within the LMA of the project. This action is scheduled for September, the most effective time for JKW treatment. Spraying of JKW is already accounted for in the Bill of Quantities.
4.19	17/4/24	During works on eastern end of New Line works site, encroachment by small digger into the Glenmore river. Partial collapse of riverbank and surface herbaceous vegetation.		Spoke with driver and site ecologist. Bank was later reinstated.	Area to be grass seeded.
4.20	17/4/24	Minor collapse within stream bank during enabling works for Cois Na Gleann culvert.		Raised with site ecologist.	Stream bank was regraded, and sand bagged before work was finished for day. This is a good temporary solution until permanent works are completed at this location.



No.	Date	Comment	Image	ECow Action/Recommendation	Sorensens' action response
4.21	17/4/24	Active dipper nest found inside the stone culvert during the enabling works for Cois na Gleann.		Discussed with site ecologist.	NPWS ranger was on site the following morning. Dipper nest was inspected and found to contain four well developed dipper chicks who were all ringed by NPWS ranger. Enabling works were agreed to proceed with agreement that culvert works would not begin till chicks have fledged.
4.22	18/4/24	Minor contamination incident observed at funeral home works site. Ground water being pumped out via a pair of two-inch pumps, which were not turned on at the time which allowed ground water to pool and raise to meet the foot of the RC wall that was recently painted with EPICON, a concrete sealant toxic to aquatic life.		Spoke with ground crew and site ecologist.	Oil booms were deployed in the area to absorb the residues. Personnel received instructions from the site ecologist to maintain water levels in the works area at a low level, with additional inspections by the site ecologist scheduled during this stage of the works.
4.23	18/4/24	Screening erected in front of the dipper nest at Cois Na Gleann.		Documented.	Screening to remain in place until dipper chicks have fledged.

No.	Date	Comment	Image	ECoW Action/Recommendation	Sorensens' action response
4.24	19/4/24	Grass seed at Bleach hill shows healthy growth.		Recorded.	No further action required.
4.25	19/4/24	Bat boxes installed on two separate trees down stream of the new culvert at Bleach hill as per the design specifications.		Recorded.	Contractor to inform Bat Conservation Ireland about the two installed bat boxes.
4.26	19/4/24	Possible badger sett earth mound adjacent to the works site for the new line bridge is inspected for badger and found to be not present.		Inspected for badger and found to be not present.	No action required.

No.	Date	Comment	Image	ECoW Action/Recommendation	Sorensens' action response
4.27	19/4/24	JKW observed to be growing on the riverbank at Meadowbrook were proposed access ramp is to be installed. This JKW location was mapped previously and included in the design drawings.		Discussed with site ecologist.	Biosecurity measures have been incorporated into the access ramp method statement which takes into account the extensive JKW present at this location.
4.28	19/4/24	Concrete wash out at funeral home works area not being carried out using the concrete wash out at circus field.		Develop a system to wash concrete from skip in accordance with work requirements.	Instructions were again issued to the concrete subcontractor to use designated concrete wash out areas when working onsite.
4.29	23/4/24	Capital Water on site to install four sondes in advance of culvert works at Cois na Gleann stream and Springmount stream.		ER to receive access to data logs when operational and in advance for in stream works at these locations.	Arrange access for the ER to water sondes data. The ER team will have full access to this data.

No.	Date	Comment	Image	ECoW Action/Recommendation	Sorensens' action response
4.30	23/4/24	Encroachment into Glenmore stream from services diversion works rectified by bank reinstatement inclusive of safety fencing.		Discussed with site ecologist.	Bank to be reseeded with grass seed following the final approval for seed mix as per Material Approval Request 120.
4.31	23/4/24	Enabling works to install diversion on Glenmore stream retains vegetation along bank in line with work requirements to prevent surface water run off.		Discussed with site ecologist.	Bank vegetation removal will be delayed until the diversion is complete. This approach prevents the ground from being exposed and vulnerable to runoff.

No.	Date	Comment	Image	ECoW Action/Recommendation	Sorensens' action response
4.32	24/4/24	Contamination emitted from Grandons, previously mentioned in Item 4.11, particularly heavy today.		Documented.	Sorensen to revert with works method and mitigation measures to control risk from contamination for the scheduled sheet piling and rock armourworks.
4.33	24/4/24	New Line: A pollution incident in the Glenmore River by a third party, which was unrelated to the flood relief works, was observed. The email reporting the incident to the relevant authorities has been forwarded to the site ecologists for their records.		A report email regarding the incident was sent to the relevant authorities – CCiC environmental division, Lawpro and IFI.	Continuous monitoring of this section of the Glenmore River is necessary to detect any potential further pollution incidents. All personnel working in the area should be instructed by the site ecologist to report any suspicious behavior or water discoloration incidents they observe.
4.34	29/4/24	An agricultural tractor and tanker, unrelated to the works, were observed extracting water from the Glenmore River adjacent to the works at New Line.		Recorded.	Continue to monitor and record such incidents.

No.	Date	Comment	Image	ECoW Action/Recommendation	Sorensens' action response
4.35	30/4/24	Siltation event at Meadowbrook. Pumping was stopped when informed to do so by the ER.		An email was sent to the contractor.	Silt fencing and erosion mesh were installed the following day as a precautionary measure. Contractors acknowledged a previous failure to implement silt control measures. A toolbox talk (TBT) was provided to workers by the site ecologist.
4.36	30/4/24	Erosion mesh installed at New Line diversion outlet.		Discussed with site ecologist.	Contractor to consider additional erosion protection measures such as the use of rip rap or sandbags around the outletpipes.


No.	Date	Comment	Image	ECow Action/Recommendation	Sorensens' action response
4.37	30/4/24	New line: area outside works area being used as stockpile area for construction materials and equipment.		This area should be fenced off to prevent accidental encroachment by machinery and to deter its use for storage, therefore protecting the trees from potential damage.	The contractor to remove stored materials and equipment and erect fencing and signage to prevent encroachment, thereby safeguarding the natural environment.

Table 2. Outstanding items to be addressed by Sorensen.

Item No.	Issue	Action to be carried out
3.2	Create a concrete washout at Circus field.	The concrete washout area was inspected and observed in use during April. While small in size, it was deemed satisfactory for its purpose, provided that appropriate maintenance is upheld. Resolved.
3.4	Grass seeding at Bleach hill.	Grass seeding has been carried out and is growing well.
3.20	Develop a protocol to safeguard gullies against potential sedimented surface water runoff originating from the works during rainfall.	The contractor agrees to take precautionary measures such as sandbagging around gullies from surface run off if the situations require it. Resolved.
3.25	Hoarding to be completed at Meadowbrook.	Hoarding was not completed this month. Hoarding works to be completed prior to Sheet piling works commencing along this section of Meadowbrook estate.
3.28	Extend erosion matting at Copper Valley Vue.	Mesh was extended.
3.35	Housing keeping at Copper Valley Vue.	Material was removed in April.
3.36	Steel mesh on silt fencing at Copper Valley Vue.	Mesh was removed in April.
2.37	Regarding an Item from February's audit, the proposal to install temporary diversions on the Glenmore River occurring from bridge and culvert works at New Line and Copper Valley Vue, Sorensen to consult Ross Macklin regarding otter passage.	Otter specialist is satisfied with the work proposals and that no additional mitigation measures are needed along the Glenmore. Resolved.
3.25	Hoarding to be completed.	Hoarding to be completed at Meadowbrook.
4.6	It was observed on April 9th that a tanker was discharging into the combined line at Springmount.	The contractor is requested to provide information regarding the origins of the material and specify what material was being discharged.
4.19	The reinstated riverbank following the partial collapse of riverbank at New Line could benefit from being grass seeded.	Contractor to grass seed following grass seed mix approval.
4.25	Sorensen to inform Bat Conservation Ireland about no. 2 bat boxes installed at Bleach hill.	Inform Bat Conservation Ireland about no. 2 bat boxes installed at Bleach hill.
4.28	No concrete wash out in use at Funeral home.	Develop a system to wash concrete from skip in accordance with work requirements at the Funeral home.

4.32	Scheduled works at Grandon's necessitate the implementation of mitigations to prevent further harm to the waterway from preexisting contamination.	Sorensen to revert with works method and mitigation measures to control risk from contamination for the scheduled sheet piling and rock armour works.
4.36	Diversion pipes installed on Glenmore river could benefit from additional erosion control measures.	Contractor to consider additional erosion protection measures such as the use of rip rap or sandbags around the outlet pipes.
4.37	New line: area outside works area being used as stockpile area for construction materials and equipment.	The contractor to remove stored materials and equipment and erect fencing and signage to prevent encroachment, thereby safeguarding the natural environment.

Appendix A. Sorensen's Environmental Audit 02/04/24 To 26/04/24:

Attached separately.

Appendix B.

Commentary Sorensen's Environmental Audit 02/04/24 To 26/04/24:

The contractor's audit this month lacked important documentation:

- The audit lacked the inclusion of turbidity (NTU) testing recording sheet(s).
- pH monitoring recording sheets were absent from the audit.
- Permit to pumps sheets were absent from the audit.
- The photos provided lack captions, which is inadequate for proper documentation.