



Environmental Report January 2024

Glashaboy Flood Relief Scheme

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Introduction

The following is the client's 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 January 2024 included:

- Springmount - Culvert Works and Drainage works.
- Hazelwood Shopping Centre – Drainage works, foundations, wall building.
- Sallybrook House – Storm drainage, foul works, and septic tank installation.
- Pat O Donnell's (POD) – Drainage works.
- Meadowbrook – Drainage line works and pump station installation works.
- Funeral home – excavations, fencing dismantling, foundations.

General comments

Overall site conditions are positive, with satisfactory housekeeping standards across most work sites.

Two environmental tours took place this month (ET004 and ET005), with Sorcha Dale and Lisa Dolan in attendance. The structure of these tours was developed collaboratively. A grading system was employed to assess the severity of environmental observations, the most important of which were time sensitive. Additionally, efforts were made to document positive observations. Overall, the tours continue to be positive and collaborative.

Contamination at Eurofins: Excavated material removed to Sallybrook for temporary storage to facilitate testing by Employer's Representative (ER). Environmental protocols applied to prevent run off from rain.




Discussions took place with the site ecologist to review the existing environmental champion (EC) protocol and explore potential enhancements. The contractor acknowledges the capacity limitations and is actively undergoing an internal review process, considering the training of additional personnel. Access to a vehicle has also been pointed out as a limiting factor as no designated vehicle has been made available to the EC. Over the month, the environmental champion demonstrated a certain amount of effectiveness for example at the funeral home works area, regarding silt control from the pumping of sedimented water from the works area and at the JKW exclusion zone regarding cleaning down equipment.



The contractor's otter specialist, Ross Macklin, conducted surveys at the end of January and is scheduled to issue an updated report in February regarding the status of all holts within the vicinity of planned works for 2024. The status of Holt N6 is particularly pertinent, as there are preliminary plans to directional drill under the riverbed downstream of the holt. This step is integral to the Hazelwood Bridge works, necessitating a water main diversion before commencing work on the bridge.




Sorensen engaged in consultations with Inland Fisheries Ireland (IFI) this month, leading to a site visit. Discussions centered around the proposed in-stream works scheduled for 2024.




Sorensen held consultations with NPWS conservation ranger Sam Bayley, who conducted a site visit regarding works at Meadowbrook housing estate, specifically focusing on the historic kingfisher burrows located here along the riverbank. Agreements were reached to suspend works in the Meadowbrook works area, particularly in the section closest to the burrows, until bird nesting surveys could be conducted in March 2024.



Item no. in previous audit	Outstanding items by the main contractor as raised in the ECOW's December 2023 environmental audit	Main contractor's actions
n/a	To consider improving the environmental champion protocol.	Ongoing. Preliminary plans to train additional personnel.
6.	Protocol to guarantee that containers utilised across all work sites have distinct and permanent labelling.	Stickers were ordered and deployed on site. Ongoing process.
8.	Sorensen to develop an erosion plan for down stream of Springmount culvert.	This was discussed in ET004 and considered unnecessary at this stage of the work. However, it will be revisited for further review in due course.
28.	No fencing or demarcation was installed at timber log pile in December 2023.	This was reinstated in January in conjunction with the sorting and processing of the log pile.
23.	Silt fencing to be installed at the base of the slope above the watercourse.	SSI Coir-mesh was installed as an alternative to silt fencing.
28.	Fence to be reinstated following drainage works.	Fence was reinstated in conjunction with works to install the headwall at Sallybrook.
17.	The investigation into the environmental incident reported on 14/12/2023 was not issued yet.	This report was issued - GFRS-DTN-557 - GFRS-Environmental Incident Report - 004 Siltation - Meadowbrook




Item number	Date	Comment	Image	ECoW Action/Recommendation	Sorensens's Action
1.	02/01/24	Silt fencing reinstalled in attenuation area to rear of Sallybrook house following the Christmas break.		Documented.	No action required.
2.	02/01/24	Fallen tree in Glashaboy river on opposite bank across from attenuation area at rear of sallybrook house. Tree has fallen from natural causes. Will need to be removed during 2024 instream works to facilitate works.		Documented	No action required.
3.	03/01/2024	Gravel check dams installed into attenuation.		Documented	No action required.




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4.	03/01/2024	The drainage works at the rear of Sallybrook House conducted without adequate sediment control, as the attenuation area is not being utilized effectively, and preventative measures were not implemented when connecting the drain line to Sallybrook Stream. A minor siltation event has been acknowledged.		Discussed with site ecologist	Sorensen to ensure correct measures are followed during works to prevent sedimentation of water ways.
5.		Siltation tank in use at POD received water from contamination area. Water to be disposed of correctly before tank is reused elsewhere on site.		Discussed with site ecologist.	Siltation tank was later pumped out on the 31/01/24.




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6.	03&04/01/2024	Filtration drain installed into the lower section of the attenuation channel to facilitate groundwater pumping from POD. Water checked daily for signs of contamination. No contamination was recorded.		Outflow checked daily for signs of contamination.	Site ecologist monitored while pumping continued for the remainder of the month of January. No contamination was recorded.
7.	10/01/2024	The timber log pile within the exclusion zone at Sallybrook underwent an inspection for JKW. Clean timber was segregated from unclean and stored separately.		Discussed with site ecologists on ET002.	No action required.
8.	10/01/2024	Visual inspections were conducted daily on the temporary sheet pile attenuation channel to check for any contaminated residues from the Eurofins works area. The outflow was found to be clean.		Documented.	Similar inspections carried out by site ecologist.




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9.	11/01/2024	Timber pile at Sallybrook being sorted under supervision.		Discussed with site ecologist.	Biosecurity measures followed including removal of roots and placement of terram.
10.	11/01/2024	Excavations within the Sallybrook JKW zone to install the headwall was carried out following biosecurity measures.		Documented	No action required.
11.	12/01/2024	Biosecurity measures inadequate today: insufficient barriers and lack of boot wash in operation		Discussed with site ecologist	Responded with improved barriers and boot wash.




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12.	15/01/2024	Outflow from POD works area in attenuation channel – clean flow of water with no signs of residues.		Documented	Similar checks ongoing for duration of works in POD.
13.	15/01/2024	Erosion control installed upstream of new culvert at Bleach hill. This addresses item 23 in ECOW's December audit.		Documented.	Area still requires topsoiling and grass seeding which is due to take place in 2024.

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14.	16/01/2024	The deposition of gravel inside the recently installed culvert at Bleach Hill has effectively filled the gaps in the flagstones, creating a natural riverbed. This outcome reflects the success of implemented biodiversity measures as part of the design.		Documented. Monitoring to continue for the duration of the works.	No action required.
15.	16/02/2024	Erosion control installed at recently installed headwall at Sallybrook where works necessitated the removal of vegetation and the subsequent exposure of bare soil along the banks of the Glashaboy river.		Installed following discussions with site ecologist	Area to be monitored for vegetation regrowth and may require seeding depending on natural regeneration.
16.	16/01/2024	Contaminated material from POD temporarily stored at Sallybrook to facilitate testing by ER.		Documented.	Implement directions from ER to prevent possible run off.



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17.	16/01/2024	An private and unofficial dam at Springmount Stream has accumulated a significant amount of sediment. Caution should be exercised when resuming flow to the main channel to manage sediment release.		Discussed with site ecologist.	Consult with IFI prior to reconnecting.
18.	16/01/2024	Couch C2 displays recent signs of use, with visible spraint observed. The couch is located adjacent to the works at the funeral home. No physical disruption to the couch is anticipated.		Discussed with site ecologist.	No action required.
19.	16/01/2024	Survey of king fisher burrows. Two additional king fisher burrows were identified along the riverbank at Meadowbrook housing estate that are not in the 2018 drawings.		Discussed survey results with site ecologist.	The king fisher breeding surveys due to take place in March 2024 of Meadowbrook will factor in these survey results.



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20.	16/01/2024	Riverbank collapse at Meadowbrook estate. It appears that some of the preexisting burrows may have been lost.	 A photograph showing a riverbank with a significant collapse. The water is murky, and there are many exposed tree roots and branches protruding from the bank. The timestamp '16/01/2024 13:08' is visible in the bottom right corner.	Discussed survey results with site ecologist.	The king fisher breeding surveys due to take place in March 2024 of Meadowbrook will factor in these survey results.
21.	16/01/2024	Otter holt N7 inactive during survey.	 A photograph of a riverbank heavily overgrown with dense, tangled branches and debris. The water is visible on the left side of the frame. The timestamp '16/01/2024 14:54' is visible in the bottom right corner.	Discussed with site ecologist.	No action required.
22.	16/01/2024	Northern section of JKW zone at compound 1 stockpiling area, pushing out into contamination zone. Terram put down as separation layer.	 A photograph of a large pile of earth and debris at a construction or remediation site. There are some orange safety barriers and a yellow excavator in the background. The timestamp '16/01/2024 15:18' is visible in the bottom right corner.	Documented	Overseen by contractor's JKW specialist.



Item number	Date	Comment	Image	ECoW Action/Recommendation	Sorensens's Action
23.	17/01/2024	Improved barriers and documentation storage at JKW.		Documented.	Measures in response to item 11 in this audit.
24.	17/01/2024	Good separation of contaminated timber log pile.		Documented.	No action required.
25.	17/01/2024	Good application of biosecurity measures.		Documented.	No action required.



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26.	17/01/2024	Good application of biosecurity measures identification of dormant JKW rhizomes and marked on GPS.		Documented.	No action required.
27.	19/01/2024	Wood chip pile in temporary stockpile area possible nesting habitat for wren (<i>Troglodytes troglodytes</i>).		Discussed with site ecologist.	To consider if moving during the bird nesting season.
28.	19/01/2024	JKW area at Sallybrook not fully fenced off.		Discussed with site ecologist.	Fencing installed on the 23/01/2024.




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29.	22/01/2024	JKW area at Funeral home works area supervised by site ecologist.		Documented.	To continue following biosecurity measures while working in this area.
30.	23/01/2024	Contaminated material temporary stored using safety measures to prevent runoff.		Documented.	Continued to monitor to ensure safety measures remain in place.
31.	23/01/2024	The outflow from the POD site exhibits minor sedimentation. Concurrently, the river levels were elevated, and the waters appear turbid.		Documented.	The outflow from the attenuation channel undergoing hand testing for turbidity levels.




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32.	23/01/2024	Springmount culvert installed with flagstones as per the design to encourage fish passage when culvert is in operation.	 A photograph showing the interior of a culvert. The floor is covered with large, flat, reddish-brown flagstones laid out in a series of steps or a regular pattern to facilitate water flow and fish passage. The walls are concrete, and the lighting is dim, coming from the entrance.	Documented.	No action required.
33.	24/01/2024	Pumping out works area at funeral home using newly purchased silt socks. Permit to pump in place. Sock checked regularly for silt build up.	 A photograph of a silt sock, which is a cylindrical bag made of geotextile material, filled with silt. It is installed in a trench or excavation. The sock is orange and yellow, and a blue hose or pipe is visible extending from it. The surrounding area is covered with green ferns and other vegetation.	Documented.	No action required.

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34.	24/01/2024	Sump and drip tray in use at funeral home pumping out works area.		Documented.	No action required.
35.		Root damage to birch trees at Hazelwood. This could not be avoided due to the constraints in space and the wall building works.		Discussed with site ecologist.	Trees to be monitored for signs of damage relating to the works.

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36.		Sallybrook stream /drain to be dried out a per the Design.		Discussed with site ecologist.	To consult with IFI prior to drying out stream/drain.
37.	25/01/2024	Washdown of excavator and dumper. Good adherence to biosecurity measures.		Documented.	No action required.

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38.	25/01/2024	Topsoil reinstated at Bleach hill. Soil relocated from pump house works area at Meadowbrook housing estate. Good recycling of soil material.		Documented.	No action required.
39.	26/01/2024	Soil consolidated along main channel to control runoff from exposed bare ground at Funeral home work site.		Documented and discussed with site ecologist.	Mesh to be installed for additional erosion control.

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40.	29/01/2024	SSI Coir-mesh required along this section on bank to prevent erosion into main channel. Discussed during ET005.		Discussed with site ecologist.	Coir-mesh later installed.
41.	29/01/2024	Pumping out of pump house works area at Meadowbrook –not in line with GFRS-RAMS-040 Meadowbrook Pumping Station Installation.		Amend silt mitigation measures immediately to conform to approved GFRS-RAMS-040.	Corrective action implemented on the 30/01/2024.
42.	29/01/2024	JKW exclusion zone fencing and sign-in improved.		Documented.	Issues implemented following issue raised in ET004.

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43.	30/01/2024	Filtration drain installed for Septic tank works at Sallybrook house. Good additional sediment protocol in the attenuation area.		Documented.	Continued to monitor sediment levels for the duration of works.
44.	31/01/2024	Siltation tank, sump and manifold system in place at pump station works area at Meadowbrook estate in line with RAMS 040.		Inspected new manifold system. Checked gully outlet in main channel for signs of sedimentation – none observed.	Actions addressed issue raised during ET005 and Item 24 in this audit.
45.	31/02/2024	Pumping out works area into main channel from funeral home works area. While the water being pumped out was clean at the time of inspection, this is not best practise.		Discussed issue with GO.	GO redeployed hose to adjacent Springmount stream and attached silt sock.

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46.	31/01/2024	Erosion mesh not installed with pegs at funeral home.		Spoke with GO and site ecologist.	Erosion mesh to be installed using pegs.

Appendix A. Sorensen's environmental audit 02/01/24 to 26/01/24

Attached separately.

Outstanding items from this month to be addressed by contractor:

No.	Issue	Action to be carried out
1.	Updated biosecurity plan to be reissued by Lisa Dolan	To be issued in February 2024.
2.	Ross Macklin Report to be issued ASAP	To be issued in February 2024.
3.	Update on otter derogation license applications for 2024.	Update ER accordingly.
4.	Follow up on measures to prevent run off from works at funeral home – coir-mesh to be installed with pegs to hold it firmly in place.	Install mesh with pegs as per manufactures specifications to ensure mesh stays in place while in operation.
5.	Revert with plans to complete top soiling and grass seedling at Bleach hill.	Update ER accordingly.
6.	Revert with plans to plant replacement birch tree at Bleach hill.	Update ER accordingly.