



## **Environmental Report May 2024**

### 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).


The main work areas for **May 2024** included:



- *Cois na Gleann - Road excavation, overpumping of stream, demolition of walls, installation of first culvert section.*
- *Sallybrook - JKW (Japanese knotweed) excavations, building of earth embankment.*
- *Sallybrook house – Sheet piling, silt defences installed.*
- *Meadow brook – Gullies, drainage works, cctv scan.*
- *New Line – Set up for pedestrian access, excavation for river diversion, installation of piping for stream diversion.*



Summary for May 2024:



- ECoW gained access to the live sonde data for Cois na Gleann and the Glashaboy. Access was also granted to ARUP engineers.
- Japanese knotweed was discovered at the northern end of the proposed embankment at Sallybrook. This was a new discovery and was therefore not included in the IAPS Report.
- Diversion of the Cois na Gleann took place for the removal of the existing stone culvert and the installation of the new pre-cast concrete culvert.
- Irish Red Data List endangered plant little robin (*Geranium purpureum*) was discovered nearby the works on Springhill. Subsequently this species was discovered in other locations within the works areas on old stone walls and other rocky habitats, some of which were due to be demolished. Additionally, the hybrid *Geranium purpureum X robertianum* was discovered within the works area. This plant is described as a “world rarity” in the EIAR. Records of this hybrid plant in Ireland are very rare. At risk individuals were translocated to a suitable receptor site.
- Environmental Tour 12 took place on 22 May.
- Single otter sighting at Meadowbrook on 29 May.



Table 1: Topics of interest from May 2024



Item number	Date	Comment	Image	ECoW Action/Recommendation	Sorensens's Action response
5.1	01/05/2024	<p>Young dipper (<i>C. cinclus hibernicus</i>) photographed at Cois na Gleann with tag on right leg. This is most likely one of the individuals from the nest in the culvert at Cois na Gleann. This is a good sign as the bird is healthy; therefore the ecological intervention here was a success.</p> <p>The original stone culvert at Cois na Gleann was providing a nesting habitat for Dipper (<i>C. cinclus hibernicus</i>). The new replacement culvert will not provide a habitat for this bird as there will be no ledges or platforms in the interior. However, if a dipper nesting box is placed in the new culvert, this will provide a nesting habitat for the species for the duration that the box survives. Therefore, the nest box will have to be inspected and replaced as necessary in</p>		Add dipper nest box to new culvert once complete to maintain the habitat for this species.	Awaiting response.



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		perpetuity to maintain the habitat.			
5.2	01/05/2024	Drainage ditch at Sallybrook House, Area 1. This is due to be filled in and replaced with an underground porous drainage pipe. Ecological potential here is low as the water is stagnant and disconnected.		Contractor to survey this habitat for aquatic species before replacement with underground pipe, though potential for species abundance and diversity is low.	Sorensen have agreed to survey this habitat prior to works.
5.3	01/05/2024	Silt sock discarded at funeral home site.		Site ecologist informed	Silt sock retrieved.



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5.4	07/05/2024	Stockpiling on this ecologically sensitive area at Meadowbrook continues.		<p>Recommendation: no further encroachment into this area. Opportunity to add native trees here once works are complete.</p> <p>This was communicated to the Site ecologists.</p>	Hazard tape was placed here to discourage access.
5.5	08/05/2024	Dust at Sallybrook and Circus field being kicked up in dry weather.		Informed site ecologist.	<p>Road surface watered to keep dust down.</p> <p>The dust management plan was adhered to, the dry surfaces are now watered with a bowser twice daily.</p>



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5.6	09/05/2024	1no. freshwater eel and 4no. trout collected from Cois na Glean, as the stream was overpumped around the work area.		Contractor to be better prepared for future in-stream works: nets, containers and electrofishing equipment on hand.	Further electrofishing training was completed by the site ecologist. Future in-stream works at other locations will require electrofishing – Meadowbrook, Springmount, New Line, Copper Valley Vue.
5.7	09/05/2024	Some Japanese knotweed remains at the Sallybrook embankment after removal of topsoil.		Recommendation: Continue spot-treatment of shoots as they emerge. <u>Do not treat the whole ground area with herbicide.</u>	Updated invasive species management plan requested from Sorensen. As of now they aim to treat the knotweed with foliar application of glyphosate in the late summer/autumn when herbicide is most effective.



Item number	Date	Comment	Image	ECow Action/Recommendation	Sorensens's Action response
5.8	15/05/2024	Excavation has appeared at Grandon's. The black liquid on the surface of the water is used motor oil which has escaped from a faulty holding tank beneath the car showroom. This type of pollution is especially damaging as it contains polycyclic aromatic hydrocarbons, heavy metals and residual fuels.		Continue to monitor this legacy issue.	
5.9	16/05/24	Used motor oil continues to enter the Glashaboy river at Grandon's. One gallon of used motor oil can pollute one million gallons of water.		Sorensen to consider how this situation may affect works at this location.	Sorensen discussed this pollution with IFI and Flynnfurney. Likely will not affect works unduely once the pollution issue has been addressed by third parties.

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5.10	21/05/2024	Pumps without absorbent mats at Sallybrook during pile driving.		Informed site ecologist, who asserted that mats are used when refuelling the pumps.	Sorensen clarified that these pumps have an internal sump to catch any leaking oil or fuel.
5.11	21/05/2024	Silt defences at Sallybrook House for pile driving works. These defences are appropriate and effective.		Informed site ecologist of my satisfaction with these defences. Recommendation: monitor and maintain to ensure effectiveness	Works were completed here with minimal silt pollution of the main channel.

Item number	Date	Comment	Image	ECoW Action/Recommendation	Sorensens's Action response
5.12	22/05/2024	Silt curtains at Sallybrook in the Glashaboy are working well to reduce silt discharge.		As above.	
5.13	21/05/2024	Riparian vegetation recovering at Sallybrook. This biodiverse plant assemblage is made of up mostly native species.		Recommendation: This valuable riparian habitat should be protected as far as possible. This existing riparian assemblage will help prevent the spread of Japanese knotweed.	Sorensen to adhere to the requirement in the EIAR section 4.3.6 to retain all tree stumps (root balls) within the 2m buffer of the Glashaboy river channel.

Item number	Date	Comment	Image	ECow Action/Recommendation	Sorensen's Action response
5.14	22/05/2024	World rarity <i>Geranium robertianum</i> X <i>purpureum</i> discovered at Springhill at base of old stone wall. This extremely rare plant was mentioned in the EIAR in the "Protected Flora" section. The parent plant <i>Geranium purpureum</i> is included in the OPW Red Species List.	 A person wearing a green hard hat and a high-visibility yellow vest is kneeling on a paved surface next to a stone wall. They are examining a small plant growing at the base of the wall. A timestamp in the bottom right corner of the image reads "22/05/2024 11:47".	Recommendation: Contractor to survey all suitable habitats for <i>Geranium robertianum</i> X <i>purpureum</i> prior to works beginning and to compile all records into a map for reference. Any specimens found should be carefully translocated to a suitable habitat before works commence. Vigilance is required as these plants are difficult or impossible to identify when not in flower. Each plant will fluctuate between a flowering state and non-flowering state throughout the growing season.	Sorensen have acknowledged these plants and have conducted surveys and translocations to protect them.
5.15	24/05/2024	Cois na Gleann instream works continue, water clear.	 A stream with blue and orange pipes laid out on the bank, surrounded by green vegetation. A timestamp in the bottom right corner of the image reads "24/05/2024 11:16".	Inspect silt defences regularly, especially prior to new instream works.	Environmental team have been inspecting silt defences and pumping locations daily.

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5.16	24/05/2024	<i>Geranium robertianum X purpureum</i> present on grounds of St.Joseph Roman Catholic Church.		Recommendation: Contractor to transplant any hybrids in danger of works to this location.	Sorensen have conducted translocation of plants to this location.
5.17	27/05/2024	Overpumping of drainage ditch at Sallybrook house.		Contractor to survey for aquatic species here before filling in.	Sorensen have agreed to survey this location for aquatic species before works commence.

Item number	Date	Comment	Image	ECoW Action/Recommendation	Sorensens's Action response
5.18	29/05/2024	Overpumping of drainage ditch at Sallybrook house.		Hose is positioned too high above the water line and is kicking up sediment in the attenuation area.	Site ecologist agreed to correct and the issue was soon corrected.
5.19	29/05/2024	Clearance for river redirection and pedestrian access at New Line.		Possibility to replant this area with native trees.  This will be included in the Biodiversity Plan.	N/A


Item number	Date	Comment	Image	ECoW Action/Recommendation	Sorensens's Action response
5.20	29/05/2024	Ash trees marked for removal for fencing at Sallybrook house.		9 trees in total removed from here. Recommendation: These trees should be compensated by the planting of at least 9 native trees in a suitable location.  This will be included in the Biodiversity Plan	N/A

Table 2: Ongoing issues from previous audits listed.

Item no.	Issue	Action to be carried out.	Updates	Resolution
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.	June: Hoarding completed.	Resolved.
4.6	It was observed on April 9 <sup>th</sup> that a tanker was discharging into the combined line at Springmount.	Enquiries were made regarding this observation to the site ecologist.	May: The site ecologist was aware of this activity. The tanker was flushing the combined line with clean water.	Resolved.

Item no.	Issue	Action to be carried out.	Updates	Resolution
4.19	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.	April: Bank was later reinstated.	Resolved.
4.25	Bat boxes installed on two separate trees downstream of the new culvert at Bleach hill as per the design specifications.	Contractor to inform Bat Conservation Ireland (BCI) about the two installed bat boxes.	BCI have been informed.	Resolved.
4.28	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.	New concrete washout area at New Line	Resolved.
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.	Plans are yet to be finalised.	Not resolved.
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.	EcoW requested Sorensen to add more scouring protection here. Before instream works (1 <sup>st</sup> July).	Not yet resolved.
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.	Hazard tape added here to discourage access to woodland.	Resolved.
5.1	The original stone culvert at Cois na Gleann was providing a nesting habitat for Dipper ( <i>C. cinclus hibernicus</i> ). The new replacement culvert will not provide a habitat for	Add dipper nest box to new culvert once complete to maintain the habitat for this species.		Not yet resolved.  (Works not yet completed.)

Item no.	Issue	Action to be carried out.	Updates	Resolution
	this bird as there will be no ledges or platforms in the interior.			
5.2	Drainage ditch at Sallybrook House, Area 1. This is due to be filled in and replaced with an underground porous drainage pipe. Ecological potential here is low as the water is stagnant and disconnected.	Contractor to survey this habitat for aquatic species before replacement with underground pipe, though potential for species abundance and diversity is low.		Not yet resolved. Works planned for a later date.
5.8	Some Japanese knotweed remains at the Sallybrook embankment after removal of topsoil.	Recommendation: Continue spot-treatment of shoots as they emerge. <u>Do not treat the whole ground area with herbicide.</u>  knotweed will be treated with foliar application of glyphosate in the late summer/autumn when herbicide is most effective.		Resolved.
5.9	Excavation has appeared at Grandon's. The black liquid on the surface of the water is used motor oil which has escaped from a faulty holding tank beneath the car showroom. This type of pollution is especially damaging as it contains polycyclic aromatic hydrocarbons, heavy metals and residual fuels.	Continue to monitor this legacy issue.		Not yet resolved.
5.15	World rarity <i>Geranium robertianum</i> X <i>purpureum</i> discovered at Springhill at base of old stone wall. This extremely rare plant was mentioned in the EIAR in the "Protected Flora" section. The parent plant <i>Geranium purpureum</i> is included in the OPW Red Species List.	Recommendation: Contractor to survey all suitable habitats for <i>Geranium robertianum</i> X <i>purpureum</i> prior to works beginning and to compile all records into a map for reference. Any specimens found should be carefully translocated to a suitable habitat before works commence. Vigilance is required as these plants are difficult or impossible to identify when not in flower. Each plant will fluctuate between	Ongoing surveys and translocations as populations are discovered.	Resolved.

Item no.	Issue	Action to be carried out.	Updates	Resolution
		<p>a flowering state and non-flowering state throughout the growing season.</p> <p>Action: Sorensen have acknowledged these plants and have conducted surveys and translocations to protect them.</p>		

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

Attached separately.

#### **Appendix B. Commentary Sorensen's Environmental Audit 01/05/24 To 31/05/24:**

- Updated permit to pump system requires the site ecologist to grant permission for pumping at each site. This permit must be renewed each week and must be renewed for each new job.
- Relocation of the downstream sonde into the Cois na Gleann stream rather than the Glashaboy was intended to give more accurate readings, and proved to be effective. This decision was influenced by the heavy rainfall which occurred during this time, which sometimes caused a difference between the Cois na Gleann turbidity and the turbidity of the Glashaboy.
- Despite the fact that the Cois na Gleann is disconnected from the Glashaboy by a concrete pipe culvert with a height difference, there were a few fish rescued. It's possible that these fish or their progenitors may have entered Cois na Gleann via the culvert during a flood event.
- The high turbidity recorded during the Cois na Gleann works was due to heavy rain, resulting in agricultural run-off upstream of the works area.