



Environmental Report May 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).

The environmental concerns for work areas for May 2025 included:

- **Grandons Petrol Station** - Works on drainage lines 2/S1.006, S1.007, S1.008. Environmental concerns focused on possible historic hydrocarbon contamination originating from Grandon's faulty petrol interceptor.
- **Area 1 - The construction of the earth embankment** in Sallybrook continued. Environmental concerns primary includes biosecurity measures for JKW (Japanese Knotweed).
- **Area 2, Shopping Centre bridge** - Following the closure of the bridge, preparation works for rotary piling commenced and was on-going until the end of the month. Environmental concerns included water quality control measures, vegetation removal, and siltation control in advance of rotary sheet piling with temporary sheet piling. **Area 2 - Shopping Centre Bridge**. Enabling works. Environmental concerns included vegetation clearance, bird nesting, biosecurity measures.
- **Area 4** - Trial holes in JKW area. Biosecurity measures and rare plant surveys on old stone wall to be demolished.

Table 1. Outstanding items to be addressed by Sorensen Civil Engineers (SCE)

Item No.	Issue	Action
7.48	Contaminated boulders temporarily stored at Sallybrook to undergo treatment with Bioversal HC.	<p>May 2025 Update:</p> <p>The boulders were treated with Bioversal RC in the summer of 2024. SCE have consulted directly with the Bioversal International in Austria the manufacturers of the Bioversal products. Given the length of time which has passed since the boulders were treated with RC, the boulders could be utilised within the Scheme setback at least 20m from a watercourse. The boulders will be inspected and undergo further treatment, where required.</p>

General comments

It was a mild, dry and sunny May for Ireland in 2025, with the average temperature among the warmest on record, and rainfall levels notably low according to Met Eireann Climate Statement for May 2025. This created overall good working conditions. Dry conditions did necessitate dust management throughout the month, however.

Environmental Tour **No. 028** was conducted on 01/05/2025, **No. 029** was conducted on 15/05/2025, **No. 030** was conducted on 29/05/2025 between the clients Ecological Clerk of Works (ECoW) and Sorensen's Site Ecologist. The tours form part of an ongoing collaborative arrangement designed to foster open communication, cooperation, and a positive working relationship between the Employer's representative (ER) team and the main contractor, Sorensen Civil Engineering (SCE). In addition, an Ecology What's App group allows direct communications between the client's and the main contractor's ECoWs.

There were no environmental incidents this month. A pre instream works meeting was conducted on May 29th between both teams of the employer's representative (ER) and main contractor, Sorensen Civil Engineers (SCE).

Contamination at Sallybrook

Hydrocarbon contamination at Sallybrook House continued to be monitored throughout the month. The contamination remained largely contained through the ongoing use of oil booms, absorbent pads, and reapplication of Bioversal HC. SCE's site ecologist and environmental team continued to implement control and treatment measures as required throughout May. The revised design for this location is still with the design team (Arup) and undergoing finalisation.

Note: Bioversal HC is an environmentally friendly remediation product designed to treat hydrocarbon contamination, such as oil spills. It works by accelerating the natural biodegradation of hydrocarbons through the activation of native microorganisms, without introducing foreign bacteria. Bioversal HC is non-toxic, biodegradable, and suitable for use on soil, water, and solid surfaces, making it ideal for environmentally sensitive areas.

Pumping Activities – May 2025

During the month, there was limited pumping of water onsite.

1. Overflow Culvert on Hazelwood Rd

The pumping of ground water at the excavation of the down stream Overflow Culvert on Hazelwood Rd. was completed. Most importantly the pump was switched off during the final back filling to prevent unnecessary sedimented discharge.

2. Shopping Centre bridge

Works to demolish the Shopping Centre bridge and install piling for the new bridge abutment required some corners of the existing bridge to be isolated using temporary sheet piles. These isolated areas were then excavated which encountered some ground water which required pumping (GFRS – PTP – 034 rev01). The water was pumped to a siltation tank and/or tanked out using a tractor and bowser which was then discharged at the Sallybrook attenuation area.

3. Area 4

Towards the end the month, Area 4 saw a permit to pump in place as ground water from the drainage work excavations along the Glanmire Rd/R639 pumped water to the local foul network.

Sand Martins Nesting

Located immediately downstream of the Hazelwood Bridge, where the overflow culvert is currently under construction, there is a revetment wall that supports the terrace of the Bean & Leaf coffee shop. This wall features eight weep holes.

At the beginning of the month, personnel working in the area, along with the Employer's Representative (ER) engineer, observed significant bird activity around the weep holes. Upon closer inspection by the site ecologist and the client's ecologist, it was confirmed that sand martins (*Riparia riparia*) had taken up nesting in the majority of the weep holes.

Sand martins are a migratory bird species that travel to Ireland during the summer months to breed. The wall had originally been scheduled for demolition as part of the construction design. However, due to the presence of active nests, demolition could not proceed until the nests were vacated. This required regular ecological surveys to monitor the nesting status. The site ecologist consulted with the National Parks and Wildlife Service (NPWS) throughout the process.

Partial works were carried out under supervision and in consultation with NPWS, which included the removal of a small section of the wall to facilitate necessary construction activities. The remainder of the wall was left intact for the duration of the nesting period. The sand martins were protected throughout the entire time, with all activities conducted in accordance with ecological best practices and relevant regulations.

Ecology and Environmental end of May meeting

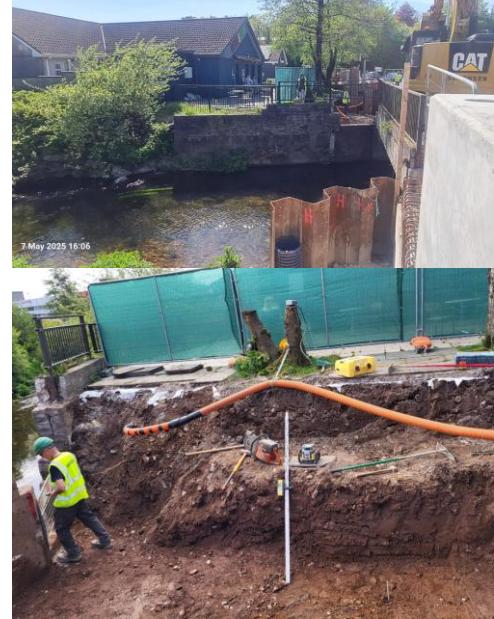
A meeting took place on May 29th between the Employer's Representative team and Sorensen, supplementing ongoing daily discussions on environmental and ecological aspects of the works. The meeting was well attended and addressed a broad range of topics related to planning for the 2025 in-stream works window.

Table 2. Main table of the months ecological and environmental related activities

Item number	Date	Comment	Image	ECoW Action/Recommendation	Sorensens's Action response
5.1	01/05/2025	<p>Protection of Potential Rare Plant – Little Robin (<i>Geranium purpureum</i>)</p> <p>No signs of flowering have been observed yet. The area would benefit by being more clearly delineated and communicated, especially now that the door is experiencing increased use during the hot weather.</p> <p>It is acknowledged that the location of the plants is less than ideal and was poorly planned by the client's ECoW. However, this does not diminish the importance of protecting and preserving the plants, despite their location in a high-traffic and exposed area.</p>		<p>Manage this environmentally sensitive area accordingly.</p> <p>The plants and stone material are to be relocated.</p> <p>Efforts are ongoing to source a permanent location to facilitate this relocation.</p>	<p>SCE advised members of the ER Team, which utilise this rear entrance, to take care not to trample on the emerging seedlings on 11/04/2025. The extent of emergent seedlings on 11/04/25 was delineated with blue spray paint. Materials and equipment were also removed from the door entrance. The extent of emergent seedlings visible on the 01/05/2025 was again delineated with blue spray paint since this is an active fire exit and cannot be blocked with fences, etc. The extent of visible emergent seedlings was again delineated on the 15/05/2025. Signs were also erected inside the meeting room/canteen and outside to highlight the presence of the plants on 15/05/2025.</p>

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5.2	01/05/2025	The nesting tube located in the CNG culvert is currently not in use by any bird species. As such, works to the downstream banks and the removal of the pedestrian bridge can proceed without obstruction.	 01/05/2025 10:22	Continue to monitor nesting tube while permanent works in this area are being carried out.	Periodic monitoring is taking place.
5.3	01/05/2025	A visual inspection of contamination at Sallybrook was carried out. The area appeared mostly clean, with only a minor visible contamination present. Arup has yet to return with design changes for this section.	 01/05/2025 11:44		Monitoring of hydrocarbon control measures are ongoing at Sallybrook Stream outlet. The hydrocarbon control measures were impacted by heavy rainfall and higher fluvial flows on the 25/04/25. The hydrocarbon control measures were replaced on the 28/04/2025.

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5.4	01/05/2025	Sheet piles are being removed from the overflow culvert today. Pumping is being directed to the attenuation area north of the basketball court. The discharged water was observed to be clear.		Continue monitoring the pumping and ensure attenuation is effective while pumping continues.	Pumping and monitoring of pumping is ongoing as per the RAMS (GFRS-MS-053) and Permit to Pump No. 130 (GFRS-PTP-130) issued by the Site Ecologist on 20/03/25 and the revised Permit to Pump No. 133 (GFRS - PTP-133) issued on 27/03/25. Backfilling and the pulling of the temporary sheetpiles commenced on 28/04/25. SCE redirected the pumped water behind the basketball court to the gravel check dams/silt fences and the vegetated infiltration area to reduce down the level of suspended solids prior to discharge to the Glashaboy River.

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5.5	07/05/2025 & 08/05/2025	<p>At the Bean and Leaf revetment wall, will is scheduled for full removal as per the design, weep holes have been taking up by sand martins (<i>Riparia riparia</i>) for nesting. Temporary sheet piling and 9 no. courses of blocks were removed to facilitate on going works. The works were carried out in consultation with NPWS and under the supervision of site ecologist. The welfare of the nest birds was evaluated through the works.</p>		<p>Bird nesting surveys were conducted prior to the proposed works and mitigations discussed. NPWS was consulted.</p>	<p>These works were carried out professionally and with the upmost consideration for the nesting sand martins nearby. The sheet piling works, and partial wall removal works were completed without any impact upon the nests or the nesting birds. The adult birds were observed post work continuing to actively feed the young birds in all the nests.</p>
5.6	08/05/2025	<p>Discoloured water was observed flowing from beyond the O'Connell Transport outlet. The origin or cause of the discolouration is currently unknown. The outlet intersects with the New Line works area and discharges into the</p>		<p>Recorded, but not directly observed. Duration unknown. No samples were taken. Insufficient information available to</p>	<p>No action required as this originated outside the works area and is not the responsibility of the main contractor.</p> <p>The duration of the incident was brief and over before control measures such as absorbent pads could be</p>

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		Glenmore River between the temporary sheet pile walls.		allow for further follow-up.	considered by the contractor.
5.7	15/05/2025	On the opposite bank of the river at Sallybrook, where the river bends sharply and forms a deep pool, a red barrier and other waste are present.	 A photograph showing a red metal barrier and other debris in a pool of water, likely a river bend. The water is greenish and shallow. The background shows dense green foliage.	Remove waste.	A barrier and other construction materials displaced by a previous flood event were removed from the banks of the Glashaboy River at Area 1: Sallybrook Compound on 09/06/25.
5.8	15/05/2025	The spoil generated from Grandon's drainage works was examined, with particular attention given to any potential risk of contamination. Unlike previous instances at this location, there were no visible signs or detectable odours indicating contamination.	 A photograph of an excavation site for a stormwater drainage line. The ground is rocky and uneven. A red pipe is visible in the trench. In the background, there is a fence and some construction equipment.	Issue raised as a precautionary measure.	Given that soil and stone material contaminated with hydrocarbons was previously encountered during the sheet piling works at Grandon's, all resulting excavated soil removed during the installation of the stormwater drainage line was inspected for the potential presence of hydrocarbons. Based on visual and olfactory inspection no indicators of hydrocarbon contamination were noted. The trench for the stormwater drainage line

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					was excavated at a shallower depth i.e. within the backfilled imported fill material from the previous sheet piling works.
5.9	15/05/2025	In Area 4, two Himalayan balsam (<i>Impatiens glandulifera</i>) plants were identified within the footprint of the works. To prevent them from reaching the flowering stage, they were uprooted and suspended to desiccate, following best practice.	 15/05/2025 12:35	Biosecurity measures should be strictly adhered to at this location given the potential for additional Himalayan plants to be present.	Himalayan balsam (<i>Impatiens glandulifera</i>), a regulated invasive species, was observed in Area 4 of the works site. During an Environmental Tour, the Site Ecologist manually removed two plants, including their roots, to prevent flowering and seed dispersal. The plants were placed upside down in a tree fork to prevent re-rooting and promote drying. This manual removal method is known as "balsam bashing." Given the plant's ability to disperse seeds explosively and persist in soil for up to 18 months, ongoing monitoring is planned.

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5.10	15/05/2025	In Area 4, knotweed species were observed either within the footprint of the works or in close proximity.	 15/05/2025 12:38	<p>Biosecurity measures must be strictly followed at this location due to the presence of Japanese knotweed and other knotweed species.</p>	<p>Japanese knotweed and Bohemian knotweed were identified in or near Area 4 (The Grove). The Site Engineer will mark out the works area for the Pump Station, RC Wall, and Crash Barrier to assess proximity to the plants and potential underground rhizomes. Due to the risk of dormant plants and hidden rhizomes, supervision by the Invasive Alien Plant Species (IAPS) Specialist Ecologist and implementation of biosecurity measures will be required and implemented.</p>

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5.11	15/05/2025	Due to its known presence in the Glanmire area, the wall scheduled for demolition in Area 4 was inspected for the rare plant species Little Robin (<i>Geranium purpureum</i>). No signs of the species were observed today.	 15/05/2025 12:48	The wall should be inspected again prior to its demolition.	Surveys for Little robin and its hybrid will be undertaken by the Site Ecologist in advance of the programmed demolition of the stone masonry wall (to accommodate the construction of the RC Wall and Crash Barrier).
5.12	15/05/2025	The works observed today on Hazelwood Bridge involved the removal of old road surfacing using a hydraulic breaker. This process posed a risk of dislodging the brickwork along the base of the railing, potentially causing them to fall into the watercourse below. Careful measures should be taken to minimise this risk and prevent environmental impact.	 15/05/2025 13:38	Works to be carried out while preventing any material entering the water course.	During the Environmental Tour, a rock breaker was observed on the deck of Hazelwood Bridge breaking out an existing concrete footpath. These works were being undertaken in close proximity to the handrail which is fixed to blockwork (two courses high) on the bridge parapet. The Site Ecologist spoke with the machine operator during the Environmental Tour

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					and advised caution given the proximity of the works to the river and the risk of falling material gaining access to the river.
5.13	15/05/2025	The brick wall, known to be a nesting site for sand martins (<i>Riparia riparia</i>), was visually inspected for a short duration. During this time, no interactions between the sand martins and the wall were observed, although the birds were actively present in the area. The brick removal works appear to have been successfully carried out, with the wall appearing intact, consistent with its condition prior to the sheet piling and brick removal process.		The area should undergo ongoing monitoring to assess the impact of nearby works on sand martin nesting. If interference likely, works should be halted and reassessed to ensure that nesting can proceed successfully.	No feeding activity was observed during the Environmental Tour due to high noise and visual disturbance. Monitoring has shown that adult birds reduce feeding during peak disturbance but resume once conditions normalize. The Site Ecologist returned afterward to confirm that feeding activity had resumed. Monitoring between 15:30 and 16:15 confirmed active feeding by adult birds. Video footage documenting this activity was shared with the ER's Ecologist via the Glanmire Ecology WhatsApp Group at 16:15 on 15/05/25.

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5.14	19/05/2025	GFRS – PTP – 034 rev01 – permit to pump in operation at Shopping Centre bridge.		Review of Permit and inspection.	Pumping was carried out professionally, management of silt was excellent.
5.15	21/05/2025	Vegetation was removed at the Shopping Centre Bridge and Copper Valley Vue following a breeding bird survey. While old nests were identified at both locations, no active nesting was observed at the time of clearance.		Discussed area to be cleared of vegetation prior to works with site ecologist.	Breeding bird surveys carried out, no bird nesting found.

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5.16	22/05/2025	A minor amount of gravel slipped into the margin of the watercourse at the Shopping Centre Bridge. The material was removed as much as possible using a bucket without entering the water. Erosion control mesh was installed as a temporary measure, and full removal is scheduled for the 2025 in-stream works season.	 	Discussed with site ecologist.	This was unintentional and minor. Corrections measures were implemented satisfactorily.
5.17	23/05/2025	As part of ongoing works at Hazelwood Shopping Centre Bridge, three sheet piles were installed into the sandbags located along the riverbank margin on the left-hand bank downstream of the bridge. Immediately prior to the commencement of		Works were carried out in good regard for water quality. Later inspection of the water course substrate showed no	Ongoing works in advance of rotary sheet piling schedule for June 2025.

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		these works, the Site Ecologist waded instream to mobilise any free-swimming fish from the immediate area.		signs of sedimentation.	
5.18	23/05/2025	<p>A short section of the concrete ledge on the deck of the bridge in front of the railings is to be removed (also under supervision) to facilitate driving a sheetpile flush with the bridge.</p> <p>Sheetpile used to catch falling debris before it entered the water course.</p>		Liaised with site ecologist on methodologies employed during these activities.	Creative solution to catch falling debris. Well planned and executed.
5.19	29/05/2025	<p>The ecologically sensitive zone located at the compound kitchen fire escape was inspected.</p> <p>One of the plants in particular appears to be exhibited at least some of the characteristics of the rare</p>		It was requested that the blue boundary line be extended to accommodate the growth of the plant, which has now exceeded the	The boundary was extended as requested. The sensitive area continued to be monitored and maintained throughout the month.

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		<i>Little Robin (Geranium purpureum).</i>		original boundary.	
5.20	29/05/2025	Two weep holes with potential for sand martin nesting were inspected immediately upstream of the Hazelwood Shopping Centre bridge. One of the holes appears particularly suitable, as it is exposed in a similar way to others further upstream that are now occupied.		Recommended to block it off to prevent the possibility of Sand Martins nesting, as they are known to be present in the immediate area. This will help avoid potential delays to the works, as the wall is scheduled for demolition in accordance with the design.	Both these holes were checked, found to be non-active for any breeding bird species, and subsequently blocked off.

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5.21	29/05/2025	<p>Rotary sheet piling is scheduled to take place next week at Hazelwood Shopping Centre bridge. This activity is expected to be particularly messy, generating a high-turbidity slurry that is expected to be ejected into the air. The RAMS for this work should provide full mitigation measures to address this.</p> <p>The RAMS should consider how silty material may be driven either through or beneath the existing temporary sheet pile arrangement. During today's observations (after the Tour), the driving of four sheet piles resulted in a minor release of silt, as shown in the attached photo.</p>		<p>Mitigation measures to prevent siltation of Glashaboy river should be clearly outlined in the Rotary Sheet Piling RAMS for review and input by the ER team prior to commencement of works next week</p>	<p>Subsequently, RAMS 084 – Rotary Bored Piling Rev 01 was issued by SCE, incorporating all appropriate mitigation measures including measure prevent silty water moving under sheet piles.</p>

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5.22	29/05/2025	<p>It was noted that pumping was taking place in Area 4 without a valid permit to pump.</p> <p>No pumping should occur on site unless a valid permit to pump is in place.</p>		<p>The Permit to Pump process should be reviewed for procedural weaknesses to ensure it is effectively applied by site personnel.</p>	<p>It was acknowledged that pumping undertaking should have been conducted under the permit to pump system. This was a rare occasion as the permit to pump system has proved itself effective. In this circumstance discharge was into local foul with no risk to surrounding water course.</p> <p>An Environmental Incident Report was considered for this incident but was deemed unnecessary given the absence of any environmental impact and the effective operation of the Permit to Pump system operating well across the Scheme's work sites for the majority of the time.</p>

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5.23	29/05/2025	<p>The wall in Area 4, which is scheduled for demolition, was inspected for the presence of the rare plant species Little Robin (<i>Geranium purpureum</i>), due to its known occurrence in the Glanmire area.</p> <p>A number of flowering <i>Geranium</i> plants were observed to be exhibiting some interesting characteristics which were growing on the wall. While a definitive identification could not be made at this time, there is a strong possibility it may be <i>Little Robin</i> (<i>Geranium purpureum</i>).</p>		Continue to conduct surveys leading up to wall demolition.	Before wall demolition, a number of plant were successfully removed and translocated to the sensitive area in the compound for holding.
5.24	29/05/2025	The sand martins (<i>Riparia riparia</i>) at Bean and Leaf revetment wall were not directly monitored during the site tour, but their activity and presence were discussed. It was noted that sand martins are currently very active in the area, with		The area should undergo ongoing monitoring to assess breeding and fledging status, which may inform any potential	Site Ecologist regularly monitored Sand Martin nests at Hazelwood Bridge in consultation with NPWS Conservation Ranger Sam Bayley, coordinating the blocking of weep holes as each brood fledged.

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		<p>most of the eight weep holes observed recently to be in use for nesting. Discussions focused on the timing of the breeding season and the potential for a second clutch of eggs being laid. It was acknowledged that any attempt to prevent a second breeding attempt would require meticulous planning and consultation with the NPWS.</p>		<p>actions to prevent a second clutch of eggs from being laid.</p>	