



ATTACHMENT B.8: IMPROVEMENT PROGRAMME

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Schedule A & C Improvement Programme as per D0427-01

Specified Improvement Programmes: (under Schedule A and C of WWDL)	D0427-SIP:01 Improvement works to ensure compliance with Condition 1.7 of this licence Schedule C
Date for completion of Improvement Programme in the licence:	31 st December 2018
Has the date for completion expired? (Enter N, N/A or Y)	Y
Status of works: <i>e.g. (i) Not Started; (ii) At planning stage; (iii) Work ongoing on-site; (iv) Commissioning phase; (v) Completed; (vi) Delayed</i>	Completed in Q4 2021
<p>The time period conditioned in the WWDA to complete the SIP was insufficient to undertake the investment funding, strategic assessment, feasibility studies, detailed design, procurement, and construction.</p> <p>As noted above, UÉ completed the Coachford upgrade works to achieve compliance with the licenced ELV's in 2021.</p>	

Key Improvement Works Element:

The construction of the new Coachford WwTP was completed in Q4 of 2021. The new WwTP is located on the site of the existing Cork County Council Roads Department storage yard at NGR 146003E, 73146N. The WwTP has a 30-year design capacity of 1,600 p.e. and a 10-year design capacity of 1,400 p.e.

The new WwTP provides secondary treatment with P removal and consists of the following key infrastructure elements:

- Inlet Pumping Station & SWO Chamber
- Inlet works
- Storm tank (120m³)
- 2 primary settlement tanks
- 2 no. primary settling tanks
- 4 no. RBC units
- 2 no. final settling tanks

The WwTP design is based on Rotating Biological Contactor technology which will be able to treat the incoming influent to the required standard as outlined in the table below.

The proposed effluent standards are provided below:

Parameter	Proposed Effluent Standards
COD	125 mg/l
BOD	25 mg/l
Suspended Solids	25 mg/l
Total Ammonia (as N)	6.5 mg/l

Parameter	Proposed Effluent Standards
Total Phosphorous (as P)	1.2 mg/l
pH	6-9 (pH Units)

As part of the WwTW upgrade works, the following works were completed:

1. Upsizing existing sewers – construction of new concrete gravity collection sewers.
2. Construction of a new concrete outfall pipeline from the WwTP terminating at a new headwall at the edge of the Inniscarra Reservoir. **Note:** This is not to facilitate a new primary discharge location point.
3. Along the new pipeline a spur pipeline was constructed to divert flows to an existing manhole on the existing outfall pipeline. From this spur, the original pipeline then acts as the main treated effluent outfall, *i.e.*, discharge point as per the current licensed discharge point location, SW001 (NGR 145231E, 72297N). This configuration also facilitates the Dual Function Overflow and SWO (SW006 and SW007, respectively) from the WwTP.
4. In a storm event, where the level of the lake rises and the capacity of the existing submerged pipeline is exceeded by the storm flows (*i.e.*, during activation of SW006 SWO when flows to the plant are greater than Formula A, and if flows from the WwTP are >175 l/s (*i.e.*, greater than the design capacity of the existing primary outfall)), the storm flow will back up to manhole and spill *via* a high-level connection, which will discharge the storm flows *via* the new concrete outfall pipeline terminating at the new headwall discharge outfall point (SW005). In summary, SWO SW005, will only be triggered during a storm event when the hydraulic capacity of the original component of the primary discharge outfall pipe is overloaded.

Decommissioning of Overflows:

1. It should also be noted that 2 no. SWOs, SW002 and SW003 both licensed under D0427-01 and located west of the entrance to the septic tank which discharged to an open drain during periods of heavy rain were both decommissioned in 2016.
2. SWO SW004 (unlicensed) was constructed in 2016. The SWO chamber was located immediately before the septic tank and excessive flows were diverted to the adjacent Knockaneowen Stream *via* a 600mm diameter pipe. There was no screening at this SWO. This SWO replaced the two SWO's identified in the Licence (*i.e.*, SW002 and SW003). The exact co-ordinates of this SWO discharge location are unknown. This SWO was decommissioned as part of the Coachford WwTP upgrade works.

Programme for Completion of Improvement Works:

The improvement works to the WwTP and network were completed as of Q4 2021.