

FINGAL COUNTY COUNCIL INTERNAL CONSULTTEE

PLANNING REPORT

Report of Senior Executive Scientist, Environment Department

Register Reference: F23A/0636

Registration Date: 20-Oct-2023

Development: In the townlands of Pickardstown, Coultry, Huntsown, Forrest Great, Forrest Little, and Collinstown; and to the east of the airfield in the townlands of Cloghran, Corballis, Commons, Toberbunny, Stockhole and Clonshagh.

The proposed development includes upgrades to existing drainage infrastructure and construction of additional drainage infrastructure to improve performance of the surface water management system at Dublin Airport and will consist of:

- a. a contamination detection and response (CD&R) system comprising detection devices, network decision points (DPs), control kiosks, and ancillary infrastructure including local access roads, local drainage and communications and power ducts;
- b. clean water supply pipelines consisting of large diameter trunk pipelines;
- c. airfield contaminated pipelines consisting of large diameter trunk pipelines;
- d. upgrades to the West Apron surface water collection network including reconfiguration of the existing network, construction of an underground attenuation tank, installation of a local CD&R system, network DPs and a control kiosks, construction of an underground pollution storage tank, a pumping station, and ancillary development including local ductwork, local access roads and local drainage;
- e. upgrades to the existing surface water collection network in the vicinity of the South Apron including reconfiguration of the existing network, construction of network DPs, upgrade of the existing flow diversion structure (FDS) and reconfiguration of the existing Cuckoo supply channel;

- f. a central pollution control facility (CPCF) consisting of underground pollution control storage tanks, a pumping station, a discharge pipeline to the Uisce Eireann network, mechanical and electrical equipment, a control building, an electrical substation, and ancillary development including a local access road, enhanced flood bund, local drainage and ducting;
- g. a CPCF pipeline consisting of a large diameter trunk pipeline;
- h. a central supervisory control and data acquisition (SCADA) system comprising kiosks and associated electrical power and signal connections;
- i. repurposing of the central section of the existing Airfield Trunk Culvert (ATC) as a contaminated pipeline; and
- j. ancillary and associated development including pipework, mechanical and electrical service connections and upgrades, temporary compounds and site works.

This planning application is accompanied by an Environmental Impact Assessment Report and Natura

Impact Statement.

AI received 13/06/24

SAI received 27/06/24

Location: Dublin Airport, Swords, Co. Dublin

Applicant: DAA plc

Application Type: Permission

Report

I have reviewed the following further information submitted for this application as follows:

Document 1 "Response to Request for Additional Information" Section 2 A to G &

Document 2 "Updated Water Framework Directive Assessment Screening Report"

Deicing runoff impact

The COD:BOD ratio used in the analysis is still unclear.

- The information in Section 2 A of Document 1 is a formula and a graph. The graph and the formula do not seem to match. The formula gives a ratio of between 3.06 and 2.58 for 10-50mg/l COD reducing to 2.1 for a COD of 300mg/l. However, the graph appears to give an almost 1:1 ratio.
- In the Airfield Drainage Project Tank Sizing Report the Applicant quotes a figure of 1.72.
- In Document 2 the applicant has used a ratio of 3.85 (50mg/l COD = 13mg/l BOD). This might be explained by the use of a different ratio for baseflow COD runoff (ie COD in runoff without the use of de-icing agents) compared to the ratio used for the runoff containing de-icing agent.
- The ratio used in the application for a connection agreement with Irish Water uses a ratio 1.85

The predicted BOD concentration in the Cuckoo Stream document 2 is: *"The waste assimilation capacity of the Cuckoo Stream at a BOD trigger of COD mg/l would result in max of 13mg/l as a worst case scenario with 1.5-1.7 mg/l BOD is more realistic on average."*

The predicted concentration of de-icer in terms of COD in the cuckoo stream from the Table 2-5 section G of Document 1 averaging 16.6 mg/l COD. Depending on the COD:BOD ratio used this could mean either a 4.3mg/l BOD or 6.0mg/l BOD, this on top of baseload BOD in the river. This causes some concern for meeting WFD targets.

Table 2-3 Section E Modelled De-icer Quantities of Document 1 responds to a request for further information to use the tank sizing model report to model the current (Model 2) and future situation (Model 3 @32million Passengers PA) with the increased tank size. The model was run for thirty years and give a reduction in de-icer load to the stream of over 90% except for 2 years when the storage in the tank is exceeded where the reduction drops to closer to 70%. This reduction in load to the river is significant and on this basis **I recommend approval of the project**, not withstanding the uncertainty over the projected BOD level in the river.

Due to the uncertainty of meeting water framework directive targets for the river I recommend that a condition be inserted in any planning permission that a sampling point be provided accessible to the Local Authority (i.e not airside) downstream of the outlet from the pollution control facility overflow point.

This recommendation is based on the proposal catering for the current 32million passenger limit.

NB: Approval of the proposal does prejudice the local authority in its role implementing the water pollution act to require additional measures to meet water quality objectives.

PFAS Contamination

The Council is aware of historic PFAS contamination from fire fighting foam at the Airport. Recently the Airport published a report on the monitoring undertaken by them of the soils at contamination sites, groundwater and of streams draining the airport.

The proposed works in this application are intended to address the ongoing pollution from deicing activities and not intended to address PFAS contamination, It would be unwise to make the implementation of the proposal contingent on addressing PFAS contamination. There are measures to deal with the monitoring for contamination of excavated soils in this application and the disposal off site if they arise which is an acceptable mitigation measure.

The local authority has powers under the water pollution acts which are separate to the planning acts to require measures to abate water pollution or the risk of water pollution. The issue of PFAS pollution is subject of ongoing interaction with the Dublin Airport Authority however at this time no appropriate course of action has been identified to appropriately address any remediation requirements.

Regarding the summary of the 3rd part submissions related to PFAS I report as follows

1. The applicant not assessed and confirmed the presence of PFAS contamination in soils and groundwater on the Airport campus. *The application has identified the risk that the excavated material may be contaminated and may as a result require special disposal off site.*
2. There is a lack of comprehensive reporting and assessment on PFAS contaminating water resources. Compensation measures need to be undertaken for the reburial of contaminated soils and removal of contaminated soils. *Not relevant to this application. The reburied soil is away from the location of the proposed works*
3. A consultation should be undertaken with the EPA, Fingal CC, Health and Safety Authority and daa. *Not sure if this relates to PFAS however the EPA has stated it is a local authority matter under the water pollution act and the health and safety authority deals with occupational safety which is not a planning matter.*
4. PFAS contamination within Airport Campus has been known since excavation of the North Runway in 2017. *This statement is correct.*

5. The FI response does not alleviate concerns around potential contamination of groundwater into receiving waters as a result of the development. *In regard to PFAS this application is not intended to deal with PFAS contamination but with ongoing pollution from de-icing activity*
6. The applicant is ignoring the PFAS/PFOS contamination, and the NIS is deficient of proper assessment on the impact on European sites. *This application is not intended to address PFAS contamination.*
7. The cumulative impact on the contamination at the Apron 5 development site should be assessed in conjunction with this application. *The Apron 5 development did not cause PFAS contamination however historic PFAS contamination required excavated soils which were contaminated to be exported for disposal. Excavation of contaminated soils if they occur on this project will require them to be disposed of appropriately.*
8. FCC should refuse the application based on a lack of screening and assessment of PFAS/PFOS contamination and the impact on European sites. *BSM should advise on this matter.*
9. Treatment and disposal of contamination on site is to be considered, proposals need to be presented in the EIAR for public knowledge. *Disposal off site of contaminated soils does not need to be considered as part of this application. The disposal site will require assessment which is likely to be abroad and most likely already will be assessed under the appropriate legislation of the jurisdiction where the site is located.*
10. Impact PFAS would have on the proposed Metro at the airport and how will the metro tunnel impact the PFAS and groundwater. *This is not a matter for this application.*
11. Page 3 of the 2020 of the Materials management Design report, contains references to 18 reports that have not been provided. *This is not a matter for this application.*
12. Page 19 of Materials Management Design Report noted the USEPA Regional screening levels are PFOS 0.000172mg/kg and PFOA 0.000378mg/kg. The actual levels in soils are reported at 1.151mg/kg for pfos and 0.015 for PFOA. This is 880- and 40-times exceedance of the USEPA guidelines. *The report referred to contamination at locations not subject to works in this application.*
13. There is buried contaminated soil around the water attenuation tank. Boulder clay will be used which is not impermeable as it will have gravel lens. The laboratory permeability test was unscientific as permeability tests must be undertaken on insitu soils. *The location of the water attenuation tank is not located in the area of works proposed in this application.*

14. Highly contaminated soil was put into ground where water attenuation tank is proposed, no reassurance that the proposal will ensure soil will not allow contaminants to leach out into groundwater. *The location of the water attenuation tank is not located in the area of works proposed in this application.*
15. No consideration given if potential leaks occur in the surface water tank accelerating the contaminants into ground water. *The underground tank is not to address PFAS contamination but to address deicer contaminated runoff, the tank and other mitigation measures will reduce the deicer pollution significantly and is not relevant to PFAS.*
16. The burying of contaminated soil to date has been putting human lives at risk. *The location of burying contaminated soil is not located in the area of works proposed in this application.*
17. Full series of borehole groundwater monitors should be required around the entire airport until PFAS contamination is fully removed. *The proposed works which address de-icer pollution should not be made contingent on a series of boreholes being installed to monitor groundwater and PFAS contamination.*
18. A full site investigation should be carried out to identify the extent of contamination instead of dealing with contamination as it's found. Specific remedial measures and environmentally assess the entire operation should be set out in the EIAR. . *The proposed works which address de-icer pollution should not be made contingent on addressing PFAS contamination.*
19. Existing flooding occurring at Forrest Little Golf Club haven't been alleviated and concerns whether the proposed development will cause further flooding. *This matter should be addressed by PSI water services*



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7th August 2024