



DUBLIN AIRPORT DRAINAGE MASTERPLAN

Drainage Management Plan



May 2023



daa plc

DUBLIN AIRPORT DRAINAGE MASTERPLAN

DRAINAGE MANAGEMENT PLAN 2022-2027

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ATTACHMENT

Drawing No. 20771-SK-281: River Catchments map of Dublin Airport

ANNEXE

Annex 1: DMAP Interim Water Quality Targets

Annex 2: DMAP Terms of Reference

1 BACKGROUND

- 1.1 daa is developing a Drainage Masterplan for Dublin Airport which will set out a holistic, long-term drainage strategy for the airport campus consistent with planning and environmental requirements. The aim of the Drainage Masterplan is to provide a consistent approach to planning and building infrastructure; a framework to follow for future development; and a phasing plan in line with the funding structure for capital works for this important national infrastructure.

2 THIS DOCUMENT

- 2.1 This document is the Dublin Airport Drainage Management Plan (DMaP). The DMaP supports improvements in surface water management at Dublin Airport on a phased basis, consistent with the Drainage Masterplan, and consistent with the Water Framework Directive (WFD).
- 2.2 The DMaP responds to the Surface Water Quality objectives of the Dublin Airport Local Area Plan (LAP) 2020. It represents daa's commitment to a targeted, phased approach to achieving the appropriate water quality status objectives for the waterbodies surrounding the airport campus.

3 STATEMENT OF PURPOSE

- 3.1 The purpose of the DMaP is to:
- Set out procedures and protocols for a Technical Working Group (TWG) with responsibility for oversight and review of the DMaP.
 - Provide a framework to facilitate improvement of surface water quality and ecological status in waterbodies surrounding the airport campus in line with the WFD.

4 SCOPE AND ENVIRONMENTAL CONTEXT

- 4.1 The DMaP sets out targets, the achievement of which will enable daa to contribute to the attainment of statutory water quality objectives along with measures to achieve these targets and criteria upon which to assess achievement of the targets.
- 4.2 The measures contained in the DMaP relate to improvement of the water quality of the waterbodies receiving storm waters from the airport campus. **Drawing No. 20771-SK-281** (attached) shows the location and extent of the relevant catchments, their current WFD status, and locations of pollution control facilities at Dublin Airport.
- 4.3 Table 4-1 summarises the WFD objectives for the waterbody catchments which receive storm waters from the airport campus. As shown in the table, the Santry and Mayne catchments are targeted for improvement in the current RBMP for Ireland, while the Sluice catchment is not currently targeted for improvement. The DMaP details measures by daa that will contribute to meeting the WFD objectives for each waterbody, in particular those waterbodies targeted for improvement in the RBMP.

Table 4.1: WFD objectives for waterbodies surrounding the airport campus

Catchment	Sub-catchment	Targeted for Improvement in RBMP?
Sluice	Kealy's Stream	No
	Wad	
	Forrest Little Stream	
Ward	Ward	Yes
Santry	Santry	Yes
Mayne	Mayne	Yes
	Cuckoo Stream	

4.4 Targets are set in the DMAP to ensure tangible improvements in surface water management and achievement of improved receiving water quality in phases. By addressing potential catchment pressures posed by airfield operations in this manner, the DMAP will facilitate progressive attainment of the statutory objectives set for each waterbody. Each phase will be for a period of 6 years to coincide with reviews the RBMP.

4.5 **Annex 1** presents catchment-specific interim water quality targets for each waterbody. Targets will be assigned specific measures and criteria to facilitate assessment of performance of the measures deployed.

5 ADMINISTRATION AND RELEVANT PARTIES

5.1 A Working Group has been established by agreement, with representation from daa, Fingal County Council, and other agencies such as Inland Fisheries Ireland, EPA, and LAWPRO. daa will be responsible for calling meetings, setting agendas, and recording minutes of meetings of the TWG.

5.2 The main function of the TWG is to review and provide comment on the targets, measures and performance criteria set out for each waterbody for the initial phase and each subsequent phase of the DMAP.

5.3 The TWG shall meet at a minimum once per year to undertake its review function, and every 6 years to assess progress in achieving targets set for each waterbody.

5.4 Participation by the stakeholders on the TWG is voluntary and is without prejudice to the statutory powers and responsibilities of agencies in relation to protection of the water environment.

5.5 **Annex 2** details the administrative and reporting procedures for the TWG.

6 ESTABLISHMENT OF OBJECTIVES AND REVIEW OF PERFORMANCE

6.1 Catchment-specific interim water quality targets are established for each waterbody in the DMAP (see **Annex 1**). Each waterbody may be subject to several specific targets.

6.2 Progress towards meeting the targets will be reviewed on an annual basis. The TWG shall meet and review each target and associated performance criterion and relevant supporting surface water monitoring data. In addition, any surface water pollution incidents/near misses which occurred in the airfield will be presented to the TWG for review, along with a report on response measures and impacts.

- 6.3 A comprehensive surface water monitoring programme is in place at Dublin Airport. This monitoring programme has been shared with all relevant parties in engagements undertaken for the Drainage Masterplan. Results from ongoing monitoring by daa have been shared with all relevant parties and will be shared on an ongoing basis with the TWG during the annual review process.
- 6.4 Targets will be reviewed prior to the commencement of each 6-yearly phase. daa will commission and present a methodical review of trends in receiving water ecology, in tandem with a review of hydrological and chemical water quality properties of the discharges. Specifically, the following data review exercises are proposed:
- Analysis of trends in Q-value scores and observations made during biological monitoring over the preceding monitoring period, identifying significant sources of impact on observed ecology.
 - Review of available hydrological data and assessment of the impact of airfield operation on receiving water ecological flows.
 - Review of all physico-chemical data and statistical analysis to characterise receiving water quality.
 - A mass balance analysis to identify significant hydrological, chemical and ecological impacts of altering drainage system operation.
- 6.5 A review of each catchment-specific interim water quality target against the performance criteria shall be undertaken at the end of each phase. A final determination of whether the measures adopted have contributed positively to the achievement of targets set and to the attainment of the statutory water quality objectives will be made.
- 6.6 A revision of all interim targets shall be undertaken, with consideration for the prevailing trends in ecological, hydrological and chemical water quality data.
- 6.7 Building on improvements achieved in the previous phase, targets shall be set to ensure progressive improvement and/or maintenance of receiving water ecological and chemical water quality in line with the statutory objectives.