Annex 1. DMaP Interim Water Quality Targets

Receiving Water	Ref	Context	Target	Measures	Performance Criteria
Cuckoo Stream (Mayne)	**DMaP.M.C.1**	Ensuring sufficient flow in stream is fundamental to facilitating a diverse and stable freshwater invertebrate population indicative of *"Good"* Ecological Status. The existing Pollution Control Facility (PCF) operating on the Cuckoo stream results in the diversion of the entire upper catchment to sewer when activated. The operating philosophy of the PCF, specifically the diversion concentration, determines the frequency by which flows are diverted to sewer. A balance is required between ensuring sufficient flows in the stream for ecological purposes and ensuring in so far as is practicable that the minimum amount of organic pollution attributable to airfield de-icing operations is released downstream.	Increase Cuckoo Stream flows. Improve ecological condition of Cuckoo Stream at biological monitoring point downstream of the Cuckoo PCF.	Operation of PCF at diversion concentration of a minimum of 50mgCOD/L during the de-icing season. Construction of additional decision points in the surface water collection network to maximise clean/contaminated runoff segregation. Reconfiguration of drainage infrastructure to separate clean flows from potentially contaminated flows.	Cuckoo Stream flows. Q values measured downstream of PCF.
Cuckoo Stream (Mayne)	**DMaP.M.C.2**	The PCF is in place as a means of intercepting concentrated de-icer contaminated runoff. During de-icing season subject to extreme events, the PCF capacity may be reached, particularly if the system is operated in a manner which sees tanks filled with high volumes of highly diluted runoff. This may result in heavily contaminated runoff being released to stream. Measures to mitigate this risk are required.	Minimise occurrence of overflow events. Monitor impact of overflow events.	Operation of PCF at diversion concentration of 50mgCOD/L. Construction of additional PCF tank capacity sufficient to eliminate PCF overflows in 95% of de-icing seasons.	Number of overflow events recorded. In-stream real-time COD data recorded at the Cuckoo Stream. Event-responsive sampling of Cuckoo Stream downstream of PCF.
Cuckoo Stream (Mayne)	**DMaP.M.C.3**	Given the nature of activities undertaken on the airfield, there is a risk of contaminating substances spilling onto hardstand areas and entering the surface water drainage system.	Improve capacity of the PCF emergency spill response. Monitor and investigate notable elevations in WQ parameters	Operation of PCF at diversion concentration of 50mg/L. Revise PCF control philosophy to improve	Number of emergency spill events recorded as entering surface water. Real-time COD data recorded in PCF tank and in Cuckoo Stream.

		Emergency spill response procedures are in place, as is an extensive network of fuel interceptors. A further safeguard to downstream water quality is the PCF, the control of which facilitates emergency spill response by activating and segregating contaminated runoff. This provides a further measure of protection to downstream water quality. An additional safeguard is the routine surveillance undertaken as part of the Surface Water Monitoring Programme, which allows identification and investigation of notable increases in parameters.		emergency response activation times. Maintain daa Surface Water Monitoring Programme.	Event-responsive sampling of Cuckoo Stream downstream of PCF.
Ward	**DMaP.W.1**	The Ward river drains a minor portion of the North Runway development. The upper catchment is Designated *"Good"* status and the river supports salmonid species. Given the sensitive nature of the receiving water, there is a need to ensure any risks to water quality are prevented or appropriately mitigated.	Minimise risk of contamination entering surface water	Operate the North Runway drainage network in accordance with the consented design.	Surface water monitoring programme.
Forrest Little (Sluice)	**DMaP.S.FL.1**	Ensuring sufficient flow in the stream is fundamental to facilitating a diverse and stable freshwater invertebrate population indicative of *"Good"* Ecological Status. The PCF at the North Runway diverts all flows exceeding the diversion concentration to sewer. The operating philosophy of the PCF, specifically the diversion concentration, determines the frequency by which flows are diverted to sewer. A balance is required between ensuring sufficient flows in the stream, while ensuring organic pollution attributed to airfield deicing operations is not released downstream.	Maintain stream flows. Improve ecological condition of stream at biological monitoring points	Operate North Runway pollution control system in accordance with the requirements of any planning permission. Monitor impact of operation of North Runway PCF on receiving water. Operate PCF at an appropriate diversion concentration.	Stream flows. Q values measured at daa Biological Monitoring Point downstream of PCFs.

		The North Runway PCF is planned to initially operate with diversion concentrations of 3-5mg/L BOD (11-19mg/L COD).			
Forrest Little (Sluice)	**DMaP.S.FL.2**	See DMaP.M.C.2	Minimise occurrence of overflow events. Monitor impact of overflow events.	Operate North Runway pollution control system in accordance with the requirements of any planning permission. Monitor impact of operation of North Runway PCF on receiving water. Operate PCF at an appropriate diversion concentration.	Number of overflow events recorded. Real-time COD data recorded in PCF tank. Event-responsive sampling of Forrest Little Stream downstream of PCF.
Forrest Little (Sluice)	**DMaP.S.FL.3**	See DMaP.M.C.3	Ensure PCF provides emergency spill response capability.	Operate North Runway pollution control system in accordance with the requirements of any planning permission. Monitor impact of operation of North Runway PCF on receiving water.	Number of emergency spill events recorded as entering Stream. Real-time COD data recorded in PCF tank. Data recorded in event-responsive composite and grab sampling of Forrest Little Stream downstream of PCF.
Kealy's Stream (Sluice)	**DMaP.S.K.1**	Kealy's stream drains the majority of the hangars, and a significant proportion of the developed landside area of the campus. A minor portion of the airfield, namely the North Apron, drains to the Kealy's Stream Catchment. Airfield developments are planned in the North Apron. These	Identify potential water quality pressures.	Execute daa Surface Water Monitoring Programme.	Water quality sampling data within Kealy's Stream catchment.

		developments will see the establishment of another PCF to serve the catchment. The operation of any future planned PCF will be subject to meeting targets set in the Drainage Management Plan.			
Mayne	**DMaP.M.M.1**	A portion of the south runway drains to the Mayne river, upstream of the confluence with the Cuckoo Stream. No stand areas drain to this portion of the river. Any risks to surface water quality are largely associated with spills and occasional occurrence of pavement de-icing. Current data does not indicate significant water quality impacts attributable to airfield operations. Significant additional levels of surface water monitoring have recently been deployed to further assess the impacts of airfield operations on the stream.	Identify potential water quality pressures.	Execute daa Surface Water Monitoring Programme. Identify potential pressures from airport campus and establish control measures if required.	Water quality sampling data within Mayne catchment.
Santry	**DMaP.S.S.1**	A minor portion of the south runway drains to the Santry River. No stand areas drain to this portion of the river. Surface water quality risks are largely associated with spills and occasional occurrence of pavement de-icing. Current data does not indicate water quality impacts attributable to airfield operations. Significant additional levels of surface water monitoring have recently been deployed to further assess the impacts of airfield operations on the stream.	Identify potential water quality pressures.	Execute daa Surface Water Monitoring Programme. Identify potential pressures from airport campus and establish control measures if required.	Water quality sampling data within Mayne catchment.