



## WATER STEWARDSHIP IN AIRPORTS



As gateways to the communities which they serve, airports have high visibility and play a key role in the river basin where they are located. Given the multi-faceted nature of operational water management at airports there is a huge potential for innovation. While, airports are often limited in their capacity to address noise or air pollution nuisances, there are a number of opportunities for water management improvements. The proactive nature of Water Stewardship allows airports to demonstrate commitment to the protection of water resources and responsibility as a key player in the catchment area.

### WHAT MAKES AIRPORTS SPECIAL?

There are key unique factors which shape the way water is managed at airports with differing responsibilities for actions linked to water use including that:

- Government and private sectors play varying roles according to local objectives.
- Airlines and cargo operators also have different roles and responsibilities in terms of terminal ownership and management, ground handling, and other key functions.
- Airports are increasingly important market places and inter-modal hubs of transportation between air, sea and ground links.

Water Stewardship allows water users to address the local impacts of on-site water management and integration of supply chain activities. Integrating stakeholders and service providers of various types is high priority to ensure Water Stewardship in airport management.

### WHAT ARE THE BENEFITS OF EWS FOR THE AIRPORT SECTOR?

Implementation of the **EWS standard** via pre-screening or certification allows airports to:

- ✓ Evaluate their water management performance.
- ✓ Integrate water-related activities into one exhaustive management strategy thus ensuring continuous improvement.
- ✓ Define a targeted response strategy responding to current local water use risks.
- ✓ Enhance communication on their Water Stewardship efforts via established third-party certification.
- ✓ Align management with water policy requirements.
- ✓ Get involved in collective action within the river basin.

Airports as water users have a large economic, social and environmental responsibility. Thus a cohesive water management strategy is an important step in engaging with local river basin authorities and civil society in order to address regional challenges with tangible solutions.

### MORE INFORMATION ON EWS & AIRPORTS

For more information on findings from EWS implementation in the airport sector see the **EWS Pilot Study Airports**. For questions please contact [m.valle@ewp.eu](mailto:m.valle@ewp.eu).



## WATER STEWARDSHIP IN AIRPORTS (CONTINUED)

	WATER HOT TOPICS FOR AIRPORTS
<b>Water supply</b>	<ul style="list-style-type: none"> <li>• <b>Need for dependable supply of water</b> to support diverse activities.</li> <li>• <b>Proximity to big cities</b> usually implies that there are other large water users in the same river basin– signifying more pressure on water availability.</li> <li>• <b>High peaks of demand (tourism)</b> requires reliable and diverse water supply source.</li> </ul>
<b>Rain water runoff</b>	<ul style="list-style-type: none"> <li>• <b>Large areas of impermeable surfaces</b> requires careful management of high runoff volumes to avoid flooding.</li> <li>• <b>Accidental oil and fuel spills</b> on impermeable surfaces can cause pollution without proper management.</li> <li>• <b>De-icing products</b> sprayed on impermeable surfaces (such as runways) and airplanes to prevent ice during winter can lead to water quality problems in surrounding environment.</li> <li>• <b>Location in population nuclei</b> implies that any issue with the quality of the water discharged has high impact and reputational risk.</li> </ul>
<b>Aircraft water</b>	<ul style="list-style-type: none"> <li>• <b>Water from airplane bilges</b> arriving from all corners of the world, are often treated at the airport signifying an input of highly concentrated organic pollution.</li> </ul>
<b>Waste Water</b>	<ul style="list-style-type: none"> <li>• <b>Fluctuations in discharge</b> requires that waste water treatment systems are designed for irregular discharge, both in quality and quantity.</li> </ul>

### AIRPORTS TRIGGER INNOVATIVE SOLUTIONS

Facing numerous and manifold aspects of water management, airports serve as leaders in the implementation of a number of innovative techniques which can be exemplary for implementation in other sectors, including:

- Detention ponds (storm water flood control, protect environment from discharge quality).
- Installation of oil traps at discharge points.
- Water recycling and rainwater harvesting.
- De-icing fluid recycling and reuse.
- Permeable asphalt (especially for parking lots).
- Advanced measures for detecting pipe leakage.

### INFO BOX: DE-ICING

Aircraft de-icing and anti-icing fluids can play a vital role to ensure proper operation and public safety while presenting a unique challenge for water management at airports. The products sprayed on impermeable surfaces and airplanes to prevent icing, can have harmful effects on aquatic life if they enter untreated into the natural environment. Consequently, referring airports must develop site-specific measures along with careful monitoring to ensure that that de-icing runoff is properly collected and treated, and no traces of these products end up in local waterbodies.