CASE STUDY

Stormwater PFAS Treatment MYCELX vs. GAC

CUSTOMER: International Airport

LOCATION: Australia

Application

Airport Required PFAS Treatment for Stormwater Contaminated by Legacy Firefighting Contamination on Site

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DESIGN: MYCELX pre-filtration and specialty cartridge filters were used before splitting the flow between granular activated carbon (GAC) and MYCELX proprietary blended media in order to ensure comparable results. In the field, GAC would not have the advantage of MYCELX filters and would have needed to treat the full load of inlet PFAS

OBJECTIVE:
The trial was designed to study two areas: overall performance of MYCELX and direct head-to-head comparison of granular activated carbon. Equal EBCT, flux, and flowrate at 100GPM.

RESULTS:
MYCELX blended media outperformed GAC on 9 analytes, including C4 through C8 molecules with both carboxylic and sulfonic functional groups as well as FtS precursors. The overall outlet was >1,000x lower in concentration.

Sum PFAS Inlet: 1,600,000 ng/L (1.6 mg/L)

GAC PFAS Outlet: 28,910 ng/L

PFAS ANALYTE OUT (ng/L)	PFBS	PFPeS	PFPeA	PFHxS	PFHxA	PFHpS	PFHpA	PFOS	PFOA	Sum PFAS
MYCELX MEDIA	<2	<2	<2	<2	<2	<2	<2	13	2	23
GAC MEDIA	1,000	800	800	5,000	8,000	2,000	800	9,500	1,000	28,910