

Water management at Western Sydney Airport will aim to reduce potable water use and minimise the risk of pollutants entering nearby waterways and groundwater systems during the construction and operation of the airport.

Water quality monitoring has been ongoing at the airport site since 2015. Findings from the monitoring program will be used to develop water quality standards for the site and a water management system to control the flow of surface water and improve the quality of water before it is released into waterways.

## Managing water quality

The Airport Plan, which authorises the construction and operation of the Stage 1 development (one runway and up to 10 million passengers a year), includes requirements to manage water quality. Under these mandatory conditions, WSA Co must develop an Environmental Management Plan for soil and water. This will include ongoing monitoring and management of surface water and groundwater throughout the construction and operation of the airport, in line with water quality standards.

## Surface water

Development of the airport will alter the water catchment within the airport site. The airport design will incorporate a water management system to control the flow of surface water and improve the quality of water before it is released back into the environment. The system will include a series of water detention basins and bio-retention basins that collect and treat flows prior to release. This will help prevent flooding and water quality impacts on receiving waters.

## Groundwater

Transformation of the airport site will substantially increase paved surfaces, which may result in a minor drop in groundwater recharge — rainwater flowing into groundwater systems in the area. The landscape is mainly made up of shale rocks and sandstone, with limited movement of water through the groundwater systems. In addition, the low permeability of the clay soils at the site prevents water penetrating into groundwater systems, resulting in runoff from the site. As a result, the EIS found that a minor reduction in groundwater recharge is not expected to affect nearby vegetation or watercourses.



# Western Sydney Airport

## Drinking water

The health risk assessment undertaken for the EIS considered the risk of any potential contamination of groundwater, nearby domestic water tanks, Prospect Reservoir and Warragamba Dam as a result of the airport. The key activities assessed included spillage at the airport site, emissions from aircraft, and emergency fuel jettisoning.

The assessment found that:

- ➔ The emission of air toxics and particulate matter from aircraft, cars and trucks near surface water would be low, resulting in a very low risk to health.
- ➔ Emergency fuel jettisoning is extremely rare — the EIS found that in 2014 there were only 10 instances of civilian aircraft jettisoning fuel in Australia, representing approximately 0.001% of all Australian aircraft movements. If jettisoning is undertaken, Airservices Australia has strict regulations on where it can be performed. As fuel evaporates before reaching the ground, the associated health risk would be very low.
- ➔ Mitigation measures to minimise impacts on surface and ground water would further reduce associated health risks.



The Western Sydney Airport site is outside of Sydney's drinking water catchment area. As such, the EIS found there would be extremely low risk to Sydney's drinking water catchment. This is confirmed by the health risk assessment.

## Location of the Western Sydney Airport site

