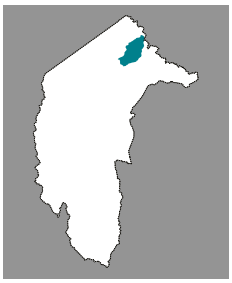
ACT Government



FLOOD INFORMATION FOR **SULLIVANS CREEK**

OVERVIEW

Sullivans Creek is one of eight main water catchments in the ACT. Catchments are areas, usually bounded by hills, where the rain drains into the soil and streams and feeds into a river, creek or drainage line. In Canberra's past, many natural waterways were converted into the familiar concrete storm drain channels as new areas of the city were developed.

Located in Canberra's inner north, the Sullivans Creek catchment extends from the Goorooyarroo Nature Reserve to where Sullivans Creek enters Lake Burley Griffin near the Australian National University. The catchment covers approximately 50 square kilometres and spans approximately 12 kilometres north–south and 4.5 kilometres east–west.

The southern areas of the catchment were settled from the 1920s, with some areas currently undergoing urban intensification and renewal. The northern-most parts of the catchment contain the future greenfield suburb of Kenny and a nature reserve.

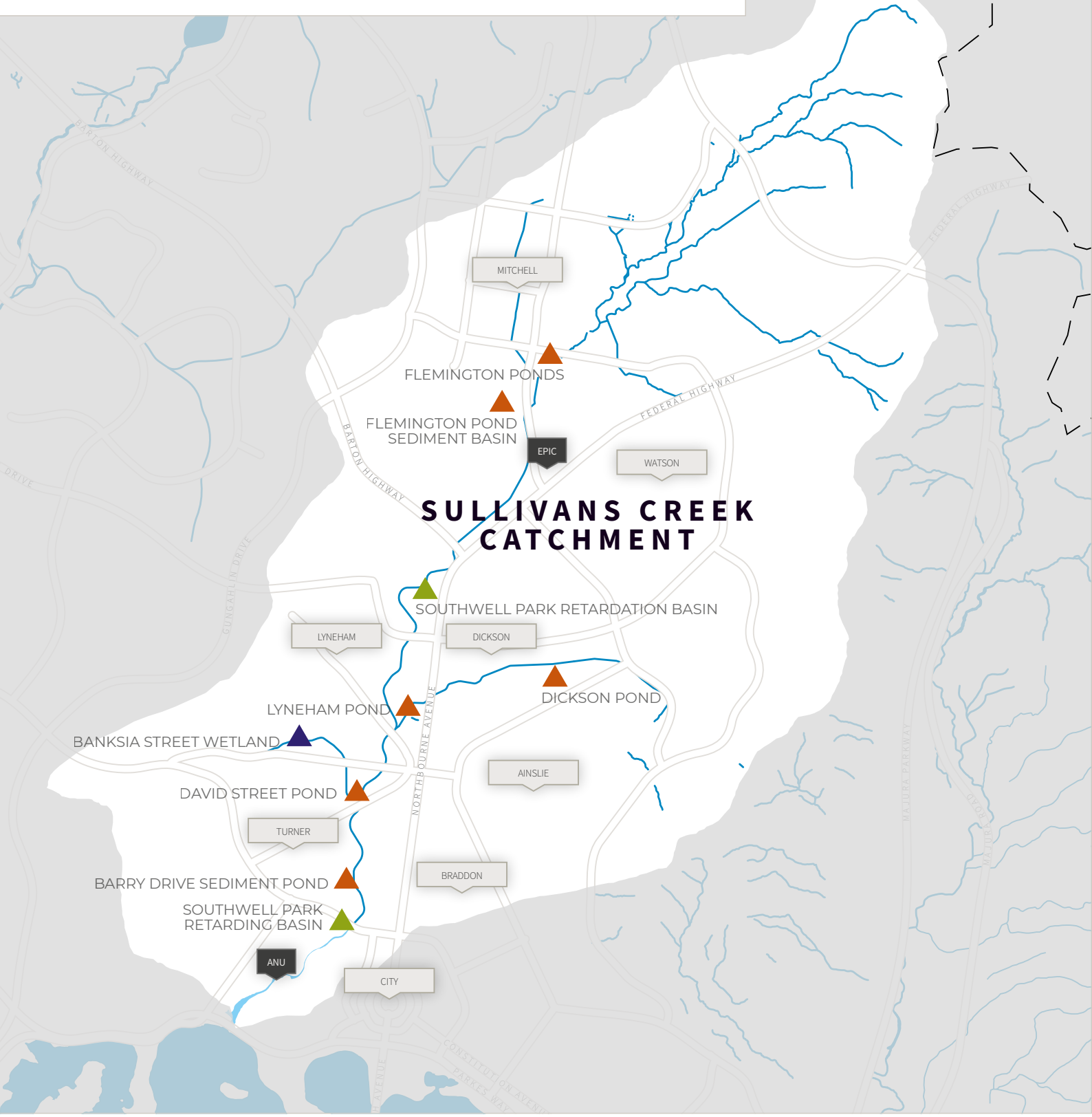
The Sullivans Creek catchment is dominated by concrete channels, which were originally designed to convey stormwater efficiently. More recently, a number of ponds and basins have been introduced to improve water quality and provide flood flow control.

This information sheet outlines information about past and potential flooding for the catchment and what is being done to mitigate the risk of flooding. The risk of flooding in Canberra is low.

BANKSIA STREET POND

DECEMBER 2018

ANU TOAD HALL POND



NORTH END LYNEHAM WETLANDS

FLOOD INFORMATION

Every catchment has its own character, which determines how water flows. This is critical during storms that may lead to flooding. The ACT Government has re-assessed predicted flood paths and flood levels for catchments in the ACT using flood studies based on current industry standards.

Flood maps have been developed for each catchment and reviewed by independent experts for accuracy. The maps highlight flow paths, flood depth and the potential hazard posed by floodwaters arising from Canberra's channels, creeks and rivers. This mapping is complemented by this information sheet and a list of questions and answers web link. The updated maps show the areas which could be affected by flooding from waterways in Canberra during a major flood event, known as a 1% Annual Exceedance Probability (AEP) flood. This means that in any given year there is a 1% chance of this type of flood occurring.

See the maps and accompanying information at the ACT Government's ACTmapi website: www.actmapi.act.gov.au.

SULLIVAN'S CK FROM GOODWIN STREET

FLOOD HISTORY

The Sullivans Creek catchment is not prone to extensive flooding, although it experienced minor flood events in 2002, 2010, 2011 and 2012. A major flood was experienced in the top end of the catchment in February 2018. The rainfall which was the source of this event appeared to begin in the Ginninderra catchment, moving south east and peaking at Southwell Park. The rainfall event was measured as exceeding the 0.2 % AEP (1 in 500 year event). Rainfall intensity dropped away to 5% AEP (1 in 20 year event) in other parts of the Sullivan's Creek catchment.

Post flood investigations indicated that flood levels across Sullivan's Creek appear to have behaved consistently with the predicted 1 % AEP flood maps on ACTMapi.

With the proportion of impervious area increasing as urbanisation of the catchment continues, the volume, peak flow and velocity of stormwater run-off will increase, leading to more flooding during heavy rain. The wetlands and retardation basins of the catchment were introduced to slow run-off and reduce flooding, as well as storing water for potential irrigation and improving water quality.

LYNEHAM POND

The rules are designed so that run-off created by new development does not have an adverse impact on stormwater systems or downstream environments.

Although most of the Sullivans Creek catchment was urbanised prior to Water Sensitive Urban Design being implemented in the ACT, all new development applications must consider and mitigate the impact of stormwater run-off.

FLOOD MAPS AND AFFECTED AREAS

The new flood maps specifically focus on a potential 1% AEP flood on existing waterways. As explained, there is a 1% chance that such a flood will occur in any given year. The maps show the predicted extent, depth and hazard potential of a 1% AEP flood event. Modelling undertaken as part of the Sullivan's Creek Flood Study indicates that the 1% AEP flood event is likely to be largely contained by the creek's channels, culverts and bridges. However there will be limited flooding of some areas adjacent to the channels. If flooding does occur outside of the channels, flood depths are generally expected to be shallow (below 0.5 metre). The maps show that in some places the speed of water flow during a flood would be high, creating potentially hazardous conditions.

For the 1% AEP flood event, there is the potential of low level flooding along some sections of Mouat Street, MacArthur Avenue, Boronia Drive, Haig Park and the Lyneham Sports Centre.

Please refer to the flood extent map for Sullivan's Creek on ACTmapi for the specific details of potential riverine flooding in this catchment.

MITIGATION WORKS

The Sullivans Creek channel and floodway were upgraded through the late 1970s into the early 1980s to accommodate a major flood using the best information available at the time. The Southwell Park retardation basin, which is also acts as a series of sports fields, was built in 1979 and the Barry Drive sediment pond was constructed in 1981. Bridges were upgraded and between David and Condamine streets, and levees constructed upstream of David Street and between David and Condamine streets.

From 2009, ponds have been constructed within the Sullivans Creek catchment primarily to improve water quality but with capacity for some flood retention. These ponds are at Dickson, Lyneham, O'Connor and Mitchell.

Under the Territory Plan, the Water Sensitive Urban Design (WSUD) code outlines planning rules for reducing the impact of stormwater through the management of water quality and quantity.

FIND OUT MORE

- For flood maps for this catchment please visit www.actmapi.act.gov.au
- For more information about riverine flooding in Canberra, please visit http://www.environment.act.gov.au/water/riverine-flood-maps
- For information including flood forecasts, road closures and advice on evacuation and property protection, please visit the ACT Emergency Services website at www.esa.act.gov.au.
- For specific information relating to what to do during a flood event or preparing your house for a flood event please call the local ACT SES on 13 22 81.